## **RURAL ECONOMY**

A Delphi Study of Growth and Yield in Canada's Forests

Project Report 95-03 -- Technical Appendix: Questionnaires and Results by Region

W. Phillips, J. Beck, D. Boulter, D. Booth and K. Clark

# PROJECT REPORT



**Department of Rural Economy** Faculty of Agriculture, Forestry, And Home Economics University of Alberta Edmonton, Canada

## A DELPHI STUDY OF GROWTH AND YIELD IN CANADA'S FORESTS

### Technical Appendix: Questionnaires and Results by Region

by

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#### EXECUTIVE SUMMARY

Information on growth and yield of Canada's forests tends to be anecdotal, site specific, difficult to compile, and unsuitable for general aggregation across species and to provincial and ecological region-wide levels. Yet aggregated information on growth and yield is necessary for estimating future timber supplies for large regions in order to plan for the future of both the industry and the other various non-timber forest users. Thus, a study was undertaken using the Delphi technique to summarize the opinions of growth and yield experts and practicing foresters across the country. Survey participants were asked to fill in a series of three sequential and carefully-designed questionnaires. Feedback from each previous questionnaire was used as a basis to refine initial responses and establish a final set of growth and yield estimates for various regions across the country.

The regional breakdown followed a combination of Rowe's forest regions and provincial boundaries: Atlantic-Acadian; Atlantic-Boreal; Quebec-Great Lakes/St. Lawrence; Quebec-Boreal; Ontario-Great Lakes/St. Lawrence; Ontario-Boreal; Prairie/Northwest Territories-Boreal; Interior British Columbia/Yukon-Boreal; Interior British Columbia-Subalpine; Interior British Columbia-Montane; Interior British Columbia-Columbia; Coastal British Columbia-Coast; and Coastal British Columbia-Subalpine. Within each of these 13 regions, responses were broken down further by species groupings: softwood, mixed-wood, and hardwood. Also, the questionnaires were divided into two parts, existing stands and regenerated stands.

Results of the Delphi survey show that existing stands are currently being harvested beyond the age of maximum mean annual increment (MAI) across the country with the exception of the Quebec-Great Lakes/St. Lawrence where harvest is at the age of maximum MAI. Estimated future harvest ages of regenerated stands were at the age of maximum MAI for all regions except the Atlantic-Acadian and Ontario-Great Lakes/St. Lawrence where estimated ages were beyond the age of maximum MAI.

Estimated growth responses connected with unevenaged management, fertilization, cleaning/brushing, juvenile spacing/pre-commercial thinning, and commercial thinning were provided by survey respondents for both existing and regenerated stands. Growth responses from genetic improvement were also provided for regenerated stands. Respondents' estimates of growth from unevenaged management tended to be considerably less than maximum MAI growth rates. Estimates of growth increases as a result of fertilization ranged from 0.1 m<sup>3</sup>/ha/year for regenerated stands in the Atlantic-Acadian region to 2.6 m<sup>3</sup>/ha/year for both existing and regenerated stands in the Coastal British Columbia-Coast region. Duration of increased growth was generally between 5 and 15 years.

Estimated growth increases from cleaning/brushing varied regionally from a low of 0.3  $m^3/ha/year$  for regenerated stands in Coast British Columbia-Subalpine and Ontario-Boreal regions to a high of 1.8  $m^3/ha/year$  for regenerated stands in the Atlantic-Boreal region. Duration of the increased growth response generally fell within the 7 to 15 year range. The expected growth response from juvenile spacing/pre-commercial thinning varied between -1.0  $m^3/ha/year$  for the Interior British Columbia-Subalpine region and +2.6  $m^3/ha/year$  for the Atlantic-Acadian region. Predicted change in the number of years to reach a rotation based on harvestable tree size was between 0 and -20 years but the effect on rotation age using maximum MAI was generally between -5 and +5 years. Predicted growth increases from commercial thinning varied from a low of -1.8  $m^3/ha/year$  for existing stands in the Coast British Columbia-Coast region to a high of +1.5  $m^3/ha/year$  for regenerated stands in the

Atlantic-Boreal region. Duration of growth changes are expected to be between 8 and 20 years except in the Coastal British Columbia regions where the range is from 27 to 43 years. Predicted shortening of rotation time based on harvestable tree size is from 1 to 10 years while changed rotation age at maximum MAI varied from -2 years to +17 years.

Estimated increases in MAI growth from genetic improvement of regenerated stands varied from 0.3 to 1.2 m<sup>3</sup>/ha/year. In general, for most regions, predicted rotations from genetic improvement were shortened by 5 to 10 years.

The results were based on 42 responses over the 13 regions in the third and final round of the survey. Great care should be taken regarding the use of data for the four Interior British Columbia regions due to minimal responses. Otherwise, the data seem to represent the view of experts in the field. Delphi studies such as this one are useful as a first estimate when there is insufficient hard empirical data.

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#### Questionnaire #1

By Region

Atlantic - Acadian

Atlantic - Boreal

Coast B.C. - Coast

Coast B.C. - Subalpine

Interior B.C. - Columbia

Interior B.C. - Montane

Interior B.C. - Subalpine

NWT and the Prairies - Boreal

Ontario - Boreal

Ontario - Great Lakes/St. Lawrence Quebec - Boreal

Quebec - Great Lakes/St. Lawrence

Yukon and Interior B.C. - Boreal

#### ADMINISTRATIVE / BIOLOGICAL REGION: Atlantic - Acadian



#### **EXISTING STANDS**

\_

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "NO" please go on to the information/question set for the next region  $\,$  - Thank you.

If "**YES**" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Mixedwoods	Hardwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%
Use $(+)$ or positive percentage	ges for increases in MAI and	d (-) or negative percentages for decre	eases in MAL

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If existing stands were <b>thinned</b> would you expect a net change in useable fibre (thinning plus final harvest) from the stands?	YES NO
5b. If yes, what percentage change do you expect?	+/%
5c. Would <b>thinning</b> reduce the rotation age or time till final harvest?	YES NO

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be? Softwood Mixedwoods Hardwood

Mean Age at Harvest \_ years

\_\_\_ years \_\_\_ years

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estin	nate of MAI for regenerated stands compared to baseline estimates	
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were fertilized what increase (+) or decrease (-) in yield would you expect and for what period would the change apply? Softwood Mixedwoods Hardwood

	% Change Period of Effect	% years	%	8		
	regenerated stands were <b>th</b> inning plus final harvest) f	<b>7</b> 1	a net change in u	ıseable	YES	_NO
10b.	If yes, what percentage cl	hange do you expect?			+/	_ %
10c. W	ould <b>thinning</b> reduce the re	otation age or time till fi	nal harvest?		YES	_NO
10d.	If yes, how many years w	ould the reduction be?				years
	regenerated stands were <b>ju</b> ble fibre from the stands?	venile spaced would you	a expect a net cha	ange	YES	_ NO
11b.	If yes, what percentage cl	hange do you expect?			+/	_ %
11c. W	ould <b>juvenile spacing</b> redu	ce the rotation age or tin	ne till final harve	est?	YES	_NO
11d.	If yes, how many years w	vould the reduction be?				years
	regenerated stands were <b>ge</b> ble fibre from the stands?	netically improved wou	Ild you expect a r	net change	YES	_NO
12b.	If yes, what percentage cl	hange do you expect?			+/	_ %
12c. W harves	Yould <b>genetic improvement</b> t?	t reduce the rotation age	or time till final		YES	_ NO
12d.	If yes, how many years w	ould the reduction be?				years
	regenerated stands were <b>cle</b> ble fibre from the stands?	eaned/brush controlled	would you expec	ct a net chang		_ NO

13b.	If yes, what percentage change do you expect?	+/ %
	Yould <b>cleaning/brush control</b> reduce the rotation age or time till arvest?	YES NO
13d.	If yes, how many years would the reduction be?	years

#### ADMINISTRATIVE / BIOLOGICAL REGION: Atlantic - Boreal



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "**NO**" please go on to the information/question set for the next region - Thank you. If "**YES**" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Hardwood	Mixedwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger Use (+) or positive percentages	for increases in MAI and (-) or ne	gative percentages for decreases i	n MAI. %

	Softwood	Hardwood	Mixedwood
% Change	%	%	%
Period of Effect	years	years	years

	isting stands were <b>thinned</b> would you expect a net change in useable inning plus final harvest) from the stands?	YES	_NO
5b.	If yes, what percentage change do you expect?	+/	_ %
5c. Wou	Id <b>thinning</b> reduce the rotation age or time till final harvest?	YES	_NO
5d.	If yes, how many years would the reduction be?		years

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?

	Softwood	Hardwood	Mixedwood
Mean Age at Harvest	years	years	years

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle y	our estimate	of MAI	for regenerate	d stands	compared to	haseline	estimates
	your estimate	UI MIAI	101 Itgenerau	u stanus	compared t	JUasenne	commando

	8	1	
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140	140 150 160 170 180 190 200 210 220 230 240 250 >250	
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140	140 150 160 170 180 190 200 210 220 230 240 250 >250	
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140	140 150 160 170 180 190 200 210 220 230 240 250 >250	

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were fertilized what increase (+) or decrease (-) in yield would you expect and for what period would the change apply? Softwood Hardwood

Mixedwood

	% Change Period of Effect	% years	% years	% years
	regenerated stands were <b>thi</b> hinning plus final harvest) fi	net change in useable	YES NO	
10b.	If yes, what percentage ch	ange do you expect?		+/ %
10c. W	ould <b>thinning</b> reduce the ro	tation age or time till fina	ll harvest?	YES NO
10d.	If yes, how many years we	ould the reduction be?		years
	regenerated stands were <b>juv</b> ble fibre from the stands?	renile spaced would you	expect a net change	YES NO
11b.	If yes, what percentage ch	ange do you expect?		+/ %
11c. W	ould <b>juvenile spacing</b> reduc	ce the rotation age or time	e till final harvest?	YES NO
11d.	If yes, how many years we	ould the reduction be?		years
	regenerated stands were <b>ger</b> ble fibre from the stands?	netically improved would	d you expect a net change	YES NO
12b.	If yes, what percentage ch	ange do you expect?		+/ %
12c. W harvest	ould <b>genetic improvement</b> ?	reduce the rotation age of	r time till final	YES NO
12d.	If yes, how many years we	ould the reduction be?		years
	regenerated stands were <b>cle</b> sble fibre from the stands?	aned/brush controlled w	ould you expect a net chang	e YES NO
13b.	If yes, what percentage ch	ange do you expect?		+/ %
13c. Would <b>cleaning/brush control</b> reduce the rotation age or time till				

6

final harvest?

13d. If yes, how many years would the reduction be?

\_\_\_\_\_years



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_

If "NO" please go on to the information/question set for the next region - Thank you.

If "YES" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Mixedwoods	Hardwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%

Period	of Effect _	years	years		years
	stands were <b>thinned</b> w g plus final harvest) from	• •	change in useable	YES	_ NO
5b. If yes	s, what percentage char	ige do you expect?		+/	_ %
5c. Would <b>thi</b>	nning reduce the rotati	on age or time till fina	al harvest?	YES	NO
5d. If yes	s, how many years wou	ld the reduction be?			years

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?

 Softwood
 Mixedwoods
 Hardwood

 Mean Age at Harvest
 \_\_\_\_\_\_years
 \_\_\_\_\_\_years
 \_\_\_\_\_\_years

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

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Circle your estim	ate of MAI for regenerat	eu stanus compareu to	basenne estimates

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Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250		
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250		
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250		

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

-	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

% Change Period of Effect	Softwood % years	Mixedwoods % years	Hardwood % years
10a. If regenerated stands were <b>th</b> fibre (thinning plus final harvest)	ninned would you expect a		YES NO
10b.If yes, what percentage c			+/ %
10c. Would <b>thinning</b> reduce the n	rotation age or time till fina	l harvest?	YES NO
10d. If yes, how many years	would the reduction be?		years
11a. If regenerated stands were <b>ju</b> in useable fibre from the stands?	YES NO		
11b. If yes, what percentage of	change do you expect?		+/ %
11c. Would <b>juvenile spacing</b> reduce the rotation age or time till final harvest?			YES NO
11d. If yes, how many years	would the reduction be?		years
12a. If regenerated stands were genetically improved would you expect a net change in useable fibre from the stands?       YES NO			
12b. If yes, what percentage of	change do you expect?		+/ %

12c. Would <b>genetic improvement</b> reduce the rotation age or time till final harvest?			_NO
12d.	If yes, how many years would the reduction be?		years
	egenerated stands were <b>cleaned/brush controlled</b> would you expect a net change the fibre from the stands?		_NO
13b.	If yes, what percentage change do you expect?	+/	_ %
13c. Wo final har	uld <b>cleaning/brush control</b> reduce the rotation age or time till vest?	YES	_NO
13d.	If yes, how many years would the reduction be?		years

#### ADMINISTRATIVE / BIOLOGICAL REGION: Coast B.C. - Subalpine



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES NO

If "NO" please go on to the information/question set for the next region - Thank you.

If "YES" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

	I
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Mixedwoods	Hardwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If existing stands were <b>thinned</b> would you expect a net change in useable fibre (thinning plus final harvest) from the stands?	YES NO
5b. If yes, what percentage change do you expect?	+/ %
5c. Would <b>thinning</b> reduce the rotation age or time till final harvest?	YES NO
5d. If yes, how many years would the reduction be?	years

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?				
	Softwood	Mixedwoods	Hardwood	
Mean Age at Harvest	years	years	years	

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate of MAI for regenerated stands compared to baseline estimates

	<u> </u>	
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 16	0 170 180 190 200 210 220 230 240 250 >250
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 16	0 170 180 190 200 210 220 230 240 250 >250
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 16	0 170 180 190 200 210 220 230 240 250 >250

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

YES \_\_\_\_ NO \_\_\_\_

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%
Period of Effect	years	years	years

10a. If regenerated stands were **thinned** would you expect a net change in useable fibre (thinning plus final harvest) from the stands?

10b.	If yes, what percentage change do you expect?	+/	%
10c. Wo	ould <b>thinning</b> reduce the rotation age or time till final harvest?	YES	NO
10d.	If yes, how many years would the reduction be?		_years
	egenerated stands were <b>juvenile spaced</b> would you expect a net change ole fibre from the stands?	YES	NO
11b.	If yes, what percentage change do you expect?	+/	%
11c. Wo	ould <b>juvenile spacing</b> reduce the rotation age or time till final harvest?	YES	NO
11d.	If yes, how many years would the reduction be?		years
	egenerated stands were <b>genetically improved</b> would you expect a net change ble fibre from the stands?	YES	NO

12b. If yes, what percentage change do you expect?	+/ %		
12c. Would genetic improvement reduce the rotation age or time till final harvest?       YESNO			
12d. If yes, how many years would the reduction be?	years		
13a. If regenerated stands were <b>cleaned/brush controlled</b> would you expect a net change in useable fibre from the stands? YES NO			
13b. If yes, what percentage change do you expect?	+/ %		
13c. Would cleaning/brush control reduce the rotation age or time till         final harvest?       YESNO			
13d. If yes, how many years would the reduction be?	years		

#### ADMINISTRATIVE / BIOLOGICAL REGION: Interior B.C. - Columbia



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "**NO**" please go on to the information/question set for the next region - Thank you. If "**YES**" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Hardwood	Mixedwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

4. If existing stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

	Softwood	Hardwood	Mixedwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If ex	isting stands were <b>thinned</b> would you expect a net change in useable		
fibre (thinning plus final harvest) from the stands?		YES	NO
5b.	If yes, what percentage change do you expect?	+/-	%

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 5c. Would thinning reduce the rotation age or time till final harvest?
 YES \_\_\_\_\_NO \_\_\_\_

 5d.
 If yes, how many years would the reduction be?
 \_\_\_\_\_years

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be? Softwood Hardwood Mixedwood

Mean Age at Harvest \_\_\_\_\_years \_\_\_\_\_years \_\_\_\_\_years

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate of MAI for regenerated stands compared to baseline estimates

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

0	iii J	Softwood	Hardwood	Mixedwood
	% Change Period of Effect	% years	%	% years
	egenerated stands were <b>th</b> inning plus final harvest)		ect a net change in useable	YES NO
10b.	If yes, what percentage c	hange do you expect?		+/ %
10c. Wo	ould <b>thinning</b> reduce the re	otation age or time till	final harvest?	YES NO
10d.	If yes, how many years w	would the reduction be	?	years
	egenerated stands were <b>ju</b> le fibre from the stands?	venile spaced would y	you expect a net change	YES NO
11b.	If yes, what percentage c	hange do you expect?		+/ %
11c. Wo	ould <b>juvenile spacing</b> redu	ice the rotation age or	time till final harvest?	YES NO
11d.	If yes, how many years w	would the reduction be	?	years
	egenerated stands were <b>ge</b> le fibre from the stands?	netically improved w	ould you expect a net cha	nnge YES NO
12b.	If yes, what percentage c	hange do you expect?		+/ %
12c. Wo harvest?	ould <b>genetic improvemen</b>	t reduce the rotation a	ge or time till final	YES NO
12d.	If yes, how many years w	vould the reduction be	?	years

13a. If regenerated stands were cleaned/brush controlled would you expect a net change

in useable fibre from the stands?	YES NO
13b. If yes, what percentage change do you expect?	+/ %
13c. Would <b>cleaning/brush control</b> reduce the rotation age or time till final harvest?	YES NO
13d. If yes, how many years would the reduction be?	years

#### ADMINISTRATIVE / BIOLOGICAL REGION: Interior B.C. - Montane



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "NO" please go on to the information/question set for the next region - Thank you.

If "YES" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate	of MAI of mature stands compared to baseline estimates.
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Hardwood	Mixedwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	Softwood	Hardwood	Mixedwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If existing stands were thinned would you expect a net change in useablefibre (thinning plus final harvest) from the stands?		YES	NO
5b.	If yes, what percentage change do you expect?	+/	%
5c. Wot	ald <b>thinning</b> reduce the rotation age or time till final harvest?	YES	NO
5d.	If yes, how many years would the reduction be?	3	years

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be? Softwood Hardwood Mixedwood

Mean Age at Harvest	years	years	years
---------------------	-------	-------	-------

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate o	f MAI for regenerated stands c	ompared to baseline estimates

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	% Change Period of Effect	Softwood % _vears	Hardwood % years	Mixedwood % years			
10a. If re	10a. If regenerated stands were <b>thinned</b> would you expect a net change in useable						
fibre (thi	nning plus final harvest)	from the stands?		YES NO			
10b.	If yes, what percentage c	hange do you expect?		+/ %			
10c. Woi	uld <b>thinning</b> reduce the r	otation age or time till final	harvest?	YES NO			
10d.	If yes, how many years v	vould the reduction be?		years			
11a. If regenerated stands were <b>juvenile spaced</b> would you expect a net change in useable fibre from the stands?				YES NO			
11b.	If yes, what percentage c	hange do you expect?		+/%			
11c. Woi	uld <b>juvenile spacing</b> redu	ice the rotation age or time	till final harvest?	YES NO			
11d.	If yes, how many years v	vould the reduction be?		years			
12a. If regenerated stands were <b>genetically improved</b> would you expect a net change in useable fibre from the stands?				YES NO			

12b.	If yes, what percentage change do you expect?	+/-	%
12c. Wo harvest?	uld <b>genetic improvement</b> reduce the rotation age or time till final	YES	_NO
12d.	If yes, how many years would the reduction be?		years
13a. If regenerated stands were <b>cleaned/brush controlled</b> would you expect a net change in useable fibre from the stands?			_NO
13b.	If yes, what percentage change do you expect?	+/	%
13c. Would <b>cleaning/brush control</b> reduce the rotation age or time till final harvest?			_NO
13d.	If yes, how many years would the reduction be?	у	ears

#### ADMINISTRATIVE / BIOLOGICAL REGION: Interior B.C. - Subalpine



1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_

If "**NO**" please go on to the information/question set for the next region - Thank you. If "**YES**" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

	I
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Mixedwoods	Hardwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If existing stands were <b>thinned</b> would you expect a net change in useable fibre (thinning plus final harvest) from the stands?	YES NO
5b. If yes, what percentage change do you expect?	+/ %
5c. Would <b>thinning</b> reduce the rotation age or time till final harvest?	YES NO
5d. If yes, how many years would the reduction be?	years

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?				
	Softwood	Mixedwoods	Hardwood	
Mean Age at Harvest	years	years	years	

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate of MAI for regenerated stands compared to baseline estimates

	$\partial$
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

YES \_\_\_\_\_ NO \_\_\_\_\_

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%
Period of Effect	years	years	years

10a. If regenerated stands were **thinned** would you expect a net change in useable fibre (thinning plus final harvest) from the stands?

10b. If yes, what percentage change do you expect?	+/%
10c. Would <b>thinning</b> reduce the rotation age or time till final harvest?	YES NO
10d. If yes, how many years would the reduction be?	years
11a. If regenerated stands were <b>juvenile spaced</b> would you expect a net change in useable fibre from the stands?	YES NO
11b. If yes, what percentage change do you expect?	+/%
11c. Would <b>juvenile spacing</b> reduce the rotation age or time till final harvest?	YES NO
11d. If yes, how many years would the reduction be?	years
12a. If regenerated stands were <b>genetically improved</b> would you expect a net change in useable fibre from the stands?	YES NO
12b. If yes, what percentage change do you expect?	+/ %

12c. Would <b>genetic improvement</b> reduce the rotation age or time till fina harvest?	1 YES NO	
12d. If yes, how many years would the reduction be?	years	
13a. If regenerated stands were <b>cleaned/brush controlled</b> would you exp in useable fibre from the stands?	ect a net change YES NO	
13b. If yes, what percentage change do you expect?	+/ %	
13c. Would <b>cleaning/brush control</b> reduce the rotation age or time till final harvest?	YES NO	
13d. If yes, how many years would the reduction be?	years	

#### ADMINISTRATIVE / BIOLOGICAL REGION: **NWT and the Prairies - Boreal**



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "NO" please go on to the information/question set for the next region - Thank you.

If "YES" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.		
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200	
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200	
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200	

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Hardwood	Mixedwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	Softwood	Hardwood	Mixedwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If existing stands were <b>thinned</b> would you expect a net change in useable fibre (thinning plus final harvest) from the stands?			NO
5b.	If yes, what percentage change do you expect?	+/	%
5c. Wou	Id <b>thinning</b> reduce the rotation age or time till final harvest?	YES	NO

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?

	Softwood	Hardwood	Mixedwood
Mean Age at Harvest	years	years	years

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate of MAI for regenerated stands compared to baseline estimates		
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

0 11	2	Softwood	Hardwood	Mixedwood
	Change	%	%	%
Per	riod of Effect	years	years	years
10a. If rege	enerated stands were thi	nned would you expect a	net change in useable	
0	ing plus final harvest) f	<b>7</b> 1	8	YESNO
10b. If	yes, what percentage ch	nange do you expect?		+/ %
10c. Would	d <b>thinning</b> reduce the ro	otation age or time till fina	l harvest?	YES NO
104 If		and the reduction had		10040
10d. If	yes, how many years w	out the reduction be?		years
11a If rege	enerated stands were inv	venile spaced would you	expect a net change	
	fibre from the stands?	forme spacea would you	enpoor a not onunge	YES NO
11b. If	yes, what percentage ch	nange do you expect?		+/ %
11c. Would	d <b>juvenile spacing</b> redu	ce the rotation age or time	e till final harvest?	YES NO
11d. If	yes, how many years w	ould the reduction be?		years
11 <b>u</b> . II	yes, now many years w	ourd the reduction be:		years
12a. If rege	enerated stands were ge	netically improved would	d you expect a net change	
	fibre from the stands?	• •		YES NO
12b. If	yes, what percentage ch	nange do you expect?		+/ %
10 11 11	1	1 1 1		
harvest?	genetic improvement	reduce the rotation age o	r time till final	YES NO
hai vest?				1 LS NO
12d. If	yes, how many years w	ould the reduction be?		years
	<i>j,</i>			
13a. If rege	enerated stands were cle	aned/brush controlled w	yould you expect a net chan	ge
in useable f	fibre from the stands?			YES NO

13b.	If yes, what percentage change do you expect?	+/ %
	Yould <b>cleaning/brush control</b> reduce the rotation age or time till arvest?	YES NO
13d.	If yes, how many years would the reduction be?	years

#### ADMINISTRATIVE / BIOLOGICAL REGION: Ontario - Boreal



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "NO" please go on to the information/question set for the next region - Thank you.

If "**YES**" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Mixedwoods	Hardwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%
Period of Effect	years	years	years

	isting stands were <b>thinned</b> would you expect a net change in useable inning plus final harvest) from the stands?	YES	NO
5b.	If yes, what percentage change do you expect?	+/	%
5c. Woi	ald <b>thinning</b> reduce the rotation age or time till final harvest?	YES	NO

\_ years

vears

YES \_\_\_\_ NO \_\_\_\_

#### **REGENERATED STANDS**

in useable fibre from the stands?

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be? Softwood Mixedwoods Hardwood

	Softwood	WIIXeuwoous
Mean Age at Harvest	vears	vears

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate of MAI for regenerated stands compared to baseline estimates		
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

0	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were fertilized what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

U		Softwood	Mixedwoods	Hardwood
	% Change	%	%	%
	Period of Effect	years	years	years
	regenerated stands were <b>th</b> inining plus final harvest) f	• •	net change in useable	YES NO
10b.	If yes, what percentage cl	hange do you expect?		+/ %
10c. We	ould <b>thinning</b> reduce the re	otation age or time till fina	l harvest?	YES NO
10d.	If yes, how many years w	ould the reduction be?		years
	regenerated stands were <b>ju</b> ble fibre from the stands?	venile spaced would you e	expect a net change	YES NO
11b.	If yes, what percentage cl	hange do you expect?		+/ %
11c. We	ould <b>juvenile spacing</b> redu	ce the rotation age or time	till final harvest?	YES NO
11d.	If yes, how many years w	ould the reduction be?		years
	regenerated stands were <b>ge</b> ally be the stands?	netically improved would	l you expect a net change	YES NO
12b.	If yes, what percentage cl	hange do you expect?		+/ %
12c. Wo harvest	puld <b>genetic improvement</b> ?	t reduce the rotation age or	time till final	YES NO
12d.	If yes, how many years w	ould the reduction be?		years
13a. If 1	regenerated stands were cle	eaned/brush controlled w	ould you expect a net chang	ge

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13b.	If yes, what percentage change do you expect?	+/ %
	Yould <b>cleaning/brush control</b> reduce the rotation age or time till arvest?	YES NO
13d.	If yes, how many years would the reduction be?	years

#### ADMINISTRATIVE / BIOLOGICAL REGION: Ontario - Great Lakes/ St. Lawrence



#### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_ NO \_\_\_\_

If "**NO**" please go on to the information/question set for the next region - Thank you.

If "**YES**" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Mixedwoods	Hardwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger Use (+) or positive percenta	ges for increases in MAI an	d (-) or negative percentages for decre	eases in MAI.

4. If existing stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

	Softwood	Mixedwoods	Hardwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If existing stands were **thinned** would you expect a net change in useable fibre (thinning plus final harvest) from the stands?

YES \_\_\_\_ NO \_\_\_\_

+/- %

5b. If yes, what percentage change do you expect?

 5c. Would thinning reduce the rotation age or time till final harvest?
 YES \_\_\_\_\_ NO \_\_\_\_\_

 5d.
 If yes, how many years would the reduction be?
 \_\_\_\_\_\_ years

#### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be? Softwood Mixedwoods Hardwood

	Softwood
Mean Age at Harvest	years

\_\_\_\_\_ years

\_\_\_ years

\_\_\_\_\_

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate of MAI for regenerated stands compared to baseline estimates

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

% Change	Softwood %	Mixedwoods	Hardwood
Period of Effect	% years	% years	% years
10a. If regenerated stands were fibre (thinning plus final harves)		ct a net change in useable	YES NO
10b. If yes, what percentage change do you expect?			+/ %
10c. Would <b>thinning</b> reduce the	e rotation age or time till	final harvest?	YES NO
10d. If yes, how many years	s would the reduction be?		years
11a. If regenerated stands were in useable fibre from the stands		ou expect a net change	YES NO
11b. If yes, what percentage	e change do you expect?		+/%
11c. Would <b>juvenile spacing</b> re	educe the rotation age or t	ime till final harvest?	YES NO
11d. If yes, how many years	s would the reduction be?		years
12a. If regenerated stands were in useable fibre from the stands		ould you expect a net change	YES NO
12b. If yes, what percentage	e change do you expect?		+/%
12c. Would <b>genetic improveme</b> harvest?	ent reduce the rotation ag	e or time till final	YES NO

12d.	If yes, how many years would the reduction be?		years
13a. If regenerated stands were <b>cleaned/brush controlled</b> would you expect a net change in useable fibre from the stands? YES NO			
13b.	If yes, what percentage change do you expect?	+/	_ %
13c. Would <b>cleaning/brush control</b> reduce the rotation age or time till final harvest?			NO
13d.	If yes, how many years would the reduction be?		years
#### **Quebec - Boreal** ADMINISTRATIVE / BIOLOGICAL REGION:



### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_\_ NO \_\_\_\_\_

If "NO" please go on to the information/question set for the next region - Thank you.

If "YES" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate percentage value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Hardwood	Mixedwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood	
20 years older	%	%	%	
20 years younger	%	%	%	
40 years younger	%	%	%	
Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.				

4. If existing stands were fertilized what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

	Softwood	Hardwood	Mixedwood
% Change	%	%	%
Period of Effect	years	years	years

	5a. If existing stands were <b>thinned</b> would you expect a net change in useable fibre (thinning plus final harvest) from the stands?		
5b.	If yes, what percentage change do you expect?	+/	_ %
5c. Wo	uld <b>thinning</b> reduce the rotation age or time till final harvest?	YES	_NO
5d.	If yes, how many years would the reduction be?		years

If yes, how many years would the reduction be? 5d.

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?

	Softwood	Hardwood	Mixedwood
Mean Age at Harvest	years	years	years

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle	vour estimate	of MAI	I for regenerated	stands compa	ared to bas	eline estimates

	$\partial$ $\partial$ $\partial$
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

Softwood

9. If regenerated stands were fertilized what increase (+) or decrease (-) in yield would you expect and for what period would the change apply? Hardwood

Mixedwood

	% Change	%	%	%			
	Period of Effect	years	years	years			
	10a. If regenerated stands were thinned would you expect a net change in useable fibre (thinning plus final harvest) from the stands?YES NO _						
10b.	If yes, what percentage ch	ange do you expect?		+/ %			
10c. W	ould <b>thinning</b> reduce the ro	tation age or time till fin	nal harvest?	YES NO			
10d.	If yes, how many years we	ould the reduction be?		years			
	regenerated stands were <b>juv</b> ble fibre from the stands?	enile spaced would you	a expect a net change	YES NO			
11b.	If yes, what percentage ch	ange do you expect?		+/ %			
11c. W	ould <b>juvenile spacing</b> reduc	e the rotation age or tim	ne till final harvest?	YES NO			
11d.	If yes, how many years we	ould the reduction be?		years			
	regenerated stands were <b>gen</b> ble fibre from the stands?	etically improved wou	ld you expect a net change	YES NO			
12b.	If yes, what percentage ch	ange do you expect?		+/ %			
12c. W harvest	fould <b>genetic improvement</b> ??	reduce the rotation age	or time till final	YES NO			
12d.	If yes, how many years we	ould the reduction be?		years			
	regenerated stands were <b>clea</b> ble fibre from the stands?	aned/brush controlled	would you expect a net chan	ge YES NO			
13b.	If yes, what percentage ch	ange do you expect?		+/ %			

13c. Would **cleaning/brush control** reduce the rotation age or time till final harvest?

YES \_\_\_\_ NO \_\_\_\_

13d. If yes, how many years would the reduction be?

\_\_\_\_\_years

This space is provided for any comments regarding any part of this survey. If you have concerns you would like to have examined in future rounds of this project, please note these here as well.

### ADMINISTRATIVE / BIOLOGICAL REGION: Quebec - Great Lakes / St. Lawrence



### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

YES \_\_\_\_ NO \_\_\_\_

YES \_\_\_\_ NO \_\_\_\_

YES NO

+/- \_\_\_\_ %

If "**NO**" please go on to the information/question set for the next region - Thank you. If "**YES**" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Mixedwoods	Hardwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

4. If existing stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

	Softwood	Mixedwoods	Hardwood	
% Change	%	%	%	
Period of Effect	years	years	years	

5a. If existing stands were **thinned** would you expect a net change in useable fibre (thinning plus final harvest) from the stands?

5b. If yes, what percentage change do you expect?

5c. Would thinning reduce the rotation age or time till final harvest?

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?

	Softwood	Mixedwoods	Hardwood
Mean Age at Harvest	years	years	years

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your estimate of MAI for regenerated stands compared to baseline estimates		
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Mixedwoods MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250	

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Mixedwoods	Hardwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

U	11.7	Softwood	Mixedwoods	Hardwood
	% Change	%	%	%
	Period of Effect	years	years	years
10a. If	regenerated stands were th	hinned would you expect	a net change in useable	
fibre (t	hinning plus final harvest)	from the stands?		YES NO
10b.	If yes, what percentage	change do you expect?		+/ %
10c. W	Vould <b>thinning</b> reduce the	rotation age or time till fi	nal harvest?	YES NO
10d.	If yes, how many years	would the reduction be?		years
11a If	regenerated stands were j	uvenile spaced would vo	u expect a net change	
	ible fibre from the stands?	uvenne spaceu would yo	u expect a net enange	YES NO
11b.	If yes, what percentage	change do you expect?		+/ %
11c. W	Vould <b>juvenile spacing</b> red	luce the rotation age or tir	ne till final harvest?	YES NO
11 <b>d</b> .	If yes, how many years	would the reduction be?		years
12a If	regenerated stands were <b>g</b>	enetically improved wor	uld you expect a net change	
	ble fibre from the stands?	encircung improved was	and you expect a net change	YES NO
12b.	If yes, what percentage	change do you expect?		+/ %
120 W	Vould genetic improvemen	at raduce the rotation age	or time till final	
harves		in reduce the rotation age	or time till fillar	YES NO
12d.	If yes, how many years	would the reduction be?		years
13a. If	regenerated stands were c	leaned/brush controlled	would you expect a net cha	inge
	ble fibre from the stands?			YES NO

13b.	If yes, what percentage change do you expect?	+/ %
13c. W final ha	Yould <b>cleaning/brush control</b> reduce the rotation age or time till arvest?	YES NO
13d.	If yes, how many years would the reduction be?	years

This space is provided for any comments regarding any part of this survey. If you have concerns you would like to have examined in future rounds of this project, please note these here as well.

## ADMINISTRATIVE / BIOLOGICAL REGION: Yukon and Interior B.C. - Boreal



### **EXISTING STANDS**

1. Are you sufficiently knowledgeable about this region to provide growth and yield estimates?

If "**NO**" please go on to the information/question set for the next region - Thank you.

If "YES" please proceed in answering the questions below.

2. Please comment on the MAI estimates outlined above in terms of whether they are too high, too low or about right. In the scales below please circle the appropriate **percentage** value indicating your MAI estimates in relation to the baseline estimates.

YES \_\_\_\_ NO \_\_\_\_

YES \_\_\_\_ NO \_\_\_\_

Circle your estimate of MAI of mature stands compared to baseline estimates.

Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 >200

2b. Considering the current age distribution of the species making up each of the three species categories, please indicate your estimates for the area-weighted mean age of mature stands (including over-mature) for each category.

	Softwood	Hardwood	Mixedwood
Mean age	years	years	years

3. Given your revised estimate for the MAI of mature stands made in Question 2(a), how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

4. If existing stands were **fertilized** what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

	Softwood	Hardwood	Mixedwood
% Change	%	%	%
Period of Effect	years	years	years

5a. If existing stands were **thinned** would you expect a net change in useable fibre (thinning plus final harvest) from the stands?

5b.	If yes, what percentage change do you expect?	+/	_ %
5c. Wo	uld <b>thinning</b> reduce the rotation age or time till final harvest?	YES	_NO

\_\_\_\_years

\_\_\_\_\_ years

### **REGENERATED STANDS**

6. With current silviculture practice for this region what would you expect the mean age of regenerated stands at harvest to be?

	Softwood	Hardwood	Mixedwood
Mean Age at Harvest	years	years	ye

7. Again, with current silviculture practice for this region, what would you expect the MAI of regenerated stands to be at the ages you listed above compared to the MAI of existing mature stands?

Circle your est	imate of MAI for regenerated stands compared to baseline estimates
Softwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Hardwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250
Mixedwood MAI (%)	<50 50 60 70 80 90 MAI 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 >250

8. Given your revised estimate for MAI of the area weighted mean age of regenerated stands, how would the MAI change if the area weighted mean age was:

	Softwood	Hardwood	Mixedwood
20 years older	%	%	%
20 years younger	%	%	%
40 years younger	%	%	%

Use (+) or positive percentages for increases in MAI and (-) or negative percentages for decreases in MAI.

9. If regenerated stands were fertilized what increase (+) or decrease (-) in yield would you expect and for what period would the change apply?

U		Softwood	Hardwood	Mixedwood
	% Change Period of Effect	% years	% years	% years
	egenerated stands were <b>th</b> inning plus final harvest)		ect a net change in useable	YES NO
10b.	If yes, what percentage c	hange do you expect?		+/%
10c. Wo	ould <b>thinning</b> reduce the re	otation age or time till	final harvest?	YES NO
10d.	If yes, how many years w	ould the reduction be	?	years
	egenerated stands were <b>ju</b> le fibre from the stands?	<b>venile spaced</b> would y	you expect a net change	YES NO
11b.	If yes, what percentage c	hange do you expect?		+/%
11c. Wo	ould <b>juvenile spacing</b> redu	ce the rotation age or	time till final harvest?	YES NO
11d.	If yes, how many years w	ould the reduction be	?	years
	egenerated stands were <b>ge</b> le fibre from the stands?	netically improved w	would you expect a net change	YES NO
12b.	If yes, what percentage c	hange do you expect?		+/%
12c. Wo harvest?	ould <b>genetic improvemen</b>	t reduce the rotation a	ge or time till final	YES NO
12d.	If yes, how many years w	vould the reduction be	?	years

13a. If regenerated stands were cleaned/brush controlled would you expect a net change YES \_\_\_\_ NO \_\_\_\_ in useable fibre from the stands?

13b.	If yes, what percentage change do you expect?	+/ %
13c. W final ha	ould <b>cleaning/brush control</b> reduce the rotation age or time till arvest?	YES NO
13d.	If yes, how many years would the reduction be?	years

This space is provided for any comments regarding any part of this survey. If you have concerns you would like to have examined in future rounds of this project, please note these here as well.

# Questionnaire #2

By Region

Atlantic - Acadian

Atlantic - Boreal

Coast B.C. - Coast

Coast B.C. - Subalpine

Interior B.C. - Columbia

Interior B.C. - Montane

Interior B.C. - Subalpine

Ontario - Boreal

Ontario - Great Lakes/St. Lawrence NWT and the Prairies - Boreal Quebec - Boreal Quebec - Great Lakes/St. Lawrence

Yukon and Interior B.C. - Boreal

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.66	1.85	76.3
Mixedwood	1.59	1.75	77.5
Hardwood	1.41	1.65	83.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

availai	Softwo	nod		Mixed	boow			Hardy	vood	
Age	MAI	New MAI	Age	MAI	New MA	[	Age	MAI	New MAI	
0			0				0			
16	NA		18	NA		_	23	NA		
36	2.46		38	2.13			43	1.93		
56	2.30		58	2.10		_	63	2.00		
*76	1.85		*78	1.75		-	*83	1.65		
96	1.40		98	1.52		-	103	1.65		
116	NA		118	NA		-	123	NA		
		* Based on aggregate	ed estimates	(rounded)	) from your	estimates reporte	d above	e.		
1b. W		rtion of the area in the r	egion is mai							
	Softwo	ood %		Mixed	wood	%		Hardw	wood %	
1 - W/		h per ha/year do you ex				1				
1C. WI			pect on area				nt?	Handre	and m2/ha/rm	
	Soltwo	ood m3/ha/yr		Mixed	wood	m3/na/yr		Hardw	rood m3/ha/yr	
14 W	hat after	cut growing stock level	do you ovro	et to be l	oft on proper	managed by unor	ion aga	d manage	amont?	
10. W		bod m3/ha	uo you expe		wood		en-age		rood m3/ha	
	Soltwo	Jou III3/11a		WIIXeu	wood	III3/IIa		Haluw	000 1113/11a	
le Wi	nat would	be the average cutting	cvcle used c	n areas m	nanaged by i	ineven-aged man	agemei	nt?		
10. 001			eyele used o		wood				ood years	
	501100			mined		years		11414.0	ood years	
2. Fro	n Ouestie	onnaire #1 your collecti	ve (mean) re	esponses t	o <b>fertilizati</b>	on of existing sta	nds ind	licated fe	rtilization would result in	
		and may have a period of								
<i>j</i>	Softwo			Mixed	wood 4	4.25%		Hardw	rood 5.5%	
	Softwo			Mixed		5 years		Hardw		
	~~~~					j				
Howe	ver your d	comments indicated con	cern over fe	rtilizing "	'all stands', "	all sites", "age of	stands	s fertilized	d" and "amount of fertilize	er".
		he following questions								
2a. At	what star	nd age range would you	fertilize? A	nswer sho	ould be range	e between a low f	igure a	nd a high	figure expressed in years	s of
age.										
	ood	& years old	Mixed	lwood	& y	ears old	Hardw	/ood	& years old	
		e of fertilizer (kg/ha) wo								
Softwo	ood	kg/ha	Mixed	lwood	kg/ha			Hardw	rood kg/ha	
				<b>_</b>			-			
2c. If s		listinguished as Good, N					ou ferti			
	Good	%		Mediu	m	%		Poor _	%	

2d. What increase in growth (m3/ha/yr) v	vould you expect?	
Softwood	Mixedwood	Hardwood
2e. How long would the increased growth	h indicated above last (years)?	

now long would the mereused	growin maleated above last (years).	
Softwood	Mixedwood	Hardwood

**3.** From Questionnaire #1 your collective (mean) responses to thinning of existing stands were as follows: 83% of respondents felt there would be a net change in yield due to thinning, and the mean of the change was a (+) 10.2 %. 33 % of respondents felt the rotation age would be reduced by a mean of 5 years.

Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

3a. For existing immature stands what do you expect from cleaning /brushing (assume no utilization) regarding:

3aa. Change in growth?	?					
Softwood +/	m3/ha/yr	Mixedwood +/-		m3/ha/yr	Hardwood +/	_m3/ha/yr
3ab. How long would t	his change in growth	last?				
Softwood ye	ears	Mixedwood	years		Hardwood years	
3ac. Change in rotation	based on harvestable	e tree size?				
Softwood +/	years	Mixedwood +/	years		Hardwood +/	_ years
3ad. Change in rotation	based on maximum	MAI?				
Softwood +/	years	Mixedwood +/	years		Hardwood +/	_ years

3b. For existing immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?

	1
Softwood +/ m3/ha/yr Mixedwood +/ m3/ha/yr Hardwood +/ m3/	na/yr
3bb. How long would this change in growth last?	
Softwood years Mixedwood years Hardwood years	
3bc. Change in rotation based on harvestable tree size?	
Softwood +/ years Mixedwood +/ years Hardwood +/ year	ſS
3bd. Change in rotation based on maximum MAI?	
Softwood +/ years Mixedwood +/ years Hardwood +/ year	ſS

3c. For existing immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

3ca. Change in growth	?				
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_m3/ha/yr
3cb. How long would t	his change in growth la	st?			
Softwood	years	Mixedwood	years	Hardwood years	
3cc. Change in rotation	based on harvestable t	ree size?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
3cd. Change in rotation	based on maximum M	AI?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.	
Softwood	1.66	2.83	47.5	
Mixedwood	1.59	2.16	55.0	
Hardwood	1.41	1.97	57.5	

4a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr).

	Softwood		•	Mixedwood			Hardwood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI
0	NA		0	NA		0	NA	
08	2.26		15	2.09		18	1.90	
28	3.21		35	2.22		38	2.34	
*48	2.83		*55	2.16		*58	1.97	
68	4.09		75	2.92		78	2.22	
88	NA		95	NA		98	NA	

\* Based on aggregated estimates (rounded) from your estimates reported above.

4b. What proportion of the area in the region is mana Softwood%	ged by uneven-aged management? Mixedwood%	Hardwood%
4c. What growth per ha/year do you expect on areas Softwood m3/ha/yr	managed by uneven-aged management? Mixedwood m3/ha/yr	Hardwood m3/ha/yr
4d. What after-cut growing stock level do you expec Softwood m3/ha	to be left on areas managed by uneven Mixedwood m3/ha	-aged management? Hardwood m3/ha
4e. What would be the average cutting cycle used on Softwood years	areas managed by uneven-aged managed Mixedwood years	
5. From Questionnaire #1 your collective (mean) respired increases and may have a period of effect as for Softwood 8 %	lows: Mixedwood 8 %	Hardwood 8 %
Softwood 5.7 years However your comments indicated concern over fert To help clarify these concerns please answer the follo		Hardwood 5.7 years ands fertilized" and "amount of fertilizer".
5a. At what stand age range would you fertilize? Ansage.	wer should be range between a low figu	
Softwood & years old	Mixedwood & years old Ha	ardwood & years old
5b. At what rate of fertilizer (kg/ha) would you apply Softwood kg/ha	? Mixedwood kg/ha	Hardwood kg/ha
5c. If sites are distinguished as Good, Medium and P Good%	oor what proportion of sites would you Medium%	fertilize? Poor%
5d. What increase in growth (m3/ha/yr) would you e Softwood	xpect? Mixedwood	Hardwood
5e. How long would the increased growth indicated a Softwood	bove last (years)? Mixedwood	Hardwood

**6.** Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 34.0 %. 100 % of respondents felt the rotation age would be reduced by a mean of 8 years. For regenerated immature stands what do you expect from **cleaning /brushing** (assume no utilization) regarding:

6aa. Change in growth?				
Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab. How long would this change in growth last?				
Softwood years	Mixedwood	_ years	Hardwood years	
6ac. Change in rotation based on harvestable tree si	ze?			
Softwood +/ years	Mixedwood +/	_ years	Hardwood +/	_ years
6ad. Change in rotation based on maximum MAI?				
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 49.2 % . 100 % of respondents felt the rotation age would be reduced by a mean of 15 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6bb. How long would this c	hange in growth last?				
Softwood	years	Mixedwood	_ years	Hardwood years	
6bc. Change in rotation base	ed on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6bd. Change in rotation base	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 83% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 12.7 %. 50 % of respondents felt the rotation age would be reduced by a mean of 6.7 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth? Softwood +/	m3/ha/vr	Mixedwood +/	m3/ha/vr	Hardwood +/	m3/ha/vr
6cb. How long would this cl	•				_ 1110/ 110/ 91
Softwood		Mixedwood	_ years	Hardwood years	
6cc. Change in rotation base	d on harvestable tree siz	ze?	•		
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6cd. Change in rotation base					
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 11.0 % . 100% of respondents felt the rotation age would be reduced by a mean of 5.4 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. What change in MAI do y	you expect for genetic in	mprovement?			
Softwood1	m3/ha/vr	Mixedwood	m3/ha/vr	Hardwood	m3/ha/yr
	_ · · · · · · · · · · · · · · · · · · ·				
7b. What change in rotation b	based on harvestable tre	e size would vou expec	t?		
Softwood +/		Mixedwood +/		Hardwood +/	vears
					Jours
7c. What change in rotation b	based on Maximum MA	I would you expect?			
Softwood +/		Mixedwood +/-	vears	Hardwood +/-	vears

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.68	1.55	91.2
Mixedwood	1.74	1.74	93.8
Hardwood	1.58	1.68	75.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

S	Softwoo	d		Mixedw	ood			Hardw	bod	
Age M	ЛАI	New MAI	Age	MAI	New MAI		Age	MAI	New MAI	
	NA		34	NA			15	NA		
51 1.	.94		54	2.26			35	1.90		
			74	2.09			55	1.90		
			*94	1.74			*75	1.68		
	.14		114	1.33			95	1.46		
131 N	NA		134	NA			115	NA		
		* Based on aggregated est	timates (	(rounded) f	rom your esti	mates reporte	ed above			
1h What r	nronorti	on of the area in the region	n is man	aged by ur	even_aged m	anagement?				
		d %	n is man		ood			Hardwo	od %	
	boltwood	u 70		MIXCuw	000	70		Haluwu	00 70	
lc. What g	growth 1	per ha/year do you expect	on areas	s managed	bv uneven-ag	ed manageme	ent?			
		d m3/ha/yr			ood n			Hardwo	od m3/ha/yr	
1d. What a	after-cu	t growing stock level do y	ou expe	ct to be left	on areas mar	haged by unev	ven-aged	manager	nent?	
		d m3/ha	1		ood		U		od m3/ha	a
1e. What v	would b	e the average cutting cycle	e used of	n areas mai	naged by unev	ven-aged mar	nagemen	t?		
		d years			ood		•		od years	
		·				-			-	
<b>2.</b> From Q	uestion	naire #1 your collective (n	nean) re	sponses to	fertilization (	of existing sta	ands indi	cated fert	ilization would resul	t in
yield incre	eases an	d may have a period of eff	fect as fo	ollows:						
S	Softwood	d 4.2%		Mixedw	ood 3.39	%		Hardwo	od 5.0%	
S	Softwood	d 8 years		Mixedw	ood 3 ye	ars		Hardwo	od 3 years	
		mments indicated concern	over fer	rtilizing "al	l stands', "all	sites", "age o	f stands	fertilized	and "amount of fert	ilizer".
Please ans	swer the	following questions:								
2a. At wha	at stand	age range would you ferti	lize? Ar	nswer shoul	ld be range be	etween a low	figure ar	d a high	figure expressed in y	ears of
age.										
Softwood	&	years old	Mixed	wood	& year	s old	Hardwo	ood	& years old	
01 4 1										
		f fertilizer (kg/ha) would	you app							
S	oftwoo	d kg/ha		Mixedw	ood	kg/ha		Hardwo	od kg/ha	L

2c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize?

Good %	Medium%	Poor%
2d. What increase in growth (m3/ha	a/yr) would you expect?	
Softwood	Mixedwood	Hardwood
2e. How long would the increased	growth indicated above last (years)?	
Softwood	Mixedwood	Hardwood

**3.** From Questionnaire #1 your collective (mean) responses to thinning of existing stands were as follows: 60% of respondents felt there would be a net change in yield due to thinning, and the mean of the change was a (+) 7.5%. 60% of respondents felt the rotation age would be reduced by a mean of 15 years.

Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

3a. For existing immature stands what do you expect from **cleaning /brushing** (assume no utilization) regarding:

3aa. Change in growth?				
Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
3ab. How long would this change in growth la	ast?			
Softwood years	Mixedwood	years	Hardwood years	
3ac. Change in rotation based on harvestable	ree size?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
3ad. Change in rotation based on maximum M	IAI?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years

3b. For existing immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?					
Softwood +/	_m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3bb. How long would this chan	nge in growth last?				
Softwood	years	Mixedwood	years Hard	dwood years	
3bc. Change in rotation based	on harvestable tree size	e?			
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	_ years
3bd. Change in rotation based	on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years

3c. For existing immature stands what do you expect from commercial thinning (include thinning plus final harvest) regarding:

3ca. Change in growth?				
Softwood +/ m3/ha	/yr Mixedwood +/	m3/ha/yr	Hardwood +/	_m3/ha/yr
3cb. How long would this change in g	rowth last?			
Softwood years	Mixedwood	years	Hardwood years	
3cc. Change in rotation based on harve	estable tree size?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
3cd. Change in rotation based on maximum	mum MAI?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

			MAI: Provided		MAI: Your Es	st. AGE:	Your Est.		
	Softwoo	od	1.68		2.23	59			
	Mixedw		1.74		2.39	57.5			
	Hardwo		1.58		2.00	51.7			
4a. Ple	ase comple Softwoo		ow with your revise	ed estima <b>Mixed</b>		e in years and MAI	in m3/ha/ Hardw		
									_
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MA	I
0	NA		0	NA		0	NA		_
19	1.97		18	2.31		12	2.00	<u> </u>	_
39	2.19		38	2.43		32	2.03	<u> </u>	
*59	2.23		*58	2.39		*52	2.00		-
79	1.97		78	2.03		72	1.57		_
99	NA		98	NA		92	NA		-
		* Bas	ed on aggregated e	stimates (	(rounded) from y	your estimates repor	rted above		
4b. Wl	nat proport	ion of the area i	in the region is man	naged by	uneven-aged ma	nagement?			
		od%			wood%		Hardwo	ood	%
4c. Wł			you expect on areas						
	Softwoo	od m3/	ha/yr	Mixed	wood r	m3/ha/yr	Hardwo	boc	m3/ha/yr
4d. Wl		0 0	* 1			aged by uneven-age			
	Softwoo	od m3/	ha	Mixed	wood r	m3/ha	Hardwo	boc	m3/ha
4e. Wł						en-aged manageme			
	Softwoo	od year	rs	Mixed	wood y	years	Hardwo	boc	years
					o <b>fertilization</b> o	f regenerated stands	s indicated	l fertilizatio	on would result in
yield in			period of effect as for						
	Softwoo	od 10 %			wood 6.7 %		Hardwo	od 6.7 %	6
	Softwoo	od 6.7 years		Mixed	wood 4 years		Hardwo	ood 4 yea	ars
					11 . 1		C		
						sites", "age of stands	s fertilized	" and "amo	ount of fertilizer".
10 nei	p clarify in	lese concerns pl	lease answer the fol	lowing q	uestions:				
5a At	what stand	aga ranga wou	ld vou fartiliza? Ar	newor cho	uld be range bet	tween a low figure a	and a high	figure ever	assed in years of
age.	what stand	age range wou	ilu you tertilize : Ai	iswei siid	fuld be fallge bet	tween a low rigure a	inu a mgn	inguie expi	esseu in years of
uge.									
Softwo	bod 8	z years old	1	Mixed	wood &	years old Hardw	boov	& ve	ars old
20110				1,11100					
5b. At	what rate of	of fertilizer (kg/	ha) would you app	lv?					
		od kg/l			wood k	xg/ha	Hardwo	ood boc	kg/ha
						-8			
5c. If s	ites are dis	stinguished as C	Good. Medium and	Poor wha	t proportion of s	sites would you ferti	ilize?		
		%			m	•			%
		/0		meanu			1 001		
5d. WI	nat increase	e in growth (m <sup>2</sup>	/ha/yr) would you	expect?					
24. 11		od	, in ji) would you	-	wood		Hardw	ood	
	5011000			mineu			11010100		
5e Ho	w long wo	uld the increase	ed growth indicated	above la	st (vears)?				
22.110			tu growth maleated		wood		Hardwo	ood	
					·····				

**6.** Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 60% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 3.8 %. 80 % of respondents felt the rotation age would be reduced by a mean of 11 years. For regenerated immature stands what do you expect from **cleaning /brushing** (assume no utilization) regarding:

6aa. Change in growth?				
Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab. How long would this change in growt	h last?			
Softwood years	Mixedwood	years	Hardwood years	
6ac. Change in rotation based on harvestab	le tree size?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
6ad. Change in rotation based on maximur	n MAI?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 80% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 16.2 % . 100 % of respondents felt the rotation age would be reduced by a mean of 17.5 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_ m3/ha/yr
6bb. How long would this ch	ange in growth last?				
Softwood	_ years	Mixedwood	_ years	Hardwood years	
6bc. Change in rotation base	d on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6bd. Change in rotation base	d on maximum MAI?				
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 13.8%. 60% of respondents felt the rotation age would be reduced by a mean of 15 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth? Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_m3/ha/yr
6cb. How long would this change in growt	h last?			
Softwood years	Mixedwood	years	Hardwood years	
6cc. Change in rotation based on harvestab	ole tree size?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	years
6cd. Change in rotation based on maximum	n MAI?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 60% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 6.2%. 60% of respondents felt the rotation age would be reduced by a mean of 7.5 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. What change in MAI d	o you expect for genetic	improvement?			
Softwood	m3/ha/vr	Mixedwood	m3/ha/vr	Hardwood	m3/ha/yr
7b. What change in rotatio	n based on harvestable tr	ee size would vou expec	ct?		
Softwood +/		Mixedwood +/		Hardwood +/	vears
7c. What change in rotatio	n based on Maximum MA	AI would you expect?			
Softwood +/	vears	Mixedwood +/-	vears	Hardwood +/-	vears

1. From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.43	3.03	258.5
Mixedwood	2.35	3.45	185.0
Hardwood	1.87	2.90	82.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	ood		Mixed	wood			Hardv	vood	
Age	MAI	New MAI	Age	MAI	New MA	I	Age	MAI	New M.	AI
198	NA		125	NA			22	NA		
218	3.13		145	3.48			42	3.02		
238	3.08		165	3.44			62	2.62		
*258	3.03		*185	3.45			*82	2.90		
278	2.93		205	3.50			102	2.56		
298	NA		225	NA			122	NA		
			aggregated estimates			_		2.		
1b. Wł			a in the region is mar	<b>U</b> .	0	0	nt?			
	Softwo	ood %	)	Mixedv	wood	%		Hardw	rood	%
1c. Wh		h per ha/year c ood m?	o you expect on areas 3/ha/yr			n-aged manag m3/ha/yr	ement?	Hardw	ood	m3/ha/yr
1d. Wł	nat after-c	cut growing st	ock level do you expe	ct to be le	eft on areas	managed by	uneven-age	d manage	ement?	
		ood n	• •							m3/ha
1e. Wh	nat would	be the averag	e cutting cycle used o	n areas m	anaged by	uneven-aged	managemer	nt?		
	Softwo	ood y	ears	Mixedv	wood	years		Hardw	ood	years
		and may have ood 2.3	r collective (mean) re a period of effect as f % years	ollows: Mixedy	wood	ion of existing 2.4% 10 years	g stands ind	icated fer Hardw Hardw	rood	would result in 2.0% 5 years
			cated concern over fea uestions to account fo			"all sites", "ag	ge of stands	fertilized	d" and "am	ount of fertilizer".
age.			ould you fertilize? A		-		•	•		pressed in years of

Softwood \_\_\_\_\_ & \_\_\_\_ years old Mixedwood \_\_\_\_\_ & \_\_\_\_ years old Hardwood \_\_\_\_\_ & \_\_\_\_ years old

2b. At what rate of fertilizer (kg/ha) would you apply Softwood kg/ha	? Mixedwood	_ kg/ha	Hardwood	_kg/ha
2c. If sites are distinguished as Good, Medium and Pe Good %	oor what proportion of Medium		ze? Poor9	6
2d. What increase in growth (m3/ha/yr) would you ex Softwood	xpect? Mixedwood	-	Hardwood	_
2e. How long would the increased growth indicated a Softwood	bove last (years)? Mixedwood	-	Hardwood	_
<b>3.</b> From Questionnaire #1 your collective (mean) resp there would be a net change in yield due to thinning, rotation age would be reduced by a mean of 5 years	and the mean of the cl			
Significant comments were made regarding "what to stands only", and "is rotation set by achieving a certa <b>responses</b> please answer the following:				
3a. For existing immature stands what do you expect	from <b>cleaning /brush</b>	ning (assume no utilizat	tion) regarding:	
3aa. Change in growth? Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
3ab. How long would this change in growth last?         Softwood      years		years Hardwo	od years	
<ul> <li>3ac. Change in rotation based on harvestable tree size</li> <li>Softwood +/ years</li> <li>3ad. Change in rotation based on maximum MAI?</li> </ul>	e? Mixedwood +/	years	Hardwood +/	_ years
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
3b. For existing immature stands what do you expect regarding:	from <b>juvenile spacin</b>	g/ pre-commercial thi	<b>nning</b> (assume no util	lization)
<ul> <li>3ba. Change in growth? Softwood +/ m3/ha/yr</li> <li>3bb. How long would this change in growth last?</li> </ul>	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
Softwood years 3bc. Change in rotation based on harvestable tree size		years Hardwo	od years	
Softwood +/ years 3bd. Change in rotation based on maximum MAI?	Mixedwood +/		Hardwood +/	
Softwood +/ years	Mixedwood +/	-	Hardwood +/	·
3c. For existing immature stands what do you expect	from <b>commercial thi</b>	<b>nning</b> (include thinning)	ig plus final harvest) re	egarding:
3ca. Change in growth?         Softwood +/ m3/ha/yr         3cb. How long would this change in growth last?	Mixedwood +/	·	Hardwood +/	_ m3/ha/yr
Softwood years 3cc. Change in rotation based on harvestable tree size Softwood +/ years	Mixedwood e? Mixedwood +/	·	od years Hardwood +/	_ years
3cd. Change in rotation based on maximum MAI? Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.43	5.11	86.7
Mixedwood	2.35	4.71	89.0
Hardwood	1.87	3.56	61.0

4a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr).

	Softwo	ood		Mixed	wood		Hardv	vood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI	
27	NA		29	NA		1	NA		
47	4.38		49	3.84		21	2.56		
67	4.96		69	4.62		41	3.30		
*87	5.11		*89	4.71		*61	3.56		
107	4.63		109	4.32		91	3.03		
127	NA		129	NA		111	NA		
127	1111	* Based or			(rounded) from your e			 2.	
4b. W	hat propo	rtion of the area in the	e region is mar	naged by	uneven-aged manage	ment?			
		ood%	8		wood%		Hardw	rood	_%
4c. W	hat growf	h per ha/year do you e	expect on area	s manage	d by uneven-aged ma	nagement?			
	-	ood m3/ha/yi	-	-	wood m3/ha	-	Hardw	rood	_m3/ha/yr
4d. W		cut growing stock leve	• •						2.4
	Softwo	ood m3/ha		Mixed	wood m3/ha	l	Hardw	rood	_ m3/na
4e. Wl		be the average cuttin	g cycle used o			ged manageme			
	Softwo	ood years		Mixed	wood years		Hardw	rood	_ years
		onnaire #1 your collec and may have a period			o <b>fertilization</b> of reg	enerated stands	s indicate	d fertilization	would result in
yiciu i		od 8.0 %	i of effect as f	Mixed	wood 4.2 %		Hardw	rood 5.0 %	
		od 12.2 years			wood 13.3 years			ood 15.0 year	°C
	Soltwo	Jou 12.2 years		WIIXCu	wood 15.5 years		maruw	000 15.0 year	5
		comments indicated control to the following question		rtilizing "	all stands', "all sites",	"age of stands	s fertilized	1" and "amoun	t of fertilizer".
	what star	nd age range would yo	ou fertilize? An	nswer sho	ould be range between	a low figure a	and a high	i figure express	sed in years of
age. Softwo	ood	& years old		Mixed	wood & y	ears old Hardw	vood	_ & years	old
5b. At	what rate	e of fertilizer (kg/ha) v	vould you app	ly?					
	Softwo	ood kg/ha		Mixed	wood kg/ha		Hardw	ood	_kg/ha
5c. If s	sites are d	istinguished as Good,	Medium and	Poor wha	t proportion of sites v	vould vou ferti	lize?		
		%			m%	j			%
5d. W	hat increa	se in growth (m3/ha/y	r) would vou	expect?					
		ood	,		wood		Hardw	ood	_
5e. Ho	w long w	ould the increased group	owth indicated	above la	st (vears)?				
		od			wood		Hardw	rood	

**6.** Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 60% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 4.2 %. 80 % of respondents felt the rotation age would be reduced by a mean of 4.2 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6aa.	Change in growth?					
	Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab.	How long would this ch	ange in growth last?				
	Softwood	_ years	Mixedwood	years	Hardwood years	
6ac.	Change in rotation based	l on harvestable tree siz	xe?			
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6ad.	Change in rotation based	l on maximum MAI?				
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 40% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 0.0%. 50% of respondents felt the rotation age would be reduced by a mean of 6.7 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?				
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/ m3/ha/yr
6bb. How long would this cl	nange in growth last?			
Softwood	years	Mixedwood	_ years	Hardwood years
6bc. Change in rotation base	d on harvestable tree si	ze?		
Softwood +/	years	Mixedwood +/	years	Hardwood +/ years
6bd. Change in rotation base	ed on maximum MAI?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 50% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 0.0 %. 17% of respondents felt the rotation age would be reduced by a mean of 10 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth? Softwood +/	m3/ha/vr	Mixedwood +/	m3/ha/vr	Hardwood +/	m3/ha/vr
6cb. How long would this ch	•				
Softwood	years	Mixedwood	_ years	Hardwood years	
6cc. Change in rotation base	d on harvestable tree siz	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6cd. Change in rotation base	d on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 6.3 % . 67% of respondents felt the rotation age would be reduced by a mean of 8.2 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. What change in MAI d	o you expect for genetic i	improvement?			
Softwood	m3/ha/vr	Mixedwood	m3/ha/vr	Hardwood	m3/ha/yr
7b. What change in rotatio	n based on harvestable tr	ee size would vou expe	ct?		
Softwood +/		Mixedwood +/		Hardwood +/	vears
Solewood ()			Jours		Jours
7c. What change in rotation	n based on Maximum MA	AI would you expect?			
Softwood +/		Mixedwood +/-	vears	Hardwood +/-	vears
	) • • • • •				<i>y</i> ears

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.41	2.10	269.0
Mixedwood	2.53	2.53	253.3
Hardwood	2.56	3.84	66.7

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	bod			Mixed	wood			Hardy	vood	
Age	MAI	New M	ÍAI	Age	MAI	New MA	AI	Age	MAI	New MA	AI
209	NA			193	NA			07	NA		
229	2.03			213	2.93			27	6.03		
249	2.11			233	2.66			47	4.15		
*269	2.10			*253	2.53			*67	3.84		
289	2.03			273	2.50			87	3.96		
309	NA			293	NA			107	NA		
		* Base	d on aggregated e	estimates	(rounded)	) from you	r estimates repo	orted above	е.		
1b. Wł	nat propo	rtion of tl	he area in the reg	ion is mar	aged by 1	uneven-age	ed management	t?			
	Softwo	ood	%		Mixed	wood	%		Hardw	rood	%
1c. Wh	1c. What growth per ha/year do you expect on areas managed by uneven-aged management?         Softwood m3/ha/yr         Mixedwood m3/ha/yr         Hardwood m3/ha/yr										
	Boltwo	/ou	m <i>o</i> , m <i>a</i> j1		minea		m <i>o</i> , ma ji		1 Iui u V		
1d. Wł	nat after-c	cut growi	ng stock level do	vou expe	ct to be le	eft on areas	managed by u	neven-age	d manage	ement?	
		0	0	)			m3/ha				m3/ha
1e. Wh	nat would	be the av	verage cutting cy	cle used o	n areas m	anaged by	uneven-aged r	nanageme	nt?		
	Softwo	ood	years		Mixed	wood	years		Hardw	ood	years
	ncreases a Softwo	and may and may	1 your collective have a period of 6 5%		ollows: Mixedy	wood	5%	stands inc	Hardw	rood	10%
	Softwo	bod	10 years		Mixed	wood	10 years		Hardw	000	10 years
			s indicated concer ing questions to a				"all sites", "ag	e of stands	fertilized	d" and "ame	ount of fertilizer".
2a. At age.	what stan	nd age rar	nge would you fe	rtilize? Aı	nswer sho	ould be rang	ge between a lo	w figure a	nd a high	i figure exp	pressed in years of

Softwood \_\_\_\_ & \_\_\_\_ years old Mixedwood \_\_\_\_ & \_\_\_\_ years old Hardwood \_\_\_\_ & \_\_\_\_ years old

2b. At what rate of fertilizer (kg/ha) would you apply Softwood kg/ha	? Mixedwood	kg/ha	Hardwood	_kg/ha
2c. If sites are distinguished as Good, Medium and Pe Good %	oor what proportion of Medium		ze? Poor%	, D
2d. What increase in growth (m3/ha/yr) would you ex Softwood	xpect? Mixedwood		Hardwood	_
2e. How long would the increased growth indicated a Softwood	bove last (years)? Mixedwood		Hardwood	_
<b>3.</b> From Questionnaire #1 your collective (mean) resp there would be a net change in yield due to thinning, rotation age would be reduced by a mean of NA y	and the mean of the ch			
Significant comments were made regarding "what to stands only", and "is rotation set by achieving a certa <b>responses</b> please answer the following:				
3a. For existing immature stands what do you expect	from <b>cleaning /brush</b>	<b>ing</b> (assume no utiliza	tion) regarding:	
3aa. Change in growth? Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
3ab. How long would this change in growth last?         Softwood       years         3ac. Change in rotation based on harvestable tree size		years Hardwo	od years	
Softwood +/ years 3ad. Change in rotation based on maximum MAI?	Mixedwood +/	years	Hardwood +/	_ years
Softwood +/ years	Mixedwood +/		Hardwood +/	-
3b. For existing immature stands what do you expect regarding:	from <b>juvenile spacin</b>	g/ pre-commercial th	<b>nning</b> (assume no util	ization)
<ul> <li>3ba. Change in growth? Softwood +/ m3/ha/yr</li> <li>3bb. How long would this change in growth last?</li> </ul>	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
Softwood years 3bc. Change in rotation based on harvestable tree size		years Hardwo	od years	
Softwood +/ years 3bd. Change in rotation based on maximum MAI?	Mixedwood +/	years	Hardwood +/	_ years
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
3c. For existing immature stands what do you expect	from <b>commercial thi</b>	nning (include thinnir	ng plus final harvest) re	garding:
3ca. Change in growth? Softwood +/ m3/ha/yr 3cb. How long would this change in growth last?	Mixedwood +/	-	Hardwood +/	_ m3/ha/yr
Softwood years 3cc. Change in rotation based on harvestable tree size	Mixedwood	years Hardwo	ood years	
Softwood +/ years 3cd. Change in rotation based on maximum MAI?	Mixedwood +/	years	Hardwood +/	_ years
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.41	3.68	115.0
Mixedwood	2.53	3.62	96.7
Hardwood	2.56	3.84	65.0

4a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr).

	Softwo	bod		Mixed	wood		Hardv	vood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI	
55	NA		37	NA		5	NA		
75	2.72		57	2.67		25	2.69		
95	3.31		77	3.26		45	3.36		
*115	3.68		*97	3.62		*65	3.84		
135	3.43		117	3.26		85	3.55		
155	NA		137	NA		105	NA		
155	NА	* Based of			(rounded) from your			 2.	
4b. WI	nat propo	rtion of the area in the	e region is mar	naged by	uneven-aged manage	ement?			
		ood%	C		wood%		Hardw	ood%	
4c. Wł	nat growt	h per ha/year do you e	expect on areas	s manage	d by uneven-aged ma	anagement?			
	Softwo	ood m3/ha/y	r	Mixed	wood m3/ha	a/yr	Hardw	rood m3/	ha/yr
4d. WI		cut growing stock leve	el do you expe						
	Softwo	ood m3/ha		Mixed	wood m3/ha	a	Hardw		ha
4e. Wł		be the average cuttin	g cycle used o						
	Softwo	ood years		Mixed	wood years		Hardw	ood year	S
	-	onnaire #1 your collec		1	o <b>fertilization</b> of reg	enerated stands	s indicate	d fertilization would	result in
yield i		and may have a period	a of effect as f				II	and 100/	
	Softwo			Mixed				ood 10%	
	Sonwo	ood 8.5 years		Mixed	wood 8.5 years		Hardw	ood 10 years	
		comments indicated contracts these concerns please				, "age of stands	s fertilized	l" and "amount of fe	rtilizer".
	what star	nd age range would yo	ou fertilize? Ai	nswer sho	ould be range between	n a low figure a	ind a high	figure expressed in	years of
age. Softwo	ood	& years old		Mixed	wood & y	ears old Hardw	/ood	& years old	
5b. At	what rate	of fertilizer (kg/ha) v	would you app	ly?					
	Softwo	ood kg/ha		Mixed	wood kg/ha	L	Hardw	ood kg/ł	ıa
5c. If s	ites are d	istinguished as Good	, Medium and	Poor wha	t proportion of sites	would you ferti	lize?		
	Good_	%		Mediu	m%	-	Poor _	%	
5d. WI	nat increa	se in growth (m3/ha/y	yr) would you	expect?					
	Softwo	ood		Mixed	wood		Hardw	ood	
5e. Ho		ould the increased group							
	Softwo	ood		Mixed	wood		Hardw	ood	

**6.** Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 67% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 1.3 %. 100 % of respondents felt the rotation age would be reduced by a mean of 3.7 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6	aa. Change in growth?					
	Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_ m3/ha/yr
6	ab. How long would this ch	ange in growth last?				
	Softwood	_ years	Mixedwood	years	Hardwood years	
6	ac. Change in rotation base	d on harvestable tree siz	ze?			
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6	ad. Change in rotation base	d on maximum MAI?				
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 0% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 0.0%. 67 % of respondents felt the rotation age would be reduced by a mean of 7.5 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?				
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/ m3/ha/yr
6bb. How long would this cl	nange in growth last?			
Softwood	_ years	Mixedwood	_ years	Hardwood years
6bc. Change in rotation base	d on harvestable tree si	ze?		
Softwood +/	years	Mixedwood +/	years	Hardwood +/ years
6bd. Change in rotation base	d on maximum MAI?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 50% of respondents felt there would be a net change in yield, and the mean of the change was a (-) 3.0 %. 0 % of respondents felt the rotation age would be reduced by a mean of NA years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?					
Softwood +/	_m3/ha/yr	Mixedwood +/	_m3/ha/yr	Hardwood +/	m3/ha/yr
6cb. How long would this chan	nge in growth last?				
Softwood	years	Mixedwood	years Ha	rdwood years	
6cc. Change in rotation based	on harvestable tree size	e?			
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years
6cd. Change in rotation based	on maximum MAI?				
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 1.0%. 67% of respondents felt the rotation age would be reduced by a mean of 5.0 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. What change in MAI do yo Softwood m	1 0	provement? Mixedwood	m3/ha/yr	Hardwood	m3/ha/yr
7b. What change in rotation ba Softwood +/		size would you expect Mixedwood +/		Hardwood +/	years
7c. What change in rotation ba Softwood +/		would you expect? Mixedwood +/	years	Hardwood +/	years

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.24	2.78	163.0
Mixedwood	1.90	2.09	143.3
Hardwood	1.67	1.89	106.7

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	ood		Mixed	wood			Hardw	vood	
Age	MAI	New MAI	Age	MAI	New MA	AI	Age	MAI	New MA	AI
103	NA		83	NA			47	NA		
123	3.15		103	2.16			67 87	1.77		
143	3.10		123	2.19			87 *107	1.92		
*163 183	2.78 2.71		*143 163	2.09 1.84			*107 127	1.89 1.49		
203	NA		183	NA		_	127	NA		
205	INA	* Based on aggregated es			from you	- estimates report				
		Dased on aggregated e.	stimates (	(Tounded)	i nom you	estimates report		•		
1b. Wh		rtion of the area in the regio								
	Softwo	ood %		Mixed	wood	%		Hardw	ood	%
1c. Wh		n per ha/year do you expect								
	Softwo	ood m3/ha/yr		Mixed	wood	m3/ha/yr		Hardw	ood	_m3/ha/yr
1d. Wh		cut growing stock level do yood m3/ha								m3/ha
	Soliwo			WIIXCu	wood	III3/IId		11414.00	00u	III5/ IId
1e. Wh		be the average cutting cycl					-			
	Softwo	ood years		Mixed	wood	years		Hardw	ood	years
		onnaire #1 your collective ( ay have a period of effect a			o <b>fertiliza</b> t	ion of existing s	tands indi	icated fer	tilization	would result in
		od 22.6%			wood	3.3%		Hardw	ood	3.3%
	Softwo	od 8 years		Mixed	wood	10 years		Hardw	ood	10 years

However your comments indicated concern over fertilizing "all stands', "all sites", "age of stands fertilized" and "amount of fertilizer". Please answer the following questions to account for your concerns:

2a. At what stand age range would you fertilize?	Answer should be range	between a low fig	gure and a high figure	e expressed in years of
age. Softwood & years old Mix	edwood & ye	ears old H	lardwood &	years old
2b. At what rate of fertilizer (kg/ha) would you a	vloc?			
Softwood kg/ha		kg/ha	Hardwood	kg/ha
2c. If sites are distinguished as Good, Medium an Good %			ı fertilize? Poor	%
2d. What increase in growth (m3/ha/yr) would yo Softwood			Hardwood	
2e. How long would the increased growth indicat Softwood	ed above last (years)? Mixedwood		Hardwood _	
<b>3.</b> From Questionnaire #1 your collective (mean) there would be a net change in yield due to thinni rotation age would be reduced by a mean of 15 ye	ng, and the mean of the			
Significant comments were made regarding "what stands only", and "is rotation set by achieving a corresponses please answer the following:				
3a. For existing immature stands what do you exp	ect from <b>cleaning /bru</b>	shing (assume no	utilization) regarding	<b>;</b> ,
<ul> <li>3aa. Change in growth? Softwood +/ m3/ha/yr</li> <li>3ab. How long would this change in growth last?</li> </ul>	Mixedwood +/	m3/ha/yr	Hardwood +,	/ m3/ha/yr
Softwoodyears	Mixedwood	years H	lardwood	years
3ac. Change in rotation based on harvestable tree Softwood +/ years	size? Mixedwood +/			/ years
3ad. Change in rotation based on maximum MAI Softwood +/ years	? Mixedwood +/	years	Hardwood +,	/ years
3b. For existing immature stands what do you expregarding:	bect from <b>juvenile spac</b>	ing/ pre-commerc	cial thinning (assun	ne no utilization)
3ba. Change in growth?				
Softwood +/ m3/ha/yr 3bb. How long would this change in growth last?	Mixedwood +/	m3/ha/yr	Hardwood +,	/ m3/ha/yr
Softwood years	Mixedwood	years H	lardwood	years
<ul> <li>3bc. Change in rotation based on harvestable tree Softwood +/ years</li> <li>3bd. Change in rotation based on maximum MAI</li> </ul>	Mixedwood +/	years	Hardwood +	/ years
Softwood +/ years	Mixedwood +/	years	Hardwood +	/years
3c. For existing immature stands what do you exp	ect from <b>commercial t</b>	hinning (include	thinning plus final ha	arvest) regarding:
3ca. Change in growth?		21.1	<b>T</b> 1 1 .	24
Softwood +/ m3/ha/yr 3cb. How long would this change in growth last?	Mixedwood	-		/ m3/ha/yr
Softwood years 3cc. Change in rotation based on harvestable tree	Mixedwood size?		lardwood	_ years
Softwood +/ years 3cd. Change in rotation based on maximum MAI	Mixedwood +/	years	Hardwood +,	/ years
Softwood +/ years	Mixedwood +/	years	Hardwood +,	/ years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.24	3.14	94.0
Mixedwood	1.90	2.41	93.3
Hardwood	1.67	2.17	76.6

4a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr).

	Softwo	ood		Mixed	wood		Hardy	wood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI	
34	NA		33	NA		17	NA		
54	3.55		53	2.21		37	1.84		
74	3.85		73	2.40		57	2.03		
*94	3.14		*93	2.41		*77	2.17		
114	3.78		113	2.14		97	1.80		
134	NA		133	NA		117	NA		
		* Based or			(rounded) from y	our estimates repo		e.	
4h W	hat propo	rtion of the area in the	e region is mai	naged by	uneven-aged mai	nagement?			
101 11		bod%			wood%		Hardw	/ood	%
4c. W	hat growt	h per ha/year do you e	expect on area	s manage	d by uneven-age	d management?			
		ood m3/ha/yi			wood n		Hardw	/ood	m3/ha/yr
4d W	hat after-d	cut growing stock leve	el do vou expe	ct to be le	eft on areas mana	ged by uneven-ag	ed manag	ement?	
-u. W		ood m3/ha	er do you expe		wood n			/ood	m3/ha
10 W	hat would	be the average cuttin	a avala usad a	n oroog m	one and by unave	n agad managam	nt?		
4e. w		ood years	g cycle used o		wood y			/ood	Vears
	Soliwo	Jou years		WIIACU	wood y	cars	manaw		years
		onnaire #1 your collec			o <b>fertilization</b> of	f regenerated stand	ls indicate	d fertilization w	ould result in
yield i		and may have a period	d of effect as f						
	Softwo			Mixed				vood 5 %	
	Softwo	ood 10 years		Mixed	wood 15 years		Hardw	vood 15 years	
		comments indicated co these concerns please				tes", "age of stand	s fertilize	d" and "amount	of fertilizer".
5a. At age.	what star	nd age range would yo	ou fertilize? A	nswer sho	ould be range bet	ween a low figure	and a high	n figure expresse	d in years of
	boc	& years old		Mixed	wood &	years old Hardy	wood	_ & years o	old
5b. At	what rate	e of fertilizer (kg/ha) v	would you app	ly?					
	Softwo	ood kg/ha		Mixed	wood k	g/ha	Hardw	/ood	kg/ha
5c. If	sites are d	listinguished as Good,	Medium and	Poor wha	t proportion of si	ites would vou fert	ilize?		
		%			m			%	
5d. W		use in growth (m3/ha/y	r) would you	expect?					
	Softwo	ood bod	-	Mixed	wood	_	Hardw	/ood	
5e. Ho	w long w	ould the increased group	owth indicated	l above la	st (years)?				
	Softwo	ood		Mixed	wood		Hardw	/ood	

**6.** Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 20% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 4.0%. 80 % of respondents felt the rotation age would be reduced by a mean of 7.5 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6aa. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab. How long would this c	hange in growth last?				
Softwood	years	Mixedwood	_ years	Hardwood years	
6ac. Change in rotation bas	ed on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6ad. Change in rotation bas	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 40% of respondents felt there would be a net change in yield, and the mean of the change was a (-) 1.0%. 80% of respondents felt the rotation age would be reduced by a mean of 5 years. For regenerated immature stands what do you expect from **juvenile spacing/ pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6bb. How long would this o	change in growth last?				
Softwood	years	Mixedwood	years	Hardwood years	
6bc. Change in rotation bas	ed on harvestable tree	size?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6bd. Change in rotation bas	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 80% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 7.0 %. 40 % of respondents felt the rotation age would be reduced by a mean of 45 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_m3/ha/yr
6cb. How long would this cl	nange in growth last?				
Softwood	years	Mixedwood	years	Hardwood years	
6cc. Change in rotation base	d on harvestable tree siz	e?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6cd. Change in rotation base	d on maximum MAI?				
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 6.6%. 80% of respondents felt the rotation age would be reduced by a mean of 5.8 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a.	What change in MAI d	o you expect for g	enetic improvement?			
	Softwood	m3/ha/yr	Mixedwood	m3/ha/yr	Hardwood	_ m3/ha/yr
7b.	What change in rotatio	n based on harvest	able tree size would you expo	ect?		
	Softwood +/	years	Mixedwood +/	years	Hardwood +/	years
7c.	What change in rotatio	n based on Maxim	um MAI would you expect?			
	Softwood +/	years	Mixedwood +/	years	Hardwood +/	years

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.76	2.64	160.0
Mixedwood	1.75	2.89	165.0
Hardwood	1.42	2.20	155.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	ood		Mixed	wood			Hardv	vood
Age	MAI	New MAI	Age	MAI	New M	AI	Age	MAI	New MAI
100	NA		105	NA			95	NA	
120	2.86		125	3.25			115	2.20	
140	2.90		145	2.96			135	2.36	
*160	2.64		*165	2.89			*155	2.20	
180	2.64		185	2.74			175	2.04	
200	NA		205	NA			195	NA	
		* Based on aggregated e		. ,	•			2.	
1b. Wh		ction of the area in the region of%	on is mar		uneven-ag wood		?	Hardw	rood %
1c. Wh	0	n per ha/year do you expec od m3/ha/yr	t on areas	0	•	en-aged manager m3/ha/yr	ment?	Hardw	rood m3/ha/yr
1d Wh		tut growing stock level do					even-age		-
		od m3/ha	) ou empe			m3/ha	e en age		rood m3/ha
1e. Wh	at would	be the average cutting cyc	le used o	n areas m	anaged by	uneven-aged m	anagemer	nt?	
	Softwo	od years		Mixed	wood	years		Hardw	rood years
		nnaire #1 your collective ( and may have a period of e			o <b>fertiliza</b>	tion of existing	stands ind	icated fer	rtilization would result in
•	Softwo			Mixed	wood	7.5%		Hardw	rood 10.0%
	Softwo	od 8.0 years		Mixed	wood	10.0 years		Hardw	rood 10.0 years
Please	answer th	ne following questions to a	ccount fo	or these co	oncerns:	-			d" and "amount of fertilizer".
2a. At	what stan	d age range would you fer	tilize? Ai	iswer sho	ould be ran	ge between a lov	v figure a	nd a high	figure expressed in years of

2a. At what stand age range would you fertilize? Answer should be range between a low figure and a high figure expressed in years of age.

 Softwood \_\_\_\_\_ & \_\_\_\_ years old
 Mixedwood \_\_\_\_\_ & \_\_\_\_ years old Hardwood \_\_\_\_\_ & \_\_\_\_ years old

2b. At what rate of fertilizer (kg/ha) would you apply Softwood kg/ha	/? Mixedwood	_ kg/ha	Hardwood	_ kg/ha
2c. If sites are distinguished as Good, Medium and P Good %	oor what proportion o Medium		ze? Poor%	6
2d. What increase in growth (m3/ha/yr) would you ex Softwood	xpect? Mixedwood	-	Hardwood	_
2e. How long would the increased growth indicated a Softwood	above last (years)? Mixedwood	-	Hardwood	_
<b>3.</b> From Questionnaire #1 your collective (mean) resp there would be a net change in yield due to thinning, rotation age would be reduced by a mean of 15 year	and the mean of the cl			
Significant comments were made regarding "what to stands only", and "is rotation set by achieving a certa <b>responses</b> please answer the following:				
3a. For existing immature stands what do you expect	from <b>cleaning /brus</b> ł	ning (assume no utilizat	tion) regarding:	
3aa. Change in growth? Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3ab. How long would this change in growth last?         Softwood       years		years Hardwo	ood years	
3ac. Change in rotation based on harvestable tree size Softwood +/ years	e? Mixedwood +/	years	Hardwood +/	_ years
3ad. Change in rotation based on maximum MAI? Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
3b. For existing immature stands what do you expect regarding:	from <b>juvenile spacin</b>	g/ pre-commercial thi	<b>nning</b> (assume no util	ization)
<ul> <li>3ba. Change in growth? Softwood +/ m3/ha/yr</li> <li>3bb. How long would this change in growth last?</li> </ul>	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
Softwood years 3bc. Change in rotation based on harvestable tree siz		years Hardwo	od years	
Softwood +/ years 3bd. Change in rotation based on maximum MAI?	Mixedwood +/	years	Hardwood +/	_ years
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
3c. For existing immature stands what do you expect	from <b>commercial thi</b>	nning (include thinnin	ıg plus final harvest) re	garding:
3ca. Change in growth? Softwood +/ m3/ha/yr 3cb. How long would this change in growth last?	Mixedwood +/	-	Hardwood +/	_ m3/ha/yr
Softwood years 3cc. Change in rotation based on harvestable tree size Softwood +/ years	Mixedwood e? Mixedwood +/		ood years Hardwood +/	years
3cd. Change in rotation based on maximum MAI? Softwood +/ years	Mixedwood +/		Hardwood +/	•
**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.76	2.99	100.0
Mixedwood	1.75	3.41	90.0
Hardwood	1.42	2.63	70.0

	Softwo	ood		Mixed	wood		Hardy	vood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI	
40	NA		30	NA		10	NA		
60	2.54		50	2.81		30	2.10		
80	2.99		70	3.24		50	2.50		
*100	2.99		*90	3.41		*70	2.63		
120	3.09		110	3.07		90	2.30		
140	NA		130	NA		110	NA		
		* Based o			(rounded) from your		rted above	e.	
4b. WI	nat propo	rtion of the area in the	e region is mai	naged by	uneven-aged manage	ement?			
		ood%	C		wood%		Hardw	vood	%
	Softwo	h per ha/year do you ood m3/ha/y	r	Mixed	wood m3/h	a/yr			m3/ha/yr
4d. WI		cut growing stock lev ood m3/ha	el do you expe		eft on areas managed wood m3/h			ement? vood	m3/ha
4e. W1	nat would	be the average cuttin	ng cycle used o	n areas m	nanaged by uneven-a	ged manageme	nt?		
		ood years			wood years			vood	years
		onnaire #1 your collec			o <b>fertilization</b> of reg	generated stands	s indicate	d fertilizatio	n would result in
yield i	ncreases	and may have a perio	d of effect as f	ollows:					
	Softwo			Mixed	wood 7.5 %		Hardw	vood 10.0	%
	Softwo	ood 8.0 years		Mixed	wood 10.0 years		Hardw	ood 10.0 yea	ars
		comments indicated c these concerns please				', "age of stands	s fertilized	d" and "amo	unt of fertilizer".
5a. At age.	what star	nd age range would ye	ou fertilize? A	nswer sho	ould be range betwee	n a low figure a	and a high	n figure expre	essed in years of
	ood	& years old		Mixed	wood & y	years old Hardw	vood	_ & yea	ars old
5b. At	what rate	e of fertilizer (kg/ha)	would you app	lv?					
		ood kg/ha	, 11		wood kg/ha	ı	Hardw	vood	kg/ha
5c. If s		istinguished as Good %	, Medium and		nt proportion of sites m%	would you ferti			_%
5d. WI	nat increa	se in growth (m3/ha/	yr) would you	expect?					
	Softwo	-		-	wood		Hardw	vood	

 5e. How long would the increased growth indicated above last (years)?
 Softwood \_\_\_\_\_
 Mixedwood \_\_\_\_\_

 Mixedwood \_\_\_\_\_
 Hardwood \_\_\_\_\_\_
 Hardwood \_\_\_\_\_\_

**6.** Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 33% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 1.0 %. 100 % of respondents felt the rotation age would be reduced by a mean of 6.7 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6aa. Change in growth?				
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/ m3/ha/yr
6ab. How long would this c	hange in growth last?			
Softwood	years	Mixedwood	_ years	Hardwood years
6ac. Change in rotation base	ed on harvestable tree si	ze?		
Softwood +/	years	Mixedwood +/	years	Hardwood +/ years
6ad. Change in rotation bas	ed on maximum MAI?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/ years
Softwood +/	years	Mixedwood +/	years	Hardwood +/ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 33% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 3.3%. 100% of respondents felt the rotation age would be reduced by a mean of 6.7 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?				
Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_m3/ha/yr
6bb. How long would this change in growth last	?			
Softwood years	Mixedwood	years	Hardwood years	
6bc. Change in rotation based on harvestable tre	e size?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years
6bd. Change in rotation based on maximum MA	I?			
Softwood +/ years	Mixedwood +/	years	Hardwood +/	_ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 67% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 6.7%. 67% of respondents felt the rotation age would be reduced by a mean of 10 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6cb. How long would this cl	nange in growth last?				
Softwood	years	Mixedwood	_ years	Hardwood years	
6cc. Change in rotation base	d on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6cd. Change in rotation base	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 5.0%. 100% of respondents felt the rotation age would be reduced by a mean of 5.0 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. W	hat change in MAI do you	1 0	1			
	Softwood m3/	/ha/yr	Mixedwood	m3/ha/yr	Hardwood	_m3/ha/yr
71. 11	1	. 1 1		40		
/b. w	hat change in rotation base		v 1			
	Softwood +/y	years	Mixedwood +/	years	Hardwood +/	years

. .

7c. What change in rotation based on Maximum MAI would you expect?

. . . . . . .

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.16	2.16	190.0
Mixedwood	1.82	1.82	200.0
Hardwood	1.16	1.16	150.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	ood		Mixed	wood			Hardw	rood
Age	MAI	New MAI	Age	MAI	New MAI		Age	MAI	New MAI
130	NA		140	NA			90	NA	
150	3.56		160	2.00			110	1.39	
170	3.41		180	1.91			130	1.28	
*190	2.16		*200	1.82			*150	1.16	
210	3.02		220	1.64			170	0.99	
230	NA		240	NA			190	NA	
		* Based on aggregated es		. ,	•		ed above		
1b. Wh		rtion of the area in the region		<b>U</b>	0	0			
	Softwo	ood %		Mixed	wood	_ %		Hardwo	%bod
1c. Wh		h per ha/year do you expect ood m3/ha/yr			d by uneven-a wood		ent?	Hardwo	ood m3/ha/yr
1d. Wh	nat after-c	cut growing stock level do	you expe	ct to be le	eft on areas m	anaged by une	ven-agec	l manage	ment?
	Softwo	ood m3/ha		Mixed	wood	_ m3/ha		Hardwo	ood m3/ha
1e. Wh	at would	be the average cutting cyc	le used o	n areas m	anaged by un	even-aged mar	nagemen	t?	
		ood years			wood	0	C		ood years
		onnaire #1 your collective ( and may have a period of e			o <b>fertilizatio</b> i	n of existing sta	ands indi	cated fer	tilization would result in
•	Softwo			Mixed	wood 10	.0%		Hardwo	bod 10.0%
	Softwo	ood 6.5 years		Mixed	wood 10	.0 years		Hardwo	bod 10.0 years
Please	answer th	he following questions to a	ccount fo	or these co	oncerns:	-			" and "amount of fertilizer". figure expressed in years of

2a. At what stand age range would you fertilize? Answer should be range between a low figure and a high figure expressed in years of age.

 Softwood \_\_\_\_\_ & \_\_\_\_ years old
 Mixedwood \_\_\_\_\_ & \_\_\_\_ years old Hardwood \_\_\_\_\_ & \_\_\_\_ years old

2b. At what rate of fertilizer	(kg/ha) would you apply				
Softwood	kg/ha	Mixedwood	_ kg/ha	Hardwood	kg/ha
2c. If sites are distinguished					
Good	%	Medium	%	Poor	%
24 Wilsot in another in another	(				
2d. What increase in growth				Handwood	
Softwood		Mixedwood	-	Hardwood	
2e. How long would the incr	eased growth indicated a	bove last (vears)?			
Softwood		Mixedwood		Hardwood	
			-		
<b>3.</b> From Questionnaire #1 yo there would be a net change rotation age would be reduce	in yield due to thinning,	and the mean of the cl			
Significant comments were r stands only", and "is rotation <b>responses</b> please answer the	set by achieving a certa				
3a. For existing immature sta	ands what do you expect	from cleaning /brush	<b>iing</b> (assume no utiliz	ation) regarding:	
3aa. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3ab. How long would this ch			·		•
Softwood			years Hardw	vood years	
3ac. Change in rotation based					
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3ad. Change in rotation base		Mixedwood +/		Handwood +/	110.040
Softwood +/		WIIXedwood +/	years	Hardwood +/	years
3b. For existing immature staregarding:	ands what do you expect	from <b>juvenile spacin</b>	g/ pre-commercial t	hinning (assume no ut	ilization)
3ba. Change in growth?					
Softwood +/	m3/ha/vr	Mixedwood +/	m3/ha/vr	Hardwood +/	m3/ha/vr
3bb. How long would this ch			5		
Softwood	_ years	Mixedwood	years Hardw	vood years	
3bc. Change in rotation base					
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3bd. Change in rotation base				<b>TT</b> 1 1 /	
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years
3c. For existing immature sta	ands what do you expect	from <b>commercial thi</b>	nning (include thinn	ing plus final harvest) r	egarding:
3ca. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3cb. How long would this ch			·		•
Softwood		Mixedwood	years Hardw	vood years	
3cc. Change in rotation based				<b>.</b>	
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3cd. Change in rotation base		Mono dance 1 + /		Handara 1 · /	
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	2.16	2.48	120.0
Mixedwood	1.82	2.18	100.0
Hardwood	1.16	1.62	80.0

	Softwo	bod		Mixed	wood		Hardv	vood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI	
60	NA		40	NA		20	NA		
80	1.86		60	1.53		40	1.22		
100	2.42		80	2.07		60	1.46		
*120	2.48		*100	2.18		*80	1.62		
140	2.40		120	2.10		100	1.46		
160	NA		140	NA		120	NA		
100	1111	* Based or			(rounded) from your			 2.	
4b. Wl	nat propo	rtion of the area in the	e region is man	aged by	uneven-aged manage	ement?			
		ood%			wood%		Hardw	ood%	
4c. Wł	nat growt	h per ha/year do you e	expect on areas	s manage	d by uneven-aged ma	anagement?			
		ood m3/ha/yi			wood m3/h		Hardw	ood m3/ha/y	r
4d. Wl	hat after-o	cut growing stock leve	el do you expe	ct to be le	eft on areas managed	by uneven-age	d manage	ement?	
		ood m3/ha			wood m3/ha			ood m3/ha	
4e. Wł	nat would	be the average cuttin	g cycle used o	n areas m	anaged by uneven-a	ged manageme	nt?		
	Softwo	ood years		Mixed	wood years		Hardw	ood years	
					o <b>fertilization</b> of reg	enerated stands	indicate	d fertilization would resu	ılt in
increas		ay have a period of ef	ffect as follows						
	Softwo			Mixed			Hardw		
	Softwo	ood 7.0 years		Mixed	wood 10.0 years		Hardw	ood 10.0 years	
		comments indicated co these concerns please				, "age of stands	fertilized	l" and "amount of fertili:	zer".
	what star	nd age range would yo	ou fertilize? Ar	nswer sho	ould be range between	n a low figure a	nd a high	figure expressed in year	rs of
age. Softwo	ood	& years old		Mixed	wood & y	ears old Hardw	vood	& years old	
5b. At	what rate	e of fertilizer (kg/ha) v	vould you appl	ly?					
		ood kg/ha	• • • •		wood kg/ha	l	Hardw	ood kg/ha	
5c. If s	ites are d	istinguished as Good,	Medium and	Poor wha	t proportion of sites	would you ferti	lize?		
	Good	%		Mediu	m%	-	Poor _	%	
5d. Wl	nat increa	se in growth (m3/ha/y	r) would you	expect?					
		ood			wood		Hardw	ood	
5e. Ho		ould the increased group							
	Softwo	ood		Mixed	wood		Hardw	ood	

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 0% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 0.0%. 100% of respondents felt the rotation age would be reduced by a mean of 5.0 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6aa. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab. How long would this c	nange in growth last?				
Softwood	years	Mixedwood	_ years	Hardwood years	
6ac. Change in rotation base	d on harvestable tree size	ze?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6ad. Change in rotation base	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 0% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 0.0%. 100% of respondents felt the rotation age would be reduced by a mean of 5 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6bb. How long would this cl	nange in growth last?				
Softwood	years	Mixedwood	_ years	Hardwood years	
6bc. Change in rotation base	d on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6bd. Change in rotation base	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 50% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 10.0%. 50% of respondents felt the rotation age would be reduced by a mean of 120 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?					
Softwood +/	_m3/ha/yr	Mixedwood +/	_m3/ha/yr	Hardwood +/	_m3/ha/yr
6cb. How long would this char	nge in growth last?				
Softwood	years	Mixedwood	years H	Hardwood years	
6cc. Change in rotation based	on harvestable tree size	2?			
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	_ years
6cd. Change in rotation based	on maximum MAI?				
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 5.0%. 100% of respondents felt the rotation age would be reduced by a mean of 5.0 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. What change in MAI do Softwood	 nprovement? Mixedwood	_ m3/ha/yr	Hardwood	_m3/ha/yr
7b. What change in rotation Softwood +/	e size would you exped Mixedwood +/		Hardwood +/	years
7c. What change in rotation Softwood +/	I would you expect? Mixedwood +/	years	Hardwood +/	years

1. From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.44	1.67	100.0
Mixedwood	2.17	2.02	93.3
Hardwood	2.90	2.56	82.5

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	ood			Mixed	wood			Hardv	vood	
Age	MAI	New MA	Ι	Age	MAI	New MA	AI	Age	MAI	New M	AI
40	NA			33	NA			23	NA		
60	1.93			53	2.20			43	2.83		
80	1.84			73	2.20			63	2.81		
*100	1.67			*93	2.02			*83	2.56		
120	1.50			113	1.91			103	2.26		
140	NA			133	NA			123	NA		
		* Based	on aggregated es	stimates (	(rounded)	from you	estimates repo	rted above	2.		
1b. Wh	at propor	rtion of the	area in the regio	on is man	aged by u	uneven-age	ed management	?			
	Softwo	od	_ %		Mixedy	wood	%		Hardw	ood	%
1c. Wh		h per ha/ye ood	ar do you expect m3/ha/yr	t on areas			n-aged manage m3/ha/yr	ment?	Hardw	ood	m3/ha/yr
1d. Wh	at after-c	cut growing	stock level do	you expe	ct to be le	eft on areas	managed by u	neven-age	d manage	ement?	
		ood		, I			m3/ha	e			m3/ha
1e. Wh	at would	be the ave	rage cutting cyc	le used o	n areas m	anaged by	uneven-aged n	nanagemei	nt?		
	Softwo	ood	_years		Mixedy	wood	years		Hardw	ood	years
	ncreases a	and may ha	your collective ( ve a period of et		ollows:		-	stands ind			
	Softwo		7.4%		Mixedy		4.5%		Hardw	rood	3.5%
	Softwo	ood	8.1 years		Mixedy	wood	5.2 years		Hardw	ood	5.2 years
			ndicated concern g questions to ac				"all sites", "age	e of stands	fertilized	1" and "an	nount of fertilizer".
age.			e would you fert				-	•	•	•	pressed in years of

Softwood \_\_\_\_\_ & \_\_\_\_ years old Mixedwood \_\_\_\_\_ & \_\_\_\_ years old Hardwood \_\_\_\_\_ & \_\_\_\_ years old

2b. At what rate of fertilizer (kg/ha) would you app Softwood kg/ha	oly? Mixedwood	kg/ha	Hardwood	kg/ha
2c. If sites are distinguished as Good, Medium and Good %	Poor what proportion Medium		ou fertilize? Poor	%
2d. What increase in growth (m3/ha/yr) would you Softwood	expect? Mixedwood		Hardwood	
2e. How long would the increased growth indicated Softwood	l above last (years)? Mixedwood		Hardwood	
<b>3.</b> From Questionnaire #1 your collective (mean) re there would be a net change in yield due to thinning rotation age would be reduced by a mean of 13.3 ye	g, and the mean of the			
Significant comments were made regarding "what t stands only", and "is rotation set by achieving a cer <b>responses</b> please answer the following:				
3a. For existing immature stands what do you expe-	ct from <b>cleaning /br</b>	<b>ushing</b> (assume n	o utilization) regarding:	
3aa. Change in growth? Softwood +/ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3ab. How long would this change in growth last?      Softwood      years	Mixedwood	years	Hardwood ye	ars
<ul> <li>3ac. Change in rotation based on harvestable tree si Softwood +/- years</li> <li>3ad. Change in rotation based on maximum MAI?</li> </ul>	ize? Mixedwood +/	years	Hardwood +/	years
Softwood +/ years	Mixedwood +/	years	Hardwood +/	years
3b. For existing immature stands what do you experegarding:	ct from <b>juvenile spa</b> e	cing/ pre-comme	rcial thinning (assume n	o utilization)
<ul> <li>3ba. Change in growth? Softwood +/ m3/ha/yr</li> <li>3bb. How long would this change in growth last?</li> </ul>	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
Softwood years 3bc. Change in rotation based on harvestable tree si	Mixedwood ize?	years	Hardwood yea	ars
Softwood +/ years 3bd. Change in rotation based on maximum MAI?	Mixedwood +/	•	Hardwood +/	years
Softwood +/ years	Mixedwood +/	years	Hardwood +/	years
3c. For existing immature stands what do you expe	ct from <b>commercial</b>	thinning (includ	e thinning plus final harve	st) regarding:
<ul> <li>3ca. Change in growth? Softwood +/ m3/ha/yr</li> <li>3cb. How long would this change in growth last?</li> </ul>	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
Softwood years 3cc. Change in rotation based on harvestable tree si Softwood +/ years	Mixedwood ize? Mixedwood +/	·	Hardwood yea Hardwood +/	
3cd. Change in rotation based on maximum MAI? Softwood +/ years	Mixedwood +/		Hardwood +/	-
<i>y</i>				

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.44	1.82	78.6
Mixedwood	2.17	2.34	75.0
Hardwood	2.90	2.84	60.8

	Softwo	ood		Mixed	wood		Hardv	vood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI	
19	NA		15	NA		1	NA		
39	1.51		35	1.67		21	2.13		
59	1.99		55	2.11		41	2.19		
*79	1.82		*75	2.34		*61	2.84		
99	1.71		95	2.17		81	2.50		
119	NA		115	NA		101	NA		
		* Based o			(rounded) from your			 2.	
4b. W	hat propo	rtion of the area in the	e region is mar	naged by	uneven-aged manage	ement?			
		ood%			wood%		Hardw	ood%	
4c. W	nat growt	h per ha/year do you o	expect on areas	s manage	d by uneven-aged ma	anagement?			
10. 11		ood m3/ha/y			wood m3/h		Hardw	ood m3/ha/	yr
44 W	hat aftar (	cut growing stock leve	al do you avra	at to be la	oft on aroas managed	by upoyon ago	d manage	mont?	
4u. wi		ood m3/ha	ei uo you expe		wood m3/h			ood m3/ha	
	Soltwo			Mixeu	woou 1115/11	a	паним		
4e W	hat would	be the average cuttin	g cycle used o	n areas m	anaged by uneven-a	ged manageme	nt?		
10. 11		ood years	g cycle used o		wood years			ood years	
	ncreases a Softwo	and may have a perio		ollows: Mixed	o <b>fertilization</b> of reg wood 6.5 % wood 5.2 years	generated stands	Hardw	d fertilization would res ood 5.5 % ood 5.2 years	sult in
	Soltwo	ou o.o years		WIIACU	wood 5.2 years		Haiuw	oou 5.2 years	
To hel	p clarify	these concerns please	answer the fol	llowing q	uestions:			I" and "amount of fertil figure expressed in yea	
age.	what star	id age range would ye	Ju leitilize : Al	iswei siie	und de range detwee	ii a low liguic a	ind a mgn	inguie expressed in yea	
	ood	& years old		Mixed	wood & y	ears old Hardw	ood	& years old	
5b. At	what rate	e of fertilizer (kg/ha)	would you app	lv?					
		ood kg/ha	<b>J</b>		wood kg/ha	ı	Hardw	ood kg/ha	
						-			
5c. If s	sites are d	istinguished as Good	Medium and	Poor wha	t proportion of sites	would you ferti	lize?		
		%	, ,		m%	5		%	
5d $W$	hat increa	se in growth (m3/ha/	vr) would vou	expect?					
24. 11		bod	,_,		wood		Hardw	ood	
5e Ho	w long w	ould the increased gr	owth indicated	above la	st (vears)?				
50.110		odd			wood		Hardw	ood	

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 86% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 20.8 %. 86 % of respondents felt the rotation age would be reduced by a mean of 16 years. For regenerated immature stands what do you expect from **cleaning /brushing** (assume no utilization) regarding:

6aa. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab. How long would this ch	ange in growth last?				
Softwood	_ years	Mixedwood	_ years	Hardwood years	
6ac. Change in rotation base	d on harvestable tree siz	ze?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6ad. Change in rotation base	d on maximum MAI?				
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 71% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 5.0%. 71% of respondents felt the rotation age would be reduced by a mean of 10 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6bb. How long would this c	hange in growth last?				
Softwood	years	Mixedwood	_ years	Hardwood years	
6bc. Change in rotation bas	ed on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6bd. Change in rotation bas	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 16.7%. 100% of respondents felt the rotation age would be reduced by a mean of 13.3 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Cł	ange in growth?					
	Softwood +/	_ m3/ha/yr	Mixedwood +/	_m3/ha/yr	Hardwood +/	_m3/ha/yr
6cb. He	ow long would this cha	inge in growth last?				
	Softwood	years	Mixedwood	years	Hardwood years	
6cc. Ch	ange in rotation based	on harvestable tree size	e?			
	Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	_ years
6cd. Cl	hange in rotation based	on maximum MAI?				
	Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 6.8 % . 100% of respondents felt the rotation age would be reduced by a mean of 7.5 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a.	What change in MAI do Softwood	you expect for genetic in _m3/ha/yr	nprovement? Mixedwood	m3/ha/yr	Hardwood	_m3/ha/yr
7b.	What change in rotation Softwood +/	based on harvestable tre years	e size would you expo Mixedwood +/		Hardwood +/	years
7c.	What change in rotation Softwood +/	based on Maximum MA years	I would you expect? Mixedwood +/	years	Hardwood +/	years

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.71	1.71	113.3
Mixedwood	1.91	2.23	102.0
Hardwood	1.85	2.01	110.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	ood		Mixed	wood			Hardw	vood
Age	MAI	New MAI	Age	MAI	New MA	I	Age	MAI	New MAI
53 73	NA 1.90		42 62	NA 2.31			50 70	NA 2.35	
93 *113	1.90 1.71		82 *102	2.56 2.23		-	90 *110	2.23 2.01	
133 153	1.47 NA		122 142	1.87 NA			130 150	1.75 NA	
155	1 12 1	* Based on aggregated es			from your	- estimates report			
1b. Wh		rtion of the area in the region of%			uneven-age			Hardw	ood %
1c. Wh		n per ha/year do you expect od m3/ha/yr				-aged managem m3/ha/yr	ent?	Hardw	ood m3/ha/yr
1d. Wh	1d. What after-cut growing stock level do you expect to be left on areas managed by uneven-aged management?         Softwood m3/ha       Mixedwood m3/ha       Hardwood m3/ha								
1e. Wh	1e. What would be the average cutting cycle used on areas managed by uneven-aged management?         Softwood years       Mixedwood years       Hardwood years								
	ncreases a	nnaire #1 your collective ( and may have a period of e			o <b>fertilizati</b>	on of existing s	ands ind	icated fer	rtilization would result in
	Softwo Softwo			Mixedy Mixedy		4.0% 3.3 years		Hardw Hardw	
	However your comments indicated concern over fertilizing "all stands', "all sites", "age of stands fertilized" and "amount of fertilizer". Please answer the following questions to account for these concerns:								
2a. At	what stan	d age range would you fer	tilize? Ar	iswer sho	uld be rang	e between a low	figure a	nd a high	figure expressed in years of

2a. At what stand age range would you fertilize? Answer should be range between a low figure and a high figure expressed in years of age.

Softwood \_\_\_\_ & \_\_\_ years old Mixedwood \_\_\_\_ & \_\_\_ years old Hardwood \_\_\_\_ & \_\_\_ years old

2b. At what rate of fertilizer					
Softwood	_kg/ha	Mixedwood	_ kg/ha	Hardwood	kg/ha
2c. If sites are distinguished	as Good, Medium and P	oor what proportion o	f sites would you fer	tilize?	
Good	%	Medium	%	Poor	_%
2d. What increase in growth					
Softwood	-	Mixedwood	_	Hardwood	
2. How long would the ine	reased growth indicated a	hous last (years)?			
2e. How long would the inc Softwood		Mixedwood		Hardwood	
Softwood			-		
<b>3.</b> From Questionnaire #1 ye there would be a net change rotation age would be reducted	in yield due to thinning,	and the mean of the cl			
Significant comments were stands only", and "is rotatio <b>responses</b> please answer the	n set by achieving a certa				
3a. For existing immature st	ands what do you expect	from <b>cleaning /brush</b>	<b>ing</b> (assume no utili	ization) regarding:	
3aa. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3ab. How long would this c					
Softwood			years Hard	wood years	5
3ac. Change in rotation base					
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3ad. Change in rotation base					
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years
3b. For existing immature stregarding:	tands what do you expect	from <b>juvenile spacin</b>	g/ pre-commercial	thinning (assume no	utilization)
3ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3bb. How long would this c					
Softwood	years	Mixedwood	years Hard	wood years	8
3bc. Change in rotation base					
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3bd. Change in rotation base					
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years
3c. For existing immature st	ands what do you expect	from <b>commercial thi</b>	nning (include thin	ning plus final harvest	) regarding:
3ca. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3cb. How long would this c			2		2
Softwood	years	Mixedwood	years Hard	wood years	8
3cc. Change in rotation base				<b></b>	
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3cd. Change in rotation base		NC . 1 . 1.1		<b>TT</b> = 1 = 1	
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.71	2.56	87.1
Mixedwood	1.91	2.48	81.0
Hardwood	1.85	2.68	80.6

	Softwo	ood		Mixed	wood		Hardv	vood
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI
27	NA		21	NA		21	NA	
47	2.79		41	2.78		41	3.06	
67	2.82		61	2.91		61	2.92	
*87	2.56		*81	2.91		*81	2.92	
107	2.30		101	2.48		101	2.08	
127	NA		101	NA		101	2.40 NA	
127	INA	* Based or			(rounded) from your e			 2.
4b. W	hat propo	rtion of the area in the	e region is mai	naged by	uneven-aged manage	ment?		
		ood%			wood%		Hardw	wood%
4c. W	hat growt	h per ha/year do you e	expect on area	s manage	d by uneven-aged ma	nagement?		
		ood m3/ha/yr			wood m3/ha		Hardw	rood m3/ha/yr
4d. W		cut growing stock leve	el do you expe		eft on areas managed wood m3/ha			ement? rood m3/ha
	Boltwo			WIIXed		L	11uru w	
4e. W		be the average cuttin						
	Softwo	ood years		Mixed	wood years		Hardw	rood years
		onnaire #1 your collec and may have a period			o <b>fertilization</b> of reg	enerated stands	s indicated	d fertilization would result i
yiciu i	Softwo		I OI CHEET as I		wood 3.7 %		Hardw	rood 3.0 %
		od 5.7 years			wood 2.0 years			rood 2.0 years
	Boltwo	Jou 5.7 years		WIIXed	wood 2.0 years		1 Iui u w	ood 2.0 years
		comments indicated co these concerns please				, "age of stands	s fertilized	d" and "amount of fertilizer'
	what star	nd age range would yo	ou fertilize? A	nswer sho	ould be range between	a low figure a	und a high	figure expressed in years o
age. Softw	ood	& years old		Mixed	wood & y	ears old Hardw	vood	& years old
5b. At	what rate	e of fertilizer (kg/ha) v	vould you app	ly?				
	Softwo	ood kg/ha		Mixed	wood kg/ha		Hardw	rood kg/ha
5c. If	sites are d	istinguished as Good,	Medium and	Poor wha	t proportion of sites v	would you ferti	lize?	
		%			m%	j		%
5d. W	hat increa	se in growth (m3/ha/y	r) would you	expect?				
		ood	,		wood		Hardw	rood
5e. Ho	ow long w	ould the increased gro	owth indicated	l above la	st (vears)?			
		od			wood		Hardw	

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 71% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 18.6 %. 71 % of respondents felt the rotation age would be reduced by a mean of 17 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6aa. Change in	growth?					
Softw	ood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab. How long	would this ch	ange in growth last?				
Softw	ood	_ years	Mixedwood	years	Hardwood years	
6ac. Change in	rotation based	d on harvestable tree size	ze?			
Softw	ood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6ad. Change in	rotation based	d on maximum MAI?				
Softw	ood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 43% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 0.83%. 57% of respondents felt the rotation age would be reduced by a mean of 15 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?				
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/ m3/ha/yr
6bb. How long would this ch	ange in growth last?			
Softwood	_ years	Mixedwood	_ years	Hardwood years
6bc. Change in rotation base	d on harvestable tree si	ze?		
Softwood +/	years	Mixedwood +/	years	Hardwood +/ years
6bd. Change in rotation base	d on maximum MAI?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 26.4%. 71% of respondents felt the rotation age would be reduced by a mean of 16.0 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?					
Softwood +/	_ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_m3/ha/yr
6cb. How long would this cha	inge in growth last?				
Softwood	years	Mixedwood	years	Hardwood years	
6cc. Change in rotation based	on harvestable tree size	2?			
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	_ years
6cd. Change in rotation based	on maximum MAI?				
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 7.3 % . 83% of respondents felt the rotation age would be reduced by a mean of 8.0 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. What change in MAI do Softwood	 nprovement? Mixedwood	_ m3/ha/yr	Hardwood	_m3/ha/yr
7b. What change in rotation Softwood +/	e size would you exped Mixedwood +/		Hardwood +/	years
7c. What change in rotation Softwood +/	I would you expect? Mixedwood +/	years	Hardwood +/	years

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.67	1.64	109.2
Mixedwood	1.84	1.90	100.0
Hardwood	2.17	2.17	86.2

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

Age       MAI       New MAI       Age       MAI       New MAI       Age       MAI         49       NA	rood						
69       1.73       60       2.06       46       2.40         89       1.69       80       1.93       66       2.52         *109       1.64       *100       1.90       *86       2.17         129       1.50       120       1.79       106       1.89         149       NA       140       NA       126       NA         * Based on aggregated estimates (rounded) from your estimates reported above.       1b. What proportion of the area in the region is managed by uneven-aged management?	New MAI						
89       1.69       80       1.93       66       2.52         *109       1.64       *100       1.90       *86       2.17         129       1.50       120       1.79       106       1.89         149       NA       140       NA       126       NA         * Based on aggregated estimates (rounded) from your estimates reported above.       1b. What proportion of the area in the region is managed by uneven-aged management?							
89       1.69       80       1.93       66       2.52         *109       1.64       *100       1.90       *86       2.17         129       1.50       120       1.79       106       1.89         149       NA       140       NA       126       NA         * Based on aggregated estimates (rounded) from your estimates reported above.       1b. What proportion of the area in the region is managed by uneven-aged management?							
*109       1.64       *100       1.90       *86       2.17         129       1.50       120       1.79       106       1.89         149       NA       140       NA       126       NA         * Based on aggregated estimates (rounded) from your estimates reported above.       1b. What proportion of the area in the region is managed by uneven-aged management?							
129       1.50       120       1.79       106       1.89         149       NA       140       NA       126       NA         * Based on aggregated estimates (rounded) from your estimates reported above.       126       NA         1b. What proportion of the area in the region is managed by uneven-aged management?       126       NA							
149       NA       126       NA         * Based on aggregated estimates (rounded) from your estimates reported above.       126       NA         1b. What proportion of the area in the region is managed by uneven-aged management?       126       NA							
* Based on aggregated estimates (rounded) from your estimates reported above. 1b. What proportion of the area in the region is managed by uneven-aged management?							
1b. What proportion of the area in the region is managed by uneven-aged management?							
Softwood % Mixedwood % Haidwo	ood %						
	Jou %						
1c. What growth per ha/year do you expect on areas managed by uneven-aged management?         Softwood m3/ha/yr       Mixedwood m3/ha/yr         Hardwood m3/ha/yr							
1d. What after-cut growing stock level do you expect to be left on areas managed by uneven-aged manage         Softwood m3/ha       Mixedwood m3/ha	ment? pod m3/ha						
1e. What would be the average cutting cycle used on areas managed by uneven-aged management?							
	ood years						
<b>2.</b> From Questionnaire #1 your collective (mean) responses to <b>fertilization</b> of existing stands indicated fer yield increases and may have a period of effect as follows:	tilization would result in						
Softwood 8.4% Mixedwood 8.4% Hardwo	ood 7.5%						
Softwood 5.7 years Mixedwood 5.7 years Hardwo							
However your comments indicated concern over fertilizing "all stands', "all sites", "age of stands fertilized Please answer the following questions to account for these concerns: 2a. At what stand age range would you fertilize? Answer should be range between a low figure and a high							

age. Softwood \_\_\_\_\_ & \_\_\_\_ years old Mixedwood \_\_\_\_\_ & \_\_\_\_ years old Hardwood \_\_\_\_\_ & \_\_\_\_ years old

2b. At what rate of fertilizer (kg/h			1 4	<b>XX</b> 1 1	1 /1
Softwood kg/ha	L	Mixedwood	_ kg/ha	Hardwood	kg/ha
2c. If sites are distinguished as Go Good %		or what proportion of Medium		ertilize? Poor	%
2d. What increase in growth (m3/l Softwood	• • • •	pect? Mixedwood	-	Hardwood	
2e. How long would the increased Softwood	•	oove last (years)? Mixedwood	-	Hardwood	
<b>3.</b> From Questionnaire #1 your co there would be a net change in yie rotation age would be reduced by	ld due to thinning, a	and the mean of the ch			
Significant comments were made stands only", and "is rotation set b <b>responses</b> please answer the follo	y achieving a certain				
3a. For existing immature stands v	what do you expect f	from <b>cleaning /brush</b>	<b>ing</b> (assume no ut	ilization) regarding:	
3aa. Change in growth? Softwood +/ má	3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3ab. How long would this change Softwood yea	rs		years Ha	rdwood year	'S
3ac. Change in rotation based on h Softwood +/ ye	ars	? Mixedwood +/	years	Hardwood +/	years
3ad. Change in rotation based on 1 Softwood +/ ye		Mixedwood +/	years	Hardwood +/	years
3b. For existing immature stands v regarding:	what do you expect	from <b>juvenile spacin</b>	g/ pre-commercia	al thinning (assume no	utilization)
3ba. Change in growth? Softwood +/ m2 3bb. How long would this change		Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
Softwood yea 3bc. Change in rotation based on I	rs	Mixedwood?	years Ha	rdwood year	'S
Softwood +/ ye 3bd. Change in rotation based on t	ars	Mixedwood +/	years	Hardwood +/	years
Softwood +/ ye	ars	Mixedwood +/	years	Hardwood +/	years
3c. For existing immature stands v	what do you expect f	from <b>commercial thi</b>	nning (include th	inning plus final harvest	) regarding:
3ca. Change in growth? Softwood +/ m2 3cb. How long would this change	in growth last?	Mixedwood +/	-	Hardwood +/	-
Softwood yea 3cc. Change in rotation based on h Softwood +/ ye	narvestable tree size	Mixedwood? Mixedwood +/		rdwood year Hardwood +/	
3cd. Change in rotation based on a Softwood +/ ye	maximum MAI?	Mixedwood +/		Hardwood +/	-

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.67	2.12	90.0
Mixedwood	1.84	2.25	92.9
Hardwood	2.17	2.64	67.9

	Softwo	bod		Mixed	wood		Hardv	vood	
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI	
30	NA		33	NA		8	NA		
50	2.24		53	2.39		28	2.67		
70	2.27		73	2.37		48	2.77		
*90	2.12		*93	2.25		*68	2.64		
110	2.12		113	2.29		88	2.60		
130	NA		133	NA		108	NA		
150	1111	* Based o			(rounded) from your			 2.	
4b. W	hat propo	rtion of the area in the	e region is mar	naged by	uneven-aged manage	ement?			
		ood%			wood%		Hardw	ood%	
4c. W	nat growt	h per ha/year do you	expect on areas	s manage	d by uneven-aged ma	anagement?			
		ood m3/ha/y			wood m3/h		Hardw	ood m3/ha	a/yr
4d. W	hat after-o	cut growing stock lev	el do vou expe	ct to be le	eft on areas managed	by uneven-age	d manage	ement?	
		ood m3/ha	, in junit		wood m3/ha			ood m3/ha	ì
4e. W	nat would	be the average cuttin	g cycle used o	n areas m	anaged by uneven-a	ged manageme	nt?		
		ood years	6.,		wood years			ood years	
	~	onnaire #1 your collec and may have a perio	· · · · ·	1	o <b>fertilization</b> of reg	enerated stands	sindicated	l fertilization would re	esult in
•	Softwo	od 11.3 %		Mixed	wood 12.5 %		Hardw	ood 12.8 %	
	Softwo	ood 6.7 years		Mixed	wood 7.7 years		Hardw	ood 6.6 years	
		comments indicated c these concerns please				, "age of stands	s fertilized	l" and "amount of fert	ilizer".
	what star	nd age range would ye	ou fertilize? Ai	nswer sho	ould be range between	n a low figure a	und a high	figure expressed in y	ears of
age. Softwo	ood	& years old		Mixed	wood & y	ears old Hardw	/ood	&years old	
5b. At	what rate	e of fertilizer (kg/ha)	would you app	lv?					
		ood kg/ha			wood kg/ha	l	Hardw	ood kg/ha	
5c. If s	sites are d	istinguished as Good	, Medium and	Poor wha	t proportion of sites	would you ferti	lize?		
		%			m%	·		%	
5d. W	hat increa	se in growth (m3/ha/	yr) would you	expect?					
		ood	•		wood		Hardw	ood	
5e. Ho	w long w	ould the increased gr	owth indicated	above la	st (years)?				
	Softwo	ood		Mixed	wood		Hardw	ood	

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 67% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 9.6 %. 83 % of respondents felt the rotation age would be reduced by a mean of 11.9 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

ба	a. Change in growth?					
	Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_ m3/ha/yr
6a	b. How long would this ch	ange in growth last?				
	Softwood	_ years	Mixedwood	_ years	Hardwood years	
ба	c. Change in rotation base	d on harvestable tree size	ze?			
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
ба	d. Change in rotation base	d on maximum MAI?				
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 83% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 9.8 % . 92 % of respondents felt the rotation age would be reduced by a mean of 8.8 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6bb. How long would this ch	ange in growth last?				
Softwood	_ years	Mixedwood	_ years	Hardwood years	
6bc. Change in rotation base	d on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6bd. Change in rotation base	d on maximum MAI?				
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 92% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 15.4%. 75% of respondents felt the rotation age would be reduced by a mean of 17 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?					
Softwood +/	_m3/ha/yr	Mixedwood +/	_m3/ha/yr	Hardwood +/	_m3/ha/yr
6cb. How long would this char	ige in growth last?				
Softwood	years	Mixedwood	years	Hardwood years	
6cc. Change in rotation based	on harvestable tree size	??			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
6cd. Change in rotation based	on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 10.7 % . 92% of respondents felt the rotation age would be reduced by a mean of 12.6 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. Wha	at change in MAI do you expect for gene Softwood m3/ha/yr	etic improvement? Mixedwood m3/ha/yr	Hardwood m3/ha/yr
7b. Wha	at change in rotation based on harvestab Softwood +/ years	le tree size would you expect? Mixedwood +/ years	Hardwood +/ years
7c. Wha	at change in rotation based on Maximum Softwood +/ years	n MAI would you expect? Mixedwood +/ years	Hardwood +/ years

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.22	0.94	104.0
Mixedwood	1.48	1.41	92.0
Hardwood	1.66	1.74	78.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	bod		Mixed	wood		Hardw	vood
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI
44	NA		32	NA		18	NA	
64	1.00		52	1.46		38	1.43	
84	1.08		72	1.61		58	1.98	
*104	0.94		*92	1.41		*78	1.74	
124	0.74		112	1.00		98	1.46	
144	NA		132	NA		118	NA	
		* Based on aggregated e	stimates	(rounded)	from your estimation	ates reported above		
1b. Wh	at propo	rtion of the area in the region	on is mar	naged by u	ineven-aged man	agement?		
					wood %	-	Hardw	ood %
1c. Wh	at growt	h per ha/year do you expec	t on areas	s managed	l by uneven-aged	management?		
		ood m3/ha/yr			wood m3/		Hardw	ood m3/ha/yr
1d. Wł	at after-c	cut growing stock level do	vou expe	ct to be le	ft on areas manag	ged by uneven-aged	d manage	ement?
		ood m3/ha						ood m3/ha
1e. Wh	at would	be the average cutting cyc	le used o	n areas m	anaged by unever	n-aged managemen	nt?	
		ood years			wood ye			ood years
		onnaire #1 your collective ( and may have a period of e			o <b>fertilization</b> of	existing stands ind	icated fer	tilization would result in
2		od 10.0%		Mixedy	wood 6.2%		Hardw	ood 3.8%
		ood 11.2 years				ears	Hardw	
Please	However your comments indicated concern over fertilizing "all stands', "all sites", "age of stands fertilized" and "amount of fertilizer". Please answer the following questions to account for these concerns:							

2a. At what stand age range would you fertilize? Answer should be range between a low figure and a high figure expressed in years of age.

Softwood \_\_\_\_ & \_\_\_ years old Mixedwood \_\_\_\_ & \_\_\_ years old Hardwood \_\_\_\_ & \_\_\_ years old

2b. At what rate of fertilizer (	kg/ha) would you apply				
Softwoodk	ag/ha	Mixedwood	kg/ha	Hardwood	_kg/ha
2c. If sites are distinguished a	s Good, Medium and Po	oor what proportion of	sites would you ferti	lize?	
Good		Medium		Poor	%
2d. What increase in growth (	m3/ha/yr) would you ex	spect?			
Softwood		Mixedwood		Hardwood	_
2e. How long would the incre	ased growth indicated a			** 1 1	
Softwood		Mixedwood		Hardwood	
<b>3.</b> From Questionnaire #1 you there would be a net change in rotation age would be reduced	n yield due to thinning,	and the mean of the ch			
Significant comments were m stands only", and "is rotation <b>responses</b> please answer the f	set by achieving a certai				
3a. For existing immature star	nds what do you expect	from <b>cleaning /brush</b>	ing (assume no utiliz	ation) regarding:	
3aa. Change in growth?					
Softwood +/	_ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3ab. How long would this cha					
Softwood			years Hardw	ood years	
3ac. Change in rotation based	on harvestable tree size	?			
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3ad. Change in rotation based					
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years
3b. For existing immature star regarding:	nds what do you expect	from <b>juvenile spacin</b>	g/ pre-commercial tl	<b>hinning</b> (assume no uti	lization)
3ba. Change in growth?					
Softwood +/	_ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3bb. How long would this cha					•
Softwood	years	Mixedwood	years Hardw	ood years	
3bc. Change in rotation based		e?			
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3bd. Change in rotation based					
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years
3c. For existing immature star	nds what do you expect	from <b>commercial thi</b>	nning (include thinni	ing plus final harvest) re	egarding:
3ca. Change in growth?					
Softwood +/	m3/ha/vr	Mixedwood +/	m3/ha/vr	Hardwood +/	m3/ha/vr
3cb. How long would this cha					
Softwood		Mixedwood	years Hardw	ood years	
3cc. Change in rotation based					
Softwood +/		Mixedwood +/	years	Hardwood +/	_ years
3cd. Change in rotation based					
Softwood +/		Mixedwood +/	years	Hardwood +/	years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.22	1.24	76.0
Mixedwood	1.48	1.75	66.0
Hardwood	1.66	1.99	56.0

	Softwo	bod		Mixed	wood		Hardv	vood
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI
16	NA		6	NA		0	NA	
36	0.86		26	0.94		16	1.09	
56	1.15		46	1.58		36	1.71	
*76	1.24		*66	1.75		*56	1.99	
96	1.04		86	1.49		76	1.71	
116	NA		106	NA		96	NA	
		* Based o			(rounded) from your			 2.
4b. W	hat propo	rtion of the area in the	e region is mar	naged by	uneven-aged manage	ment?		
		ood%	C		wood%		Hardw	wood%
4c. W	hat growt	h per ha/year do you	expect on areas	s manage	d by uneven-aged ma	inagement?		
		ood m3/ha/y			wood m3/ha		Hardw	rood m3/ha/yr
4d. W	hat after-o	cut growing stock leve	el do vou expe	ct to be le	eft on areas managed	by uneven-age	d manage	ement?
ia. ii		ood m3/ha	er do you expe		wood m3/ha			rood m3/ha
∕le W	hat would	be the average cuttin	o cycle used o	n areas m	anaged by uneven-a	red manageme	nt?	
40. 11		ood years	ig cycle used o		wood years			ood years
	ncreases Softwo	and may have a perio		ollows: Mixed	C	enerated stands	Hardw	d fertilization would result ir rood 11.2 % rood 10.0 years
	Sollwe	bod 11.2 years		Mixed	wood 11.2 years		Haruw	ood 10.0 years
		comments indicated contracts these concerns please				, "age of stands	s fertilized	d" and "amount of fertilizer"
5a. At age?	what star	nd age range would ye	ou fertilize? Ai	nswer sho	ould be range between	n a low figure a	ind a high	figure expressed in years of
	ood	& years old		Mixed	wood & y	ears old Hardw	/ood	&years old
5b. At	what rate	e of fertilizer (kg/ha) v	would vou app	lv?				
		ood kg/ha	<b>J</b> 11		wood kg/ha		Hardw	rood kg/ha
5c. If	sites are d	istinguished as Good	. Medium and	Poor wha	t proportion of sites	would vou ferti	lize?	
		%	,		m%	, ourd you reru		%
5d. W	hat increa	se in growth (m3/ha/	vr) would vou	expect?				
		ood	, ,		wood		Hardw	rood
5e. Ho	ow long w	ould the increased gr	owth indicated	l above la	st (years)?			
		od			wood		Hardw	

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 15.0 %. 80 % of respondents felt the rotation age would be reduced by a mean of 10 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

баа.	Change in growth?					
	Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_ m3/ha/yr
6ab.	How long would this ch	ange in growth last?				
	Softwood	_ years	Mixedwood	years	Hardwood years	
6ас.	Change in rotation based	l on harvestable tree siz	ze?			
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6ad.	Change in rotation based	l on maximum MAI?				
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 60% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 8.8 % . 60 % of respondents felt the rotation age would be reduced by a mean of 11.7 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?							
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr		
6bb. How long would this o	change in growth last?						
Softwood	years	Mixedwood	years	Hardwood years			
6bc. Change in rotation bas	ed on harvestable tree	size?					
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years		
6bd. Change in rotation based on maximum MAI?							
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years		

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 23.0%. 40% of respondents felt the rotation age would be reduced by a mean of 10.0 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?					
Softwood +/	_ m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
6cb. How long would this cha	inge in growth last?				
Softwood	years	Mixedwood	years	Hardwood years	
6cc. Change in rotation based	on harvestable tree size	2?			
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years
6cd. Change in rotation based	on maximum MAI?				
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 19.0 % . 100% of respondents felt the rotation age would be reduced by a mean of 10.0 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. What change in MAI do Softwood	 nprovement? Mixedwood	m3/ha/yr	Hardwood	_m3/ha/yr
7b. What change in rotation Softwood +/	e size would you expec Mixedwood +/		Hardwood +/	years
7c. What change in rotation Softwood +/	l would you expect? Mixedwood +/	years	Hardwood +/	years

**1.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.56	1.52	60.0
Mixedwood	1.77	2.08	70.0
Hardwood	1.78	2.18	85.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwoo	bd		Mixed	wood		Hardwo	ood
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI
0	NA		10	NA		25	NA	
20	1.46		30	1.64		45	1.74	
40	1.60		50	2.00		65	2.04	
*60	1.52		*70	2.08		*85	2.18	
80	1.23		90	3.02		105	2.10	
100	NA		110	NA		125	NA	
		* Based on aggregate			from your estimat			
1b. Wh		tion of the area in the r	egion is man		neven-aged mana vood %	gement?	Hardwo	od %
1 a Wh	at anowith	non ha kuaan da way aw	a at an area		hu unavan agada	nonocomont?		
1C. WII		per ha/year do you exp od m3/ha/yr	pect on areas		vood m3/h		Hardwo	od m3/ha/yr
1d. Wh	at after-cu	it growing stock level	do you expe	ct to be le	ft on areas manage	d by uneven-aged	l managen	nent?
	Softwoo	od m3/ha		Mixedv	wood m3/	ha	Hardwo	od m3/ha
1e. What	at would l	be the average cutting	cycle used o	n areas m	anaged by uneven-	aged managemen	ıt?	
	Softwoo	od years		Mixedv	wood yea	rs	Hardwo	od years
		nnaire #1 your collection and may have a period of			<b>fertilization</b> of e	xisting stands ind	icated ferti	ilization would result in
5	Softwoo			Mixedv	wood 8.3%		Hardwo	od 10.0%
	Softwoo			Mixedv		ars	Hardwo	
		omments indicated con e following questions t				s", "age of stands	fertilized"	and "amount of fertilizer".
2a. At v age.	what stand	l age range would you	fertilize? Ar	nswer sho	uld be range betwe	en a low figure a	nd a high f	igure expressed in years of
	Softwoo	od & years	old	Mixedv	wood &	years old Hardwo	ood 6	&years old
2b. At v	what rate	of fertilizer (kg/ha) wo	uld vou ann	lv?				
		od kg/ha	J PP		wood kg/	ha	Hardwo	od kg/ha
2c. If si	tes are dis	stinguished as Good, N	fedium and	Poor what	proportion of site	s would vou fertil	ize?	
		%			n%	, <u></u>		%

2d. What increase in growth (m3/ha/yr) would you expect?								
Softwood	Mixedwood	Hardwood						
2e. How long would the increased gro	owth indicated above last (years)?							
Softwood	Mixedwood	Hardwood						

**3.** From Questionnaire #1 your collective (mean) responses to thinning of existing stands were as follows: 100% of respondents felt there would be a net change in yield due to thinning, and the mean of the change was a (+) 16.2%. 50% of respondents felt the rotation age would be reduced by a mean of 15 years.

Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

3a. For existing immature stands what do you expect from cleaning /brushing (assume no utilization) regarding:

3aa. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_m3/ha/yr
3ab. How long would this c	hange in growth last?				
Softwood	years	Mixedwood	_ years	Hardwood years	
3ac. Change in rotation base	ed on harvestable tree si	ze?			
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years
3ad. Change in rotation bas	ed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years

3b. For existing immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?					
Softwood +/	_ m3/ha/yr	Mixedwood +/	_m3/ha/yr	Hardwood +/	m3/ha/yr
3bb. How long would this cha	inge in growth last?				
Softwood	years	Mixedwood	years	Hardwood years	
3bc. Change in rotation based	on harvestable tree size	e?			
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years
3bd. Change in rotation based	on maximum MAI?				
Softwood +/	_ years	Mixedwood +/	years	Hardwood +/	years

3c. For existing immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

3ca. Change in growth?									
Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_m3/ha/yr				
3cb. How long would this a	change in growth l	ast?							
Softwood	years	Mixedwood	_ years	Hardwood years					
3cc. Change in rotation bas	sed on harvestable	tree size?							
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years				
3cd. Change in rotation bas	3cd. Change in rotation based on maximum MAI?								
Softwood +/	years	Mixedwood +/	years	Hardwood +/	_ years				

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.56	1.64	57.5
Mixedwood	1.77	1.72	70.0
Hardwood	1.78	1.87	110.0

	Softwo	bod		Mixed	wood		Hardv	vood
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI
0	NA		10	NA		50	NA	
18	0.44		30	0.90		50 70	1.22	
38	0.87		50	1.52		90	1.71	
*58	1.64		*70	1.72		*110	1.87	
78	1.45		90	1.66		130	1.81	
98	NA		110	NA		150	NA	
90	INA	* Based or			(rounded) from your e			 2.
4h W	hat propo	rtion of the area in the	e region is mai	naged by	uneven-aged manage	ment?		
101 11		ood%			wood%		Hardw	ood%
4c W	hat growt	h per ha∕year do you €	expect on area	s manage	d by uneven-aged ma	nagement?		
10. 11		ood m3/ha/yi			wood m3/ha		Hardw	ood m3/ha/yr
4d. W		cut growing stock leve	el do you expe	ct to be le	eft on areas managed	by uneven-ageo		
	Softwo	ood m3/ha		Mixed	wood m3/ha	l	Hardw	ood m3/ha
4e. W		be the average cuttin	g cycle used o			ged managemer		
	Softwo	ood years		Mixed	wood years		Hardw	ood years
					o <b>fertilization</b> of rege	enerated stands	indicate	d fertilization would result in
yield i		and may have a period	d of effect as f		1 0 0 0/		<b>TT</b> 1	1 0.2.0/
	Softwo				wood 9.3 %			ood 9.3 %
	Softwo	bod 11.7 years		Mixed	wood 11.7 years		Hardw	ood 11.7 years
		comments indicated co these concerns please				, "age of stands	fertilized	I" and "amount of fertilizer".
	what star	nd age range would yo	ou fertilize? A	nswer sho	ould be range between	a low figure a	nd a high	figure expressed years of
age.	Softwo	ood & year	rs old	Mixed	wood & y	ears old Hardw	ood	_ & years old
5b. At	what rate	e of fertilizer (kg/ha) v	would you app	ly?				
	Softwo	ood kg/ha		Mixed	wood kg/ha		Hardw	ood kg/ha
5c. If	sites are d	listinguished as Good,	Medium and	Poor wha	t proportion of sites v	would you fertil	ize?	
	Good	%		Mediu	m%	-	Poor _	%
5d. W	hat increa	use in growth (m3/ha/y	r) would you	expect?				
	Softwo			Mixed	wood		Hardw	ood
5e. Ho		ould the increased group						
	Softwo	ood bod		Mixed	wood		Hardw	ood

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 11.2 %. 75 % of respondents felt the rotation age would be reduced by a mean of 10 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6a	a. Change in growth?					
	Softwood +/	m3/ha/yr	Mixedwood +/	m3/ha/yr	Hardwood +/	_ m3/ha/yr
6a	b. How long would this cl	nange in growtl	h last?			
	Softwood	years	Mixedwood years		Hardwood years	
6a	c. Change in rotation base	d on harvestab	le tree size?			
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years
6a	d. Change in rotation base	d on maximum	n MAI?			
	Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	_ years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 50% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 7.5 %. 75 % of respondents felt the rotation age would be reduced by a mean of 10 years. For regenerated immature stands what do you expect from **juvenile spacing**/ **pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?							
Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/ m3/ha/	yr		
6bb. How long would this change in growth last?							
Softwood	years	Mixedwood years		Hardwood years			
6bc. Change in rotation based on harvestable tree size?							
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/ years			
6bd. Change in rotation bas	sed on maximun	n MAI?					
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/ years			

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 21.2 %. 50 % of respondents felt the rotation age would be reduced by a mean of 10.0 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?								
Softwood +/ m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/	_m3/ha/yr				
6cb. How long would this change in grow	6cb. How long would this change in growth last?							
	Mixedwood years		Hardwood years					
6cc. Change in rotation based on harvest	able tree size?							
Softwood +/ years	Mixedwood +/	_ years	Hardwood +/	_ years				
6cd. Change in rotation based on maxim	um MAI?							
Softwood +/ years	Mixedwood +/	_ years	Hardwood +/	_ years				

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 16.2 % . 100% of respondents felt the rotation age would be reduced by a mean of 8.8 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a. '	What change in MAI do you exp	ect for genetic improvement?			
	Softwood m3/ha/y	r Mixedwood	m3/ha/yr	Hardwood	m3/ha/yr
					-
7b. '	What change in rotation based or	n harvestable tree size would you e	expect?		
	Softwood +/ years		•	Hardwood +/-	vears
		-			
7c. 1	What change in rotation based or	n Maximum MAI would you expec	et?		
	Softwood +/ years	• •		Hardwood +/-	vears
		-			J

1. From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of existing stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands.

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.28	1.47	145.0
Mixedwood	1.59	1.83	140.0
Hardwood	1.67	1.92	115.0

Additionally you expressed concern over "uneven age management" and that existing stands may be 2nd, 3rd or 4th generation "regenerated stands". For the survey, the growth and yield data for "existing stands" is meant to apply to stands growing today. "Regenerated stands" are those we create after "today".

1a. Please complete the table below with your revised estimates of MAI (Age in years and MAI in m3/ha/yr). Note: NA means not available from round one.

	Softwo	bod			Mixed	wood			Hardv	vood	
Age	MAI	New M	ÍAI	Age	MAI	New M.	AI	Age	MAI	New MA	AI
85	NA			80	NA			55	NA		
105	1.65			100	2.06			75	1.87		
125	1.62			120	1.92			95	1.92		
*145	1.47			*140	1.83			*115	1.92		
165	1.36			160	1.60			135	1.68		
185	NA			180	NA			155	NA		
		* Base	d on aggregated e	stimates (	(rounded)	) from you	r estimates repo	orted above	e.		_
1b. Wh		rtion of tl	ne area in thye reg		naged by	uneven-a	ged managemen				0/
	Softwo	ood	%		Mixedy	wood	%		Hardw	'ood	%
1c. Wh			/ear do you expec m3/ha/yr	t on areas			en-aged manage m3/ha/yr	ement?	Hardw	ood	m3/ha/yr
1d Wh	nat after-c	ut growi	ng stock level do	voli expe	ct to be le	eft on area	s managed by u	neven-age	d manage	ement?	
10. 11			-	you enpe			m3/ha	ne ven uge			m3/ha
1e. Wh	at would	be the av	verage cutting cyc	le used o	n areas m	anaged by	uneven-aged n	nanagemer	nt?		
	Softwo	ood	years		Mixedy	wood	years		Hardw	vood	years
	<ul> <li>2. From Questionnaire #1 your collective (mean) responses to fertilization of existing stands indicated fertilization would result in yield increases and may have a period of effect as follows:         <ul> <li>Softwood</li> <li>6%</li> <li>Mixedwood</li> <li>6%</li> <li>Hardwood</li> <li>10 years</li> </ul> </li> <li>Hardwood</li> <li>10 years</li> </ul>										
Please	However your comments indicated concern over fertilizing "all stands', "all sites", "age of stands fertilized" and "amount of fertilizer". Please answer the following questions to account for these concerns:										
2a. At age.	what stan	nd age rar	nge would you fer	tilize? Ar	iswer sho	ould be ran	ge between a lo	w figure a	nd a high	n figure exp	pressed in years of

Softwood \_\_\_\_\_ & \_\_\_\_ years old Mixedwood \_\_\_\_\_ & \_\_\_\_ years old Hardwood \_\_\_\_\_ & \_\_\_\_ years old

2b. At what rate of fertilize Softwood		y? Mixedwood	kø/ha	Hardwood	kø/ha
	-		-		
2c. If sites are distinguished					0/
Good	%	Medium	%	Poor	%
2d. What increase in growt	h (m3/ha/yr) would you e	xpect?			
Softwood	-	Mixedwood		Hardwood	
<b>A H H H H H</b>	1 .1 . 1 . 1	1 1 ( )0			
2e. How long would the ind Softwood	-	Mixedwood		Hardwood	
5011w00d	-				
<b>3.</b> From Questionnaire #1 y there would be a net change rotation age would be reduced	e in yield due to thinning,	and the mean of the c			
Significant comments were stands only", and "is rotation <b>responses</b> please answer the	on set by achieving a certa				
3a. For existing immature s	stands what do you expect	t from <b>cleaning / brus</b>	shing (assume no u	tilization) regarding:	
3aa. Change in growth?					
Softwood +/		Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3ab. How long would this o		1		.1 1	
Softwood 3ac. Change in rotation bas		vood years	s Ha	rdwood year	'S
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3ad. Change in rotation bas	sed on maximum MAI?				-
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years
3b. For existing immature s regarding:	stands what do you expect	t from <b>juvenile spaci</b> i	ng / pre-commerc	ial thinning (assume no	utilization)
3ba. Change in growth?					
Softwood +/		Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3bb. How long would this of		I	- II.		
Softwood 3bc. Change in rotation bas		vood years	s Ha	rdwood year	.'S
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3bd. Change in rotation bas	sed on maximum MAI?				
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years
3c. For existing immature s	stands what do you expect	t from <b>commercial th</b>	inning (include th	inning plus final harvest	a) regarding:
3ca. Change in growth?					
Softwood +/		Mixedwood +/	m3/ha/yr	Hardwood +/	m3/ha/yr
3cb. How long would this of		I	- II.		
Softwood 3cc. Change in rotation bas		vood years	s Ha	rdwood year	.8
Softwood +/		Mixedwood +/	years	Hardwood +/	years
3cd. Change in rotation bas			-		-
Softwood +/	years	Mixedwood +/	years	Hardwood +/	years

**4.** From Questionnaire #1, collective (mean) responses from survey participants indicated the following about growth (MAI) of regenerated stands. Included are average estimates of MAI from the baseline we provided in Questionnaire #1 and average estimates of area-weighted mean age of mature stands. "Regenerated stands" are those we create after "today".

	MAI: Provided	MAI: Your Est.	AGE: Your Est.
Softwood	1.28	2.05	115.0
Mixedwood	1.59	2.54	105.0
Hardwood	1.67	2.67	75.0

Softwood				Mixedwood				Hardwood		
Age	MAI	New MAI	Age	MAI	New MAI	Age	MAI	New MAI		
55	NA		45	NA		15	NA			
75	1.64		65	2.16		35	2.07			
95	2.10		85	2.60		55	2.67			
*115	2.10		*105	2.00 2.54		*75	2.67			
135	1.90		125	2.34		95	2.54			
155	NA		125	NA		115	NA			
155	NА	* Based or			(rounded) from your			 2.		
4b. WI	nat propo	rtion of the area in the	e region is man	aged by	uneven-aged manage	ment?				
		ood%			wood%		Hardw	ood9	6	
4c. Wł	nat growtl	h per ha/year do you e	expect on areas	manage	d by uneven-aged ma	inagement?				
	Softwo	ood m3/ha/y	r	Mixed	wood m3/ha	a/yr	Hardw	rood 1	m3/ha/yr	
4d. W	nat after-c	cut growing stock leve	el do vou expe	ct to be le	eft on areas managed	by uneven-age	d manage	ement?		
		ood m3/ha	in do you empe		wood m3/ha			rood :	m3/ha	
4 a W/1	ot would	he the evenese suttin	a avala waad a		one and her unation of	and monocomo				
4e. wi		be the average cuttin ood years	g cycle used of		wood years			ood	vears	
	ncreases a Softwo	onnaire #1 your collec and may have a period ood 10 % ood 10 years	· · · · ·	ollows: Mixed	C	enerated stands	Hardw	d fertilization wo ood 10 % ood 10 years	uld result in	
		comments indicated contracts these concerns please				, "age of stands	s fertilized	d" and "amount c	f fertilizer".	
	what star	nd age range would yo	ou fertilize? Ar	nswer sho	ould be range between	n a low figure a	und a high	figure expressed	l in years of	
age.	Softwo	ood & year	rs old	Mixed	wood & y	ears old Hardw	/ood	& years o	ld	
5b. At	what rate	e of fertilizer (kg/ha) v	would you appl	ly?						
		ood kg/ha	2 11		wood kg/ha		Hardw	ood 1	kg/ha	
5c. If s	ites are d	istinguished as Good	, Medium and 1	Poor wha	t proportion of sites	would you ferti	lize?			
		%			m%	5		%		
5d. WI	nat increa	se in growth (m3/ha/y	r) would you	expect?						
		ood			wood		Hardw	ood		
5e. Ho	w long w	ould the increased group	owth indicated	above la	st (years)?					
		ood			wood		Hardw	ood		
**6.** Significant comments were made regarding "what to thin", "would never thin in mature stands", "I assume thinning of immature stands only", and "is rotation set by achieving a certain tree size or maximum mean annual increment". To help clarify **Thinning responses** please answer the following:

6a. From Questionnaire #1 your collective (mean) responses to cleaning/ brush control of regenerated stands were as follows: 0% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 0.0 %. 100 % of respondents felt the rotation age would be reduced by a mean of 12.5 years. For regenerated immature stands what do you expect from **cleaning** /**brushing** (assume no utilization) regarding:

6aa. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	_m3/ha/yr	Hardwood +/	m3/ha/yr
6ab. How long would this c	change in growth	h last?			
Softwood	years	Mixedwood years		Hardwood years	
6ac. Change in rotation bas	ed on harvestab	le tree size?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	years
6ad. Change in rotation bas	ed on maximum	n MAI?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/	years

6b. From Questionnaire #1 your collective (mean) responses to juvenile spacing of regenerated stands were as follows: 50% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 1.0%. 100% of respondents felt the rotation age would be reduced by a mean of 5 years. For regenerated immature stands what do you expect from **juvenile spacing/ pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?					
Softwood +/	m3/ha/yr	Mixedwood +/	_ m3/ha/yr	Hardwood +/ n	n3/ha/yr
6bb. How long would this o	change in growtl	h last?			
Softwood	years	Mixedwood years		Hardwood years	
6bc. Change in rotation bas	ed on harvestab	le tree size?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/ y	vears
6bd. Change in rotation bas	sed on maximum	n MAI?			
Softwood +/	years	Mixedwood +/	_ years	Hardwood +/ y	vears

6c. From Questionnaire #1 your collective (mean) responses to thinning of regenerated stands were as follows: 50% of respondents felt there would be a net change in yield, and the mean of the change was a (+) 2.5 %. 50% of respondents felt the rotation age would be reduced by a mean of 10 years. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth? Softwood +/-\_\_\_\_ m3/ha/yr Mixedwood +/-\_\_\_\_ m3/ha/yr Hardwood +/-\_\_\_\_ m3/ha/yr 6cb. How long would this change in growth last? Mixedwood \_\_\_\_\_years Hardwood \_\_\_\_\_ years Softwood \_\_\_\_\_ years 6cc. Change in rotation based on harvestable tree size? Mixedwood +/- years Hardwood +/- years Softwood +/- years 6cd. Change in rotation based on maximum MAI? Softwood +/-\_\_\_\_ years Mixedwood +/-\_\_\_\_ years Hardwood +/-\_\_\_\_ years

7. From Questionnaire #1 your collective (mean) responses to **genetic improvement** of regenerated stands were as follows: 100% of respondents felt there would be a net change in yield, and the mean of the change was a (+)6.5%. 100% of respondents felt the rotation age would be reduced by a mean of 7.5 years. Comments indicated uncertainty about unproved **genetic improvement** yields and concerns over rotation being time to certain size tree or Maximum MAI. Please answer the following:

7a.	What change in MAI do Softwood	you expect for genetic in m3/ha/yr	mprovement? Mixedwood	_m3/ha/yr	Hardwood	_m3/ha/yr
7b.	What change in rotation Softwood +/	based on harvestable tre years	e size would you expec Mixedwood +/		Hardwood +/	years
7c.	What change in rotation Softwood +/		I would you expect? Mixedwood +/	years	Hardwood +/	years

# Questionnaire #3

By Region

Atlantic - Acadian

Atlantic - Boreal

Coast B.C. - Coast

Coast B.C. - Subalpine

Interior B.C. - Columbia

Interior B.C. - Montane

Interior B.C. - Subalpine

NWT and the Prairies - Boreal Ontario - Boreal

Ontario - Great Lakes/St. Lawrence Quebec - Boreal

Quebec - Great Lakes/St. Lawrence

Yukon and Interior B.C. - Boreal

#### ADMINISTRATIVE / BIOLOGICAL REGION

# Atlantic - Acadian

#### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	lwood			Hard	wood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
16	NA	2.4		18	NA	2.2		23	NA	1.8	
36	2.5	1.8		38	2.1	2.0		43	1.9	2.0	
56	2.3	1.8		58	2.1	1.9		63	2.0	1.9	
76*	1.9	1.8		78*	1.8	1.8		83*	1.7	1.7	
96	1.4	1.3		98	1.5	1.3		103	1.7	1.3	
116	NA	0.1		118	NA	0.9		123	NA	1.0	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 4 %	Survey result: 14 %	Survey result: 22 %
Your est %	Your est %	Your est %

1c. What is the growth per ha/year on areas managed by uneven-aged management?

	ai on areas managed by uneven-			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 1.9 m3/ha/yr	Survey result: 1.8 m3/ha/yr	Survey result: 1.9 m3/ha/yr		
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr		
1d. What after-cut growing stoc	k level is left on areas managed b	y uneven-aged management?		
Softwood:	Mixedwood:	Hardwood:		
		a 1. 50. 0.1		
Survey result: 77 m3/ha	Survey result: 73 m3/ha	Survey result: 73 m3/ha		
Survey result: 77 m3/ha Your est m3/ha	Survey result: 73 m3/ha Your est m3/ha	Survey result: 73 m3/ha Your est m3/ha		
Your est m3/ha		Your est m3/ha		

Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 22 years	Survey result: 20 years
Your est years	Your est years	Your est years

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range w	vould you fertilize? Answer sh	ould range between X	and Y years of age.	
Softwood:	Mixedy	wood:	Hardwo	od:
Survey result: 38 & 50 yrs o	old Survey result: 43	3 & 60 yrs old	Survey result: 43	& 65 yrs old
Your est & yrs o	old Your est &	z yrs old	Your est &	yrs old
2b. At what rate of fertilizer (	kg/ha) would you apply?			
	Mixedwood:	Hardwood	l <b>:</b>	
Survey result: 200 kg/ha	Survey result: 200 kg/ha	Survey result: 200 k	g/ha	
	Your est kg/ha			
2c. If sites are distinguished a <b>Good:</b>	s Good, Medium and Poor wh Medium:	at proportion of sites <b>Poor:</b>	would you fertilize?	
	urvey result: 55 % Survey			
	our est% Your est.			
2d. What increase in growth (	(m3/ha/yr) would you expect?			
Softwood:	Mixedwood:	Hai	dwood:	
Survey result: 0.2 m3/ha/yr	Survey result: 0.2 m3/ha/	yr Survey result	t: 0.2 m3/ha/yr	
•	Your est m3/ha/	• •	•	
2e. How long would the incre	ased growth indicated above 1	ast (years)?		
Softwood:	Mixedwood:	Hardwood:		
Survey result: 5 years	Survey result: 5 years	Survey result: 5 years		
Your est years		5		

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

3aa. Change in growth? Softwood: Survey result: 0.4 m3/ha/yr Your est. +/ m3/ha/y 3ab. How long would this chan	r Your est. +/ m3/	Hardwood:/yrSurvey result: 0.4 m3/ha/yrha/yrYour est. +/ m3/ha/yr
Softwood:	Mixedwood:	Hardwood:
Survey result: 13 years	Survey result: 13 years Su	rvey result: 13 years
	Your est years Yo	
3ac. Change in rotation based	on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -2 years	Survey result: -2 years	Survey result: -2 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3ad. Change in rotation based	on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -3 years	Survey result: -3 years	Survey result: -3 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?				
Softwood:	Mixedwood:	Hardwood:		
Survey result: 2.2 m3/ha/yr	Survey result: 2.1 m3/ha/yr	Survey result: 2.1 m3/ha/yr		
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr		

3bb. How long would this ch Softwood: Survey result: 22 years Your est years	Mixedwood: Survey result: 20 years Su	Hardwood: rvey result: 20 years pur est years	
3bc. Change in rotation base <b>Softwood:</b> Survey result: -13 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: -12 years Your est. +/ years	
3bd. Change in rotation base Softwood: Survey result: 3 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: 3 years Your est. +/ years	
<ul> <li>3c. For existing immature sta</li> <li>3ca. Change in growth? Softwood:</li> <li>Survey result: 0.6 m3/ha/yr</li> <li>Your est. +/ m3/ha</li> </ul>	<b>Mixedwood:</b> Survey result: 0.6 m3/ha		;:
3cb. How long would this ch Softwood: Survey result: 18 years Your est years	ange in growth last? Mixedwood: Survey result: 18 years Su	Hardwood: rvey result: 18 years pur est years	
3cc. Change in rotation bases <b>Softwood:</b> Survey result: -5 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: -5 years Your est. +/ years	
3cd. Change in rotation base <b>Softwood:</b> Survey result: +3 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: +3 years Your est. +/ years	

## **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
0	NA	1.5		0	NA	1.3		0	NA	1.1	
8	2.3	2.6		15	2.1	2.3		18	1.9	2.3	
28	3.2	3.5		35	2.2	2.5		38	2.3	2.4	
48*	2.8	3.2		55*	2.2	2.5		58*	2.0	2.5	
68	4.1	3.0		75	2.9	2.1		78	2.2	2.2	
88	NA	2.6		95	NA	1.9		98	NA	1.9	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What prop Softwood:	ortion of the area will be m Survey result: 2 %	anaged by uneven-ag Mixedwood:	ged management? Survey result: 7 %	Hardwood:	Survey result 20 %
Softwood.	Your est %	macu v oou.	Your est %	Haruwoou.	Your est%
4c. What grow Softwood:	/th per ha/year do you expe Survey result: 1.9 m3/ha/ Your est m3/ha/yi	yr Mixedwood:	<i>2 . 2</i>	a/yr <b>Hardw</b> o	
4d. What after <b>Softwood:</b>	-cut growing stock level do Survey result: 77 m3/ha Your est m3/ha	you expect to be lef Mixedwood:	t on areas that will be man Survey result: 73 m3/ha Your est m3/ha	Hardwoo	
4e. What woul Softwood:	d be the average cutting cy Survey result: 20 years Your est years	Mixedwood:		ven-aged manag Hardwood:	
review these fi application (co	igures and provide any revi	sed figures that you or round suggested that	deem more representative t t number of applications b	of the region. B	and are given below. Please ase your figures on one-time ase enter your estimates even
Survey result	and age range would you fe Softwood: t: 33 & 45 yrs old & yrs old	Mixedwo	od: & 50 vrs old Su	years of age. Hardwoo rvey result: 38 d our est &	& 55 vrs old
Soft	te of fertilizer (kg/ha) woul wood: I t: 200 kg/ha Survey re kg/ha Your est.	lived wood.	<b>Hardwood:</b> Survey result: 200 kg/ha Your est kg/ha		
5c. If sites are Goo Survey result Your est	t: 35 % Survey result:	n: l 55 % Survey re	Poor: sult: 10 %	you fertilize?	
Sof Survey result		ould you expect? <b>Mixedwood:</b> result: 0.2 m3/ha/yr st m3/ha/yr		n3/ha/yr	
5e. How long v Softv Survey result Your est	t: 5 years Survey rest	ixedwood: ilt: 5 years Su	t (years)? Hardwood: nvey result: 5 years our est years		
6. Comments f	from Questionnaire #1 rega	rding thinning indica	ated this topic had to be sp		ategories and that thinning

would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

6aa. Change in growth? Softwood: Survey result: 0.6 m3/ha/yr Your est. +/ m3/ha/yr	Mixedwood: Survey result: 0.5 m3/ha/yr yr Your est. +/ m3/ha/	Hardwood: Survey result: 0.5 m3/ha/yr Tr Your est. +/ m3/ha/yr
6ab. How long would this cha Softwood: Survey result: 13 years Your est years	Mixedwood: Survey result: 13 years Survey	Hardwood: y result: 13 years est years
6ac. Change in rotation based Softwood: Survey result: -2 years Your est. +/ years	Mixedwood: Survey result: -2 years	Hardwood: Survey result: -2 years Your est. +/ years
Your est. +/ years	<b>Mixedwood:</b> Survey result: +4 years Your est. +/ years	Hardwood: Survey result: +4 years Your est. +/ years enile spacing/pre-commercial thinning (assume no utilization)
regarding:	stands what do you expect nom <b>ju</b>	
6ba. Change in growth? Softwood: Survey result: 22 m3/ha/yr Your est. +/ m3/ha/		
6bb. How long would this cha Softwood: Survey result: 20 years Your est years	Mixedwood: Survey result: 20 years Survey	Hardwood: y result: 20 years est years
6bc. Change in rotation based Softwood: Survey result: +7 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: +7 years Your est. +/ years
6bd. Change in rotation based Softwood: Survey result: +13 years Your est. +/ years	<b>Mixedwood:</b> Survey result: +14 years	Hardwood: Survey result: +15 years Your est. +/ years
6c. For regenerated immature	stands what do you expect from con	nmercial thinning (include thinning plus final harvest) regarding
6ca. Change in growth? Softwood: Survey result: 0.7 m3/ha/yr Your est. +/ m3/ha/y	<b>Mixedwood:</b> Survey result: 0.7 m3/ha/yr yr Your est. +/ m3/ha/	Hardwood: Survey result: 0.7 m3/ha/yr r Your est. +/ m3/ha/yr
6cb. How long would this cha Softwood: Survey result: 13 years Your est years	Mixedwood: Survey result: 13 years Survey	Hardwood: y result: 13 years est years
6cc. Change in rotation based Softwood: Survey result: -5 years Your est. +/ years	Mixedwood: Survey result: -5 years	Hardwood: Survey result: -5 years Your est. +/ years

6cd. Change in rotation based on maximum MAI?					
Softwood:	Mixedwood:	Hardwood:			
Survey result: +3 years	Survey result: +4 years	Survey result: +3 years			
Your est. +/ years	Your est. +/ years	Your est. +/ years			

**7.** From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do you expect from greater improvement?

7 a. What change in Mirit do yo						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 0.5 m3/ha/yr	Survey result: 0.3 m3/ha/yr	Survey result: 0.3 m3/ha/yr				
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr				
7b. What change in rotation ba	7b. What change in rotation based on harvestable tree size would you expect?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: -2 years	Survey result: 00 years	Survey result: 00 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				

Softwood:	Mixedwood:	Hardwood:
Survey result: +3 years	Survey result: +5 years	Survey result: +5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

#### ADMINISTRATIVE / BIOLOGICAL REGION

# **Atlantic - Boreal**

#### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	lwood			Hardw	boo	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
31	NA	1.4		34	NA	1.6		15	NA	1.1	
51	1.9	1.6		54	2.3	2.1		35	1.9	1.8	
71	1.8	1.6		74	2.1	1.8		55	1.9	1.7	
91*	1.6	1.3		94*	1.7	1.4		75*	1.7	1.5	
111	1.1	1.1		114	1.3	1.2		95	1.5	1.3	
131	NA	1.0		134	NA	1.0		115	NA	1.1	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:					
Survey result: 2 %	Survey result: 3 %	Survey result	: 3 %				
Your est %	Your est %	Your est	%				
1c. What is the growth per	1c. What is the growth per ha/year on areas managed by uneven-aged management?						
Softwood:	Mixed	wood:	Hardwood:				
Survey result: 1.7 m3/ha	/yr Survey result: 1	.8 m3/ha/yr	Survey result: 1.9 m3/ha/yr				
Your est m3/ha/	yr Your est.	m3/ha/yr	Your est m3/ha/yr				
1d. What after-cut growin	g stock level is left on ar	eas managed by	uneven-aged management?				
Softwood:	Mixed	wood:	Hardwood:				
Survey result: 75 m3/ha	Survey result: 1	00 m3/ha	Survey result: 125 m3/ha				
Your est m3/ha	Your est.	m3/ha	Your est m3/ha				
1e. What is the average cutting cycle used on areas managed by uneven-aged management?							
Softwood:	Mixedwoo	d:	Hardwood:				
Survey result: 20 years	Survey result: 15 ye	ars Survey	result: 10 years				
Your est years	Your est ye	ears Your es	st years				

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range w	ould you fertilize? Answer sh	hould range between $\lambda$	X and Y years of age.
Softwood:	Mixed	wood:	Hardwood:
Survey result: 50 & 70 yrs ol	d Survey result: 4	5 & 55 yrs old	Survey result: NA & NA yrs old
			Your est & yrs old
2b. At what rate of fertilizer (l	g/ha) would you apply?		
Softwood:	Mixedwood:	Hardwood	l:
Survey result: 200 kg/ha	Survey result: 150 kg/ha	Survey result: NA k	g/ha
Your est kg/ha	Your est kg/ha	Your est kg	g/ha
2c. If sites are distinguished as Good:         Survey result: 50 %       Su         Your est.       %       Your	Medium:rvey result: 30 %Surveyour est %Your est.	<b>Poor:</b> y result: 20 % sst %	would you leftilize?
2d. What increase in growth (1			
Softwood:	Mixedwood:		rdwood:
Survey result: 1.5 m3/ha/yr	-	•	•
Your est m3/ha/yr	Your est m3/ha/	/yr Your est	m3/ha/yr
2e. How long would the increa	ased growth indicated above	last (years)?	
Softwood:	Mixedwood:	Hardwood:	
Survey result: 10 years	Survey result: 5 years	Survey result: NA ye	ars
Your est years	Your est years	Your est yea	rs

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

3aa. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 1.0 m3/ha/yr	Survey result: 1.3 m3/ha	a/yr Survey result: 1.5 m3/ha/yr
Your est. +/ m3/ha/y	yr Your est. +/ m3	/ha/yr Your est. +/ m3/ha/yr
3ab. How long would this cha	nge in growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 15 years	Survey result:15 years Survey	urvey result: 5 years
Your est years	Your est years Y	our est years
3ac. Change in rotation based	on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -10 years	Survey result: -5 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3ad. Change in rotation based	on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	Survey result: -3 years	Survey result: -3 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

 Softwood:
 Mixedwood:

 Survey result: 1.8 m3/ha/yr
 Survey result: 2.3 m3/ha/yr

 Your est. +/-\_\_\_\_ m3/ha/yr
 Your est. +/-\_\_\_\_ m3/ha/yr

Hardwood: Survey result: 2.5 m3/ha/yr r Your est. +/-\_\_\_\_ m3/ha/yr

3bb. How long would this change in growth last?

Softwood:	Mixedwood:	Hardwood:	
Survey result: 25 years	Survey result: 15 years	Survey result: 10 years	
Your est years	Your est years	Your est years	
3bc. Change in rotation based	on harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -20 years	Survey result: -15 years	Survey result: -10 years	
Your est. +/ years	Your est. +/ years	S Your est. +/ years	
3bd. Change in rotation based	on maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -10 years	Survey result: -5 years	Survey result: -5 years	
Your est. +/ years	Your est. +/ years	S Your est. +/ years	
3c. For existing immature stan	nds what do you expect from o	commercial thinning (include thinning plus final harv	est) regarding:
3ca. Change in growth?			
Softwood:	Mixedwood	: Hardwood:	
Survey result: 0.8 m3/ha/yr	Survey result: 1.0 m3	ha/yr Survey result: 1.3 m3/ha/yr	
	-	m3/ha/yr Your est. +/ m3/ha/yr	
3cb. How long would this cha	nge in growth last?		
-	Mixedwood	Hardwood	

Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 10 years	Survey result: 10 years
Your est years	Your est years	Your est years
3cc. Change in rotation based	l on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: NA years	Survey result: NA years	Survey result: NA years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3cd. Change in rotation based	1 on maximum MAI?	

Softwood:	Mixedwood:
Survey result: NA years	Survey result: NA years
Your est. +/ years	Your est. +/ years

Hardwood: Survey result: NA years Your est. +/-\_\_\_\_ years

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
0	NA	00		0	NA	00		0	NA	NA	
19	2.0	0.5		18	2.3	1.4		12	2.0	1.3	
39	2.2	1.8		38	2.4	2.2		32	2.3	2.3	
59*	2.2	2.4		58*	2.4	2.8		52*	2.0	2.8	
79	2.0	2.1		78	2.0	2.3		72	1.6	2.5	
99	NA	1.7		98	NA	1.7		92	NA	1.8	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What prop	ortion of the area will be managed	ged by uneven-ag	ged management?			
Softwood:	Survey result: 3 %	Mixedwood:	Survey result: 3 %	Hardwood:	Survey result 3 %	
	Your est %		Your est %		Your est %	
4c. What grow	th per ha/year do you expect or					
Softwood:	Survey result: 1.8 m3/ha/yr	Mixedwood:	Survey result: 1.9 m3/ha	/yr Hardwoo	d: Survey result 2.0 m3/ha/yr	
	Your est m3/ha/yr		Your est m3/ha/y	r	Your est m3/ha/yr	
4d. What after	-cut growing stock level do you	a expect to be left	on areas that will be mana	ged by uneven-	aged management?	
Softwood:	Survey result: 85 m3/ha	Mixedwood:	Survey result: 110 m3/ha	Hardwood	I: Survey result 135 m3/ha	
	Your est m3/ha		Your est m3/ha		Your est m3/ha	
	d be the average cutting cycle u					
Softwood:	Survey result: 20 years	Mixedwood:	Survey result: 15 years	Hardwood:	Survey result 10 years	
	Your est years		Your est years		Your est years	
<b>5.</b> From Questionnaire #2 the results regarding <b>fertilization</b> of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.						
5a. At what sta	und age range would you fertiliz	ze? Answer shoul	ld range between X and Y	years of age.		
	Softwood:	Mixedwo	od:	Hardwood	1:	

Softwood:	Mixeawooa:	Hardwood:			
Survey result: 30 & 50 yrs old	Survey result: 35 & 45 yrs old	Survey result: NA & NA yrs old			
Your est & yrs old	Your est & yrs old	Your est & yrs old			

5b. At what rate of fertilizer (kg/ha) would you apply?

Softwood:	Mixedwood:	Hardwood:		
Survey result: 150 kg/ha	Survey result: 100 kg/ha	Survey result: NA kg/ha		
Your est kg/ha	Your est kg/ha	Your est kg/ha		

5c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize? Medium: Good: Poor: Survey result: 60 % Survey result: 30 % Survey result: 10 % Your est. \_\_\_\_\_ % Your est. \_\_\_\_\_ % Your est. \_\_\_\_\_ % 5d. What increase in growth (m3/ha/yr) would you expect? Softwood: Mixedwood: Hardwood: Survey result: NA m3/ha/yr Survey result: 1.8 m3/ha/yr Survey result: 1.5 m3/ha/yr Your est. \_\_\_\_\_ m3/ha/yr Your est. \_\_\_\_\_ m3/ha/yr Your est. \_\_\_\_\_ m3/ha/yr 5e. How long would the increased growth indicated above last (years)? Softwood: Mixedwood: Hardwood: Survey result: 50 years Survey result: NA years Survey result: 10 years Your est. \_\_\_\_\_ years Your est. \_\_\_\_\_ years Your est. \_\_\_\_\_ years 6. Comments from Ouestionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate. 6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding: 6aa. Change in growth? Softwood: Mixedwood: Hardwood: Survey result: 1.3 m3/ha/yr Survey result: 1.5 m3/ha/yr Survey result: 1.8 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Your est. +/- m3/ha/yr

6ab. How long would this change in growth last?

	iunge in growth fust.			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 20 years	Survey result: 10 years	Survey result: 10 years		
Your est years	Your est years	Your est years		
6ac. Change in rotation base	ed on harvestable tree size?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: -15 years	Survey result: -10 years	Survey result: -10 years		

 Survey result: -10 years
 Survey result: -10 years
 Survey result: -10 years

 Your est. +/-\_\_\_\_years
 Your est. +/-\_\_\_\_years
 Your est. +/-\_\_\_\_years

 6ad. Change in rotation based on maximum MAI?

 Softwood:
 Mixedwood:

Softwood:	Mixedwood:	Hardwood:		
Survey result: -10 years	Survey result: -5 years	Survey result: -5 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

6b. For regenerated immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth? Softwood: Survey result: 1.5 m3/ha/yr Your est. +/ m3/ha/yr	<b>Mixedwood:</b> Survey result: 25 m3/ha Your est. +/ m3/h					
6bb. How long would this chan	ge in growth last?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 25 years S	Survey result: 20 years Su	Survey result: 15 years				
Your est years Y	Your est years Yo	our est years				
6bc. Change in rotation based on harvestable tree size?         Softwood:       Mixedwood:         Hardwood:						
Survey result: -18 years	Survey result: -20 years	Survey result: -15 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				

6bd. Change in rotation based or <b>Softwood:</b>	n maximum MAI? <b>Mixedwood:</b>	Hardwood:	
Survey result: -10 years	Survey result: -10 years	Survey result: -10 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
6c. For regenerated immature sta	ands what do you expect from <b>c</b>	ommercial thinning (include	e thinning plus final harvest) regarding:
6ca. Change in growth?			
Softwood:	Mixedwood:	Hardwoo	d:
Survey result: 1.0 m3/ha/yr	Survey result: 1.3 m3/ha/y	r Survey result: 1.5 1	n3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha	a/yr Your est. +/	_ m3/ha/yr
6cb. How long would this chang         Softwood:         Survey result: 20 years       Survey result: 20 years         Your est.       years       Y	Mixedwood: urvey result: 10 years Surv	Hardwood: rey result: 10 years r est years	
6cc. Change in rotation based or	n harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
	Survey result: NA years	Survey result: NA years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
6cd. Change in rotation based or			
Softwood:	Mixedwood:	Hardwood:	
	Survey result: NA years	Survey result: NA years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
	res and provide any revised figu	res that you deem more repre	have been aggregated and are given esentative of the region. Please enter your

7a What change in MAI do you expect from greater improvement?

/a. What change in MAI do you expect from greater improvement?							
Softwood:	Mixedwood:	Hardwood:					
Survey result: 0.3 m3/ha/yr	Survey result: 0.8 m3/ha/yr	Survey result: 1.0 m3/ha/yr					
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr					
7b. What change in rotation based on harvestable tree size would you expect?							
Softwood:	Mixedwood:	Hardwood:					
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years					
Your est. +/ years	Your est. +/ years	Your est. +/ years					
7c. What change in rotation based on Maximum MAI would you expect?							
Softwood:	Mixedwood:	Hardwood:					
Survey result: -3 years	Survey result: -3 years	Survey result: -3 years					
Your est. +/ years	Your est. +/ years	Your est. +/ years					

Coast B.C. - Coast

### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	wood			Hardy	wood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
198	NA	3.2		125	NA	3.5		22	NA	2.0	
218	3.1	3.1		145	3.5	3.5		42	3.0	3.0	
238	3.1	3.1		168	3.4	3.4		62	2.6	3.1	
258*	3.0	3.0		185*	3.5	3.4		82*	2.9	2.9	
278	2.9	2.9		205	3.5	3.3		102	2.6	2.5	
298	NA	2.8		225	NA	3.2		122	NA	2.0	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

10. What proportion of the a	ieu is munuged by uneven e	igea manage	cinent.			
Softwood:	Mixedwood:	Hardwood:				
Survey result: 5 %	Survey result: 5 %	Survey result: 0 %				
Your est %	Your est %	Your est.	%			
1c. What is the growth per h	a/year on areas managed by	uneven-age	ed management?			
Softwood:	Mixedw	ood:	Hardwood:			
Survey result: 2.5 m3/ha/yr	Survey result: 2.5	5 m3/ha/yr	Survey result: 2.5 m3/ha/yr			
Your est m3/ha/yr	Your est.	m3/ha/yr	Your est m3/ha/yr			
1d. What after-cut growing s	stock level is left on areas m	anaged by u	ineven-aged management?			
Softwood:	Mixedwood	:	Hardwood:			
Survey result: 250 m3/ha	Survey result: 200 m	3/ha	Survey result: 150 m3/ha			
Your est m3/ha	Your est m3.	/ha	Your est m3/ha			
1e. What is the average cutting cycle used on areas managed by uneven-aged management?						
Softwood:	Mixedwood:		Hardwood:			
Survey result: 20 years	Survey result: 20 years	Survey	result: 10 years			
Your est years	Your est years	Your es	t years			

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range v	vould you fertilize? Answer sho	uld range between X	and Y years of age.
Softwood:	Mixedw	rood:	Hardwood:
Survey result: 0 & 25 yrs ol	d Survey result: 0 &	25 yrs old	Survey result: 0 & 25 yrs old
•		•	Your est & yrs old
2b. At what rate of fertilizer (	kg/ha) would you apply?		
Softwood:	Mixedwood:	Hardwood	
Survey result: NA kg/ha	Survey result: NA kg/ha	Survey result: NA k	g/ha
	Your est kg/ha		
Good:	ns Good, Medium and Poor wha Medium: urvey result: 50 % Survey r	Poor:	would you fertilize?
•	our est % Your est		
<b>-</b>	(m3/ha/yr) would you expect?		
Softwood:	Mixedwood:		dwood:
Survey result: 1.5 m3/ha/yr	Survey result: 1.5 m3/ha/y	vr Survey result	: 2.0 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/y	r Your est	m3/ha/yr
2e. How long would the incre	eased growth indicated above las	st (years)?	
Softwood:	Mixedwood:	Hardwood:	
Survey result: 15 years	Survey result: 15 years S	urvey result: 15 year	S
	Your est years Y		
-		-	be split into several categories and the split into several categories and the spize immature stands only. Each gue

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

3aa. Change in growth?					
Softwood:	Mixedwood	:	Hardwood:		
Survey result: +1.0 m3/ha/y	r Survey result: +1.0 m	3/ha/yr Sur	yr Survey result: +0.5 m3/ha/yr		
Your est. +/ m3/ha/	/yr Your est. +/ r	n3/ha/yr You	ur est. +/ n	n3/ha/yr	
3ab. How long would this ch	ange in growth last?				
Softwood:	Mixedwood:	Hardwo	o <b>d:</b>		
Survey result: 20 years	Survey result: 20 years	Survey result: 10	years		
Your est years	Your est years	Your est.	years		
3ac. Change in rotation based	l on harvestable tree size?				
Softwood:	Mixedwood:	Ha	rdwood:		
Survey result: -10 years	Survey result: -10 years	Survey resul	t: -5 years		
Your est. +/ years	Your est. +/ years	Your est. +/-	years		
3ad. Change in rotation based	1 on maximum MAI?				
Softwood:	Mixedwood:	Ha	rdwood:		
Survey result: -5 years	Survey result: -5 years	Survey resul	t: 00 years		
	Your est. +/ years	•	years		

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth? Softwood: Survey result: -0.2 m3/ha/yr Your est. +/ m3/ha/yr	<b>Mixedwood:</b> Survey result: -0.5 m3/ha Your est. +/ m3/h	• • •
	Mixedwood: Survey result: 10 years Sur	Hardwood: vey result: 10 years ir est years
3bc. Change in rotation based of Softwood: Survey result: -11 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: -5 years Your est. +/ years
<ul> <li>3bd. Change in rotation based of Softwood:</li> <li>Survey result: -5 years</li> <li>Your est. +/- years</li> <li>3c. For existing immature stand</li> </ul>	<b>Mixedwood:</b> Survey result: 00 years Your est. +/ years	Hardwood: Survey result: 00 years Your est. +/ years mercial thinning (include thinning plus final harvest) regarding:
3ca. Change in growth? Softwood: Survey result: -0.3 m3/ha/yr Your est. +/ m3/ha/yr	<b>Mixedwood:</b> Survey result: -1.5 m3/ha Your est. +/ m3/h	Hardwood:/yrSurvey result: -1.5 m3/ha/yra/yrYour est. +/ m3/ha/yr
3cb. How long would this chanSoftwood:Survey result: 20 yearsSYour est yearsY	ge in growth last? <b>Mixedwood:</b> Survey result: 20 years Your est years You	Hardwood: vey result: 20 years ir est years
3cc. Change in rotation based o <b>Softwood:</b> Survey result: -8 years Your est. +/ years	<b>Mixedwood:</b> Survey result: -5 years	Hardwood: Survey result: -5 years Your est. +/ years
3cd. Change in rotation based o <b>Softwood:</b> Survey result: -5 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: +5 years Your est. +/ years

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
27	NA	3.0		29	NA	2.6		01	NA	00	
47	4.4	4.4		49	3.8	4.0		21	2.6	2.6	
67	5.0	4.9		68	4.6	4.6		41	3.3	3.3	
87*	5.1	5.1		89*	4.7	4.7		61*	3.5	3.6	
107	4.6	4.9		109	4.3	4.5		81	3.0	3.4	
127	NA	4.6		129	NA	4.0		101	NA	3.0	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What prop	ortion of the area w	ill be managed by unever	n-aged management?				
Softwood:	Survey result: 5 %	Mixedwood:	Survey result: 5 %	Hardwood:	Survey result 0 %		
	Your est		Your est %		Your est %		
4c. What grow	vth per ha/year do yo	ou expect on areas that w	ill be managed by unev	en-aged manageme	ent?		
Softwood	Survey result: 2.5 r	n3/ha/yr Mixedwood	Survey result: 2.5 1	n3/ha/yr <b>Hardw</b>	oo Survey result 2.5 m3/ha/yr		
:	Your est m.	3/ha/yr :	Your est m	3/ha/yr <b>d:</b>	Your est m3/ha/yr		
4d. What after	r-cut growing stock	level do you expect to be	left on areas that will	be managed by une	ven-aged management?		
Softwood:	Survey result: 200	m3/ha Mixedwood:	Survey result: 200	m3/ha Hardw	ood: Survey result 150 m3/ha		
	Your est.	m3/ha	Your est r	n3/ha	Your est m3/ha		
4e. What would	ld be the average cu	tting cycle used on areas	that will be managed b	y uneven-aged mar	agement?		
Softwood:					<b>bd:</b> Survey result 10 years		
	Your est				Your est years		
review these f application (co	<b>5.</b> From Questionnaire #2 the results regarding <b>fertilization</b> of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.						
5a. At what st	and age range would	l you fertilize? Answer sl	hould range between X	and Y years of age			
	Softwood:	Mixed	-	Hardy			
Survey resul	t: 15 & 63 yrs old	Survey result: 0	& 25 yrs old	Survey result: (	) & 25 yrs old		
		Your est.					
5b. At what rate of fertilizer (kg/ha) would you apply?							
	oftwood:	Mixedwood:	Hai	dwood:			
		Survey result: NA kg/ha					
Your est.	kg/ha	Your est kg/ha	Your est.	kg/ha			

5c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize?

Good: Survey result: 5 % Your est %	Medium: Survey result: 50 % Your est %	Poor: Survey result: 5 % Your est	
5d. What increase in growth (n Softwood: Survey result: 1.5 m3/ha/yr Your est m3/ha/yr	Mixedwood	/ha/yr Su	Hardwood: urvey result: 2.0 m3/ha/yr our est m3/ha/yr
5e. How long would the increa Softwood: Survey result: 13 years Your est years	<b>Mixedwood:</b> Survey result: 15 years		
would occur only on immature applies only to immature stand	stands. Several comments or s. The mean of your response	n round 2 again emp es to round 2 are giv	to be split into several categories and that thinning phasize immature stands only. Each question below ven below. Please review these results and provide lease enter this as your estimate.
-	tands what do you expect from	m <b>cleaning/brushi</b> n	ng (assume no utilization) regarding:
6aa. Change in growth? Softwood: Survey result: 0.6 m3/ha/yr Your est. +/ m3/ha/yr	Mixedwo Survey result: 1.0 Your est. +/	m3/ha/yr	Hardwood: Survey result: 0.5 m3/ha/yr Your est. +/ m3/ha/yr
6ab. How long would this chan <b>Softwood:</b> Survey result: 11 years Your est years	Mixedwood:	Har Survey result Your est	-
6ac. Change in rotation based o Softwood: Survey result: -7 years Your est. +/ years	on harvestable tree size? Mixedwoo Survey result: -10 y Your est. +/	ears Su	Hardwood: urvey result: -5 years pur est. +/ years
	on maximum MAI? <b>Mixedwood:</b> Survey result: -5 years Your est. +/ years		Hardwood: ey result: 00 years r est. +/ years
6b. For regenerated immature s regarding:	tands what do you expect fro	m <b>juvenile spacin</b> g	/pre-commercial thinning (assume no utilization)
6ba. Change in growth? Softwood: Survey result: -0.2 m3/ha/yr Your est. +/ m3/ha/yr	Mixedwo Survey result: -0.5 Your est. +/	m3/ha/yr	Hardwood: Survey result: -0.5 m3/ha/yr Your est. +/ m3/ha/yr
6bb. How long would this char <b>Softwood:</b> Survey result: 10 years Your est years	ge in growth last? <b>Mixedwood:</b> Survey result: 10 years Your est years	Survey res	<b>Jardwood:</b> sult: 10 years years

6bc. Change in rotation based on harvestable tree size?					
Softwood:	Mixedwood:				
Survey result: -11 years	Survey result: -10 years				
Your est. +/ years	Your est. +/ years				

Hardwood: Survey result: -5 years Your est. +/-\_\_\_\_ years

6bd. Change in rotation based on		Handmande
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	5	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6c. For regenerated immature star	nds what do you expect from <b>com</b>	mercial thinning (include thinning plus final harvest) regarding:
6ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: -0.3 m3/ha/yr	Survey result: -0.3 m3/ha/	yr Survey result: -0.2 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/h	a/yr Your est. +/ m3/ha/yr
6cb. How long would this change	in growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 20 years	Survey result: 20 years
Your est years	Your est years	Your est years
6cc. Change in rotation based on	harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -10 years	Survey result: -14 years	Survey result: -5 years
Your est. +/ years		Your est. +/ years
6cd. Change in rotation based on	maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	Survey result: -9 years	Survey result: +5 years
Your est. +/ years		Your est. +/ years
<b>7.</b> From Questionnaire #2, the res	ults regarding genetic improvem	ent of regenerated stands have been aggregated and are given

7. From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do you expect from greater improvement?

Softwood:	Mixedwood:	Hardwood:						
Survey result: 0.5 m3/ha/yr	Survey result: 0.5 m3/ha/yr	Survey result: 1.0 m3/ha/yr						
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr						
7b. What change in rotation based on harvestable tree size would you expect?								
Softwood:	Mixedwood:	Hardwood:						
Survey result: -9 years	Survey result: -10 years	Survey result: -10 years						
Your est. +/ years	Your est. +/ years	Your est. +/ years						
7c. What change in rotation based on Maximum MAI would you expect?								
Softwood:	Mixedwood:	Hardwood:						
Survey result: -7 years	Survey result: -5 years	Survey result: -10 years						
Your est. +/ years	Your est. +/ years	Your est. +/ years						

#### ADMINISTRATIVE / BIOLOGICAL REGION

#### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	wood			Hardw	/ood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
209	NA	2.7		193	NA	3.0		07	NA	1.0	
229	2.0	2.6		213	2.9	2.8		27	6.0	2.5	
249	2.1	2.5		233	2.7	2.6		47	4.2	3.5	
269*	2.1	2.4		253*	2.5	2.4		67*	3.8	3.8	
289	2.0	2.2		273	2.5	2.2		87	4.0	3.7	
309	NA	2.0		293	NA	2.0		107	NA	3.4	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 5 %	Survey result: 5 %	Survey result: 00 %
Your est %	Your est %	Your est %

1c. What is the growth per ha/year on areas managed by uneven-aged management?

ic. what is the growth per ha	year on areas managed by une	ven-ageu management.					
Softwood:	Mixedwood:	Hardwood:					
Survey result: 2.0 m3/ha/yr	Survey result: 2.0 m3/ha/	yr Survey result: NA m3/ha/yr					
Your est m3/ha/yr	Your est m3/ha/y	yr Your est m3/ha/yr					
• •		ged by uneven-aged management?					
Softwood:	Mixedwood:	Hardwood:					
Survey result: 150 m3/ha	Survey result: 150 m3/ha	Survey result: NA m3/ha					
Your est m3/ha	Your est m3/ha	Your est m3/ha					
1e. What is the average cutting cycle used on areas managed by uneven-aged management?							
Softwood:	Mixedwood:	Hardwood:					
Survey result: 30 years	Survey result: 30 years	Survey result: NA years					
Your est years	Your est years	Your est years					

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range w	ould you fertilize? Answer sh	ould range between X	and Y years of age.				
Softwood:	Mixed	wood:	Hardwo	od:			
Survey result: 0 & 25 yrs old	Survey result: 0	& 25 yrs old	Survey result: 0 &	Survey result: 0 & 25 yrs old			
Your est & yrs o	ld Your est a	& yrs old	Your est &	yrs old			
2b. At what rate of fertilizer (k	(g/ha) would you apply?						
	Mixedwood:	Hardwood	:				
Survey result: NA kg/ha	Survey result: NA kg/ha	Survey result: NA k	g/ha				
	Your est kg/ha						
•	Medium:rvey result: 50 %Surveypur est%Your est.	Poor: result: 10 %	would you fertilize?				
e v	Mixedwood:	Hai	dwood:				
	Survey result: 1.0 m3/ha	/yr Survey result	t: 1.5 m3/ha/yr				
	Your est m3/ha/	• •	•				
2e. How long would the increased growth indicated above last (years)?							
Softwood:	•						
Survey result: 15 years	Survey result: 15 years	Survey result: 15 year	ſS				
	Your est years						

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

3aa. Change in growth? Softwood: Survey result: 0.5 m3/ha/yr Your est. +/ m3/ha/yr			r
3ab. How long would this chang	e in growth last?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 15 years Su	arvey result: 15 years	Survey result: 10 years	
Your est years Y	our est years	Your est years	
3ac. Change in rotation based on Softwood:	harvestable tree size? Mixedwood:	Hardwood:	
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
3ad. Change in rotation based or	n maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years	
Your est. +/ years	Your est. +/- vears	Your est. +/ years	

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: -0.5 m3/ha/yr	Survey result: -0.5 m3/ha/yr	Survey result: -0.5 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr

3bb. How long would this change in growth last?

Softwood:	Mixedwood:	Hardwood:	
Survey result: 15 years	Survey result: 15 years	Survey result: 10 years	
Your est years		Your est years	
3bc. Change in rotation based	l on harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -10 years	Survey result: -10 years	Survey result: -5 years	
Your est. +/ years	Your est. +/ year	rs Your est. +/ years	
3bd. Change in rotation based	l on maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 00 years	Survey result: 00 years	Survey result: 00 years	
		rs Your est. +/ years	
3c. For existing immature sta	nds what do you expect from	n commercial thinning (include thinning plus final harvest) regard	ding:
3ca. Change in growth?			
Softwood:	Mixedwoo	d: Hardwood:	
Survey result: -1.5 m3/ha/yr	Survey result: -1.5 n	n3/ha/yr Survey result: -1.5 m3/ha/yr	
Your est. +/ m3/ha/	-		
3cb. How long would this cha	ange in growth last?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 20 years	Survey result: 20 years	Survey result: 15 years	
Your est years		Your est years	
3cc. Change in rotation based	l on harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years	
	Your est. +/ year		

3cd. Change in rotation based of	n maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 10 years	Survey result: 10 years	Survey result: 10 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
55	NA	2.8		37	NA	2.0		05	NA	1.5	
75	2.7	4.0		57	2.7	2.6		25	2.7	2.5	
95	3.5	4.8		77	3.3	3.2		45	3.4	3.2	
115*	3.7	4.9		97*	3.6	3.6		65*	3.8	3.8	
135	3.4	4.5		117	3.3	3.5		85	3.6	3.6	
155	NA	4.1		137	NA	3.4		105	NA	3.0	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What proportion of the area will be managed by uneven-aged management?         Softwood:       Survey result: 5 %         Your est.       %         Your est.       %         Your est.       %         Your est.       %
4c. What growth per ha/year do you expect on areas that will be managed by uneven-aged management?         Softwood:       Survey result: 2.0 m3/ha/yr         Mixedwood:       Survey result: 1.0 m3/ha/yr         Hardwood:       Survey result: 1.0 m3/ha/yr         Your est.       m3/ha/yr         Your est.       m3/ha/yr
4d. What after-cut growing stock level do you expect to be left on areas that will be managed by uneven-aged management?         Softwood:       Survey result: 150 m3/ha         Mixedwood:       Survey result: 150 m3/ha         Your est.       m3/ha         Your est.       m3/ha         Your est.       m3/ha
4e. What would be the average cutting cycle used on areas that will be managed by uneven-aged management?         Softwood:       Survey result: 30 years         Mixedwood:       Survey result: 30 years         Your est.       years
<b>5.</b> From Questionnaire #2 the results regarding <b>fertilization</b> of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.
5a. At what stand age range would you fertilize? Answer should range between X and Y years of age.         Softwood:       Mixedwood:       Hardwood:         Survey result: 15 & 73 yrs old       Survey result: 0 & 25 yrs old       Survey result: 0 & 25 yrs old         Your est.       wrs old       Your est.       wrs old
Sb. At what rate of fertilizer (kg/ha) would you apply?       Mixedwood:       Hardwood:         Softwood:       Mixedwood:       Hardwood:         Survey result: 200 kg/ha       Survey result: NA kg/ha       Survey result: NA kg/ha         Your est.       kg/ha       Your est.       kg/ha
5c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize?         Good:       Medium:       Poor:         Survey result: 10 %       Survey result: 35 %       Survey result: 10 %         Your est.       %       Your est.       %
5d. What increase in growth (m3/ha/yr) would you expect?         Softwood:       Mixedwood:       Hardwood:         Survey result: 1.0 m3/ha/yr       Survey result: 1.0 m3/ha/yr       Survey result: 1.5 m3/ha/yr         Your est.       m3/ha/yr       Your est.       m3/ha/yr
5e. How long would the increased growth indicated above last (years)?         Softwood:       Mixedwood:       Hardwood:         Survey result: 15 years       Survey result: 15 years       Survey result: 15 years         Your est.       years       Your est.       years         Your est.       years       Your est.       years         Mixedwood:       Your est.       years       Your est.         Your est.       years       Your est.       years         Your est.       years       Your est.       years         Survey result: form Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

6aa. Change in growth?

Softwood: Survey result: 0.5 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Mixedwood: Survey result: 0.5 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Hardwood: Survey result: 0.5 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

6ab. How long would this change in growth last?

Softwood:	Mixedwood:
Survey result: 15 years	Survey result: 15 years
Your est years	Your est years

6ac. Change in rotation based on harvestable tree size?

Softwood:	
Survey result: -5 years	
Your est. +/ years	

Mixedwood: Survey result: -5 years Your est. +/-\_\_\_\_\_ years Hardwood: Survey result: -5 years Your est. +/-\_\_\_\_\_ years

Hardwood: Survey result: 10 years Your est. \_\_\_\_\_ years

6ad. Change in rotation based on maximum MAI?			
Softwood:	Mixedwood:		
Survey result: -5 years	Survey result: -5 years		
Your est. +/ years	Your est. +/ years		

Hardwood: Survey result: -5 years Your est. +/-\_\_\_\_ years

6b. For regenerated immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?

Softwood:	Mixedwood:
Survey result: -0.5 m3/ha/yr	Survey result: -05 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr

Hardwood: Survey result: -0.5 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

6bb. How long would this ch		<b>W</b> 1 1
Softwood:	Mixedwood:	Hardwood:
Survey result: 15 years		rvey result: 10 years
Your est years	Your est years Yo	our est years
6bc. Change in rotation based		
Softwood:	Mixedwood:	Hardwood:
Survey result: -10 years	Survey result: -10 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6bd. Change in rotation base	d on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 00 years	Survey result: 00 years	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6c. For regenerated immature	e stands what do you expect from	commercial thinning (include thinning plus final harvest) regarding:
6ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: -1.5 m3/ha/y	r Survey result: -1.5 m3/h	a/yr Survey result: -1.5 m3/ha/yr
Your est. +/ m3/ha/	/yr Your est. +/ m3/	/ha/yr Your est. +/ m3/ha/yr
6cb. How long would this ch	ange in growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 20 years Su	rvey result: 15 years
Your est years		our est years
·	-	·
6cc. Change in rotation based		Handmaad
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6cd. Change in rotation based		
Softwood:	Mixedwood:	Hardwood:
5	Survey result: +10 years	Survey result: +10 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
7. From Questionnaire #2. th	e results regarding <b>genetic impro</b>	<b>ovement</b> of regenerated stands have been aggregated and are given
		gures that you deem more representative of the region. Please enter your
	nore cases, they are identical to the	
,		
	you expect from greater improver	
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.4 m3/ha/yr		• •
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
7b. What change in rotation l	based on harvestable tree size wor	uld you expect?
Softwood:	Mixedwood:	Hardwood:
Survey result: -10 years	Survey result: -10 years	Survey result: -10 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
rour est. +/ years	years	10u cst. +/ years

7c. What change in rotation based on Maximum MAI would you expect?

Softwood:	Mixedwood:	Hardwood:		
Survey result: -8 years	Survey result: -5 years	Survey result: -10 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

#### ADMINISTRATIVE / BIOLOGICAL REGION

# Interior B.C. - Columbia

### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixedwood				Hardwood			
Age	Que#1 MAI	Que#2 MAI	Final MAI	Ag		Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
103	NA	3.3		83		NA	2.2		47	NA	1.5	
123	3.2	3.2		10	3	2.2	2.5		67	1.8	1.8	
143	3.1	3.1		12	3	2.2	2.4		87	1.9	2.0	
163*	2.8	2.9		143	*	2.1	2.3		107*	1.9	1.8	
183	2.7	2.7		16	3	1.8	2.0		127	1.5	1.5	
203	NA	2.4		18	3	NA	1.9		147	NA	1.0	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 30 %	Survey result: 30 %	Survey result: 0 %
Your est %	Your est %	Your est %
1c. What is the growth pe	r ha/year on areas manage	ed by uneven-aged management?

Te. What is the growth per har year on areas managed by the ven aged management.								
Softwood:	Mixedwood:	Hardwood:						
Survey result: 2.0 m3/ha/yr	Survey result: 1.8 m3/ha	/yr Survey result: NA m3/ha/yr						
Your est m3/ha/yr	Your est m3/ha	/yr Your est m3/ha/yr						
1d. What after-cut growing stock level is left on areas managed by uneven-aged management?								
Softwood:	Mixedwood:	Hardwood:						
Survey result: 200 m3/ha	Survey result: 150 m3/h	a Survey result: NA m3/ha						
Your est m3/ha	Your est m3/ha	Your est m3/ha						
1e. What is the average cutting cycle used on areas managed by uneven-aged management?								
Softwood:	Mixedwood:	Hardwood:						
Survey result: 30 years	Survey result: 30 years	Survey result: NA years						
Your est years	Your est years	Your est years						

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range <b>Softwood:</b>	•	Mixedwood:	:	Hardwood:		
Survey result: 0 & 30 yrs						•
Your est & yrs	old Your es	t &	_ yrs old	Your est	&	_ yrs old
2b. At what rate of fertilizer	(kg/ha) would you app	ly?				
Softwood:	Mixedwoo	od:	Hardwood	•		
Survey result: NA kg/ha	Survey result: NA l	kg/ha Surv	vev result: NA k	g/ha		
Your est kg/ha	•	-	•	-		
<b>2 IC C IC C C C C C C C C C</b>		D 1		1.1 6	0	
<ul> <li>2c. If sites are distinguished</li> <li>Good:</li> <li>Survey result: 30 %</li> <li>Your est %</li> <li>2d. What increases in growth</li> </ul>	Medium: Survey result: 10 % Your est %	Poo Survey result Your est	r: t: 0 %	would you fertili:	ze?	
Good: Survey result: 30 % Your est % 2d. What increase in growth	Medium: Survey result: 10 % Your est % (m3/ha/yr) would you	Poo Survey result Your est expect?	r: t: 0 % %		ze?	
Good: Survey result: 30 % Your est % 2d. What increase in growth Softwood:	Medium: Survey result: 10 % Your est % (m3/ha/yr) would you Mixedy	Poo Survey result Your est expect? wood:	r: t: 0 % % Har	dwood:	ze?	
Good: Survey result: 30 % Your est % 2d. What increase in growth Softwood: Survey result: 0.5 m3/ha/y	Medium: Survey result: 10 % Your est % (m3/ha/yr) would you Mixedy r Survey result: 0.	Poo Survey result Your est expect? wood: 5m3/ha/yr	r: t: 0 % % Han Survey result	<b>dwood:</b> :: 0.8 m3/ha/yr	ze?	
Good: Survey result: 30 % Your est % 2d. What increase in growth Softwood:	Medium: Survey result: 10 % Your est % (m3/ha/yr) would you Mixedy r Survey result: 0.	Poo Survey result Your est expect? wood: 5m3/ha/yr	r: t: 0 % % Han Survey result	<b>dwood:</b> :: 0.8 m3/ha/yr	ze?	
Good: Survey result: 30 % Your est % 2d. What increase in growth Softwood: Survey result: 0.5 m3/ha/y	Medium: Survey result: 10 % Your est % (m3/ha/yr) would you Mixedy r Survey result: 0. Your est	Poo Survey result Your est expect? wood: 5m3/ha/yr _ m3/ha/yr	r: t: 0 % % Han Survey result Your est	<b>dwood:</b> :: 0.8 m3/ha/yr	ze?	
Good: Survey result: 30 % Your est % 2d. What increase in growth Softwood: Survey result: 0.5 m3/ha/y Your est m3/ha/y	Medium: Survey result: 10 % Your est % (m3/ha/yr) would you Mixedy r Survey result: 0. Your est reased growth indicated	Poo Survey result Your est expect? wood: 5m3/ha/yr _ m3/ha/yr	r: t: 0 % % Har Survey result Your est ears)?	<b>dwood:</b> :: 0.8 m3/ha/yr	ze?	
Good: Survey result: 30 % Your est % 2d. What increase in growth Softwood: Survey result: 0.5 m3/ha/y Your est m3/ha/y 2e. How long would the inc	Medium: Survey result: 10 % Your est % (m3/ha/yr) would you Mixedv r Survey result: 0. Your est reased growth indicated Mixedwood	Poo Survey result Your est expect? wood: 5m3/ha/yr _ m3/ha/yr d above last (ye d:	r: t: 0 % Survey result Your est ears)? Hardwood:	r <b>dwood:</b> :: 0.8 m3/ha/yr m3/ha/yr	ze?	

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

3aa. Change in growth?								
Softwood:	Mixedwood:	Hardwood:						
Survey result: 0.7 m3/ha/yr	Survey result: 0.7 m3/l	na/yr Survey result: 0.7 m3/	ha/yr					
Your est. +/ m3/ha/	/yr Your est. +/ m	3/ha/yr Your est. +/ m	n3/ha/yr					
3ab. How long would this ch	ange in growth last?							
Softwood:	Mixedwood:	Hardwood:						
Survey result: 15 years	Survey result: 15 years	Survey result: 10 years						
Your est years	Your est years	Your est years						
3ac. Change in rotation based	d on harvestable tree size?							
Softwood:	Mixedwood:	Hardwood:						
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years						
Your est. +/ years	Your est. +/ years	Your est. +/ years						
3ad. Change in rotation based on maximum MAI?								
Softwood:	Mixedwood:	Hardwood:						
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years						
	Your est. +/ years							

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth? Softwood: Survey result: -0.7 m3/ha/yr Your est. +/ m3/ha/y		
3bb. How long would this cha	inge in growth last?	
Softwood:	Mixedwood:	Hardwood:
	•	rvey result: 10 years
Your est years	Your est years Yo	our est years
3bc. Change in rotation based	on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -10 years	Survey result: -10 years	Survey result: -5 years
Your est. +/ years	Survey result: -10 years Your est. +/ years	Your est. +/ years
3bd. Change in rotation based		
Sol. Change in rotation based Softwood:	Mixedwood:	Hardwood:
		Survey result: 00 years
	Your est. +/ years	Your est. +/ years
Tour est. +/ years	Tour est. +/ years	Tour est. +/ years
3c. For existing immature star	nds what do you expect from con	nmercial thinning (include thinning plus final harvest) regarding:
3ca. Change in growth?		· ·
Softwood:	Mixedwood:	Hardwood:
Survey result: -1.5 m3/ha/yr		
Your est. +/ m3/ha/y	yr Your est. +/ m3/	ha/yr Your est. +/ m3/ha/yr
3cb. How long would this cha	nge in growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 20 years Su	rvey result: 15 years
Your est years		our est years
3cc. Change in rotation based		II and and a de
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	Survey result: -5 years Your est. +/ years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3cd. Change in rotation based	on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +10 years	Survey result: +10 years	Survey result: +10 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
34	NA	1.2		33	NA	1.0		17	NA	1.0	
54	3.6	2.2		53	2.2	1.8		37	1.8	1.6	
74	3.9	2.8		73	2.4	2.3		57	2.0	2.0	

94*	3.1	3.2	93*	2.4	2.6		77*	2.2	2.2	
114	3.8	3.1	113	2.1	2.5		95	1.8	2.1	
134	NA	3.0	133	NA	2.4		117	NA	1.8	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What proportion of the area will be managed by uneven-aged management?

Softwood:	Survey result: 30 %	 Survey result: 30 %	Hardwood:	Survey result 00 %
	Your est %	Your est %		Your est %

4c. What growth per ha/year do you expect on areas that will be managed by uneven-aged management?

Softwood:	Survey result: 2.0 m3/ha/yr		Mixedwood:	Survey result: 1.8 m3/ha/yr		Hardwood:	Survey resul	Survey result NA m3/ha/yr	
	Your est m3/ha/yr			Your est	m3/ha/yr		Your est	m3/ha/yr	

4d. What after	4d. What after-cut growing stock level do you expect to be left on areas that will be managed by uneven-aged management?								
Softwood:	Survey result: 200 m3/ha	Mixedwood:	Survey result: 150 m3/ha	Hardwood:	Survey result NA m3/ha				
	Your est m3/ha		Your est m3/ha		Your est m3/ha				
4e. What would	ld be the average cutting cycle	e used on areas th	nat will be managed by uneven	n-aged managen	nent?				
Softwood:	Survey result: 30 years	Mixedwood:	Survey result: 30 years	Hardwood:	Survey result NA years				
	Your est years		Your est years		Your est years				

**5.** From Questionnaire #2 the results regarding **fertilization** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

5a. At what stand age range would you fertilize? Answer should range between X and Y years of age.

Softwood:	Mixedwood:	Hardwood:	
Survey result: 0 & 20 yrs old	Survey result: 0 & 20 yrs old	Survey result: 0 & 15 yrs old	
Your est & yrs old	Your est & yrs old	Your est & yrs old	

5b. At what rate of fertilizer (kg/ha) would you apply?

Softwood:	Mixedwood:	Hardwood:		
Survey result: NA kg/ha	Survey result: NA kg/ha	Survey result: NA kg/ha		
Your est kg/ha	Your est kg/ha	Your est kg/ha		

5c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize?

Good:	Medium:	Poor:
Survey result: 30 %	Survey result: 10 %	Survey result: 00 %
Your est %	Your est %	Your est %

5d. What increase in growth (m3/ha/yr) would you expect?

Softwood:	Mixedwood:	Hardwood:		
Survey result: 0.5 m3/ha/yr	Survey result: 0.5 m3/ha/yr	Survey result: 0.8 m3/ha/yr		
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr		

5e. How long would the increased growth indicated above last (years)?

Softwood:	Mixedwood:	Hardwood:			
Survey result: 15 years	Survey result: 15 years	Survey result: 10 years			
Your est years	Your est years	Your est years			

6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

6aa. Change in growth?				
Softwood:	Mixedwoo	od:	Hardwoo	d:
Survey result: 0.7 m3/ha/yr	Survey result: 0.7 n	n3/ha/yr	Survey result: 0.7	m3/ha/yr
Your est. +/ m3/ha/	yr Your est. +/	_m3/ha/yr	Your est. +/	m3/ha/yr
6ab. How long would this cha	ange in growth last?			
Softwood:	Mixedwood:	Ha	rdwood:	
Survey result: 15 years	Survey result: 15 years	Survey resu	lt: 10 years	
Your est years	Your est years	Your est.	years	
6ac. Change in rotation based	l on harvestable tree size?			
Softwood:	Mixedwood:		Hardwood:	
Survey result: -5 years	Survey result: -5 years	Surve	y result: -5 years	
Your est. +/ years	Your est. +/ yea	urs Your e	est. +/ years	
6ad. Change in rotation based	l on maximum MAI?			
Softwood:	Mixedwood:		Hardwood:	
Survey result: -5 years	Survey result: -5 years	Surve	y result: -5 years	
Your est. +/ years	Your est. +/ yea	urs Your e	est. +/ years	
6b. For regenerated immature regarding:	e stands what do you expect	from <b>juvenile</b>	spacing/pre-comme	rcial thinning (assume no utilization)

6ba. Change in growth?			
Softwood:	Mixedwood	: Hardwood	d:
Survey result: -0.7 m3/ha/yr	r Survey result: -0.7 m3	B/ha/yr Survey result: -0.5	m3/ha/yr
Your est. +/ m3/ha/	/yr Your est. +/n	n3/ha/yr Your est. +/	_ m3/ha/yr
6bb. How long would this ch	ange in growth last?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 15 years	Survey result: 15 years	Survey result: 10 years	
Your est years	Your est years	Your est years	
6bc. Change in rotation based	d on harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -10 years	Survey result: -10 years	Survey result: -5 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
6bd. Change in rotation based	d on maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 00 years	Survey result: 00 years	Survey result: 00 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
Co. Economica d'immediation			41

6c. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: -1.5 m3/ha/yr	Survey result: -1.5 m3/ha/yr	Survey result: -1.5 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr

6cb. How long would this change in growth last? . . C . M Miyody

oco, mong would this c	nunge in growth hast.	
Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 20 years	Survey result: 15 years
Your est years	Your est years	Your est years

6cc. Change in rotation based on harvestable tree size?

<b>Mixedwood:</b> Survey result: -5 years Your est. +/ years	Hardwood: Survey result: -5 years Your est. +/ years						
n maximum MAI?							
Mixedwood:	Hardwood:						
Survey result: 10 years	Survey result: 10 years						
Your est. +/ years	Your est. +/ years						
7. From Questionnaire #2, the results regarding <b>genetic improvement</b> of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.							
a expect from greater improvement	ent?						
Mixedwood:	Hardwood:						
Survey result: 0.5 m3/ha/yr	Survey result: 0.8 m3/ha/yr						
Your est m3/ha/yr	Your est m3/ha/yr						
	Survey result: -5 years Your est. +/years n maximum MAI? Mixedwood: Survey result: 10 years Your est. +/years esults regarding genetic improv ures and provide any revised figu e cases, they are identical to those a expect from greater improvement						

7b. What change in rotation based on harvestable tree size would you expect?

Softwood:	Mixedwood:	Hardwood:		
Survey result: -5 years	Survey result: -5 years	Survey result: -10 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

7c. What change in rotation based on Maximum MAI would you expect?

Softwood:	Mixedwood:	Hardwood:			
Survey result: -5 years	Survey result: -5 years	Survey result: -10 years			
Your est. +/ years	Your est. +/ years	Your est. +/ years			

#### ADMINISTRATIVE / BIOLOGICAL REGION

# **Interior B.C. - Montane**

### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	wood			Hard	wood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
100	NA	NA		105	NA	NA		95	NA	NA	
120	2.9	NA		125	3.3	NA		115	2.2	NA	
140	2.9	NA		145	3.0	NA		135	2.4	NA	
160*	2.6	NA		165*	2.9	NA		155*	2.2	NA	
180	2.6	NA		185	2.7	NA		175	2.0	NA	
200	NA	NA		205	NA	NA		195	NA	NA	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: %	Survey result: %	Survey result: %
Your est %	Your est %	Your est %

1c. What is the growth per ha/year on areas managed by uneven-aged management?

ic. what is the growth per ha yea	a on areas managed by uneven-a	geu management.					
Softwood:	Mixedwood:	Hardwood:					
Survey result: m3/ha/yr	Survey result: m3/ha/yr	Survey result: m3/ha/yr					
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr					
1d. What after-cut growing stock level is left on areas managed by uneven-aged management? Softwood: Mixedwood: Hardwood:							
Survey result: m3/ha	Survey result: m3/ha	Survey result: m3/ha					
Your est m3/ha	Your est m3/ha	Your est m3/ha					

1e. What is the average cutting cycle used on areas managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:			
Survey result: years	Survey result: years	Survey result: years			
Your est years	Your est years	Your est years			

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range w	ould you fertilize? Answer s	hould range between	X and Y years of age.
Softwood:	Mixed	lwood:	Hardwood:
Survey result: & yrs old	Survey result:	& yrs old	Survey result: & yrs old
Your est & yrs of	d Your est	& yrs old	Your est & yrs old
2b. At what rate of fertilizer (k			
Softwood:			
Survey result: kg/ha	Survey result: kg/ha	Survey result: kg/l	na
Your est kg/ha	Your est kg/ha	Your est k	g/ha
2c. If sites are distinguished as <b>Good:</b>	Medium:	Poor:	s would you fertilize?
Survey result: % Su	rvey result: % Survey	y result: %	
Your est % Yo	ur est % Your	est %	
2d. What increase in growth (1	n3/ha/yr) would you expect?	?	
	Mixedwood:		ardwood:
Survey result: m3/ha/yr	Survey result: m3/ha/yr	r Survey resu	lt: m3/ha/yr
Your est m3/ha/yr	Your est m3/ha	/yr Your est	m3/ha/yr
2e. How long would the increa	ased growth indicated above	last (years)?	
	Mixedwood:		
Survey result: years	Survey result: years	Survey result: years	
Your est years	Your est years	Your est ye	ars

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

3aa. Change in growth? <b>Softwood:</b> Survey result: +/- m3/ha/yr	<b>Mixedwoo</b> Survey result: +/- m		<b>Hardwood:</b> Survey result: +/- m3/ha/yr			
Your est. +/ m3/ha/yr	Your est. +/	m3/ha/yr	Your est. +/ m3/ha/			
3ab. How long would this chang	ge in growth last?					
Softwood:	Mixedwood:	Har	dwood:			
Survey result: years S	urvey result: years	Survey result	: years			
Your est years Y	our est years	Your est.	years			
3ac. Change in rotation based or	harvestable tree size?					
Softwood:	Mixedwood:		Hardwood:			
Survey result: +/- years	Survey result: +/- years	Survey	result: +/- years			
Your est. +/ years	Your est. +/ yea	rs Your es	t. +/ years			
3ad. Change in rotation based of	n maximum MAI?					
Softwood:	Mixedwood:		Hardwood:			
Survey result: +/- years	Survey result: +/- years	Survey	result: +/- years			
Your est. +/ years	Your est. +/ yea	rs Your es	t. +/ years			

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr

3bb. How long would this change in growth last?

Softwood:	Mixedwood:	Hardwood:
Survey result: years		Survey result: years
Your est years	Your est years	Your est years
2ha Change in notation has	d on homiostable tree size?	
3bc. Change in rotation based		TT I I
Softwood:	Mixedwood:	Hardwood:
	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	S Your est. +/ years
3bd. Change in rotation based	d on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	S Your est. +/ years
Sc. For existing immature sta	nds what do you expect from	<b>commercial thinning</b> (include thinning plus final harvest) regarding:
3ca. Change in growth?		
Softwood:	Mixedwood	: Hardwood:
Survey result: +/- m3/ha/yr		
Vour est $\pm/_{-}$ m3/ba/	$\sqrt{vr}$ Vour est $\pm/-$	m3/ha/yr Your est. +/- m3/ha/yr
	yı 10u est. 1/	115/11d/y1 10d1 est. 1/ 115/11d/y1
3cb. How long would this ch	ange in growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: years	Survey result: years	Survey result: years
Your est years	Your est years	Your est years
3cc. Change in rotation based		<b></b> , ,
Softwood:	Mixedwood:	Hardwood:
	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	S Your est. +/ years
3cd. Change in rotation based	l on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	

### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood					Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	A	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
40	NA	NA			30	NA	NA		10	NA	NA	
60	2.5	NA		4	50	2.8	NA		30	2.1	NA	
80	3.0	NA		1	70	3.2	NA		50	2.5	NA	
100*	3.0	NA		9	*0	3.4	NA		70*	2.6	NA	
120	3.1	NA		1	10	3.1	NA		90	2.3	NA	
140	NA	NA		1	30	NA	NA		110	NA	NA	
The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What proportion of the area will be managed by uneven-aged management?         Softwood:       Survey result: %         Your est.       %         Your est.       %         Your est.       %
4c. What growth per ha/year do you expect on areas that will be managed by uneven-aged management?         Softwood:       Survey result: xx m3/ha/yr         Mixedwood:       Survey result: xx m3/ha/yr         Hardwood:       Survey result: xx m3/ha/yr         Your est.       m3/ha/yr         Your est.       m3/ha/yr
4d. What after-cut growing stock level do you expect to be left on areas that will be managed by uneven-aged management?         Softwood:       Survey result: m3/ha         Mixedwood:       Survey result: m3/ha         Your est.       m3/ha         Your est.       m3/ha         Your est.       m3/ha         Your est.       m3/ha
4e. What would be the average cutting cycle used on areas that will be managed by uneven-aged management?         Softwood:       Survey result: years         Your est.       years         Your est.       years         Your est.       years
<b>5.</b> From Questionnaire #2 the results regarding <b>fertilization</b> of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.
5a. At what stand age range would you fertilize? Answer should range between X and Y years of age.         Softwood:       Mixedwood:       Hardwood:         Survey result: & yrs old       Survey result: & yrs old       Survey result: & yrs old         Your est.       wrs old       Your est wrs old       Your est wrs old
Sb. At what rate of fertilizer (kg/ha) would you apply?       Hardwood:         Softwood:       Mixedwood:       Hardwood:         Survey result: kg/ha       Survey result: kg/ha       Survey result: kg/ha         Your est.       kg/ha       Your est.       kg/ha
5c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize?         Good:       Medium:       Poor:         Survey result: %       Survey result: %       Survey result: %         Your est %       Your est %       Your est %
5d. What increase in growth (m3/ha/yr) would you expect?Softwood:Mixedwood:Hardwood:Survey result: m3/ha/yrSurvey result: m3/ha/yrSurvey result: m3/ha/yrYour est m3/ha/yrYour est m3/ha/yrYour est m3/ha/yr
5e. How long would the increased growth indicated above last (years)?         Softwood:       Mixedwood:       Hardwood:         Survey result: years       Survey result: years       Survey result: years         Your est.       years       Your est.       years
<b>6.</b> Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

6aa. Change in gro	owth?				
Softw	vood:	Mixedy	wood:	Hardw	ood:
Survey result: +/-	- m3/ha/yr	Survey result: +/	- m3/ha/yr	Survey result: +/	- m3/ha/yr
Your est. +/	m3/ha/yr	Your est. +/	m3/ha/yr	Your est. +/	m3/ha/yr

6ab. How long would this change in growth last?

Softwood: Survey result: years Your est years	Mixedwood: Survey result: years Your est years	Hardwood: Survey result: years Your est years	
6ac. Change in rotation based	l on harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
6ad. Change in rotation based	l on maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
		5	

6b. For regenerated immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

6ba. Change in growth?

Softwood: Survey result: +/- m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

**Mixedwood:** Survey result: +/- m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

Hardwood: Survey result: +/- m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

6bb. How long would this ch			
Softwood:	Mixedwood:	Hardwood:	
Survey result: years		Survey result: years	
Your est years	Your est years	Your est years	
6bc. Change in rotation based	l on harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
6bd. Change in rotation based	l on maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
Your est. +/ years	Survey result: +/- years Your est. +/ years	Your est. +/ years	
6c. For regenerated immature	e stands what do you expect fro	om <b>commercial thinning</b> (include	e thinning plus final harvest) regarding:
6ca. Change in growth?			
Softwood:	Mixedwood		d:
Survey result: +/- m3/ha/yr	Survey result: +/- m3/	ha/yr Survey result: +/- n	n3/ha/yr
Your est. +/ m3/ha/	yr Your est. +/ r	n3/ha/yr Your est. +/	_ m3/ha/yr
6cb. How long would this cha	ange in growth last?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: years	Survey result: years	Survey result: years	
Your est years	Your est years	Your est years	
6cc. Change in rotation based			
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
6cd. Change in rotation based	l on maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
			have been aggregated and are given
		• • •	sentative of the region. Please enter your
estimates even if, in one or m	ore cases, they are identical to	those of the survey results.	
7a. What change in MAI do y	ou expect from greater improv	vement?	
Softwood:	Mixedwood:	Hardwood:	
Survey result: m3/ha/yr	Survey result: m3/ha/yr	Survey result: m3/ha/yr	
Your est m3/ha/yr	Your est m3/ha/		yr
7b. What change in rotation b	based on harvestable tree size v	vould you expect?	
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	

7c. What change in rotation based on Maximum MAI would you expect?

Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	

#### ADMINISTRATIVE / BIOLOGICAL REGION

# **Interior B.C. - Subalpine**

### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood				Mixed	lwood			Hard	wood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	A	ge	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
130	NA	NA		14	40	NA	NA		90	NA	NA	
150	3.6	NA		1	60	2.0	NA		110	1.4	NA	
170	3.4	NA		1	80	1.9	NA		130	1.3	NA	
190*	2.2	NA		20	)0*	1.8	NA		150*	1.2	NA	
210	3.0	NA		2	20	1.6	NA		170	1.0	NA	
230	NA	NA		2	40	NA	NA		190	NA	NA	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: %	Survey result: %	Survey result: %
Your est %	Your est %	Your est %

1c. What is the growth per ha/year on areas managed by uneven-aged management?

Te. What is the growth per ha year on areas managed by the ven aged management.					
Softv	vood:	Mixe	edwood:	Hard	wood:
Survey result:	m3/ha/yr	Survey result:	m3/ha/yr	Survey result:	m3/ha/yr
Your est.	m3/ha/yr	Your est.	m3/ha/yr	Your est	m3/ha/yr
	ut growing stoc vood:		areas managed b c <b>dwood:</b>	y uneven-aged ma Hard	anagement? wood:
Survey result:	m3/ha	Survey result:	m3/ha	Survey result:	m3/ha
Your est	m3/ha	Your est	m3/ha	Your est	m3/ha

1e. What is the average cutting cycle used on areas managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:	
Survey result: years	Survey result: years	Survey result: years	
Your est years	Your est years	Your est years	

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range w	vould you fertilize? Answer s	hould range between X	and Y years of age.
Softwood:	Mixed	lwood:	Hardwood:
Survey result: & yrs old	Survey result:	& yrs old	Survey result: & yrs old
Your est & yrs o	Your est	& yrs old	Your est & yrs old
2b. At what rate of fertilizer (			
Softwood:	Mixedwood:	Hardwood	l:
Survey result: kg/ha	Survey result: kg/ha	Survey result: kg/ha	a
Your est kg/ha	Your est kg/ha	Your est kg	r/ha
2c. If sites are distinguished a <b>Good:</b>	s Good, Medium and Poor w Medium:	1 1	would you fertilize?
Survey result: %	rvey result: % Surve	y result: %	
Your est % Y	our est % Your	est %	
2d. What increase in growth (	m3/ha/yr) would you expect	?	
	Mixedwood:		dwood:
Survey result: m3/ha/yr	Survey result: m3/ha/yr	r Survey result	t: m3/ha/yr
Your est m3/ha/yr	Your est m3/ha	/yr Your est	m3/ha/yr
2e. How long would the incre	ased growth indicated above	last (years)?	
Softwood:	Mixedwood:	Hardwood:	
Survey result: years	Survey result: years	Survey result: years	
Your est years	Your est years	Your est year	rs

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

3aa. Change in growth? Softwood: Survey result: +/- m3/ha/yr Your est. +/ m3/ha/yr	2	/ha/yr Survey res	<b>ardwood:</b> ılt: +/- m3/ha/yr / m3/ha/yr
3ab. How long would this char	nge in growth last?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: years	Survey result: years	Survey result: years	
Your est years	Your est years	Your est years	
3ac. Change in rotation based o <b>Softwood:</b>	on harvestable tree size? Mixedwood:	Hardwood	1:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- ye	ears
Your est. +/ years	Your est. +/ year	s Your est. +/	years
3ad. Change in rotation based of	on maximum MAI?		
Softwood:	Mixedwood:	Hardwood	l:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- ye	ears
Your est. +/ years	Your est. +/ year	s Your est. +/	years

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr

3bb. How long would this ch Softwood:	ange in growth last? <b>Mixedwood:</b>	Hardwood:
Survey result: years	Survey result: years S	Survey result: years
Your est years		Your est years
3bc. Change in rotation base	d on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years		Survey result: +/- years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3bd. Change in rotation base	d on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	Your est. +/ years
Ç	ands what do you expect from <b>co</b>	ommercial thinning (include thinning plus final harvest) regarding:
3ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- m3/ha/yr	-	• • •
Your est. +/ m3/ha	/yr Your est. +/ m	3/ha/yr Your est. +/ m3/ha/yr
3cb. How long would this ch	ange in growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: years	Survey result: years S	Survey result: years
Your est years	Your est years	Your est years
3cc. Change in rotation base	d on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	Your est. +/ years
		;
3cd. Change in rotation base		
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	Your est. +/ years

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	 Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
60	NA	NA		40	NA	NA		20	NA	NA	
80	1.9	NA		60	1.5	NA		40	1.2	NA	
100	2.4	NA		80	2.1	NA		60	1.5	NA	
120*	2.5	NA		100*	2.2	NA		80*	1.6	NA	
140	2.7	NA		120	2.1	NA		100	1.5	NA	
160	NA	NA		140	NA	NA		120	NA	NA	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

Survey result: % Your est %	Mixedwood:	Survey result: % Your est %	Hardwood:	Survey result % Your est %
		Survey result: xx m3/h	na/yr Hardwo	
		Survey result: m3/ha	Hardwo	
		Survey result: years	Hardwoo	d: Survey result years
figures and provide any revi comments from the previous	sed figures that yo round suggested t	ou deem more representati that number of application	ve of the region.	. Base your figures on one-time
Softwood:	Mixed	wood:	Hardy	wood:
twood: I It: kg/ha Survey re	<b>Mixedwood:</b> sult: kg/ha	Hardwood: Survey result: kg/ha Your est kg/ha		
Od:MediumIt: %Survey result:	n: % Survey	<b>Poor:</b> y result: %	ild you fertilize?	,
ftwood: lt: m3/ha/yr Survey	<b>Mixedwood:</b> result: m3/ha/yr	Survey result: m	13/ha/yr	
wood: M It: years Survey res	ixedwood:	ast (years)? Hardwood: Survey result: years Your est years		
	Your est % wth per ha/year do you exper Survey result: xx m3/ha/yr Your est m3/ha/yr r-cut growing stock level do Survey result: m3/ha Your est m3/ha the bethe average cutting cy Survey result: years Your est years tionnaire #2 the results rega figures and provide any revis- comments from the previous ore cases they are identical the tand age range would you fer Softwood: It: & yrs old ate of fertilizer (kg/ha) would twood: yrs old ate of fertilizer (kg/ha) would twood: your est. e distinguished as Good, Me od: Medium It: % Survey result: % Your est rease in growth (m3/ha/yr) wo ftwood: It: m3/ha/yr Survey m3/ha/yr Your e would the increased growth wood: Ma	Your est% wth per ha/year do you expect on areas that wi Survey result: xx m3/ha/yr Mixedwood: Your est m3/ha/yr r-cut growing stock level do you expect to be Survey result: m3/ha Mixedwood: Your est m3/ha and be the average cutting cycle used on areas Survey result: years Mixedwood: Your est years tionnaire #2 the results regarding fertilization figures and provide any revised figures that you comments from the previous round suggested to ore cases they are identical to those of the sur tand age range would you fertilize? Answer sh Softwood: Mixed Mixed Mixed Survey result: & ate of fertilizer (kg/ha) would you apply? twood: Mixedwood: It: kg/ha Survey result: kg/ha kg/ha Your estkg/ha e distinguished as Good, Medium and Poor wh od: Medium: It: % Survey result: % Survey % Your est% Your est. % Your est% Your est. m3/ha/yr Survey result: m3/ha/yr m3/ha/yr Your estm3/ha/yr would the increased growth indicated above I wood: Mixedwood: Mixedwood: Mixedwood: Mixedwood: It: m3/ha/yr Your estm3/ha/yr m3/ha/yr Your estm3/ha/yr would the increased growth indicated above I wood: Mixedwood:	Your est%       Your est%         with per ha/year do you expect on areas that will be managed by uneven- Survey result: xx m3/ha/yr       Mixedwood:       Survey result: xx m3/ha/yr         Your estm3/ha/yr       Your estm3/ha       Your estm3/ha       Your estm3/ha         r-cut growing stock level do you expect to be left on areas that will be managed by ur       Survey result: m3/ha       Your estm3/ha         Your estm3/ha       Mixedwood:       Survey result: m3/ha       Your estm3/ha         Your estm3/ha       Mixedwood:       Survey result: years       Mixedwood:         Survey result: years       Mixedwood:       Survey result: years       Your estyears         Your estyears       Your estyears       Your estyears       years         tionnaire #2 the results regarding fertilization of regenerated stands have figures and provide any revised figures that you deem more representation ore cases they are identical to those of the survey results.       and age range would you fertilize? Answer should range between X and Softwood:         Mixedwood:       Mixedwood:       Mixedwood:       Hardwood:         It: & yrs old       Survey result: & yrs old       Survey result: kg/ha       Survey result: kg/ha	Your est.       %         Your est.       %         with per ha/year do you expect on areas that will be managed by uneven-aged managemes         Survey result: xx m3/ha/yr       Mixedwood:         Your est.       m3/ha/yr         Your est.       m3/ha         Mixedwood:       Survey result: m3/ha         Your est.       m3/ha         Your est.       m3/ha         Your est.       m3/ha         Your est.       years         tionnaire #2 the results regarding fertilization of regenerated stands have been aggrega         figures and provide any revised figures that you deem more representative of the region.         ore cases they are identical to those of the survey result:         ate ange would you fertilize? Answer should range between X and Y years of age         Softwood:       Mixedwood:         Mixedwood:       Hardwood:         It: & yrs old

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

6aa. Change in growth? Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr	
Your est. +/ m3/ha/		Your est. +/ m3/ha/yr	
6ab. How long would this cha	ange in growth last?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: years	Survey result: years Survey r	esult: years	
		years	
6ac. Change in rotation based			
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years		rvey result: +/- years	
Your est. +/ years	Your est. +/ years Yo	our est. +/ years	
6ad. Change in rotation based	on maximum MAI2		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years		rvey result: +/- years	
four est. +/ years	Your est. +/ years Yo	pur est. +/ years	
6b. For regenerated immature regarding:	e stands what do you expect from <b>juve</b>	aile spacing/pre-commercial thinning (assume no utilizat	tion)
6ba. Change in growth?			
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- m3/ha/yr			
Your est. +/ m3/ha/		Survey result: +/- m3/ha/yr Your est. +/ m3/ha/yr	
10ur est. +/ m5/ma/	yı 10ui est. +/ III5/IIa/yı	1 our est. +/ m5/ma/yr	
6bb. How long would this cha Softwood:		Hardwood:	
Survey result: years	Survey result: years Survey r	esult: years	
Your est years	Your est years Your est	years	
6bc. Change in rotation based	on harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years		rvey result: +/- years	
	Your est. +/ years Yo		
Tour est. +/ years	Tour est. +/ years	di est. +/ years	
6bd. Change in rotation based	l on maximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- years		rvey result: +/- years	
Your est. +/ years	Your est. +/ years Yo	ur est. +/ years	
j_			
6c. For regenerated immature	stands what do you expect from <b>comr</b>	nercial thinning (include thinning plus final harvest) regard	rding:
6ca. Change in growth?			
Softwood:	Mixedwood:	Hardwood:	
Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr	Survey result: +/- m3/ha/yr	
Your est. +/ m3/ha/	yr Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	
6cb. How long would this cha			
Softwood:	Mixedwood:	Hardwood:	
Survey result: years		esult: years	
Your est years	Your est years Your est	years	
	;		
6cc Change in rotation based	-		
6cc. Change in rotation based	on harvestable tree size?	Hardwood	
Softwood:	on harvestable tree size? Mixedwood:	Hardwood:	
	l on harvestable tree size? <b>Mixedwood:</b> Survey result: +/- years Su	Hardwood: rvey result: +/- years pur est. +/ years	

6cd. Change in rotation based	on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	Your est. +/ years

**7.** From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do you expect from greater improvement?

Softwood:	Mixedwood:	Hardwood:
Survey result: m3/ha/yr	Survey result: m3/ha/yr	Survey result: m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
7b. What change in rotation bas	sed on harvestable tree size woul	d you expect?
Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	Your est. +/ years
7c. What change in rotation bas	sed on Maximum MAI would yo	u expect?

Softwood:	Mixedwood:	Hardwood:
Survey result: +/- years	Survey result: +/- years	Survey result: +/- years
Your est. +/ years	Your est. +/ years	Your est. +/ years

# **NWT and Prairies - Boreal**

#### ADMINISTRATIVE / BIOLOGICAL REGION

#### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixe	dwood			Hardy	vood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
49	NA	1.5		40	NA	1.8		26	NA	2.2	
69	1.7	1.8		60	2.1	2.0		46	2.4	2.4	
89	1.7	1.8		80	1.9	2.0		66	2.5	2.4	
109*	1.6	1.7		100*	1.9	1.9		86*	2.1	2.2	
129	1.5	1.7		120	1.8	1.8		106	1.9	2.0	
149	NA	1.5		140	NA	1.6		126	NA	1.5	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 0.0 %	Survey result: 1.0 %	Survey result: 0.0 %
Your est %	Your est %	Your est%
1c. What is the growth per ha/year of	on areas managed by uneven-aged m	anagement?
Softwood:	Mixedwood:	Hardwood:
Survey result: 1.7 m3/ha/yr	Survey result: 1.9 m3/ha/yr	Survey result: 2.2 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
1d. What after-cut growing stock lev	vel is left on areas managed by unev	en-aged management?
Softwood:	Mixedwood:	Hardwood:
Survey result: 90 m3/ha	Survey result: 102 m3/ha	Survey result: 00 m3/ha
Your est m3/ha	Your est m3/ha	Your est m3/ha
1e. What is the average cutting cycle	e used on areas managed by uneven-	-aged management?
Softwood:	Mixedwood:	Hardwood:
Survey result: 35 years	Survey result: 31 years	Survey result: 20 years
Your est years	Your est years	Your est years

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range wou	ld you fertilize? Answer should r	ange between X and Y years of age.	
Softwood:	Mixedwood:	Hardwood	l <b>:</b>
Survey result: 25 & 76 yrs old	Survey result: 35 & 78	Syrs old Survey result: 17 &	51 yrs old
Your est & yrs old	Your est &	_yrs old Your est &	yrs old
2b. At what rate of fertilizer (kg/	ha) would you apply?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 65 kg/ha	Survey result: 50 kg/ha	Survey result: 20 kg/ha	
Your est kg/ha	Your est kg/ha	Your est kg/ha	
2c. If sites are distinguished as G	lood, Medium and Poor what pro	portion of sites would you fertilize?	
Good:	Medium:	Poor:	
Survey result: 10 %	Survey result: 3 %	Survey result: 8 %	
Your est %	Your est%	Your est %	
2d. What increase in growth (m3	/ha/yr) would you expect?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 1.8 m3/ha/yr	Survey result: 3.0 m3/ha/yr	Survey result: 3.2 m3/ha/yr	
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr	
2e. How long would the increase	d growth indicated above last (ye	ears)?	
Softwood:	Mixedwood:	Hardwood:	
Survey result: 9 years	Survey result: 8 years	Survey result: 12 years	
Your est years	Your est years	Your est years	

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

3aa. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: +0.5 m3/ha/yr	Survey result: +0.6 m3/ha/yr	Survey result: +0.6 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
3ab. How long would this change i	n growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 7 years	Survey result: 7 years	Survey result: 8 years
Your est years	Your est years	Your est years
3ac. Change in rotation based on h	arvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -10 years	Survey result: -8 years	Survey result: -8 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3ad. Change in rotation based on n	naximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -6 years	Survey result: -6 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

 3ba. Change in growth?
 Mixedwood:

 Softwood:
 Mixedwood:

 Survey result: +0.1 m3/ha/yr
 Survey result: +0.2 m3/ha/yr

 Your est. +/-\_\_\_\_ m3/ha/yr
 Your est. +/-\_\_\_\_ m3/ha/yr

Hardwood: Survey result: +0.2 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

3bb. How long would this change in growth last?

Softwood:	Mixedwood:	Hardwood:	
Survey result: 8 years	Survey result: 8 years	Survey result: 9 years	
Your est years	Your est years	Your est years	
3bc. Change in rotation based on h	arvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -10 years	Survey result: -8 years	Survey result: -6 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
3bd. Change in rotation based on n	naximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 00 years	Survey result: +2 years	Survey result: +2 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
-		<b>l thinning</b> (include thinning plus final harvest) reg	garunng.
3ca. Change in growth? Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr	<b>Mixedwood:</b> Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr	Hardwood: Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr	
<b>Softwood:</b> Survey result: +1.0 m3/ha/yr	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr	Survey result: +1.1 m3/ha/yr	
<b>Softwood:</b> Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr	Survey result: +1.1 m3/ha/yr	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr in growth last?	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i Softwood:	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr in growth last? Mixedwood:	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood:	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i Softwood: Survey result: 12 years	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr n growth last? <b>Mixedwood:</b> Survey result: 11 years Your est years	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood: Survey result: 11 years	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i Softwood: Survey result: 12 years Your est years	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr n growth last? <b>Mixedwood:</b> Survey result: 11 years Your est years	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood: Survey result: 11 years	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i Softwood: Survey result: 12 years Your est years 3cc. Change in rotation based on h	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr in growth last? <b>Mixedwood:</b> Survey result: 11 years Your est years arvestable tree size? <b>Mixedwood:</b>	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood: Survey result: 11 years Your est years	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i Softwood: Survey result: 12 years Your est years 3cc. Change in rotation based on h Softwood: Survey result: -7 years	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr in growth last? <b>Mixedwood:</b> Survey result: 11 years Your est years arvestable tree size? <b>Mixedwood:</b>	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood: Survey result: 11 years Your est years Hardwood:	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i Softwood: Survey result: 12 years Your est years 3cc. Change in rotation based on h Softwood: Survey result: -7 years Your est. +/ years 3cd. Change in rotation based on n	Survey result: +1.1 m3/ha/yr Your est. +/m3/ha/yr in growth last? <b>Mixedwood:</b> Survey result: 11 years Your estyears arvestable tree size? <b>Mixedwood:</b> Survey result: -5 years Your est. +/years maximum MAI?	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood: Survey result: 11 years Your est years Hardwood: Survey result: -2 years Your est. +/ years	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change in Softwood: Survey result: 12 years Your est years 3cc. Change in rotation based on h Softwood: Survey result: -7 years Your est. +/ years 3cd. Change in rotation based on m Softwood:	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr n growth last? <b>Mixedwood:</b> Survey result: 11 years Your est years arvestable tree size? <b>Mixedwood:</b> Survey result: -5 years Your est. +/ years haximum MAI? <b>Mixedwood:</b>	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood: Survey result: 11 years Your est years Hardwood: Survey result: -2 years Your est. +/ years Hardwood:	
Softwood: Survey result: +1.0 m3/ha/yr Your est. +/ m3/ha/yr 3cb. How long would this change i Softwood: Survey result: 12 years Your est years 3cc. Change in rotation based on h Softwood: Survey result: -7 years Your est. +/ years 3cd. Change in rotation based on n Softwood: Survey result: +2 years	Survey result: +1.1 m3/ha/yr Your est. +/m3/ha/yr in growth last? <b>Mixedwood:</b> Survey result: 11 years Your estyears arvestable tree size? <b>Mixedwood:</b> Survey result: -5 years Your est. +/years maximum MAI?	Survey result: +1.1 m3/ha/yr Your est. +/ m3/ha/yr Hardwood: Survey result: 11 years Your est years Hardwood: Survey result: -2 years Your est. +/ years	

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
30	NA	1.5		33	NA	1.9		8	NA	2.2	
50	2.2	2.0		53	2.4	2.3		28	2.7	2.6	
70	2.3	2.1		73	2.5	2.4		48	2.8	2.6	
90*	2.1	2.1		93*	2.3	2.3		68*	2.6	2.5	
110	2.2	1.9		113	2.4	2.3		88	2.6	2.1	
130	NA	1.8		133	NA	2.0		108	NA	2.3	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1 1	Survey result: 2 %	be managed by uneven-ag Mixedwood:	Survey result: 6 %		•	
	Your est %		Your est %		Your est %	
4c. What grow	th per ha/year do you	expect on areas that will b	e managed by uneven-age	d management?		
Softwood:	Survey result: 1.9 m	3/ha/yr <b>Mixedwood</b> :	Survey result: 2.0 m3/ha	/yr Hardwood	Survey result 2.0 m3/ha/yr	
	Your est m3/	ha/yr	Your est m3/ha/y	/r :	Your est m3/ha/yr	
4d. What after-cut growing stock level do you expect to be left on areas that will be managed by uneven-aged management?						
Softwood:		Mixedwood:	Hardwood	l <b>:</b>		
Survey result:	12 m3/ha	Survey result: 103 m3/h	a Survey rest	ult NA m3/ha		
Your est.	m3/ha	Your est m3/ha	Your est.	m3/ha		
4e. What would be the average cutting cycle used on areas that will be managed by uneven-aged management?						
Softwood:		Mixedwood:	Hardwood	:		
Survey result:	32 years	Survey result: 29 years	Survey resu	lt 20 years		
Your est	years	Your est years	Your est	years		

**5.** From Questionnaire #2 the results regarding **fertilization** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

5a. At what stand age range would you fertilize? Answer should range between X and Y years of age.

Softwood:	Mixedwood:	Hardwood:					
Survey result: 40 & 88 yrs old	Survey result: 43 & 97 yrs old	Survey result: 20 & 63 yrs old					
Your est & yrs old	Your est & yrs old	Your est & yrs old					
5b. At what rate of fertilizer (kg/ha) w	vould you apply?						
Softwood:	Mixedwood:	Hardwood:					
Survey result: 65 kg/ha	Survey result: 100 kg/ha	Survey result: 25 kg/ha					
Your est kg/ha	Your est kg/ha	Your est kg/ha					
5c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize?							
Good:	Medium:	Poor:					
Survey result: 20 %	Survey result: 5 %	Survey result: 13 %					
Your est %	Your est %	Your est %					
5d. What increase in growth (m3/ha/y	r) would you expect?						
Softwood:	Mixedwood:	Hardwood:					
Survey result: 0.8 m3/ha/yr	Survey result: 1.0 m3/ha/yr	Survey result: 0.9 m3/ha/yr					
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr					
5e. How long would the increased growth indicated above last (years)?							
Softwood:	Mixedwood:	Hardwood:					
Survey result: 12 years	Survey result: 15 years	Survey result: 15 years					
Your est years	Your est years	Your est years					

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

6aa. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: +0.6 m3/ha/yr	Survey result: +0.6 m3/ha/yr	Survey result: +0.7 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6ab. How long would this change in g	growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 8 years	Survey result: 8 years	Survey result: 9 years
Your est years	Your est years	Your est years
6ac. Change in rotation based on harv	restable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -7 years	Survey result: -7 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6ad. Change in rotation based on max	imum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -7 years	Survey result: -7 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6b. For regenerated immature stands regarding:	what do you expect from <b>juvenile spa</b>	<b>ncing/pre-commercial thinning</b> (assume no utilization)
6ba. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: +0.3 m3/ha/yr	Survey result: +0.4 m3/ha/yr	Survey result: +0.4 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6bb. How long would this change in g	growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 9 years	Survey result: 9 years	Survey result: 11 years
Your est years	Your est years	Your est years
6bc. Change in rotation based on harv		
Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -7 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6bd. Change in rotation based on max	timum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 2 years	Survey result: 2 years	Survey result: 2 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6c. For regenerated immature stands	what do you expect from <b>commercial</b>	thinning (include thinning plus final harvest) regarding:
6ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: +1.1 m3/ha/yr	Survey result: +1.1 m3/ha/yr	Survey result: +1.1 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6cb. How long would this change in g		
Softwood:	Mixedwood:	Hardwood:
Survey result: 12 years	Survey result: 11 years	Survey result: 12 years
Your est years	Your est years	Your est years
6cc. Change in rotation based on harv		
Softwood:	Mixedwood:	Hardwood:
Survey result: -7 years	Survey result: -4 years	Survey result: -2 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

6cd. Change in rotation based on maximum MAI?

Softwood:	Mixedwood:	Hardwood:
Survey result: +2 years	Survey result: +2 years	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

**7.** From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do y	ou expect from greater improvement?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 0.9 m3/ha/yr	Survey result: 1.0 m3/ha/yr	Survey result: 1.0 m3/ha/yr				
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr				
7b. What change in rotation based on harvestable tree size would you expect?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: -12 years	Survey result: -12 years	Survey result: -10 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				
7c. What change in rotation based on Maximum MAI would you expect?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: -2 years	Survey result: -1 years	Survey result: -3 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				

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#### ADMINISTRATIVE / BIOLOGICAL REGION

# **Ontario - Boreal**

### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	wood			Hardw	ood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
40	NA	1.6		33	NA	1.9		23	NA	1.8	
60	1.9	1.9		53	2.2	2.5		43	2.8	2.7	
80	1.8	2.0		73	2.2	2.5		63	2.8	2.9	
100*	1.7	1.8		93*	2.0	2.2		83*	2.6	2.4	
120	1.5	1.6		113	1.9	1.8		103	2.3	2.0	
140	NA	1.3		133	NA	1.5		123	NA	1.6	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 6 %	Survey result: 13 %	Survey result: 19 %
Your est %	Your est %	Your est%
1c. What is the growth per ha/year or	n areas managed by uneven-aged man	nagement?
Softwood:	Mixedwood:	Hardwood:
Survey result: 1.8 m3/ha/yr	Survey result: 2.2 m3/ha/yr	Survey result: 2.3 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
1d. What after-cut growing stock lev	el is left on areas managed by unever	n-aged management?
Softwood:	Mixedwood:	Hardwood:
Survey result: 54 m3/ha	Survey result: 50 m3/ha	Survey result: 57 m3/ha
Your est m3/ha	Your est m3/ha	Your est m3/ha
1e. What is the average cutting cycle	used on areas managed by uneven-ag	ged management?
Softwood:	Mixedwood:	Hardwood:
Survey result: 24 years	Survey result: 24 years	Survey result: 21 years
Your est years	Your est years	Your est years

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range wou	ıld you fertilize? Answer should r	ange between X and Y years of age.
Softwood:	Mixedwood:	Hardwood:
Survey result: 13 & 41 yrs old	Survey result: 14 & 41	yrs old Survey result: 12 & 36 yrs old
Your est & yrs old	Your est &	yrs old Your est & yrs old
2b. At what rate of fertilizer (kg	/ha) would you apply?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 175 kg/ha	Survey result: 175 kg/ha	Survey result: 175 kg/ha
Your est kg/ha	Your est kg/ha	Your est kg/ha
2c. If sites are distinguished as C	Good, Medium and Poor what pro	portion of sites would you fertilize?
Good:	Medium:	Poor:
Survey result: 31 %	Survey result: 25 %	Survey result: 11 %
Your est %	Your est%	Your est %
2d. What increase in growth (ma	3/ha/yr) would you expect?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.9 m3/ha/yr	Survey result: 0.6 m3/ha/yr	Survey result: 0.8 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
2e. How long would the increase	ed growth indicated above last (ye	ears)?
Softwood:	Mixedwood:	Hardwood:
Survey result: 10 years	Survey result: 10 years	Survey result: 11 years
Your est years	Your est years	Your est years
2 Comments from Orestians		this tonis had to be called into second action and the

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

3aa. Change in growth?				
Softwood:	Mixedwood:	Hardwood:		
Survey result: 0.7 m3/ha/yr	Survey result: 0.4 m3/ha/yr	Survey result: 0.8 m3/ha/yr		
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr		
3ab. How long would this change i	n growth last?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 11 years	Survey result: 6 years	Survey result: 9 years		
Your est years	Your est years	Your est years		
3ac. Change in rotation based on ha	arvestable tree size?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: -3 years	Survey result: +2 years	Survey result: +8 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		
3ad. Change in rotation based on m	aximum MAI?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 00 years	Survey result: +3 years	Survey result: +10 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth? **Softwood:** Survey result: 0.9 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

**Mixedwood:** Survey result: 1.0 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Hardwood: Survey result: 1.1 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

3bb. How long would this change in growth last?

Softwood:	Mixedwood:	Hardwood:
Survey result: 11 years	Survey result: 11 years	Survey result: 14 years
Your est years	Your est years	Your est years
3bc. Change in rotation based on ha	rvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -3 years	Survey result: +1 years	Survey result: +1 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3bd. Change in rotation based on m	aximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -1 years	Survey result: +1 years	Survey result: +1 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
2. For existing immeture stands wi	at do you appact from commercial	thinning (include thinning plus f

3c. For existing immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

3ca. Change in growth?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 0.8 m3/ha/yr	Survey result: 1.2 m3/ha/yr	Survey result: 1.2 m3/ha/yr				
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr				
3cb. How long would this change i	n growth last?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 11 years	Survey result: 13 years	Survey result: 12 years				
Your est years	Your est years	Your est years				
3cc. Change in rotation based on ha	arvestable tree size?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: +2 years	Survey result: +3 years	Survey result: +3 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				
3cd. Change in rotation based on maximum MAI?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: +3 years	Survey result: +2 years	Survey result: +2 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Miedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
19	NA	1.2		15	NA	1.2		1	NA	1.1	
39	1.5	1.7		35	1.7	2.1		21	2.1	2.2	
59	2.0	1.9		55	2.1	2.4		41	2.6	2.5	
79*	1.8	2.0		75*	2.3	2.5		61*	2.8	2.7	
99	1.7	1.8		95	2.1	2.1		81	2.5	2.3	
119	NA	1.6		115	NA	1.7		101	NA	1.6	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

41 1171			1		
		be managed by uneven-ag		Handwood	Survey recent 21.0/
Softwood:	Survey result: 9 %	wiixeawooa:		Hardwood:	Survey result 21 %
	Your est %		Your est %		Your est %
4c. What grow		expect on areas that will b			
Softwood:	•	3/ha/yr Mixedwood:	•	•	
	Your est m3/	ha/yr	Your est m3/ha/	yr	Your est m3/ha/yr
4d. What after	-cut growing stock lev	el do you expect to be lef	on areas that will be mai	naged by uneven.	-aged management?
Softwood:	• • • • B1 • • • • • B1 • • • • • • • •	Mixedwood:	Hardwoo		
Survey result:	47 m3/ha	Survey result: 47 m3/ha		sult 46 m3/ha	
Your est		-		m3/ha	
		ng cycle used on areas that			ement?
Softwood:		Mixedwood:	Hardwoo	d:	
Survey result:	24 years	Survey result: 21 years		sult 21 years	
Your est	•	Your est years		years	
					and are given below. Please
					ase your figures on one-time
	-			e clarified). Plea	ase enter your estimates even
if in one or mo	ore cases they are ident	ical to those of the survey	results.		
<b>. . .</b>			1 1	7 C	
5a. At what sta		ou fertilize? Answer shou	-		
Survey recul	Softwood:	Mixedwo		Hardwoo urvey result: 12 &	
	t: 13 & 44 yrs old	Your est & _	-	our est. $\_\_$ & $\_$	•
10ui est		10ui est & _	yis old 1	our est & _	
	te of fertilizer (kg/ha)				
	Softwood:	Mixedwood		Hardwood:	
Survey resul	-	Survey result: 150 kg/	•	esult: 150 kg/ha	
Your est	kg/ha	Your est kg/h	a Your est	kg/ha	
5c. If sites are	distinguished as Good	, Medium and Poor what	proportion of sites would	you fertilize?	
Set if shees are	Good:	Medium:	-	Poor:	
Survey resul		Survey result: 24 %		esult: 16 %	
Your est.		Your est %		%	
	ease in growth (m3/ha/				
	Softwood:	Mixedwood:		Hardwood:	
		Survey result: 0.6 m3/		esult: 0.5 m3/ha/y	
Your est	m3/ha/yr	Your est m3/l	ha/yr Y our est	m3/ha/y	Ϋ́Γ
5e. How long	would the increased gr	owth indicated above last	(years)?		
-	Softwood:	Mixedwood:		Hardwood:	
Survey resul	t: 10 years	Survey result: 10 years	Survey re	esult: 13 years	
Your est.	years	Your est years	Your est.	years	
6 Comments	from Questionnaire #1	regarding thinning indica	ted this tonic had to be sr	lit into several o	ategories and that thinning

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

6aa. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.6 m3/ha/yr	Survey result: 0.5 m3/ha/yr	Survey result: 0.8 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6ab. How long would this change in g	growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 10 years	Survey result: 7 years	Survey result: 10 years
Your est years	Your est years	Your est years
6ac. Change in rotation based on harv	restable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +1 years	Survey result: +2 years	Survey result: +8 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6ad. Change in rotation based on max	imum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +1 years	Survey result: +2 years	Survey result: +8 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6b. For regenerated immature stands regarding:	what do you expect from <b>juvenile spa</b>	acing/pre-commercial thinning (assume no utilization)
6ba. Change in growth?	Merce large a la	Handana d
<b>Softwood:</b> Survey result: 0.7 m3/ha/yr	<b>Mixedwood:</b> Survey result: 0.8 m3/ha/yr	Hardwood: Survey result: 0.8 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
-		10ur est. +/ m5/na/yr
6bb. How long would this change in g		
Softwood:	Mixedwood:	Hardwood:
Survey result: 14 years	Survey result: 13 years	Survey result: 14 years
Your est years	Your est years	Your est years
6bc. Change in rotation based on harv		
Softwood:	Mixedwood:	Hardwood:
Survey result: -2 years	Survey result: 00 years	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6bd. Change in rotation based on max	timum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +1 years	Survey result: +1 years	Survey result: +1 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6c. For regenerated immature stands	what do you expect from <b>commercial</b>	<b>thinning</b> (include thinning plus final harvest) regarding:
6ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.7 m3/ha/yr	Survey result: 0.8 m3/ha/yr	Survey result: 0.8 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6cb. How long would this change in g	F	
Softwood:	Mixedwood:	Hardwood:
Survey result: 13 years	Survey result: 14 years	Survey result: 13 years
Your est years	Your est years	Your est years
6cc. Change in rotation based on harv		
Softwood:	Mixedwood:	Hardwood:
Survey result: 00 years	Survey result: +1 years	Survey result: +3 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

6cd. Change in rotation based on maximum MAI?

Softwood:	Mixedwood:	Hardwood:
Survey result: +1 years	Survey result: -1 years	Survey result: +1 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

**7.** From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do you expect from greater improvement?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 0.7 m3/ha/yr	Survey result: 0.7 m3/ha/yr	Survey result: 0.8 m3/ha/yr				
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr				
7b. What change in rotation based on harvestable tree size would you expect?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: +6 years	Survey result: +5 years	Survey result: +4 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				
7c. What change in rotation based on Maximum MAI would you expect?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: +5 years	Survey result: +4 years	Survey result: +3 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				

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## **Ontario - Great Lakes / St. Lawrence**

#### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	wood			Hard	wood	
	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
53	NA	2.5		42	NA	2.0		50	NA	1.9	
73	1.9	2.3		62	2.3	2.3		70	2.4	2.2	
93	1.9	2.2		82	2.6	2.5		90	2.2	2.3	
113*	1.7	2.1		102*	2.2	2.3		110*	2.0	2.0	
133	1.5	1.9		122	1.9	2.1		130	1.8	1.8	
153	NA	1.7		142	NA	2.0		150	NA	1.7	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:				
Survey result: 15 %	Survey result: 32 %	Survey result: 47 %				
Your est %	Your est %	Your est %				
1c. What is the growth per ha/ye	ar on areas managed by uneven-aged m	anagement?				
Softwood:	Mixedwood:	Hardwood:				
Survey result: 2.4 m3/ha/yr	Survey result: 2.7 m3/ha/yr	Survey result: 2.1 m3/ha/yr				
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr				
1d. What after-cut growing stock	c level is left on areas managed by unev	en-aged management?				
Softwood:	Mixedwood:	Hardwood:				
Survey result: 58 m3/ha	Survey result: 62 m3/ha	Survey result: 65 m3/ha				
Your est m3/ha	Your est m3/ha	Your est m3/ha				
1e. What is the average cutting cycle used on areas managed by uneven-aged management?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 20 years	Survey result: 22 years	Survey result: 22 years				
Your est years	Your est years	Your est years				

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range would	ld you fertilize? Answer should ra	ange between X and Y y	years of age.		
Softwood:	Mixedwood:		Hardwood:		
Survey result: 13 & 38 yrs old	Survey result: 13 & 39	yrs old Surv	Survey result: 13 & 39 yrs old		
Your est & yrs old	Your est &	yrs old You	ır est & yrs o	old	
2b. At what rate of fertilizer (kg/l	ha) would you apply?				
Softwood:	Mixedwood:	Hai	rdwood:		
Survey result: 200 kg/ha	Survey result: 200 kg/ha	Survey result	t: 225 kg/ha		
Your est kg/ha	Your est kg/ha	Your est.	kg/ha		
2c. If sites are distinguished as G	ood, Medium and Poor what prop	portion of sites would ye	ou fertilize?		
Good:	Medium:	Poor:			
Survey result: 25 %	Survey result: 18 %	Survey result: 8 %			
Your est %	Your est %	Your est %			
2d. What increase in growth (m3)	/ha/yr) would you expect?				
Softwood:	Mixedwood:	Hardwood:			
Survey result: 0.9 m3/ha/yr	Survey result: 1.2 m3/ha/yr	Survey result: 0.7 m3	/ha/yr		
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3.	/ha/yr		
2e. How long would the increase	d growth indicated above last (ye	ars)?			
Softwood:	Mixedwood:	Hardwood:			
Survey result: 6 years	Survey result: 6 years	Survey result: 5 years	i i i i i i i i i i i i i i i i i i i		
Your est years	Your est years	Your est yea	rs		

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

3aa. Change in growth?			
Softwood:	Mixedwood:	Hardwood:	
Survey result: +0.9 m3/ha/yr	Survey result: +0.7 m3/ha/yr	Survey result: +0.6 m3/ha/yr	
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	
3ab. How long would this change	in growth last?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 12 years	Survey result: 7 years	Survey result: 7 years	
Your est years	Your est years	Your est years	
3ac. Change in rotation based on h	arvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: -1 years	Survey result: +7 years	Survey result: +7 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
3ad. Change in rotation based on n	naximum MAI?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: +6 years	Survey result: +7 years	Survey result: +7 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?					
Softwood:	Mixedwood:	Hardwood:			
Survey result: 1.1 m3/ha/yr	Survey result: 1.0 m3/ha/yr	Survey result: 1.1 m3/ha/yr			
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr			

3bb. How long would this change i	n growth last?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 13 years	Survey result: 8 years	Survey result: 8 years				
Your est years		Your est years				
3bc. Change in rotation based on ha	arvestable tree size?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 00 years	Survey result: 5 years	Survey result: 5 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				
3bd. Change in rotation based on m	naximum MAI?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 4 years	Survey result: 6 years	Survey result: 6 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				
3c. For existing immature stands w	hat do you expect from <b>commercia</b>	l thinning (include thinning plus final harvest) regarding:				
3ca. Change in growth?						
Softwood:	Mixedwood:	Hardwood:				
	Survey result: 0.9 m3/ha/yr	Survey result: 1.0 m3/ha/yr				
Your est. +/ m3/ha/yr	•	Your est. +/ m3/ha/yr				
3cb. How long would this change in growth last?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 9 years	Survey result: 8 years	Survey result: 8 years				
Your est years		Your est years				
200 Change in rotation based on b	mustable tree size?					

3cc. Change in rotation based on	harvestable tree size?		
Softwood:	Mixedwood:	Hardwood:	
Survey result: 5 years	Survey result: 5 years	Survey result: 5 years	
Your est. +/ years	Your est. +/ years	Your est. +/ years	
3cd. Change in rotation based on	maximum MAI?		

Softwood:	Mixedwood:	Hardwood:		
Survey result: 5 years	Survey result: 5 years	Survey result: 5 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
27	NA	2.8		21	NA	1.5		21	NA	1.5	
47	2.8	3.2		41	2.8	2.8		41	3.1	2.7	
67	2.8	2.9		61	2.9	3.0		61	2.9	2.7	
87*	2.6	2.6		81*	2.5	2.8		81*	2.7	2.6	
107	2.3	2.3		101	2.1	2.5		101	2.5	2.3	
127	NA	1.9		121	NA	2.2		121	NA	1.9	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1 1		be managed by uneven-a Mixedwood:	6	Hardwood	Survey result 45 %
Soltwood.	Your est %	Mixtuwoou.	Your est. %	Haluwoou.	Your est %
	1 our est 70		1 oui est 70		1 oui est %
4c. What grov	wth per ha/year do you	expect on areas that will	be managed by uneven-age	ed management?	
Softwood	Survey result: 2.1 m3	/ha/yr Mixedwood:	Survey result: 2.5 m3/ha/	yr <b>Hardwood</b>	Survey result 2.2 m3/ha/yr
:	Your est m3/h	na/yr	Your est m3/ha/yr	:	Your est m3/ha/yr
4d. What after-cut growing stock level do you expect to be left on areas that will be managed by uneven-aged management?					
Softwood:		Mixedwood:	Hardwood	1:	
Survey result:	93 m3/ha	Survey result: 93 m3/h	a Survey res	ult 110 m3/ha	
Your est.	m3/ha	Your est m3/h	a Your est	m3/ha	
4e. What would be the average cutting cycle used on areas that will be managed by uneven-aged management?					
Softwood:		Mixedwood:	Hardwood	l <b>:</b>	
Survey result:	23 years	Survey result: 22 years	s Survey rest	ult 22 years	
Your est	years	Your est year	s Your est	years	

**5.** From Questionnaire #2 the results regarding **fertilization** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

5a. At what stand age range would you fertilize? Answer should range between X and Y years of age.

Softwood:	Mixedwood:	Hardwood:				
Survey result: 11 & 35 yrs old						
Your est & yrs old						
5b. At what rate of fertilizer (kg/ha) w	vould you apply?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 200 kg/ha	Survey result: 200 kg/ha	Survey result: 225 kg/ha				
Your est kg/ha	Your est kg/ha	Your est kg/ha				
5c. If sites are distinguished as Good, Medium and Poor what proportion of sites would you fertilize?						
Good:	Medium:	Poor:				
Survey result: 52 %	Survey result: 33 %	Survey result: 5 %				
Your est %	Your est %	Your est %				
5d. What increase in growth (m3/ha/y	r) would you expect?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 1.7 m3/ha/yr	Survey result: 0.5 m3/ha/yr	Survey result: 0.4 m3/ha/yr				
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr				
5e. How long would the increased growth indicated above last (years)?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 6 years	Survey result: 7 years	Survey result: 7 years				
Your est years	Your est years	Your est years				

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

6aa. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.7 m3/ha/yr	Survey result: 0.8 m3/ha/yr	Survey result: 0.7 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6ab. How long would this change ir	n growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 9 years	Survey result: 8 years	Survey result: 9 years
Your est years	Your est years	Your est years
face Change in rotation based on he	rugetable tree size?	
6ac. Change in rotation based on ha Softwood:	Mixedwood:	Hardwood:
Survey result: 9 years	Survey result: 7 years	Survey result: 7 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
	-	Four est. (7 years
6ad. Change in rotation based on ma		
Softwood:	Mixedwood:	Hardwood:
Survey result: 9 years	Survey result: 7 years	Survey result: 7 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6b. For regenerated immature stand regarding:	s what do you expect from <b>juvenile sp</b> a	acing/pre-commercial thinning (assume no utilization)
6ba. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.7 m3/ha/yr	Survey result: 0.8 m3/ha/yr	Survey result: 0.8 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6bb. How long would this change in		
Softwood:	Mixedwood:	Hardwood:
Survey result: 13 years	Survey result: 11 years	Survey result: 11 years
Your est years	Your est years	Your est years
6bc. Change in rotation based on ha	rvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 7 years	Survey result: 7 years	Survey result: 5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6bd. Change in rotation based on m	aximum MAI?	
Softwood:	Mixedwood:	Hardwood:
	Survey result: 7 years	Survey result: 6 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6c. For regenerated immature stands	s what do you expect from <b>commercia</b>	<b>l thinning</b> (include thinning plus final harvest) regarding:
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.7 m3/ha/yr	Survey result: 0.6 m3/ha/yr	Survey result: 0.6 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6cb. How long would this change ir	n growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 11 years	Survey result: 9 years	Survey result: 9 years
Your est years	Your est years	Your est years
6cc. Change in rotation based on ha	rvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 7 years	Survey result: 6 years	Survey result: 6 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

6cd. Change in rotation based on maximum MAI?

Softwood:	Mixedwood:	Hardwood:		
Survey result: 8 years	Survey result: 7 years	Survey result: 7 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

**7.** From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do you exp	pect from greater improvement?					
Softwood:	Mixedwood:	Hardwood:				
Survey result: 0.9 m3/ha/yr	Survey result: 1.0 m3/ha/yr	Survey result: 1.1 m3/ha/yr				
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr				
7b. What change in rotation based on harvestable tree size would you expect?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 6 years	Survey result: 6 years	Survey result: 7 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				
7c. What change in rotation based on Maximum MAI would you expect?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 6 years	Survey result: 6 years	Survey result: 8 years				
Your est. +/ years	Your est. +/ years	Your est. +/ years				

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#### ADMINISTRATIVE / BIOLOGICAL REGION

# **Quebec - Boreal**

### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	wood			Hardwo	boc	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
44	NA	0.8		32	NA	1.2		18	NA	1.5	
64	1.0	1.2		52	1.5	1.6		38	1.4	1.7	
84	1.1	1.1		72	1.6	1.7		58	2.0	2.1	
104*	0.9	1.0		92*	1.4	1.5		78*	1.7	1.8	
124	0.7	0.8		112	1.0	1.0		98	1.5	1.5	
144	NA	0.6		132	NA	0.8		118	NA	1.0	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:				
Survey result: 6 %	Survey result: 10 %	Survey result: 5 %				
Your est %	Your est %	Your est %				
1c. What is the growth per ha/year or	areas managed by uneven-aged mar	nagement?				
Softwood:	Mixedwood:	Hardwood:				
Survey result: 1.0 m3/ha/yr	Survey result: 1.3 m3/ha/yr	Survey result: 1.7 m3/ha/yr				
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr				
1d. What after-cut growing stock leve	el is left on areas managed by uneven	a-aged management?				
Softwood:	Mixedwood:	Hardwood:				
Survey result: 40 m3/ha	Survey result: 85 m3/ha	Survey result: 113 m3/ha				
Your est m3/ha	Your est m3/ha	Your est m3/ha				
1e. What is the average cutting cycle used on areas managed by uneven-aged management?						
Softwood:	Mixedwood:	Hardwood:				
Survey result: 30 years	Survey result: 25 years	Survey result: 22 years				
Your est years	Your est years	Your est years				

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range wou	ld you fertilize? Answer should r	ange between X and	Y years of ag	ge.		
Softwood:	Mixedwood:		Hardwood:			
Survey result: 51 & 62 yrs old	Survey result: 44 &56	yrs old	Survey result: 38 & 49 yrs old			
Your est & yrs old	Your est &	_yrs old	Your est	_&	yrs old	
2b. At what rate of fertilizer (kg/	ha) would you apply?					
Softwood:	Mixedwood:		Hardwood:			
Survey result: 283 kg/ha	Survey result: 300 kg/ha	Survey re	esult: 275 kg/	ha		
Your est kg/ha	Your est kg/ha	Your est.	kg/h	а		
2c. If sites are distinguished as G	lood, Medium and Poor what pro	portion of sites woul	d you fertiliz	e?		
Good:	Medium:	Poor:				
Survey result: 38 %	Survey result: 26 %	Survey result: 00	%			
Your est %	Your est%	Your est	%			
2d. What increase in growth (m3	/ha/yr) would you expect?					
Softwood:	Mixedwood:	Hardwo	od:			
Survey result: 0.9 m3/ha/yr	Survey result: 0.9 m3/ha/yr	Survey result: 1.2	2 m3/ha/yr			
Your est m3/ha/yr	Your est m3/ha/yr	Your est	m3/ha/yr			
2e. How long would the increase	ed growth indicated above last (ye	ears)?				
Softwood:	Mixedwood:	Hardwo	od:			
Survey result: 10 years	Survey result: 10 years	Survey result: 10	years			
Your est years	Your est years	Your est.	vears			

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

3aa. Change in growth?				
Softwood:	Mixedwood:	Hardwood:		
Survey result: 1.0 m3/ha/yr	Survey result: 0.8 m3/ha/yr	Survey result: 0.1 m3/ha/yr		
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr		
3ab. How long would this change i	n growth last?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 26 years	Survey result: 27 years	Survey result: 16 years		
Your est years	Your est years	Your est years		
3ac. Change in rotation based on h	arvestable tree size?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: -5 years	Survey result: -5 years	Survey result: -2 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		
3ad. Change in rotation based on n	aximum MAI?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 000- years	Survey result: 00 years	Survey result: 00 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth? **Softwood:** Survey result: 0.7 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

Mixedwood: Survey result: 0.8 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Hardwood: Survey result: 0.8 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

3bb. How long would this change in growth last?

Softwood:	Mixedwood:	Hardwood:
Survey result: 29 years	Survey result: 28 years	Survey result: 20 years
Your est years	Your est years	Your est years
3bc. Change in rotation based on h	arvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -8 years	Survey result: -8 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3bd. Change in rotation based on n	naximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -4 years	Survey result: -4 years	Survey result: -4 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3c. For existing immature stands w	hat do you expect from <b>commercia</b>	l thinning (include thinning plus final harvest) regarding:
3ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 1.3 m3/ha/yr		Survey result: 1.3 m3/ha/yr
Your est. +/ m3/ha/yr		Your est. +/ m3/ha/yr
3cb. How long would this change i	n growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 14 years		Survey result: 13 years
Your est years		Your est years
3cc. Change in rotation based on ha	arvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3cd. Change in rotation based on m	naximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 00 years	5	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
16	NA	0.9		6	NA	0.6		0	NA	0.9	
36	0.9	0.9		26	0.9	1.1		16	1.1	1.3	
56	1.2	1.2		46	1.6	1.8		36	1.7	2.0	
76*	1.2	1.4		66*	1.8	1.7		56*	2.0	2.1	
96	1.0	1.1		86	1.5	1.4		76	1.7	1.9	
116	NA	0.8		106	NA	0.5		96	NA	1.7	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What prop	ortion of the area will	be managed by uneven-ag	ged management?		
Softwood:	Survey result: 8 %	Mixedwood:	Survey result: 12 % H	ardwood: Sur	vey result 5 %
	Your est %		Your est %	You	ur est %
4c. What grow	vth per ha/year do you	expect on areas that will b	be managed by uneven-aged n	nanagement?	
Softwood:	1 1 1	1	Survey result: 1.4 m3/ha/yr	U	Survey result 1.7 m3/ha/yr
	Your est m3	/ha/yr	Your est m3/ha/yr		Your est m3/ha/yr
4d. What after	-cut growing stock le	vel do you expect to be lef	t on areas that will be manage	d by uneven-aged	management?
Softwood:	0 0	Mixedwood:	Hardwood:	, ,	C
Survey result:	40 m3/ha	Survey result: 60 m3/ha	Survey result	65 m3/ha	
Your est.	m3/ha	Your est m3/ha	Your est.	m3/ha	
4e. What would	ld be the average cutti	ng cycle used on areas tha	t will be managed by uneven-	aged management	t?
Softwood:		Mixedwood:	Hardwood:		
Survey result:	15 years	Survey result: 13 years	Survey result	8 years	
Your est	years	Your est years	Your est.	years	

**5.** From Questionnaire #2 the results regarding **fertilization** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

5a. At what stand age range would you fertilize? Answer should range between X and Y years of age.

Softwood:	Mixedwood:	Hardwood:
Survey result: 42 & 55 yrs old	Survey result: 36 & 50 yrs old	Survey result: 35 & 46 yrs old
Your est & yrs old	Your est & yrs old	Your est & yrs old
5b. At what rate of fertilizer (kg/ha) w	ould you apply?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 283 kg/ha	Survey result: 300 kg/ha	Survey result: 275 kg/ha
Your est kg/ha	Your est kg/ha	Your est kg/ha
5c. If sites are distinguished as Good,	Medium and Poor what proportion of	sites would you fertilize?
Good:	Medium:	Poor:
Survey result: 29 %	Survey result: 29 %	Survey result: 00 %
Your est %	Your est %	Your est %
5d. What increase in growth (m3/ha/y	r) would you expect?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.9 m3/ha/yr	Survey result: 0.9 m3/ha/yr	Survey result: 1.2 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
5e. How long would the increased gro	wth indicated above last (years)?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 10 years	Survey result: 10 years	Survey result: 10 years

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

Your est. \_\_\_\_\_ years

6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

Your est. \_\_\_\_\_ years

6aa. Change in growth?

Your est. \_\_\_\_\_ years

Softwood:	Mixedwood:	Hardwood:
Survey result: 1.1 m3/ha/yr	Survey result: 0.8 m3/ha/yr	Survey result: 0.2 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6ab. How long would this change in		
Softwood:	Mixedwood:	Hardwood:
Survey result: 26 years	Survey result: 23 years	Survey result: 13 years
Your est years	Your est years	Your est years
6ac. Change in rotation based on har		
Softwood:	Mixedwood:	Hardwood:
Survey result: -3 years	Survey result: -3 years	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6ad. Change in rotation based on ma		
Softwood:	Mixedwood:	Hardwood:
Survey result: 00 years	Survey result: 00 years	Survey result: +1 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
regarding:	what do you expect from <b>juvenile spa</b>	acing/pre-commercial thinning (assume no utilization)
6ba. Change in growth? Softwood:	Mixedwood:	Hardwood:
Survey result: 0.7 m3/ha/yr	Survey result: 0.8 m3/ha/yr	Survey result: 0.8 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
10ur est. +/ m5/ma/yr	1 our est. +/ III5/IIa/ yr	
6bb. How long would this change in <b>Softwood:</b>	growth last? Mixedwood:	Hardwood:
Survey result: 29 years	Survey result: 25 years	Survey result: 20 years
Your est years	Your est years	Your est years
Tour est years	Your est years	Tour est years
6bc. Change in rotation based on har		
Softwood:	Mixedwood:	Hardwood:
Survey result: -2 years	Survey result: -2 years	Survey result: -3 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6bd. Change in rotation based on ma	ximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 00 years	Survey result: 00 years	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6c. For regenerated immature stands		<b>thinning</b> (include thinning plus final harvest) regarding:
6ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 1.3 m3/ha/yr	Survey result: 1.3 m3/ha/yr	Survey result: 1.4 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
6cb. How long would this change in	•	
Softwood:	Mixedwood:	Hardwood:
Survey result: 14 years	Survey result: 14 years	Survey result: 13 years
Your est years	Your est years	Your est years
6cc. Change in rotation based on har		
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

6cd. Change in rotation based on maximum MAI?

**Softwood:** Survey result: 00 years Your est. +/-\_\_\_\_ years **Mixedwood:** Survey result: 00 years Your est. +/-\_\_\_\_ years Hardwood: Survey result: 00 years Your est. +/-\_\_\_\_ years

**7.** From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do you exp	pect from greater improvement?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.6 m3/ha/yr	Survey result: 0.7 m3/ha/yr	Survey result: 0.7 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
7b. What change in rotation based of	on harvestable tree size would you expec	t?
Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -8 years	Survey result: -8 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
7c. What change in rotation based of	n Maximum MAI would you expect?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -6 years	Survey result: -6 years	Survey result: -6 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

### EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
0	NA	0.9		10	NA	1.1		25	NA	1.4	
20	1.5	1.4		30	1.6	1.6		42	1.7	1.7	
40	1.6	1.6		50	2.0	2.0		65	2.0	2.1	
60*	1.5	1.7		70*	2.1	2.1		85*	2.2	2.1	
80	1.2	1.4		90	2.0	2.2		105	2.1	2.0	
100	NA	1.0		110	NA	1.8		125	NA	1.8	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 12 %	Survey result: 31 %	Survey result: 50 %
Your est %	Your est %	Your est %
1c. What is the growth per ha/year on	areas managed by uneven-aged man	agement?
Softwood:	Mixedwood:	Hardwood:
Survey result: 1.6 m3/ha/yr	Survey result: 2.1 m3/ha/yr	Survey result: 2.1 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
1d. What after-cut growing stock leve	l is left on areas managed by uneven	-aged management?
Softwood:	Mixedwood:	Hardwood:
Survey result: 105 m3/ha	Survey result: 105 m3/ha	Survey result: 109 m3/ha
Your est m3/ha	Your est m3/ha	Your est m3/ha
1e. What is the average cutting cycle	used on areas managed by uneven-ag	ged management?
Softwood:	Mixedwood:	Hardwood:
Survey result: 21 years	Survey result: 19 years	Survey result: 19 years
Your est years	Your est years	Your est years

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range wou	ıld you fertilize? Answer should r	ange between X and Y years of age.
Softwood:	Mixedwood:	Hardwood:
Survey result: 43 & 56 yrs old	Survey result: 39 & 56	5 yrs old Survey result: 53 & 66 yrs old
Your est & yrs old	Your est &	_ yrs old Your est & yrs old
2b. At what rate of fertilizer (kg	/ha) would you apply?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 238 kg/ha	Survey result: 263 kg/ha	Survey result: 333 kg/ha
Your est kg/ha	Your est kg/ha	Your est kg/ha
2c. If sites are distinguished as C	Good, Medium and Poor what pro	portion of sites would you fertilize?
Good:	Medium:	Poor:
Survey result: 35 %	Survey result: 26 %	Survey result: 6 %
Your est %	Your est%	Your est %
2d. What increase in growth (ma	3/ha/yr) would you expect?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.8 m3/ha/yr	Survey result: 1.0 m3/ha/yr	Survey result: 0.8 m3/ha/yr
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr
2e. How long would the increase	ed growth indicated above last (ye	ears)?
Softwood:	Mixedwood:	Hardwood:
Survey result: 10 years	Survey result: 10 years	Survey result: 10 years
Your est years	Your est years	Your est years

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

3aa. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 0.9 m3/ha/yr	Survey result: 0.7 m3/ha/yr	Survey result: 0.6 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
3ab. How long would this change i	n growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 15 years	Survey result: 18 years	Survey result: 21 years
Your est years	Your est years	Your est years
3ac. Change in rotation based on ha	arvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -6 years	Survey result: -6 years	Survey result: -7 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3ad. Change in rotation based on m	aximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -2 years	Survey result: -2 years	Survey result: -3 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth? Softwood: Survey result: 0.8 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

Mixedwood: Survey result: 0.8 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Hardwood: Survey result: 0.8 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr

3bb. How long would this change in growth last?

Softwood:	Mixedwood:	Hardwood:
Survey result: 15 years	Survey result: 17 years	Survey result: 20 years
Your est years	Your est years	Your est years
3bc. Change in rotation based on h	arvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -7 years	Survey result: -7 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3bd. Change in rotation based on n	naximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -3 years	Survey result: -3 years	Survey result: -3 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3c. For existing immature stands w	hat do you expect from <b>commercia</b>	<b>l thinning</b> (include thinning plus final harvest) regarding:
3ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: 1.0 m3/ha/yr	Survey result: 1.0 m3/ha/yr	Survey result: 1.0 m3/ha/yr
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr
3cb. How long would this change i	n growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 15 years	Survey result: 13 years	Survey result: 13 years
Your est years	Your est years	Your est years
3cc. Change in rotation based on ha	arvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -7 years	Survey result: -7 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3cd. Change in rotation based on m	aximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: +4 years	Survey result: +2 years	Survey result: +2 years
Your est. +/ years	Your est. +/ years	Your est. +/ years

#### **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
0	NA	1.3		10	NA	1.3		50	NA	1.6	
18	0.4	1.1		30	0.9	1.4		70	1.2	1.8	
38	0.9	1.7		50	1.5	2.0		90	1.7	2.1	
58*	1.7	1.9		70*	1.7	2.0		110*	1.9	2.1	
78	1.5	1.7		90	1.7	1.9		130	1.8	2.0	
98	NA	1.5		110	NA	1.8		150	NA	0.8	
The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What proportion of the area will be managed by uneven-aged management?

Softwood:	Survey result: 15 %	Mixedwood:	Survey result: 34%	Hardwood:	Survey result 57 %	
	Your est %		Your est %		Your est %	

4c. What growth per ha/year do you expect on areas that will be managed by uneven-aged management?

Softwood:	Survey result: 1.7 m3/ha/yr	Mixedwood:	Survey result: 2.1 m3/ha/yr	Hardwood:	Survey result 2.0 m3/ha/yi	
	Your est m3/ha/yr		Your est m3/ha/yr		Your est m3/ha/yr	

4d. What after-cut growing stock level do you expect to be left on areas that will be managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 103 m3/ha	Survey result: 103 m3/ha	Survey result 107 m3/ha
Your est m3/ha	Your est m3/ha	Your est m3/ha

4e. What would be the average cutting cycle used on areas that will be managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 18 years	Survey result 18 years
Your est years	Your est years	Your est years

**5.** From Questionnaire #2 the results regarding **fertilization** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

5a. At what stand age range would you fertilize? Answer should range between X and Y years of age.

Softwood:	Mixedwood:	Hardwood:		
Survey result: 32 & 48 yrs old	Survey result: 37 & 53 yrs old	Survey result: 44 & 59 yrs old		
Your est & yrs old	Your est & yrs old	Your est & yrs old		
5b. At what rate of fertilizer (kg/ha) w	vould you apply?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 238 kg/ha	Survey result: 263 kg/ha	Survey result: 288 kg/ha		
Your est kg/ha	Your est kg/ha	Your est kg/ha		
5c. If sites are distinguished as Good, Good:	Medium and Poor what proportion of <b>Medium:</b>	sites would you fertilize? Poor:		
Survey result: 33 %	Survey result: 27 %	Survey result: 6 %		
Your est %	Your est %	Your est %		
5d. What increase in growth (m3/ha/y	r) would you expect?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 1.0 m3/ha/yr	Survey result: 1.1 m3/ha/yr	Survey result: 0.7 m3/ha/yr		
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr		
5e. How long would the increased gro	owth indicated above last (years)?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 12 years	Survey result: 11 years	Survey result: 11 years		
Your est years	Your est years	Your est years		

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

6aa. Change in growth? <b>Softwood:</b> Survey result: 1.0 m3/ha/yr Your est. +/ m3/ha/yr	<b>Mixedwood:</b> Survey result: 1.1 m3/ha/yr Your est. +/ m3/ha/yr	Hardwood: Survey result: 0.8 m3/ha/yr Your est. +/ m3/ha/yr
6ab. How long would this change in g	growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 15 years	Survey result: 18 years	Survey result: 21 years
Your est years	Your est years	Your est years
6ac. Change in rotation based on harv	estable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -7 years	Survey result: -8 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6ad. Change in rotation based on max	imum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -2 years	Survey result: -2 years	Survey result: -3 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6b. For regenerated immature stands regarding:	what do you expect from <b>juvenile sp</b> a	acing/pre-commercial thinning (assume no utilization)

6ba. Change in growth?				
Softwood:	Mixedwood:	Hardwood:		
Survey result: 0.6 m3/ha/yr	Survey result: 0.5 m3/ha/yr	Survey result: 0.5 m3/ha/yr		
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr		
6bb. How long would this change in	growth last?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: 15 years	Survey result: 17 years	Survey result: 20 years		
Your est years	Your est years	Your est years		
6bc. Change in rotation based on ha	rvestable tree size?			
Softwood:	Mixedwood:	Hardwood:		
Survey result: -10 years	Survey result: -8 years	Survey result: -9 years		
Your est. +/ years	Your est. +/ years	Your est. +/ years		

 6bd. Change in rotation based on maximum MAI?

 Softwood:
 Mixedwood:
 Hardwood:

 Survey result: -3 years
 Survey result: -3 years
 Survey result: -3 years

 Your est. +/-\_\_\_\_ years
 Your est. +/-\_\_\_\_ years
 Your est. +/-\_\_\_\_ years

6c. For regenerated immature stands what do you expect from **commercial thinning** (include thinning plus final harvest) regarding:

6ca. Change in growth?						
Softwood:						
Survey result: 1.0 m3/ha/yr						
Your est. +/ m3/ha/yr						

**Mixedwood:** Survey result: 1.0 m3/ha/yr Your est. +/-\_\_\_\_ m3/ha/yr Hardwood: Survey result: 1.0 m3/ha/yr Your est. +/-\_\_\_\_\_ m3/ha/yr

6cb. How long would this change in growth last?

Softwood:	Mixedwood:
Survey result: 13 years	Survey result: 12 years
Your est years	Your est years

Hardwood: Survey result: 11 years Your est. \_\_\_\_\_ years

6cc. Change in rotation based on harvestable tree size?

Softwood:	Mixedwood:	Hardwood:
Survey result: -8 years	Survey result: -7 years	Survey result: -7 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
6cd. Change in rotation based on 1	maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 00 years	Survey result: 00 years	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
estimates even if, in one or more o	lases, mey are identical to mose of the	survey results.
7a. What change in MAI do you e	xpect from greater improvement?	
7a. What change in MAI do you e <b>Softwood:</b>	xpect from greater improvement? Mixedwood:	Hardwood:
7a. What change in MAI do you e <b>Softwood:</b> Survey result: 0.6 m3/ha/yr	xpect from greater improvement?	Hardwood:
7a. What change in MAI do you e <b>Softwood:</b> Survey result: 0.6 m3/ha/yr Your est m3/ha/yr	xpect from greater improvement? <b>Mixedwood:</b> Survey result: 0.4 m3/ha/yr	Hardwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr
7a. What change in MAI do you e <b>Softwood:</b> Survey result: 0.6 m3/ha/yr Your est m3/ha/yr	xpect from greater improvement? <b>Mixedwood:</b> Survey result: 0.4 m3/ha/yr Your est m3/ha/yr	Hardwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr
<ul> <li>7a. What change in MAI do you e Softwood:</li> <li>Survey result: 0.6 m3/ha/yr</li> <li>Your est m3/ha/yr</li> <li>7b. What change in rotation based Softwood:</li> </ul>	xpect from greater improvement? <b>Mixedwood:</b> Survey result: 0.4 m3/ha/yr Your est m3/ha/yr l on harvestable tree size would you exp	Hardwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr pect?
<ul> <li>7a. What change in MAI do you e Softwood:</li> <li>Survey result: 0.6 m3/ha/yr</li> <li>Your est m3/ha/yr</li> <li>7b. What change in rotation based Softwood:</li> <li>Survey result: -8 years</li> </ul>	xpect from greater improvement? <b>Mixedwood:</b> Survey result: 0.4 m3/ha/yr Your est m3/ha/yr on harvestable tree size would you exp <b>Mixedwood:</b>	Hardwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr pect? Hardwood:
<ul> <li>7a. What change in MAI do you e Softwood:</li> <li>Survey result: 0.6 m3/ha/yr</li> <li>Your est m3/ha/yr</li> <li>7b. What change in rotation based Softwood:</li> <li>Survey result: -8 years</li> <li>Your est. +/ years</li> </ul>	xpect from greater improvement? <b>Mixedwood:</b> Survey result: 0.4 m3/ha/yr Your est m3/ha/yr on harvestable tree size would you exp <b>Mixedwood:</b> Survey result: -6 years	Hardwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr pect? Hardwood: Survey result: -6 years Your est. +/ years
<ul> <li>7a. What change in MAI do you e Softwood:</li> <li>Survey result: 0.6 m3/ha/yr</li> <li>Your est m3/ha/yr</li> <li>7b. What change in rotation based Softwood:</li> <li>Survey result: -8 years</li> <li>Your est. +/ years</li> </ul>	xpect from greater improvement? Mixedwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr on harvestable tree size would you exp Mixedwood: Survey result: -6 years Your est. +/ years	Hardwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr pect? Hardwood: Survey result: -6 years Your est. +/ years
<ul> <li>7a. What change in MAI do you e Softwood:</li> <li>Survey result: 0.6 m3/ha/yr</li> <li>Your est m3/ha/yr</li> <li>7b. What change in rotation based Softwood:</li> <li>Survey result: -8 years</li> <li>Your est. +/ years</li> <li>7c. What change in rotation based</li> </ul>	xpect from greater improvement? <b>Mixedwood:</b> Survey result: 0.4 m3/ha/yr Your est m3/ha/yr on harvestable tree size would you exp <b>Mixedwood:</b> Survey result: -6 years Your est. +/ years on Maximum MAI would you expect?	Hardwood: Survey result: 0.4 m3/ha/yr Your est m3/ha/yr pect? Hardwood: Survey result: -6 years Your est. +/ years

# Yukon and Interior B.C. - Boreal

# EXISTING STANDS

1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.

1a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softv	wood			Mixed	lwood			Hard	wood	
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
85	NA	1.9		80	NA	2.2		55	NA	1.9	
105	1.7	1.9		100	2.1	2.2		75	1.9	2.0	
125	1.6	1.6		120	1.9	1.9		95	1.9	1.9	
145*	1.5	1.5		140*	1.8	1.8		115*	1.9	1.8	
165	1.4	1.5		160	1.6	1.7		135	1.7	1.5	
185	NA	1.4		180	NA	1.5		155	NA	1.2	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

1b. What proportion of the area is managed by uneven-aged management?

Softwood:	Mixedwood:	Hardwood:		
Survey result: 5 %	Survey result: 0 %	Survey result: 0 %		
Your est %	Your est %	Your est %		

1c. What is the growth per ha/year on areas managed by uneven-aged management?

Te. What is the growth per ha/year on areas managed by the ven-aged management?										
Softwood:	Mixedwood:	Hardwood:								
Survey result: NA m3/ha/yr	Survey result: NA m3/ha	/yr Survey result: NA m3/ha/yr								
Your est m3/ha/yr	Your est m3/ha/	yr Your est m3/ha/yr								
1d. What after-cut growing st	ock level is left on areas mana	ged by uneven-aged management?								
Softwood:	Mixedwood:	Hardwood:								
Survey result: NA m3/ha	Survey result: NA m3/ha	Survey result: NA m3/ha								
Your est m3/ha	Your est m3/ha	Your est m3/ha								
1e. What is the average cuttir	1e. What is the average cutting cycle used on areas managed by uneven-aged management?									
Softwood:	Mixedwood:	Hardwood:								
Survey result: 30 years	Survey result: NA years	Survey result: NA years								
Your est years	Your est years	Your est years								

**2.** From Questionnaire #2 the results regarding **fertilization** of existing stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Base your figures on one-time application (comments from the previous round suggested that number of applications be clarified). Please enter your estimates even if in one or more cases they are identical to those of the survey results.

2a. At what stand age range	-	•	•	-			
Softwood:		dwood:		Hardwood:			
•	d Survey result:		•		•		
Your est & yrs	old Your est	_ & yrs old	Your est	&	yrs old		
2b. At what rate of fertilizer	(kg/ha) would you apply?						
Softwood:	Mixedwood:	Hardwoo	d:				
Survey result:200 kg/ha	Survey result: NA kg/ha	Survey result: NA	kg/ha				
	Your est kg/ha	-	-				
	Medium:urvey result: 0 %SurveYour est %Your	Poor: ey result: 0 % est %	s would you fertiliz	ze?			
	Mixedwood:		ardwood:				
Survey result: 0.7 m3/ha/yr	Survey result: 0.3 m3/h	na/yr Survey resu	lt: 0.5 m3/ha/yr				
Your est m3/ha/yr	Your est m3/h	a/yr Your est	m3/ha/yr				
2e. How long would the incr	eased growth indicated above	e last (years)?					
Softwood:	Mixedwood:	Hardwood	:				
	Survey result: 15 years						

**3.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

3a. For existing immature stands what do you expect from cleaning/brushing (assume no utilization) regarding:

3aa. Change in growth? Softwood: Survey result: 0.5 m3/ha/yr Your est. +/ m3/ha/yr	2	/ha/yr	Hardwood: Survey result: 0.5 m3/ha/yr Your est. +/ m3/ha/yr				
3ab. How long would this chan	ge in growth last?						
Softwood:	Mixedwood:	Hare	lwood:				
Survey result: 15 years S	Survey result: 15 years	Survey result:	10 years				
Your est years	Your est years	Your est	years				
3ac. Change in rotation based o	on harvestable tree size?						
Softwood:	Mixedwood:		Hardwood:				
Survey result: -5 years	Survey result: -5 years	Survey 1	esult: -5 years				
Your est. +/ years	Your est. +/ years	S Your est	t. +/ years				
3ad. Change in rotation based of	on maximum MAI?						
Softwood:	Mixedwood:		Hardwood:				
Survey result: -5 years	Survey result: -5 years	Survey 1	esult: -5 years				
Your est. +/ years	Your est. +/ years	S Your est	t. +/ years				

3b. For existing immature stands what do you expect from **juvenile spacing/pre-commercial thinning** (assume no utilization) regarding:

3ba. Change in growth?				
Softwood:	Mixedwood:	Hardwood:		
Survey result: -0.5 m3/ha/yr	Survey result: -0.5 m3/ha/yr	Survey result: -0.5 m3/ha/yr		
Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr	Your est. +/ m3/ha/yr		

3bb. How long would this ch Softwood:	ange in growth last? <b>Mixedwood:</b>	Hardwood:
Survey result: 15 years	Survey result: 15 years	Survey result: 10 years
Your est years		Your est years
3bc. Change in rotation base	d on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -10 years		Survey result: -10 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3bd. Change in rotation base	d on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 00 years	Survey result: 00 years	Survey result: 00 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3c. For existing immature sta	ands what do you expect from co	ommercial thinning (include thinning plus final harvest) regarding:
3ca. Change in growth?		
Softwood:	Mixedwood:	Hardwood:
Survey result: -1.0 m3/ha/y	-	• • •
Your est. +/ m3/ha/	/yr Your est. +/ m	3/ha/yr Your est. +/ m3/ha/yr
3cb. How long would this ch	ange in growth last?	
Softwood:	Mixedwood:	Hardwood:
Survey result: 20 years	Survey result: 20 years	Survey result: 15 years
Your est years	Your est years	Your est years
3cc. Change in rotation based	d on harvestable tree size?	
Softwood:	Mixedwood:	Hardwood:
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years
Your est. +/ years	Your est. +/ years	Your est. +/ years
3cd. Change in rotation base	d on maximum MAI?	
Softwood:	Mixedwood:	Hardwood:
~	Survey result: 10 years	Survey result: 10 years
	Your est. +/ years	Your est. +/ years
		·

## **REGENERATED STANDS**

4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.

4a. From Questionnaires #1 and #2, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 results led to a mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. Please examine each case below and provide final revised estimates of MAI for each species/age class. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. Remember, the MAI should be maximum at the 20 year age class where you expect maximum biological growth for pulpwood utilization for the region.

	Softwood				Mixedwood				Hardwood		
Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI	Age	Que#1 MAI	Que#2 MAI	Final MAI
55	NA	1.8		45	NA	2.0		15	NA	1.9	
75	1.6	1.9		65	2.2	2.1		35	2.1	2.2	
95	2.1	2.0		85	2.6	2.2		55	2.7	2.3	
115*	2.1	2.0		105*	2.5	2.2		75*	2.7	2.3	
135	1.9	1.9		125	2.4	2.1		95	2.5	2.2	
155	NA	1.8		145	NA	1.9		115	NA	1.9	

The aggregated results below are taken from round 2 survey results. Please review the figures and provide any revised figures that you deem more representative of the region. If your revised figure agrees with the survey figure, please enter your estimate even if it is the same as the survey one.

4b. What prop Softwood:	oortion of the area Survey result: 5 Your est	% Mixe	edwood: Sur	ed management? vey result: 0 % ur est %	Hardwood:	Survey result 0 % Your est %
4c. What grov Softwood:	vth per ha/year do Survey result: N Your est	A m3/ha/yr M	fixedwood: S	managed by uneve Survey result: NA m Your est m3/	n3/ha/yr Hardw	
4d. What after Softwood:	r-cut growing stoc Survey result: N Your est.	NA m3/ha M	ixedwood: S	on areas that will be Survey result: NA m Your est m	n3/ha Hardwo	ven-aged management? ood: Survey result NA m3/ha Your est m3/ha
4e. What wou Softwood:	ld be the average Survey result: 3 Your est.	0 years Mi	xedwood: S	will be managed by urvey result: NA ye 'our est yea	ears Hardwoo	
review these f application (co	igures and provid	e any revised fig previous round	ures that you de suggested that r	em more representation	ative of the region.	ted and are given below. Please Base your figures on one-time Please enter your estimates even
Survey resul	and age range wo Softwood: t: 5 & 30 yrs old & yrs old	Surve	Answer should <b>Mixedwoo</b> ey result: 0 & 3 est &	0 yrs old	nd Y years of age. Hardy Survey result: 0 Your est.	<b>vood:</b> 0 & 30 yrs old
Soft		/ha) would you a <b>Mixedy</b> Survey result: N Your est	wood: A kg/ha Su	Hardwood: rvey result: NA kg/ pur est kg/h		
5c. If sites are Goo Survey resul Your est	od: t: 55 % Surv	Good, Medium a Medium: vey result: 0 % rr est %	-		ould you fertilize?	
So: Survey resul	ease in growth (m ftwood: t: 0.7 m3/ha/yr m3/ha/yr		edwood: : 0.3 m3/ha/yr	Hard Survey result: Your est		
	would the increas wood: t: 13 years S years Y	ed growth indica Mixedw urvey result: 15 Your est.	ood: vears Surv	years)? Hardwood: vey result: 10 years ir est years		
6 Comments	from Questionnai	re #1 regarding f	hinning indicate	d this topic had to l	he solit into severa	l categories and that thinning

**6.** Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. Each question below applies only to immature stands. The mean of your responses to round 2 are given below. Please review these results and provide revised estimates. If your estimate agrees with the mean figure from round 2, please enter this as your estimate.

6a. For regenerated immature stands what do you expect from **cleaning/brushing** (assume no utilization) regarding:

6aa. Change in growth? Softwood: Survey result: 0.5 m3/ha/yr Your est. +/ m3/ha/y	Mixedwood: Survey result: 0.5 m3/ha yr Your est. +/ m3/		-
6ab. How long would this cha Softwood: Survey result: 15 years Your est years	Mixedwood: Survey result: 15 years Su	Hardwood: rvey result: 10 years our est years	
6ac. Change in rotation based Softwood: Survey result: -5 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: -5 years Your est. +/ years	
Your est. +/ years 6b. For regenerated immature	<b>Mixedwood:</b> Survey result: -5 years Your est. +/ years	Your est. +/ years	al thinning (assume no utilization)
regarding: 6ba. Change in growth? <b>Softwood:</b> Survey result: -0.5 m3/ha/yr Your est. +/ m3/ha/yr			•
6bb. How long would this cha <b>Softwood:</b> Survey result: 15 years Your est years	Mixedwood: Survey result: 15 years Su	Hardwood: rvey result: 10 years pur est years	
6bc. Change in rotation based Softwood: Survey result: -10 years Your est. +/ years	<b>Mixedwood:</b> Survey result: -10 years	Hardwood: Survey result: -5 years Your est. +/ years	
6bd. Change in rotation based Softwood: Survey result: 00 years Your est. +/ years	Mixedwood:	Hardwood: Survey result: 00 years Your est. +/ years	
6c. For regenerated immature	stands what do you expect from	commercial thinning (include th	inning plus final harvest) regarding:
6ca. Change in growth? Softwood: Survey result: -1.0 m3/ha/yr Your est. +/ m3/ha/y			•
6cb. How long would this cha Softwood: Survey result: 20 years Your est years	Mixedwood: Survey result: 20 years Su	Hardwood: rvey result: 15 years pur est years	
6cc. Change in rotation based Softwood: Survey result: -5 years Your est. +/ years	on harvestable tree size? <b>Mixedwood:</b> Survey result: +-5 years Your est. +/ years	Hardwood: Survey result: -5 years Your est. +/ years	

6cd. Change in rotation based on maximum MAI?										
Softwood: Mixedwood: Hardwood:										
Survey result: +10 years	Survey result: +10 years	Survey result: +10 years								
Your est. +/ years	Your est. +/ years	Your est. +/ years								

**7.** From Questionnaire #2, the results regarding **genetic improvement** of regenerated stands have been aggregated and are given below. Please review these figures and provide any revised figures that you deem more representative of the region. Please enter your estimates even if, in one or more cases, they are identical to those of the survey results.

7a. What change in MAI do you expect from greater improvement?

Softwood:	Mixedwood:	Hardwood:							
Survey result: 0.3 m3/ha/yr	Survey result: 0.3 m3/ha/yr	Survey result: 0.5 m3/ha/yr							
Your est m3/ha/yr	Your est m3/ha/yr	Your est m3/ha/yr							
7b. What change in rotation bas	sed on harvestable tree size woul	ld you expect?							
Softwood:	Mixedwood:	Hardwood:							
Survey result: -5 years	Survey result: -5 years	Survey result: -5 years							
Your est. +/ years	Your est. +/ years	Your est. +/ years							
7c. What change in rotation based on Maximum MAI would you expect?									
Softwood:	Mixedwood:	Hardwood:							

Soltwood.	MIACUWOOU.	mar uwoou.			
Survey result: -5 years	Survey result: -5 years	Survey result: -10 years			
Your est. +/ years	Your est. +/ years	Your est. +/ years			

# Questionnaire #1, #2 and #3 Results

By Region

Atlantic - Acadian

Atlantic - Boreal

Coast B.C. - Coast

Coast B.C. - Subalpine

Interior B.C. - Columbia

Interior B.C. - Montane

Interior B.C. - Subalpine

NWT and the Prairies - Boreal Ontario - Boreal

Ontario - Great Lakes/St. Lawrence Quebec - Boreal

Quebec - Great Lakes/St. Lawrence

Yukon and Interior B.C. - Boreal

# Atlantic - Acadian

## EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Softwood					Mixedwood					Ha	ırdwood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
16	NA	2.4	2.0		18	NA	2.2	2.2		23	NA	1.8	2.3
36	2.5	1.8	2.2		38	2.1	2.0	2.3		43	1.9	2.0	2.4
56	2.3	1.8	2.2		58	2.1	1.9	2.3		63	2.0	1.9	2.3
76*	1.9	1.8	1.7		78*	1.8	1.8	1.8		83*	1.7	1.7	1.9
96	1.4	1.3	1.1		98	1.5	1.3	1.4		103	1.7	1.3	1.5
116	NA	0.1	0.3		118	NA	0.9	1.0		123	NA	1.0	1.2

1b. What proportion of the area is manage	d by uneven-ag	ged management.				
Softwood: Ques #2 result: 4%	Mixedwood:	Ques #2 result:		Hardwood:	Ques #2 result:	
Ques #3 result: 4%		Ques #3 result:	9%		Ques #3 result:	23%
1c. Growth per ha/year on areas managed	by uneven-age	d management.				
<b>Softwood:</b> Ques #2 result: 1.9 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result:	1.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.9 m <sup>3</sup> /ha/yr
Ques #3 result: $1.8 \text{ m}^3/\text{ha/yr}$		Ques #3 result:	_ *		Ques #3 result:	•
1d. After-cut growing stock level left on a	reas managed b	y uneven-aged r	nanagement.			
<b>Softwood:</b> Ques #2 result: 77 m <sup>3</sup> /ha	Mixedwood:	Ques #2 result:	73 m <sup>3</sup> /ha	Hardwood:	Ques #2 result:	73 m <sup>3</sup> /ha
Ques #3 result: 79 m <sup>3</sup> /ha		Ques #3 result:	77 m <sup>3</sup> /ha		Ques #3 result:	77 m <sup>3</sup> /ha
1e. Average cutting cycle used on areas m	anaged by une	ven-aged manage	ement?			
<b>Softwood:</b> Ques #2 result: 20 years		Ques #2 result:	22 years	Hardwood:	Ques #2 result:	•
Ques #3 result: 18 years		Ques #3 result:	18 years		Ques #3 result:	18 years
2. From Questionnaires #2 and #3 the res Figures are based on one-time applicat		fertilization of e	existing stands hav	ve been aggre	gated and are give	ven below.
2a. Stand age range when fertilization cou	ld take place.					
<b>Softwood:</b> Ques #2 result: 38 & 50 yrs old		Ques #2 result:	43 & 60 yrs old	Hardwood:	Ques #2 result:	43 & 65 yrs old
Ques #3 result: 32 & 45 yrs old		Ques #3 result:	34 & 50 yrs old		Ques #3 result:	34 & 53 yrs old
2b. Rate of fertilizer (kg/ha) application.						
Softwood: Ques #2 result: 200 kg/ha	Mixedwood:	Ques #2 result:	200 kg/ha	Hardwood:	Ques #2 result:	200 kg/ha
Ques #3 result: 200 kg/ha		Ques #3 result:	200 kg/ha		Ques #3 result:	200 kg/ha

<ul><li>2c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 35%</li><li>Ques #3 result: 28%</li></ul>	Medium: Q		Poor: Ques	#2 result: 10% #3 result: 13%	
2d. Expected increase in growth (m3/ha/y	vr).				
<b>Softwood:</b> Ques #2 result: 0.2 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.2 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.2 m <sup>3</sup> /ha/yr
Ques #3 result: 0.2 m <sup>3</sup> /ha/yr		Ques #3 result: 0.2 m <sup>3</sup> /ha/yr		Ques #3 result:	0.2 m <sup>3</sup> /ha/yr
	111	``			
2e. Length of time the increased growth v Softwood: Ques #2 result: 5 years			Hardwood	Ques #2 result:	5 years
Ques #3 result: 5 years	Mixeu wood.	Ques #2 result: 5 years	liai u woou.	Ques #2 result: Ques #3 result:	
<b>3.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several comm	nents on round 2 again emphasize in	nmature star		
3a. For existing immature stands, expecta	tions from <b>clea</b>	ning/brushing (assuming no utiliza	tion) regard	ing the following	are:
3aa. Change in growth.					
<b>Softwood:</b> Ques #2 result: 0.4 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.4 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.4 \text{ m}^3/\text{ha/yr}$
Ques #3 result: $0.4 \text{ m}^3/\text{ha/yr}$		Ques #3 result: 0.4 m <sup>3</sup> /ha/yr		Ques #3 result:	•
3ab. Length of time this change in growth	would last.			-	-
Softwood: Ques #2 result: 13 years			Hardwood:	Ques #2 result:	
Ques #3 result: 13 years		Ques #3 result: 13 years		Ques #3 result:	13 years
3ac. Change in rotation based on harvestab	ole tree size.				
Softwood: Ques #2 result: -2 years		Ques #2 result: -2 years	Hardwood:	Ques #2 result:	-2 years
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
3ad. Change in rotation based on maximur					
<b>Softwood:</b> Ques #2 result: -3 years Ques #3 result: -2 years	Mixedwood:	Ques #2 result: -3 years I Ques #3 result: -2 years	Hardwood:	Ques #2 result: Ques #3 result:	
Ques #5 result2 years		Ques #5 result2 years		Ques #3 Tesuit.	-2 years
3b. For existing immature stands expectat the following are:	tions from <b>juve</b>	nile spacing/pre-commercial thinr	<b>ning</b> (assumi	ng no utilization	) regarding
3ba. Change in growth.					
<b>Softwood:</b> Ques #2 result: 2.2 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 2.1 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	2.1 m <sup>3</sup> /ha/yr
Ques #3 result: 2.6 m <sup>3</sup> /ha/yr		Ques #3 result: 2.6 m <sup>3</sup> /ha/yr		Ques #3 result:	2.6 m <sup>3</sup> /ha/yr
2hh. Longth of time this shares in successful	1				
3bb. Length of time this change in growth <b>Softwood:</b> Ques #2 result: 22 years		Ques #2 result: 20 years	Hardwood:	Ques #2 result:	20 years
Ques #3 result: 23 years		Ques #3 result: 23 years		Ques #3 result:	
	1. (				
3bc. Change in rotation based on harvestal <b>Softwood:</b> Ques #2 result: -13 years		Ques #2 result: -12 years	Hardwood:	Ques #2 result:	-12 years
Ques #3 result: 0 years	<b>t</b>	Ques #3 result: 2 years		Ques #2 result:	2 years
2hd Change is set in h	- N/ A T				
3bd. Change in rotation based on maximum Softwood: Ques #2 result: 3 years		Ques #2 result: 3 years	Hardwood:	Ques #2 result:	3 years
Ques #3 result: 10 years	u	Ques #3 result: 10 years		Ques #2 result:	

3c. For existing immature stands expectations from commercial thinning (including thinning plus final harvest) regarding the following are:

3ca. Change in growth. <b>Softwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.8 m <sup>3</sup> /ha/yr	<b>ixedwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #2 result: Ques #3 result:	•
3cb. Length of time this change in growth laste	ed.			
0 0 0	<b>ixedwood:</b> Ques #2 result: 18 years	Hardwood:	Ques #2 result:	18 years
Ques #3 result: 20 years	Ques #3 result: 20 years		Ques #3 result:	20 years
3cc. Change in rotation based on harvestable tr	ee size.			
Softwood: Ques #2 result: -5 years M	<b>ixedwood:</b> Ques #2 result: -5 years	Hardwood:	Ques #2 result:	-5 years
Ques #3 result: -5 years	Ques #3 result: -5 years		Ques #3 result:	-5 years
3cd. Change in rotation based on maximum MA	AI.			
Softwood: Ques #2 result: 3 years M	<b>ixedwood:</b> Ques #2 result: 3 years	Hardwood:	Ques #2 result:	3 years
Ques #3 result: 10 years	Ques #3 result: 10 years		Ques #3 result:	10 years

## **REGENERATED STANDS**

- Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood. 4.
- From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated 4a. stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood Hardwood							
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
0	NA	1.5	1.0	0	NA	1.3	1	0	NA	1.1	1
8	2.3	2.6	2.3	15	2.1	2.3	2.8	18	1.9	2.3	2.8
28	3.2	3.5	3.7	35	2.2	2.5	2.8	38	2.3	2.4	2.8
48*	2.8	3.2	3.0	55*	2.2	2.5	2.2	58*	2.0	2.5	2.3
68	4.1	3.0	2.9	75	2.9	2.1	2.0	78	2.2	2.2	2.0
88	NA	2.6	2.3	95	NA	1.9	1.8	98	NA	1.9	1.9

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be managed by uneven-aged management. Softwood: Oues #2 result: 2%

1.	Ques $\#2$ result.	$\angle 70$	
	Ques #3 result:	4%	

Mixedwood: Ques #2 result: 7% Ques #3 result: 6%

Hardwood: Ques #2 result: 20% Ques #3 result: 20%

Growth per ha/year expected on areas that will be managed by uneven-aged management. 4c.

<b>Softwood:</b> Ques #2 result: 1.9 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 1.8 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 1.9 m <sup>3</sup> /ha/yr
Ques #3 result: 1.9 m <sup>3</sup> /ha/yr	Ques #3 result: 1.9 m <sup>3</sup> /ha/yr	Ques #3 result: 1.9 m <sup>3</sup> /ha/yr

4d. After-cut growing stock level expecte	d to be left on a	reas that will be managed by unev	ven-aged mana	agement.	
<b>Softwood:</b> Ques #2 result: 77 m <sup>3</sup> /ha	Mixedwood:	Ques #2 result: 73 m <sup>3</sup> /ha	Hardwood:	Ques #2 result:	73 m <sup>3</sup> /ha
Ques #3 result: 78 m <sup>3</sup> /ha		Ques #3 result: 78 m <sup>3</sup> /ha		Ques #3 result:	78 m <sup>3</sup> /ha
<ul><li>4e. Average cutting cycle used on areas th</li><li>Softwood: Ques #2 result: 20 years</li><li>Ques #3 result: 18 years</li></ul>		aged by uneven-aged management Ques #2 result: 22 years Ques #3 result: 18 years		Ques #2 result: Ques #3 result:	
5. From Questionnaires #2 and #3 the re below. Figures are based on one-time		fertilization of regenerated stands	s have been ag	gregated and are	e given
<ul><li>5a. Stand age range when fertilization wo</li><li>Softwood: Ques #2 result: 33 &amp; 45 yrs old Ques #3 result: 25 &amp; 40 yrs old</li></ul>	Mixedwood:	Ques #2 result: 38 & 50 yrs old Ques #3 result: 25 & 40 yrs old	Hardwood:		38 & 55 yrs old 25 & 50 yrs old
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: 200 kg/ha Ques #3 result: 200 kg/ha</li></ul>	Mixedwood:	Ques #2 result: 200 kg/ha Ques #3 result: 200 kg/ha	Hardwood:	Ques #2 result: Ques #3 result:	
<ul><li>5c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 35%</li><li>Ques #3 result: 30%</li></ul>	Medium: Qu	nat proportion of sites that would b ues #2 result: 55% ues #3 result: 70%	Poor: Ques	#2 result: 10% #3 result: 0%	
5d. Expected increase in growth (m3/ha/y	rr).				
<b>Softwood:</b> Ques #2 result: 0.3 m <sup>3</sup> /ha/yr		Ques #2 result: 0.2 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.2 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.1 m <sup>3</sup> /ha/yr		Ques #3 result: 0.1 m <sup>3</sup> /ha/yr		Ques #3 result:	0.1m <sup>3</sup> /ha/yr
<ul><li>5e. Length of time the increased growth i</li><li>Softwood: Ques #2 result: 5 years</li><li>Ques #3 result: 5 years</li></ul>		last (years). Ques #2 result: 5 years Ques #3 result: 5 years	Hardwood:	Ques #2 result: Ques #3 result:	
<ol> <li>Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n</li> </ol>	. Several comm	nents on round 2 again emphasize	immature star		
6a. For regenerated immature stands, exp	ectations from	cleaning/brushing (assuming no u	utilization) reg	garding the follow	wing are:
6aa. Change in growth. <b>Softwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.4 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.4 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	
6ab. Length of time this change in growth Softwood: Ques #2 result: 13 years Ques #3 result: 13 years		Ques #2 result: 13 years Ques #3 result: 13 years	Hardwood:	Ques #2 result: Ques #3 result:	•
6ac. Change in rotation based on harvestab Softwood: Ques #2 result: -2 years Ques #3 result: 0 years		Ques #2 result: -2 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: Ques #3 result:	
6ad. Change in rotation based on maximur Softwood: Ques #2 result: 4 years Ques #3 result: 0 years		Ques #2 result: 4 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: Ques #3 result:	

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: 2.2 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 2.2 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	2.3 m <sup>3</sup> /ha/yr
Ques #3 result: 2.1 m <sup>3</sup> /ha/yr		Ques #3 result: 2.4 m <sup>3</sup> /ha/yr		Ques #3 result:	2.6 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth la Softwood: Ques #2 result: 20 years Ques #3 result: 23 years		Ques #2 result: 20 years Ques #3 result: 23 years	Hardwood:	Ques #2 result: Ques #3 result:	
6bc. Change in rotation based on harvestabl Softwood: Ques #2 result: 7 years Ques #3 result: -13 years		Ques #2 result: 7 years Ques #3 result: -13 years	Hardwood:	Ques #2 result: Ques #3 result:	
6bd. Change in rotation based on maximum Softwood: Ques #2 result: 13 years Ques #3 result: 10 years		Ques #2 result: 14 years Ques #3 result: 12 years	Hardwood:	Ques #2 result: Ques #3 result:	
6c. For regenerated immature stands, expe following are:	ctations from <b>c</b>	commercial thinning (including	thinning plus f	inal harvest) reg	arding the
6ca. Change in growth. <b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	
6cb. Length of time this change in growth la Softwood: Ques #2 result: 13 years Ques #3 result: 10 years		Ques #2 result: 13 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: Ques #3 result:	
6cc. Change in rotation based on harvestabl Softwood: Ques #2 result: -5 years Ques #3 result: -5 years		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: Ques #3 result:	
6cd. Change in rotation based on maximum Softwood: Ques #2 result: 3 years Ques #3 result: 10 years		Ques #2 result: 4 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: Ques #3 result:	
7. From Questionnaires #2, and #3 the resigiven below.	sults regarding	genetic improvement of regene	rated stands ha	ve been aggrega	ted and are
7a. Change in MAI expected from greater		3			3
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.3 m <sup>3</sup> /ha/yr Ques #3 result: 0.3 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	•
7b. Change in rotation expected based on H Softwood: Ques #2 result: -2 years Ques #3 result: 0 years		e size. Ques #2 result: 0 years Ques #3 result: -2 years	Hardwood:	Ques #2 result: Ques #3 result:	
<ul><li>7c. Change in rotation expected based on I</li><li>Softwood: Ques #2 result: 3 years</li><li>Ques #3 result: 0 years</li></ul>		I. Ques #2 result: 5 years Ques #3 result: NA years	Hardwood:	Ques #2 result: Ques #3 result:	

# **Atlantic - Boreal**

## EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood			Mixe	dwood		Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
31	NA	1.4	1.1	34	NA	1.6	1.8	15	NA	1.1	1.3
51	1.9	1.6	2.0	54	2.3	2.1	2.3	35	1.9	1.8	1.9
71	1.8	1.6	1.9	74	2.1	1.8	2.0	55	1.9	1.7	1.8
91*	1.6	1.3	1.6	94*	1.7	1.4	1.7	75*	1.7	1.5	1.6
111	1.1	1.1	1.1	114	1.3	1.2	1.1	95	1.5	1.3	1.3
131	NA	1.0	1.0	134	NA	1.0	0.6	115	NA	1.1	1.0

1b. What proportion of the area	is managed by uneven-ag	ed management.				
Softwood: Ques #2 result: 2.0%		Ques #2 result:		Hardwood:	Ques #2 result:	3.0%
Ques #3 result: 2.0%		Ques #3 result:			Ques #3 result:	2.5%
1c. Growth per ha/year on areas	s managed by uneven-aged	d management.				
Softwood: Ques #2 result: 1.7 n	m <sup>3</sup> /ha/yr <b>Mixedwood:</b>	Ques #2 result:	1.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.9 m <sup>3</sup> /ha/yr
Ques #3 result: 1.7 m	n <sup>3</sup> /ha/yr	Ques #3 result:	$1.8 \text{ m}^{3/\text{ha/yr}}$		Ques #3 result:	$1.9 \text{ m}^{3/\text{ha/yr}}$
	ir /ild/yr	Ques #5 lesuit.	1.0 m /ma yr		Ques "5 lesuit.	1.9 III /IIu/JI
1d. After-cut growing stock leve	el left on areas managed b	y uneven-aged n	nanagement.			
<b>Softwood:</b> Ques #2 result: 75 m	•		•	Hardwood:	Ques #2 result:	$125 \text{ m}^{3}/\text{ha}$
Ques #3 result: 75 m		Ques #3 result:		1141 4 1 0041	Ques #2 result:	
Ques #5 result: 75 m	1º/na	Ques #5 result:	$100 \text{ m}^3/\text{na}$		Ques #5 result:	125 m <sup>2</sup> /na
1e. Average cutting cycle used	on areas managed by uney	on and manage	amont?			
<b>Softwood:</b> Ques #2 result: 20 ye	• •	Ques #2 result:		Hardwood	Ques #2 result:	10 years
Ques #3 result: 20 ye		Ques #2 result: Ques #3 result:		maruwoou.	Ques #2 result: Ques #3 result:	
Ques #5 lesuit. 20 ye	2413	Ques #5 lesuit.	15 years		Ques #5 lesuit.	10 years
2. From Questionnaires #2 and	1 #3 the results regarding <b>f</b>	<b>fertilization</b> of e	xisting stands hav	e heen aggre	gated and are giv	en below
Figures are based on one-tir			histing stands nav	e eeen uggre	Succe and are Sr	
2a. Stand age range when fertili	ization could take place.					
Softwood: Ques #2 result: 50 & 70 y	-	Ques #2 result: 45 &	& 55 yrs old	Hardwood:	Ques #2 result: NA	A & NA yrs old
Ques #3 result: 50 & 70	yrs old Q	Ques #3 result: 45 &	& 55 yrs old	(	Ques #3 result: NA	& NA yrs old
Oh Data of fourtilizer (log/log) and						

20. Rate of fertilizer (kg/ha) application.		
Softwood: Ques #2 result: 200 kg/ha	Mixedwood: Ques #2 result: 150 kg/ha	Hardwood: Ques #2 result: NA kg/ha
Ques #3 result: 200 kg/ha	Ques #3 result: 150 kg/ha	Ques #3 result: NA kg/ha

<ul><li>2c. For sites distinguished as Good, Media</li><li>Good: Ques #2 result: 50%</li><li>Ques #3 result: 50%</li></ul>	Medium: Q		oor: Ques	#2 result: 20% #3 result: 20%	
2d. Expected increase in growth (m3/ha/y	r).				
<b>Softwood:</b> Ques #2 result: 1.5m <sup>3</sup> /ha/yr		Ques #2 result: 1.0 m <sup>3</sup> /ha/yr H	lardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: $1.5 \text{ m}^3/\text{ha/yr}$		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result:	•
2e. Length of time the increased growth w					
<b>Softwood:</b> Ques #2 result: 10 years	Mixedwood:		lardwood:	Ques #2 result:	
Ques #3 result: 10 years		Ques #3 result: 5 years		Ques #3 result:	NA years
<b>3.</b> Comments from Questionnaire #1 regarded would occur only on immature stands. apply only to immature stands. The mature stands.	Several comm	nents on round 2 again emphasize im			
3a. For existing immature stands, expectat	tions from <b>clea</b>	ning/brushing (assuming no utilizat	ion) regardi	ing the following	are:
3aa. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.3 m <sup>3</sup> /ha/yr H	lardwood:	Ques #2 result:	1.5 m <sup>3</sup> /ha/vr
Ques #3 result: $1.0 \text{ m}^3/\text{ha/yr}$		Ques #3 result: 1.3 m <sup>3</sup> /ha/yr		Ques #3 result:	•
					110 III / 110/ J1
3ab. Length of time this change in growth					_
Softwood: Ques #2 result: 15 years	Mixedwood:	-	lardwood:	Ques #2 result:	
Ques #3 result: 15 years		Ques #3 result: 15 years		Ques #3 result:	5 years
3ac. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -10 years	Mixedwood:		lardwood:	Ques #2 result:	
Ques #3 result: -10 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
3ad. Change in rotation based on maximum	ΜΔΙ				
Softwood: Ques #2 result: -5 years		Ques #2 result: -3 years H	lardwood:	Ques #2 result:	-3 years
Ques #3 result: -5 years		Ques #3 result: -3 years		Ques #3 result:	
3b. For existing immature stands expectat the following are:	ions from <b>juve</b>	nile spacing/pre-commercial thinn	<b>ing</b> (assumi	ng no utilization)	) regarding
3ba. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.8 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 2.3 m <sup>3</sup> /ha/yr H	lardwood:	Ques #2 result:	2.5 m <sup>3</sup> /ha/yr
Ques #3 result: 1.8 m <sup>3</sup> /ha/yr		Ques #3 result: 2.3 m <sup>3</sup> /ha/yr		Ques #3 result:	$2.5 \text{ m}^3/\text{ha/yr}$
-					2
3bb. Length of time this change in growth l		0 //0 1: 15 T		0 //2 1	10
Softwood: Ques #2 result: 25 years Ques #3 result: 23 years	Mixedwood:		lardwood:	Ques #2 result:	
Ques #3 Tesuit. 25 years		Ques #3 result: 15 years		Ques #3 result:	10 years
3bc. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -20 years	Mixedwood:		lardwood:	Ques #2 result:	
Ques #3 result: -18 years		Ques #3 result: -15 years		Ques #3 result:	-10 years
3bd. Change in rotation based on maximum	n MAL				
<b>Softwood:</b> Ques #2 result: -10 years		Ques #2 result: -5 years H	lardwood:	Ques #2 result:	-5 years
Ques #3 result: -10 years		Ques #3 result: -5 years		Ques #3 result:	

3c. For existing immature stands expectations from **commercial thinning** (including thinning plus final harvest) regarding the following are:

3ca. Change in growth. <b>Softwood:</b> Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.8 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #2 result: Ques #3 result:	•
3cb. Length of time this change in growth la	isted.				
<b>Softwood:</b> Ques #2 result: 20 years	Mixedwood:	Ques #2 result: 10 years	Hardwood:	Ques #2 result:	10 years
Ques #3 result: 20 years		Ques #3 result: 10 years		Ques #3 result:	10 years
3cc. Change in rotation based on harvestable	e tree size.				
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: -3 years		Ques #3 result: -2 years		Ques #3 result:	NA years
3cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: 3 years		Ques #3 result: 2 years		Ques #3 result:	NA years

# **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood Hardwood							
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
0	NA	0.8	0.0	0	NA	0.0	0.0	0	NA	NA	NA
19	2.0	0.5	0.3	18	2.3	1.4	1.0	12	2.0	1.3	1.3
39	2.2	1.8	1.9	38	2.4	2.2	2.0	32	2.3	2.3	2.3
59*	2.2	2.4	2.3	58*	2.4	2.8	2.5	52*	2.0	2.8	2.8
79	2.0	2.1	2.0	78	2.0	2.3	2.3	72	1.6	2.5	2.5
99	NA	1.7	1.7	98	NA	1.7	1.5	92	NA	1.8	1.8

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be managed by uneven-aged management.

Softwood: Ques #2 result: 3.0%	Mixedwood: Ques #2 result: 3.0%	Hardwood: Ques #2 result: 3.0%
Ques #3 result: 3.0%	Ques #3 result: 5.0%	Ques #3 result: 5.0%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 1.8 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 1.9 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: $2.0 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 1.8 m <sup>3</sup> /ha/yr	Ques #3 result: NA m <sup>3</sup> /ha/yr	Ques #3 result: NA m <sup>3</sup> /ha/yr

4d. After-cut growing stock level expecte	ed to be left on a	areas that will be managed by une	ven-aged mana	agement.	
<b>Softwood:</b> Ques #2 result: 85 m <sup>3</sup> /ha		Ques #2 result: 110 m <sup>3</sup> /ha	-	Ques #2 result:	135 m <sup>3</sup> /ha
Ques #3 result: 85 m <sup>3</sup> /ha		Ques #3 result: 110 m <sup>3</sup> /ha		Ques #3 result:	135 m <sup>3</sup> /ha
<ul><li>4e. Average cutting cycle used on areas the Softwood: Ques #2 result: 20 years Ques #3 result: 20 years</li></ul>		aged by uneven-aged managemen Ques #2 result: 15 years Ques #3 result: 15 years		Ques #2 result: Ques #3 result:	
5. From Questionnaires #2 and #3 the re below. Figures are based on one-time		fertilization of regenerated stand	s have been ag	gregated and are	given
<ul><li>5a. Stand age range when fertilization we Softwood: Ques #2 result: 30 &amp; 50 yrs old Ques #3 result: 30 &amp; 50 yrs old</li></ul>	Mixedwood:	Ques #2 result: 35 & 45 yrs old Ques #3 result: 35 & 45 yrs old		Ques #2 result: NA Ques #3 result: NA	
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: 150 kg/ha Ques #3 result: 150 kg/ha</li></ul>	Mixedwood:	Ques #2 result: 100 kg/ha Ques #3 result: 100 kg/ha	Hardwood:	Ques #2 result: Ques #3 result:	
5c. For sites distinguished as Good, Medi	ium and Poor, t	hat proportion of sites that would	be fertilized.		
Good: Ques #2 result: 60%		ues #2 result: 30%	-	#2 result: 10%	
Ques #3 result: 60%	Q	ues #3 result: 30%	Ques	#3 result: 10%	
5d. Expected increase in growth (m3/ha/y	/r).				
<b>Softwood:</b> Ques #2 result: 1.8 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: 1.8 m <sup>3</sup> /ha/yr		Ques #3 result: 1.5 m <sup>3</sup> /ha/yr		Ques #3 result:	NA m <sup>3</sup> /ha/yr
<ul><li>5e. Length of time the increased growth i</li><li>Softwood: Ques #2 result: 10 years</li><li>Ques #3 result: 10 years</li></ul>		last (years). Ques #2 result: 50 years Ques #3 result: 5 years	Hardwood:	Ques #2 result: Ques #3 result:	
<b>6.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several comm	nents on round 2 again emphasize	immature star		
6a. For regenerated immature stands, exp	ectations from	cleaning/brushing (assuming no	utilization) reg	garding the follow	ving are:
6aa. Change in growth.	Minodencod.	0	Handmaad	Ques #2 result:	1.0
<b>Softwood:</b> Ques #2 result: 1.3 m <sup>3</sup> /ha/yr Ques #3 result: 1.3 m <sup>3</sup> /ha/yr	Mixeawooa:	Ques #2 result: 1.5 m <sup>3</sup> /ha/yr Ques #3 result: 1.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	-
Ques #5 lesuit. 1.5 m²/ma/yi		Ques #5 lesuit. 1.5 III <sup>-/IIa</sup> /yi		Ques #5 lesuit.	1.0 III <sup>-</sup> /IIa/yi
6ab. Length of time this change in growth Softwood: Ques #2 result: 20 years Ques #3 result: 20 years		Ques #2 result: 10 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: Ques #3 result:	
6ac. Change in rotation based on harvestal Softwood: Ques #2 result: -15 years Ques #3 result: -15 years		Ques #2 result: -10 years Ques #3 result: -10 years	Hardwood:	Ques #2 result: Ques #3 result:	
6ad. Change in rotation based on maximur Softwood: Ques #2 result: -10 years Ques #3 result: -10 years		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: Ques #3 result:	

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: 1.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 2.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	2.8 m <sup>3</sup> /ha/yr
Ques #3 result: 1.4 m <sup>3</sup> /ha/yr		Ques #3 result: 1.3 m <sup>3</sup> /ha/yr		Ques #3 result:	1.5 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth l	asted.				
Softwood: Ques #2 result: 25 years		Ques #2 result: 20 years	Hardwood:	Ques #2 result:	
Ques #3 result: 30 years		Ques #3 result: 20 years		Ques #3 result:	15 years
6bc. Change in rotation based on harvestab					
<b>Softwood:</b> Ques #2 result: -18 years	Mixedwood:	Ques #2 result: -20 years	Hardwood:	Ques #2 result:	
Ques #3 result: -20 years		Ques #3 result: -20 years		Ques #3 result:	-15 years
6bd. Change in rotation based on maximum					
<b>Softwood:</b> Ques #2 result: -10 years	Mixedwood:	Ques #2 result: -10 years	Hardwood:	Ques #2 result:	
Ques #3 result: -13 years		Ques #3 result: -10 years		Ques #3 result:	-10 years
6c. For regenerated immature stands, expe following are:	ectations from <b>(</b>	commercial thinning (including	thinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.3 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$1.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 1.3 m <sup>3</sup> /ha/yr		Ques #3 result:	
6cb. Length of time this change in growth 1 Softwood: Ques #2 result: 20 years Ques #3 result: 20 years		Ques #2 result: 10 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: Ques #3 result:	
6cc. Change in rotation based on harvestab	la tran aira				
<b>Softwood:</b> Ques #2 result: NA years		Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: -3 years		Ques #3 result: -2 years		Ques #3 result:	
6cd. Change in rotation based on maximun	n MAI.				
Softwood: Ques #2 result: NA years		Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: 3 years		Ques #3 result: 2 years		Ques #3 result:	NA years
<b>7.</b> From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regene	rated stands ha	we been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.3 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$1.0 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.3 m <sup>3</sup> /ha/yr		Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result:	$1.0 \text{ m}^{3/\text{ha/yr}}$
					2
7b. Change in rotation expected based on				0 112 5	-
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	
Ques #3 result: -10 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
7c. Change in rotation expected based on					
Softwood: Ques #2 result: -3 years	Mixedwood:	Ques #2 result: -3 years	Hardwood:	Ques #2 result:	
Ques #3 result: -5 years		Ques #3 result: -3 years		Ques #3 result:	-3 years

# EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Soft	twood		Mixedwood Hardwood							
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
198	NA	3.2	3.3	125	NA	3.5	4.7	22	NA	2.0	4.0
218	3.1	3.1	2.9	145	3.5	3.5	4.3	42	3.0	3.0	5.7
238	3.1	3.1	2.8	168	3.4	3.4	3.9	62	2.6	3.1	5.2
258*	3.0	3.0	2.7	185*	3.5	3.4	3.6	82*	2.9	2.9	4.7
278	2.9	2.9	2.5	205	3.5	3.3	3.2	102	2.6	2.5	3.4
298	NA	2.8	2.0	225	NA	3.2	2.9	122	NA	2.0	2.0

1b. What proportion of the area is managed	d by uneven-ag	ged management.				
<b>Softwood:</b> Ques #2 result: 5%		Ques #2 result:		Hardwood:	Ques #2 result:	0%
Ques #3 result: 4%		Ques #3 result:	2%		Ques #3 result:	0%
1c. Growth per ha/year on areas managed	• •	-				
<b>Softwood:</b> Ques #2 result: 2.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result:	2.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$2.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: $4.6 \text{ m}^3/\text{ha/yr}$		Ques #3 result:	3.8 m <sup>3</sup> /ha/yr		Ques #3 result:	$1.3 \text{ m}^3/\text{ha/yr}$
			2			5
1d. After-cut growing stock level left on a	reas managed b	by uneven-aged r	nanagement.			
<b>Softwood:</b> Ques #2 result: 250 m <sup>3</sup> /ha	Mixedwood:	Ques #2 result:	200 m <sup>3</sup> /ha	Hardwood:	Ques #2 result:	150 m <sup>3</sup> /ha
Oues #3 result: $338 \text{ m}^3/\text{ha}$		Oues #3 result:	267 m <sup>3</sup> /ha		Oues #3 result:	175 m <sup>3</sup> /ha
Ques #3 result: 338 m³/haQues #3 result: 267 m³/haQues #3 result: 175 m³/ha1e. Average cutting cycle used on areas managed by uneven-aged management?						
<b>Softwood:</b> Ques #2 result: 20 years	Mixedwood:	Ques #2 result:		Hardwood:	Ques #2 result:	
Ques #3 result: 20 years		Ques #3 result:	18 years		Ques #3 result:	10 years
	1, 1,	e	• • • • • •		. 1 1 .	
2. From Questionnaires #2 and #3 the res Figures are based on one-time applicat	0 0	tertilization of e	existing stands hav	ve been aggre	gated and are giv	en below.
Figures are based on one-time applicat	10118					
2a. Stand age range when fertilization cou	ld take place.					
<b>Softwood:</b> Ques #2 result: 0 & 25 yrs old		Ques #2 result: 0	& 25 yrs old	Hardwood:	Ques #2 result: 0	& 25 yrs old
Ques #3 result: 28 & 45 yrs old		Ques #3 result: 33	3 & 52 yrs old		Ques #3 result: 0	& 12 yrs old

2b. Rate of fertilizer (kg/ha) application.		
Softwood: Ques #2 result: NA kg/ha	Mixedwood: Ques #2 result: NA kg/ha	Hardwood: Ques #2 result: NA kg/ha
Ques #3 result: 233 kg/ha	Ques #3 result: 225 kg/ha	Ques #3 result: 75 kg/ha

<ul><li>2c. For sites distinguished as Good, Media</li><li>Good: Ques #2 result: 10%</li><li>Ques #3 result: 12%</li></ul>	Medium: Q		Poor: Ques	#2 result: 10% #3 result: 11%
2d. Expected increase in growth (m3/ha/ya	r).			
<b>Softwood:</b> Ques #2 result: 1.5 m <sup>3</sup> /ha/yr		Ques #2 result: 1.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 2.0 m <sup>3</sup> /ha/yr
Ques #3 result: 2.6 m <sup>3</sup> /ha/yr		Ques #3 result: 1.8 m <sup>3</sup> /ha/yr		Ques #3 result: $1 \text{ m}^3/\text{ha/yr}$
2e. Length of time the increased growth w				
Softwood: Ques #2 result: 15 years	Mixedwood:		Hardwood:	Ques #2 result: 15 years
Ques #3 result: 29 years		Ques #3 result: 10 years		Ques #3 result: 7 years
<b>3.</b> Comments from Questionnaire #1 regarded would occur only on immature stands. apply only to immature stands. The mature stands.	Several comn	nents on round 2 again emphasize in	nmature star	
3a. For existing immature stands, expectat	tions from <b>clea</b>	ning/brushing (assuming no utiliza	ation) regard	ing the following are:
3aa. Change in growth.				
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood	Ques #2 result: $0.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: $1.3 \text{ m}^3/\text{ha/yr}$	in incu in oour	Ques #2 result: $1.3 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$
				Ques no result. 0.5 in maryi
3ab. Length of time this change in growth v Softwood: Ques #2 result: 20 years Ques #3 result: 40 years		Ques #2 result: 20 years Ques #3 result: 40 years	Hardwood:	Ques #2 result: 10 years Ques #3 result: 22 years
3ac. Change in rotation based on harvestab	le tree size.			
<b>Softwood:</b> Ques #2 result: -10 years		Ques #2 result: -10 years	Hardwood:	Ques #2 result: -5 years
Ques #3 result: -12 years		Ques #3 result: -13 years		Ques #3 result: -3 years
3ad. Change in rotation based on maximum Softwood: Ques #2 result: -5 years Ques #3 result: 4 years		Ques #2 result: -5 years Ques #3 result: 7 years	Hardwood:	Ques #2 result: 0 years Ques #3 result: 0 years
3b. For existing immature stands expectate the following are:	ions from <b>juve</b>	nile spacing/pre-commercial thin	<b>ning</b> (assumi	ng no utilization) regarding
3ba. Change in growth.				
<b>Softwood:</b> Ques #2 result: -0.2 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: $-0.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: -0.2 m <sup>3</sup> /ha/yr		Ques #3 result: -0.3 m <sup>3</sup> /ha/yr		Ques #3 result: $-0.3 \text{ m}^3/\text{ha/yr}$
-				
3bb. Length of time this change in growth l		0 10 10 10		0 10 10 10
Softwood: Ques #2 result: 10 years Ques #3 result: 30 years	Mixedwood:	Ques #2 result: 10 years Ques #3 result: 7 years	Hardwood:	Ques #2 result: 10 years Ques #3 result: 6 years
Ques #3 Tesuit. 50 years		Ques #5 result. 7 years		Ques #5 lesuit. 0 years
3bc. Change in rotation based on harvestab	le tree size.			
<b>Softwood:</b> Ques #2 result: -11 years	Mixedwood:		Hardwood:	Ques #2 result: -5 years
Ques #3 result: -12 years		Ques #3 result: -13 years		Ques #3 result: -5 years
3bd. Change in rotation based on maximum	n MAI.			
Softwood: Ques #2 result: -5 years		Ques #2 result: 0 years	Hardwood:	Ques #2 result: 0 years
Ques #3 result: 9 years		Ques #3 result: 7 years		Ques #3 result: 0 years

3c. For existing immature stands expectations from commercial thinning (including thinning plus final harvest) regarding the following are:

3ca. Change in growth. <b>Softwood:</b> Ques #2 result: -0.3 m <sup>3</sup> /ha/yr Ques #3 result: -1.1 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -1.5 m <sup>3</sup> /ha/yr Ques #3 result: -1.3 m <sup>3</sup> /ha/yr		Ques #2 result: Ques #3 result:	•
3cb. Length of time this change in growth la Softwood: Ques #2 result: 20 years Ques #3 result: 40 years		Ques #2 result: 20 years Ques #3 result: 37 years	Hardwood:	Ques #2 result: Ques #3 result:	•
3cc. Change in rotation based on harvestable Softwood: Ques #2 result: -8 years Ques #3 result: -2.0 years		Ques #2 result: -5 years Ques #3 result: -2.0 years	Hardwood:	Ques #2 result: Ques #3 result:	•
<ul><li>3cd. Change in rotation based on maximum</li><li>Softwood: Ques #2 result: -5 years</li><li>Ques #3 result: 11 years</li></ul>		Ques #2 result: 5 years Ques #3 result: 13 years	Hardwood:	Ques #2 result: Ques #3 result:	•

# **REGENERATED STANDS**

- Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood. 4.
- From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated 4a. stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood			Mixed	dwood			Har	dwood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
27	NA	3.0	4.7	29	NA	2.6	3.6	1	NA	0	0
47	4.4	4.4	6.2	49	3.8	4.0	4.8	21	2.6	2.6	5.2
67	5.0	4.9	7.5	68	4.6	4.6	5.5	41	3.3	3.3	7.1
87*	5.1	5.1	7.5	89*	4.7	4.7	5.8	61*	3.5	3.6	6.7
107	4.6	4.9	7.0	109	4.3	4.5	5.7	81	3.0	34	5.6
127	na	4.6	6.4	129	na	4.0	5.2	101	na	3.0	4.3

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will b	e managed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 5%	Mixedwood: Ques #2 result: 5%	Hardwood: Ques #2 result: 0%
Ques #3 result: 5%	Ques #3 result: 5%	Ques #3 result: 0%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 2.5 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 2.5 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 2.5 m <sup>3</sup> /ha/yr
Ques #3 result: 5.4 m <sup>3</sup> /ha/yr	Ques #3 result: 4.3 m <sup>3</sup> /ha/yr	Ques #3 result: 1.3 m <sup>3</sup> /ha/yr

4d. After-cut growing stock level expecte	d to be left on a	areas that will be managed by une	ven-aged mana	agement.	
<b>Softwood:</b> Ques #2 result: 200 m <sup>3</sup> /ha		Ques #2 result: 200 m <sup>3</sup> /ha	•	Ques #2 result:	150 m <sup>3</sup> /ha
Ques #3 result: 300 m <sup>3</sup> /ha		Ques #3 result: 267 m <sup>3</sup> /ha		Ques #3 result:	_
-				-	
4e. Average cutting cycle used on areas the				O	10
Softwood: Ques #2 result: 20 years Ques #3 result: 20 years	Mixeawood:	Ques #2 result: 20 years Ques #3 result: 20 years	Hardwood:	Ques #2 result: Ques #3 result:	
Ques #5 result. 20 years		Ques #5 lesuit. 20 years		Ques #5 Tesuit.	10 years
<b>5.</b> From Questionnaires #2 and #3 the re		fertilization of regenerated stand	ls have been ag	ggregated and are	e given
below. Figures are based on one-time	e applications.				
5a. Stand age range when fertilization we	uld take place				
Softwood: Ques #2 result: 15 & 63 yrs old		Ques #2 result: 0 & 25 yrs old	Hardwood:	Ques #2 result: 0	& 25 yrs old
Ques #3 result: 24 & 45 yrs old		Ques #3 result: 28 & 48 yrs old		Ques #3 result: 0	& 16 yrs old
5b. Rate of fertilizer (kg/ha).					
<b>Softwood:</b> Ques #2 result: 200 kg/ha	Mixedwood:	Ques #2 result: NA kg/ha	Hardwood:	Ques #2 result:	NA kg/ha
Ques #3 result: 233 kg/ha		Ques #3 result: 125 kg/ha		Ques #3 result:	
			1 6 1		
5c. For sites distinguished as Good, Medi <b>Good:</b> Ques #2 result: 5%		hat proportion of sites that would ues #2 result: 50%		#2 result: 5%	
Ques #3 result: 6%	•	ues #2 result: 17%	-	#2 result: 5%	
	x		<b>2</b>		
5d. Expected increase in growth (m3/ha/y					
<b>Softwood:</b> Ques #2 result: 1.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	
Ques #3 result: 2.6 m <sup>3</sup> /ha/yr		Ques #3 result: 1.5 m <sup>3</sup> /ha/yr		Ques #3 result:	1.8 m <sup>3</sup> /ha/yr
5e. Length of time the increased growth i	ndicated above	last (vears)			
<b>Softwood:</b> Ques #2 result: 13 years		Ques #2 result: 15 years	Hardwood:	Ques #2 result:	15 years
Ques #3 result: 28 years		Ques #3 result: 12 years		Ques #3 result:	
	1	1. 1	•		
6. Comments from Questionnaire #1 reg would occur only on immature stands					
apply only to immature stands. The n				ids only. The re	suits below
	-	-			
6a. For regenerated immature stands, exp	ectations from	<b>cleaning/brushing</b> (assuming no	utilization) reg	garding the follow	wing are:
6aa. Change in growth.					
<b>Softwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: $1.4 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $1.5 \text{ m}^3/\text{ha/yr}$		Ques #2 result:	
				Ques no result.	or, m ,ma, ji
6ab. Length of time this change in growth					
<b>Softwood:</b> Ques #2 result: 11 years	Mixedwood:	Ques #2 result: 30 years	Hardwood:	Ques #2 result:	•
Ques #3 result: 39 years		Ques #3 result: 39 years		Ques #3 result:	25 years
6ac. Change in rotation based on harvestab	ole tree size.				
<b>Softwood:</b> Ques #2 result: -7 years	Mixedwood:	Ques #2 result: -10 years	Hardwood:	Ques #2 result:	
Ques #3 result: -12 years		Ques #3 result: -13 years		Ques #3 result:	-3 years
6ad. Change in rotation based on maximur	n MAI.				
<b>Softwood:</b> Ques #2 result: -5 years		Ques #2 result: -5 years	Hardwood:	Ques #2 result:	0 years
Ques #3 result: 4 years		Ques #3 result: 8 years		Ques #3 result:	-2 years

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: -0.2 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	-0.5 m <sup>3</sup> /ha/yr
Ques #3 result: -0.4 m <sup>3</sup> /ha/yr		Ques #3 result: -0.3 m <sup>3</sup> /ha/yr		Ques #3 result:	-0.3 m <sup>3</sup> /ha/yr
· ·		-			-
6bb. Length of time this change in growth la				0 //0 1	10
Softwood: Ques #2 result: 10 years	Mixedwood:	Ques #2 result: 10 years	Hardwood:	Ques #2 result:	
Ques #3 result: 30 years		Ques #3 result: 7 years		Ques #3 result:	6 years
6bc. Change in rotation based on harvestabl	le tree size.				
<b>Softwood:</b> Ques #2 result: -11 years		Ques #2 result: -10 years	Hardwood:	Ques #2 result:	-5 years
Ques #3 result: -13 years		Ques #3 result: -13 years		Ques #3 result:	-5 years
	NAAT				
6bd. Change in rotation based on maximum <b>Softwood:</b> Ques #2 result: -5 years		Quee #2 regult: 0 years	Handwood	Ques #2 result:	0 voora
Ques #3 result: 9 years	Mixeuwoou.	Ques #2 result: 0 years Ques #3 result: 8 years	maruwoou.	Ques #2 result: Ques #3 result:	
Ques no result. > years		Ques no result. O years		Ques "5 result.	i yeuis
6c. For regenerated immature stands, expe	ctations from	commercial thinning (including the	hinning plus f	inal harvest) reg	arding the
following are:					
6ca. Change in growth.					
	Minodencode	Orace #2 magnetty 0.2 m <sup>3</sup> /h a /m	II and maad.	0	0.2
<b>Softwood:</b> Ques #2 result: -0.3 m <sup>3</sup> /ha/yr	Mixeawooa:	Ques #2 result: $-0.3 \text{ m}^3/\text{ha/yr}$	Hardwood:	Ques #2 result:	
Ques #3 result: -1.1 m <sup>3</sup> /ha/yr		Ques #3 result: -1.3 m <sup>3</sup> /ha/yr		Ques #3 result:	-1.3 m <sup>3</sup> /ha/yr
6cb. Length of time this change in growth la	ast.				
<b>Softwood:</b> Ques #2 result: 20 years		Ques #2 result: 20 years	Hardwood:	Ques #2 result:	20 years
Ques #3 result: 43 years		Ques #3 result: 38 years		Ques #3 result:	
6cc. Change in rotation based on harvestabl		0	TT J J.	0	E
Softwood: Ques #2 result: -10 years Ques #3 result: -3 years	Mixeawooa:	Ques #2 result: -14 years Ques #3 result: -4 years	Hardwood:	Ques #2 result: Ques #3 result:	
Ques #5 lesuit5 years		Ques #5 lesuit4 years		Ques #5 lesuit.	-5 years
6cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: -5 years		Ques #2 result: -9 years	Hardwood:	Ques #2 result:	5 years
Ques #3 result: 10 years		Ques #3 result: 11 years		Ques #3 result:	0 years
7 From Opportion noises #2 and #2 the se	aulta na condin a	constin immercement of accord	atad stands he	we have a series	tad and ana
7. From Questionnaires #2, and #3 the reagiven below.	suits regarding	genetic improvement of regenera	ated stands na	we been aggrega	ted and are
Siven below.					
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.0 m <sup>3</sup> /ha/yr
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 1.1 m <sup>3</sup> /ha/yr		Ques #3 result:	$1.2 \text{ m}^3/\text{ha/yr}$
					5
7b. Change in rotation expected based on l					
<b>Softwood:</b> Ques #2 result: -9 years	Mixedwood:	Ques #2 result: -10 years	Hardwood:	Ques #2 result:	•
Ques #3 result: -6 years		Ques #3 result: -5 years		Ques #3 result:	-/ years
7c. Change in rotation expected based on 1	Maximum MA	L			
<b>Softwood:</b> Ques #2 result: -7 years		Ques #2 result: -5 years	Hardwood:	Ques #2 result:	-10 years
Ques #3 result: -4 years		Ques #3 result: -4 years		Ques #3 result:	

## **EXISTING STANDS**

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are 1a. provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Soft	twood			Mixe	dwood			Ha	rdwood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
209	NA	2.7	2.8	193	NA	3.0	2.7	07	NA	1.0	0.4
229	2.0	2.6	2.7	213	2.9	2.8	2.6	27	6.0	2.5	0.6
249	2.1	2.5	2.6	233	2.7	2.6	2.4	47	4.2	3.5	0.9
269*	2.1	2.4	2.5	253*	2.5	2.4	2.3	67*	3.8	3.8	1.1
289	2.0	2.2	2.4	273	2.5	2.2	2.1	87	4.0	3.7	1.2
309	NA	2.0	2.0	293	NA	2.0	1.9	107	NA	3.4	1.2

1b. What proportion of the area is manage	d by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 5%	Mixedwood: Ques #2 result: 5%	Hardwood: Ques #2 result: 0%
Ques #3 result: 3%	Ques #3 result: 3%	Ques #3 result: 0%
1c. Growth per ha/year on areas managed	by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 2.0 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 2.0 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr
Ques #3 result: $2.5 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $2.8 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $0 \text{ m}^3/\text{ha/yr}$
		Ques #5 lesuit. O in /ha/yi
1d. After-cut growing stock level left on a	reas managed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 150 m <sup>3</sup> /ha	<b>Mixedwood:</b> Ques #2 result: 150 m <sup>3</sup> /ha	Hardwood: Ques #2 result: NA m <sup>3</sup> /ha
Ques #3 result: 118 m <sup>3</sup> /ha	Ques #3 result: 107 m <sup>3</sup> /ha	Ques #3 result: $0 \text{ m}^3/\text{ha}$
1e. Average cutting cycle used on areas m	anaged by uneven-aged management?	
<b>Softwood:</b> Ques #2 result: 30 years	<b>Mixedwood:</b> Ques #2 result: 30 years	Hardwood: Ques #2 result: NA years
Ques #3 result: 26 years	Ques #3 result: 27 years	Ques #3 result: 0 years
2. From Questionnaires #2 and #3 the res	sults regarding <b>fertilization</b> of existing stands ha	ave been aggregated and are given below.
Figures are based on one-time applicat	ions	
2a. Stand age range when fertilization cou	ld take place.	
Softwood: Ques #2 result: 0 & 25 yrs old	Mixedwood: Ques #2 result: 0 & 25 yrs old	Hardwood: Ques #2 result: 0 & 25 yrs old
Ques #3 result: 25 & 40 yrs old	Ques #3 result: 35 & 53 yrs old	Ques #3 result: 0 & 25 yrs old
2b. Rate of fertilizer (kg/ha) application.		
Softwood: Ques #2 result: NA kg/ha	Mixedwood: Ques #2 result: NA kg/ha	Hardwood: Ques #2 result: NA kg/ha
Ques #3 result: 135 kg/ha	Ques #3 result: 250 kg/ha	Ques #3 result: 0 kg/ha

<ul><li>2c. For sites distinguished as Good, Media</li><li>Good: Ques #2 result: 10%</li><li>Ques #3 result: 3%</li></ul>	Medium: Q		or: Ques	#2 result: 10% #3 result: 9%	
2d. Expected increase in growth (m3/ha/y	r).				
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr Hat	rdwood:	Ques #2 result:	1.5 m <sup>3</sup> /ha/yr
Ques #3 result: 1.7 m <sup>3</sup> /ha/yr		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result:	1.3 m <sup>3</sup> /ha/yr
2e. Length of time the increased growth w	yould last (yoar				
<b>Softwood:</b> Ques #2 result: 15 years			rdwood:	Ques #2 result:	15 years
Ques #3 result: 35 years		Ques #3 result: 13 years		Ques #3 result:	
<b>3.</b> Comments from Questionnaire #1 regroups would occur only on immature stands. apply only to immature stands. The mature stands.	Several comn	nents on round 2 again emphasize imm			
3a. For existing immature stands, expectation	tions from <b>clea</b>	ning/brushing (assuming no utilization	n) regardi	ing the following	are:
3aa. Change in growth.					
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ha	rdwood:	Ques #2 result:	$0.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.4 m <sup>3</sup> /ha/yr		Ques #3 result: 0.4 m <sup>3</sup> /ha/yr		Ques #3 result:	0.4 m <sup>3</sup> /ha/yr
3ab. Length of time this change in growth v Softwood: Ques #2 result: 15 years Ques #3 result: 35 years		Ques #2 result: 15 yearsHatQues #3 result: 48 years		Ques #2 result: Ques #3 result:	
3ac. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -5 years				Ques #2 result:	
Ques #3 result: -10 years		Ques #3 result: -12 years		Ques #3 result:	-5 years
<ul><li>3ad. Change in rotation based on maximum</li><li>Softwood: Ques #2 result: -5 years</li><li>Ques #3 result: 7 years</li></ul>		Ques #2 result: -5 years Han Ques #3 result: 12 years		Ques #2 result: Ques #3 result:	
3b. For existing immature stands expectat the following are:	ions from <b>juve</b>	nile spacing/pre-commercial thinning	<b>g</b> (assumi	ng no utilization	) regarding
3ba. Change in growth.					
<b>Softwood:</b> Ques #2 result: -0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: $-0.5 \text{ m}^3/\text{ha/yr}$ Has	rdwood:	Ques #2 result:	-0.5 m <sup>3</sup> /ha/yr
Ques #3 result: -0.3 m <sup>3</sup> /ha/yr		Ques #3 result: -0.3 m <sup>3</sup> /ha/yr		Ques #3 result:	-0.3 m <sup>3</sup> /ha/yr
3bb. Length of time this change in growth I Softwood: Ques #2 result: 15 years Ques #3 result: 32 years		Ques #2 result: 15 years Hat Ques #3 result: 10 years	rdwood:	Ques #2 result: Ques #3 result:	
3bc. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -10 years				Ques #2 result:	
Ques #3 result: -12 years		Ques #3 result: -15 years		Ques #3 result:	-7 years
3bd. Change in rotation based on maximum	n MAI.				
<b>Softwood:</b> Ques #2 result: 0 years				Ques #2 result:	
Ques #3 result: 5 years		Ques #3 result: 3 years		Ques #3 result:	0 years

3c. For existing immature stands expectations from **commercial thinning** (including thinning plus final harvest) regarding the following are:

3ca. Change in growth.	3ca.	Change in growth.	
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<b>Softwood:</b> Ques #2 result: -1.5 m <sup>3</sup> /ha/yr <b>M</b> Ques #3 result: -1.5 m <sup>3</sup> /ha/yr	Aixedwood:	Ques #2 result: $-1.5 \text{ m}^3/\text{ha/yr}$ H Ques #3 result: $-1.3 \text{ m}^3/\text{ha/yr}$	Ques #2 result: Ques #3 result:	•
3cb. Length of time this change in growth lastSoftwood: Ques #2 result: 20 yearsQues #3 result: 33 years		Ques #2 result: 20 yearsHQues #3 result: 40 years	Ques #2 result: Ques #3 result:	•
3cc. Change in rotation based on harvestable tSoftwood: Ques #2 result: -5 yearsQues #3 result: -4 years		Ques #2 result: -5 yearsHQues #3 result: -3 years	Ques #2 result: Ques #3 result:	•
3cd. Change in rotation based on maximum MSoftwood: Ques #2 result: 10 yearsQues #3 result: 15 years		Ques #2 result: 10 yearsHQues #3 result: 17 years	Ques #2 result: Ques #3 result:	

# **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Softwood					Mixedwood					Ha	rdwood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
55	NA	2.8	3.1		37	NA	2.0	2.4		5	NA	1.5	0.8
75	2.7	4.0	4.0		57	2.7	2.6	3.0		25	2.7	2.5	2.0
95	3.5	4.8	5.0		77	3.3	3.2	3.6		45	3.4	3.2	2.9
115*	3.7	4.9	4.8		97*	3.6	3.6	3.8		65*	3.8	3.8	3.6
135	3.4	4.5	4.4		117	3.3	3.5	3.7		85	3.6	3.6	3.3
155	NA	4.1	4.0		137	NA	3.4	3.5		105	NA	3.0	2.7

The aggregated results below are taken from rounds 2 and 3 survey results.

4b Proportion of the area that will be managed by uneven-aged management

10. Troportion of the area that will	se managea sy aneven agea management.	
<b>Softwood:</b> Ques #2 result: 5%	Mixedwood: Ques #2 result: 5%	Hardwood: Ques #2 result: 0%
Ques #3 result: 6%	Ques #3 result: 7%	Ques #3 result: 0%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 2.0 m <sup>3</sup> /ha/yr	
Ques #3 result: 2.5 m <sup>3</sup> /ha/yr	

**Mixedwood:** Ques #2 result: 1.0 m<sup>3</sup>/ha/yr Ques #3 result: 2.5 m<sup>3</sup>/ha/yr Hardwood: Ques #2 result: NA m<sup>3</sup>/ha/yr Ques #3 result: 0 m<sup>3</sup>/ha/yr

4d. After-cut growing stock level expecte	d to be left on a	areas that will be managed by un	neven-aged mana	agement.
<b>Softwood:</b> Ques #2 result: 150 m <sup>3</sup> /ha		Ques #2 result: 150 m <sup>3</sup> /ha	•	Ques #2 result: NA $m^3/ha$
Ques #3 result: 163 m <sup>3</sup> /ha		Ques #3 result: 167 m <sup>3</sup> /ha		Ques #3 result: $0 \text{ m}^3/\text{ha}$
<ul><li>4e. Average cutting cycle used on areas th</li><li>Softwood: Ques #2 result: 30 years</li><li>Ques #3 result: 24 years</li></ul>		aged by uneven-aged managem Ques #2 result: 30 years Ques #3 result: 23 years		Ques #2 result: NA years Ques #3 result: 0 years
5. From Questionnaires #2 and #3 the re below. Figures are based on one-time		fertilization of regenerated sta	nds have been ag	gregated and are given
<ul><li>5a. Stand age range when fertilization wo</li><li>Softwood: Ques #2 result: 15 &amp; 73 yrs old Ques #3 result: 25 &amp; 40 yrs old</li></ul>	Mixedwood: Q	Ques #2 result: 0 & 25 yrs old Ques #3 result: 35 & 53 yrs old		es #2 result: 0 & 25 yrs old es #3 result: 0 & 25 yrs old
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: 200 kg/ha Ques #3 result: 135 kg/ha</li></ul>	Mixedwood:	Ques #2 result: NA kg/ha Ques #3 result: 250 kg/ha	Hardwood:	Ques #2 result: NA kg/ha Ques #3 result: 0 kg/ha
<ul><li>5c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 10%</li><li>Ques #3 result: 4%</li></ul>	Medium: Qu	hat proportion of sites that wou ues #2 result: 35% ues #3 result: 15%	Poor: Ques	#2 result: 10% #3 result: 12%
5d. Expected increase in growth (m3/ha/y	vr).			
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: $1.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 1.7 m <sup>3</sup> /ha/yr		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 1.3 m <sup>3</sup> /ha/yr
<ul><li>5e. Length of time the increased growth i</li><li>Softwood: Ques #2 result: 15 years</li><li>Ques #3 result: 20 years</li></ul>		last (years). Ques #2 result: 15 years Ques #3 result: 13 years	Hardwood:	Ques #2 result: 15 years Ques #3 result: 13 years
<b>6.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several comm	nents on round 2 again emphasi	ze immature star	
6a. For regenerated immature stands, exp	ectations from	<b>cleaning/brushing</b> (assuming r	o utilization) reg	garding the following are:
6aa. Change in growth.		2		2
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.3 m <sup>3</sup> /ha/yr
6ab. Length of time this change in growth <b>Softwood:</b> Ques #2 result: 15 years Ques #3 result: 30 years		Ques #2 result: 15 years Ques #3 result: 37 years	Hardwood:	Ques #2 result: 10 years Ques #3 result: 23 years
6ac. Change in rotation based on harvestab Softwood: Ques #2 result: -5 years Ques #3 result: -9 years		Ques #2 result: -5 years Ques #3 result: -10 years	Hardwood:	Ques #2 result: -5 years Ques #3 result: -2 years
6ad. Change in rotation based on maximur Softwood: Ques #2 result: -5 years Ques #3 result: 5 years		Ques #2 result: -5 years Ques #3 result: 7 years	Hardwood:	Ques #2 result: -5 years Ques #3 result: -2 years

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: -0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	-0.5 m <sup>3</sup> /ha/yr
Ques #3 result: -0.3 m <sup>3</sup> /ha/yr		Ques #3 result: -0.3 m <sup>3</sup> /ha/yr		Ques #3 result:	-0.3 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth l	asted.				
Softwood: Ques #2 result: 15 years		Ques #2 result: 15 years	Hardwood:	Ques #2 result:	10 years
Ques #3 result: 31 years		Ques #3 result: 8 years		Ques #3 result:	7 years
6bc. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -10 years		Ques #2 result: -10 years	Hardwood:	Ques #2 result:	-5 years
Ques #3 result: -9 years		Ques #3 result: -13 years		Ques #3 result:	-5 years
6bd. Change in rotation based on maximum	n MAI.				
<b>Softwood:</b> Ques #2 result: 0 years	Mixedwood:	Ques #2 result: 0 years	Hardwood:	Ques #2 result:	
Ques #3 result: 5 years		Ques #3 result: 7 years		Ques #3 result:	0 years
6c. For regenerated immature stands, expe following are:	ectations from (	commercial thinning (including t	hinning plus f	ïnal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: -1.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -1.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$-1.5 \text{ m}^3/\text{ha/vr}$
Ques #3 result: $-1.4 \text{ m}^3/\text{ha/yr}$	in incu in oour	Ques #2 result: $-1.2 \text{ m}^3/\text{ha/yr}$	1101 0 0 0001	Ques #2 result:	-
				Ques #5 Tesuit.	-1.2 III /IId/yI
6cb. Length of time this change in growth l					
Softwood: Ques #2 result: 20 years	Mixedwood:	Ques #2 result: 20 years	Hardwood:	Ques #2 result:	
Ques #3 result: 33 years		Ques #3 result: 38 years		Ques #3 result:	27 years
6cc. Change in rotation based on harvestable	le tree size.				
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	
Ques #3 result: -4 years		Ques #3 result: -3 years		Ques #3 result:	-3 years
6cd. Change in rotation based on maximum	n MAI.				
<b>Softwood:</b> Ques #2 result: 10 years	Mixedwood:	Ques #2 result: 10 years	Hardwood:	Ques #2 result:	
Ques #3 result: 16 years		Ques #3 result: 17 years		Ques #3 result:	7 years
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regener	ated stands ha	we been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: $0.4 \text{ m}^3/\text{ha/yr}$	-	Ques #2 result: 0.4 m <sup>3</sup> /ha/yr	Hardwood	Ques #2 result:	$0.7 \text{ m}^{3/\text{ha/yr}}$
Ques #2 result: $0.4 \text{ m}^3/\text{ha/yr}$	Mixed wood.	Ques #2 result: $0.4 \text{ m}^3/\text{ha/yr}$	Haruwoou.	Ques #2 result: Ques #3 result:	•
Ques #5 result. 0.5 III <sup>+</sup> /IIa/yi		Ques #5 lesult. 0.5 lll <sup>2</sup> /lld/yl		Ques #5 lesuit.	0.5 m²/ma/yi
7b. Change in rotation expected based on 1					
<b>Softwood:</b> Ques #2 result: -10 years	Mixedwood:	Ques #2 result: -10 years	Hardwood:	Ques #2 result:	
Ques #3 result: -7 years		Ques #3 result: -6 years		Ques #3 result:	-o years
7c. Change in rotation expected based on 2					
Softwood: Ques #2 result: -8 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	
Ques #3 result: -5 years		Ques #3 result: -6 years		Ques #3 result:	-6 years

## EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood			Mixe	dwood			Ha	irdwood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
103	NA	3.3	3.0	83	NA	2.2	2.3	47	NA	1.5	1.5
123	3.2	3.2	2.9	103	2.2	2.5	2.5	67	1.8	1.8	1.8
143	3.1	3.1	2.8	123	2.2	2.4	2.4	87	1.9	2.0	2.0
163*	2.8	2.9	2.6	143 *	2.1	2.3	2.3	107*	1.9	1.8	1.8
183	2.7	2.7	2.4	163	1.8	2.0	2.1	127	1.5	1.5	1.5
203	NA	2.4	2.2	183	NA	1.9	1.9	147	NA	1.0	1.0

1b. What proportion of the area is managed	l by uneven-aged management			
<b>Softwood:</b> Ques #2 result: 30%	Mixedwood: Ques #2 result:	30% Hardwood:	Ques #2 result:	0%
Ques #3 result: 20%	Ques #3 result:	20%	Ques #3 result:	NA%
1c. Growth per ha/year on areas managed l	by uneven-aged management.			
<b>Softwood:</b> Ques #2 result: 2.0 m <sup>3</sup> /ha/yr	Mixedwood: Ques #2 result:	1.8 m <sup>3</sup> /ha/yr <b>Hardwood:</b>	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: $2.0 \text{ m}^3/\text{ha/yr}$	Ques #3 result:	$2.0 \text{ m}^{3/\text{ha/vr}}$	Ques #3 result:	NA m <sup>3</sup> /ha/yr
	Ques no result	2.0 11 / 114 / 1	Ques no result.	i (i i iii ) iiu ji
1d. After-cut growing stock level left on ar	eas managed by uneven-aged	management.		
<b>Softwood:</b> Ques #2 result: 200 m <sup>3</sup> /ha	Mixedwood: Ques #2 result:	150 m <sup>3</sup> /ha <b>Hardwood:</b>	Ques #2 result:	NA m <sup>3</sup> /ha
Ques #3 result: $150 \text{ m}^3/\text{ha}$	Ques #3 result:	150 m <sup>3</sup> /ha	Ques #3 result:	NA m <sup>3</sup> /ha
	<b>C</b>		<b>C</b>	
1e. Average cutting cycle used on areas ma	maged by uneven-aged manag	ement?		
<b>Softwood:</b> Ques #2 result: 30 years	Mixedwood: Ques #2 result:		Ques #2 result:	NA years
Ques #3 result: 30 years	Ques #3 result:	30 years	Ques #3 result:	NA years
2. From Questionnaires #2 and #3 the rest		existing stands have been aggre	gated and are give	ven below.
Figures are based on one-time application	ons			
2a. Stand age range when fertilization coul	-		- <b>-</b>	
Softwood: Ques #2 result: 0 & 30 yrs old	Mixedwood: Ques #2 result:	•	: Ques #2 result:	•
Ques #3 result: 0 & 30 yrs old	Ques #3 result:	$0 \propto 50 \text{ yrs old}$	Ques #3 result: (	$J \approx 20$ yrs old
2b. Rate of fertilizer (kg/ha) application.				
<b>Softwood:</b> Ques #2 result: NA kg/ha	<b>Mixedwood:</b> Ques #2 result:	NA kg/ha Hardwood:	Ques #2 result:	NA kg/ha
Ques #3 result: NA kg/ha	Ques #3 result:		Ques #3 result:	-

<ul><li>2c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 30%</li><li>Ques #3 result: 30%</li></ul>	Medium: Q		Poor: Ques	#2 result: 0% #3 result: NA%
2d. Expected increase in growth (m3/ha/y Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.8 m <sup>3</sup> /ha/yr
<ul><li>2e. Length of time the increased growth w</li><li>Softwood: Ques #2 result: 15 years</li><li>Ques #3 result: 15 years</li></ul>			Hardwood:	Ques #2 result: 10 years Ques #3 result: 10 years
<b>3.</b> Comments from Questionnaire #1 reg. would occur only on immature stands. apply only to immature stands. The m	Several comm	nents on round 2 again emphasize in	nmature star	
3a. For existing immature stands, expecta	tions from <b>clea</b>	ning/brushing (assuming no utiliza	ation) regard	ing the following are:
<ul> <li>3aa. Change in growth.</li> <li>Softwood: Ques #2 result: 0.7 m<sup>3</sup>/ha/yr Ques #3 result: 1.0 m<sup>3</sup>/ha/yr</li> </ul>	Mixedwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 1.0 m <sup>3</sup> /ha/yr
<ul><li>3ab. Length of time this change in growth v</li><li>Softwood: Ques #2 result: 15 years</li><li>Ques #3 result: 15 years</li></ul>		Ques #2 result: 15 years Ques #3 result: 15 years	Hardwood:	Ques #2 result: 10 years Ques #3 result: 10 years
<ul><li>3ac. Change in rotation based on harvestab</li><li>Softwood: Ques #2 result: -5 years</li><li>Ques #3 result: -5 years</li></ul>		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: -5 years Ques #3 result: -5 years
<ul><li>3ad. Change in rotation based on maximum</li><li>Softwood: Ques #2 result: -5 years</li><li>Ques #3 result: -5 years</li></ul>		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: -5 years Ques #3 result: -5 years
3b. For existing immature stands expectat the following are:	ions from <b>juve</b>	nile spacing/pre-commercial thin	<b>ning</b> (assumi	ng no utilization) regarding
3ba. Change in growth. <b>Softwood:</b> Ques #2 result: -0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: -0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr
3bb. Length of time this change in growth I Softwood: Ques #2 result: 15 years Ques #3 result: 15 years		Ques #2 result: 15 years Ques #3 result: 15 years	Hardwood:	Ques #2 result: 10 years Ques #3 result: 10 years
3bc. Change in rotation based on harvestab <b>Softwood:</b> Ques #2 result: -10 years Ques #3 result: -10 years		Ques #2 result: -10 years Ques #3 result: -10 years	Hardwood:	Ques #2 result: -5 years Ques #3 result: -5 years
3bd. Change in rotation based on maximum Softwood: Ques #2 result: 0 years Ques #3 result: 0 years		Ques #2 result: 0 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: 0 years Ques #3 result: 0 years

3c. For existing immature stands expectations from **commercial thinning** (including thinning plus final harvest) regarding the following are:

3ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: -1.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -1.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	-1.5 m <sup>3</sup> /ha/yr
Ques #3 result: -1.5 m <sup>3</sup> /ha/yr		Ques #3 result: -1.5 m <sup>3</sup> /ha/yr		Ques #3 result:	-1.5 m <sup>3</sup> /ha/yr
3cb. Length of time this change in growth la	isted.				
<b>Softwood:</b> Ques #2 result: 20 years	Mixedwood:	Ques #2 result: 20 years	Hardwood:	Ques #2 result:	15 years
Ques #3 result: 20 years		Ques #3 result: 20 years		Ques #3 result:	15 years
3cc. Change in rotation based on harvestable	e tree size.				
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	-5 years
Ques #3 result: -3 years		Ques #3 result: -3 years		Ques #3 result:	-5 years
3cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: 10 years	Mixedwood:	Ques #2 result: 10 years	Hardwood:	Ques #2 result:	10 years
Ques #3 result: 10 years		Ques #3 result: 10 years		Ques #3 result:	10 years

## **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood			Mixe	dwood			На	rdwood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
34	NA	1.2	1.2	33	NA	1.0	1.0	17	NA	1.0	1.0
54	3.6	2.2	2.2	53	2.2	1.8	1.8	37	1.8	1.6	1.6
74	3.9	2.8	2.8	73	2.4	2.3	2.3	57	2.0	2.0	2.0
94*	3.1	3.2	3.2	93*	2.4	2.6	2.6	77*	2.2	2.2	2.3
114	3.8	3.1	3.1	113	2.1	2.5	2.5	95	1.8	2.1	2.2
134	NA	3.0	3.0	133	NA	2.4	2.4	117	NA	1.8	2.0

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 30%	<b>Mixedwood:</b> Ques #2 result: 30%	Hardwood: Ques #2 result: 0%
Ques #3 result: 30%	Ques #3 result: 30%	Ques #3 result: 0%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 2.0 m <sup>3</sup> /ha/yr	]
Ques #3 result: 2.0 m <sup>3</sup> /ha/yr	

**Mixedwood:** Ques #2 result: 1.8 m<sup>3</sup>/ha/yr Ques #3 result: 2.0 m<sup>3</sup>/ha/yr Hardwood: Ques #2 result: NA m<sup>3</sup>/ha/yr Ques #3 result: NA m<sup>3</sup>/ha/yr

4d. After-cut growing stock level expected	d to be left on a	areas that will be managed by unev	ven-aged mana	agement.	
<b>Softwood:</b> Ques #2 result: 200 m <sup>3</sup> /ha		Ques #2 result: 150 m <sup>3</sup> /ha	-	Ques #2 result:	NA m <sup>3</sup> /ha
Ques #3 result: 150 m <sup>3</sup> /ha		Ques #3 result: 150 m <sup>3</sup> /ha		Ques #3 result:	NA m <sup>3</sup> /ha
A. A	1				
4e. Average cutting cycle used on areas t <b>Softwood:</b> Ques #2 result: 30 years		Ques #2 result: 30 years		Ques #2 result:	NA vears
Ques #2 result: 30 years	Winked wood.	Ques #3 result: 30 years	IIIII U WOOU.	Ques #3 result:	•
-		-		-	
<b>5.</b> From Questionnaires #2 and #3 the re		fertilization of regenerated stand	s have been ag	ggregated and are	e given
below. Figures are based on one-time	e applications.				
5a. Stand age range when fertilization we	ould take place.				
Softwood: Ques #2 result: 0 & 20 yrs old	Mixedwood:	Ques #2 result: 0 & 20 yrs old		Ques #2 result: 0 a	
Ques #3 result: 0 & 20 yrs old		Ques #3 result: 0 & 20 yrs old	(	Ques #3 result: 0 &	2 15 yrs old
5b. Rate of fertilizer (kg/ha).					
Softwood: Ques #2 result: NA kg/ha	Mixedwood:	Ques #2 result: NA kg/ha	Hardwood:	Ques #2 result:	
Ques #3 result: NA kg/ha		Ques #3 result: NA kg/ha		Ques #3 result:	NA kg/ha
5c. For sites distinguished as Good, Med	ium and Poor f	hat proportion of sites that would	he fertilized		
Good: Ques #2 result: 30%		ues #2 result: 10%		#2 result: 0%	
Ques #3 result: 30%	-	ues #3 result: 10%	~	#3 result: 0%	
51 5 4 (24)					
5d. Expected increase in growth $(m3/ha/y$			<b>TT</b> 1 1	0 //2 1/	0.0 3/1 /
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: $0.5 \text{ m}^3/\text{ha/yr}$	Hardwood:	Ques #2 result:	•
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	1 m <sup>3</sup> /ha/yr
5e. Length of time the increased growth i	ndicated above	last (years).			
<b>Softwood:</b> Ques #2 result: 15 years		Ques #2 result: 15 years	Hardwood:	Ques #2 result:	10 years
Ques #3 result: 15 years		Ques #3 result: 15 years		Ques #3 result:	10 years
6. Comments from Questionnaire #1 reg	parding thinning	indicated this tonic had to be spli	t into several (	categories and th	at thinning
would occur only on immature stands					
apply only to immature stands. The r				5	
		- <b>1 1 1</b> - <b>1</b>	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		
6a. For regenerated immature stands, exp	ectations from	cleaning/brusning (assuming no	utilization) reg	garding the follo	wing are:
6aa. Change in growth.					
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.7 m <sup>3</sup> /ha/yr
Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result:	$1.0 \text{ m}^3/\text{ha/yr}$
· ·					2
6ab. Length of time this change in growth				0 //0 1	10
<b>Softwood:</b> Ques #2 result: 15 years	Mixedwood:	Ques #2 result: 15 years	Hardwood:	Ques #2 result:	
Ques #3 result: 15 years		Ques #3 result: 15 years		Ques #3 result:	10 years
6ac. Change in rotation based on harvestal	ole tree size.				
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
6ad. Change in rotation based on maximum	n MAI				
<b>Softwood:</b> Ques #2 result: -5 years		Ques #2 result: -5 years	Hardwood:	Ques #2 result:	-5 years
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: -0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -0.7 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	-0.5 m <sup>3</sup> /ha/yr
Ques #3 result: -1.0 m <sup>3</sup> /ha/yr		Ques #3 result: -1.0 m <sup>3</sup> /ha/yr		Ques #3 result:	-0.5 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth la Softwood: Ques #2 result: 15 years Ques #3 result: 15 years		Ques #2 result: 15 years Ques #3 result: 15 years	Hardwood:	Ques #2 result: Ques #3 result:	
6bc. Change in rotation based on harvestabl Softwood: Ques #2 result: -10 years Ques #3 result: -10 years		Ques #2 result: -10 years Ques #3 result: -10 years	Hardwood:	Ques #2 result: Ques #3 result:	
6bd. Change in rotation based on maximum Softwood: Ques #2 result: 0 years Ques #3 result: 0 years		Ques #2 result: 0 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: Ques #3 result:	
6c. For regenerated immature stands, experience following are:	ctations from <b>(</b>	commercial thinning (including t	hinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: -1.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -1.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	-1.5 m <sup>3</sup> /ha/yr
Ques #3 result: -1.5 m <sup>3</sup> /ha/yr		Ques #3 result: -1.5 m <sup>3</sup> /ha/yr		Ques #3 result:	
6cb. Length of time this change in growth la Softwood: Ques #2 result: 20 years Ques #3 result: 20 years		Ques #2 result: 20 years Ques #3 result: 20 years	Hardwood:	Ques #2 result: Ques #3 result:	
6cc. Change in rotation based on harvestabl Softwood: Ques #2 result: -5 years Ques #3 result: -5 years		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: Ques #3 result:	
6cd. Change in rotation based on maximum Softwood: Ques #2 result: 10 years Ques #3 result: 10 years		Ques #2 result: 10 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: Ques #3 result:	
7. From Questionnaires #2, and #3 the res given below.	sults regarding	genetic improvement of regener	ated stands ha	ve been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	-	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.8 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	•
7b. Change in rotation expected based on h Softwood: Ques #2 result: -5 years Ques #3 result: -5 years		e size. Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: Ques #3 result:	
7c. Change in rotation expected based on M	Maximum MA	I.			

, et change in formion enperior ouser on		
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood: Ques #2 result: -5 years	Hardwood: Ques #2 result: -10 years
Ques #3 result: -5 years	Ques #3 result: -5 years	Ques #3 result: -10 years

## EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

Softwood				Mixedwood				Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
100	NA	NA	2.0	105	NA	NA	2.0	95	NA	NA	2.0
120	2.9	NA	2.3	125	3.3	NA	2.3	115	2.2	NA	2.2
140	2.9	NA	2.2	145	3.0	NA	2.2	135	2.4	NA	2.1
160*	2.6	NA	2.1	165 *	2.9	NA	2.1	155*	2.2	NA	1.9
180	2.6	NA	2.0	185	2.7	NA	2.0	175	2.0	NA	1.7
200	NA	NA	1.8	205	NA	NA	1.8	195	NA	NA	1.4

1b. What proportion of the area is managed by uneven-aged management.													
Softwood: Ques #2 result: NA% Mixedwood: Ques #2 result: NA% Hardwood: Ques #2 result: NA%	\$												
Ques #3 result:10%Ques #3 result:0%Ques #3 result:0%													
1c. Growth per ha/year on areas managed by uneven-aged management.													
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr <b>Mixedwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr <b>Hardwood:</b> Ques #2 result: NA	m <sup>3</sup> /ha/yr												
Ques #3 result: 1.8 m <sup>3</sup> /ha/yr Ques #3 result: NA m <sup>3</sup> /ha/yr Ques #3 result: NA													
	i ili 7 ilu yi												
1d. After-cut growing stock level left on areas managed by uneven-aged management.													
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha <b>Mixedwood:</b> Ques #2 result: NA m <sup>3</sup> /ha <b>Hardwood:</b> Ques #2 result: NA	∆m <sup>3</sup> /ha												
Ques #3 result: 150 m <sup>3</sup> /ha Ques #3 result: NA m <sup>3</sup> /ha Ques #3 result: NA	m <sup>3</sup> /ha												
	iii /iiu												
1e. Average cutting cycle used on areas managed by uneven-aged management?													
Softwood: Ques #2 result: NA years Mixedwood: Ques #2 result: NA years Hardwood: Ques #2 result: NA	vears												
Ques #3 result: 30 years Ques #3 result: NA years Ques #3 result: NA	-												
	•												
2. From Questionnaires #2 and #3 the results regarding fertilization of existing stands have been aggregated and are given	below.												
Figures are based on one-time applications													
2a. Stand age range when fertilization could take place.													
Softwood: Ques #2 result: NA & NA yrs old Mixedwood: Ques #2 result: NA & NA yrs old Hardwood: Ques #2 result: NA &	•												
Ques #3 result: 0 & 30 yrs oldQues #3 result: 0 & 30 yrs oldQues #3 result: 0 & 20	yrs old												
2b. Rate of fertilizer (kg/ha) application.													
Softwood: Ques #2 result: NA kg/ha Mixedwood: Ques #2 result: NA kg/ha Hardwood: Ques #2 result: NA kg/ha													
<b>Soliwood:</b> Unes #2 festilit: INA Kg/na IVIXedwood: Unes #2 festilit: INA Kg/na Hardwood: Unes #2 festilit: INA	kg/ha												
<ul><li>2c. For sites distinguished as Good, Mediu</li><li>Good: Ques #2 result: NA%</li><li>Ques #3 result: 10%</li></ul>	Medium: Q	ne proportion of sites that would be ues #2 result: NA% ues #3 result: 10%	Poor: Ques	#2 result: NA% #3 result: 0%									
----------------------------------------------------------------------------------------------------------------------------	-----------------------	----------------------------------------------------------------------------------	---------------------	------------------------------------------------------									
2d. Expected increase in growth (m3/ha/yr	·).												
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr									
Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: NA m <sup>3</sup> /ha/yr									
2e. Length of time the increased growth w Softwood: Ques #2 result: NA years			Handwood	Ques #2 magulty NA weam									
Ques #3 result: 15 years	Mixeawooa:	Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: NA years Ques #3 result: NA years									
Ques no result 15 years				Ques "s result. 101 years									
<b>3.</b> Comments from Questionnaire #1 rega would occur only on immature stands. apply only to immature stands. The me	Several comm	nents on round 2 again emphasize	immature star										
3a. For existing immature stands, expectat	ions from <b>clea</b>	ning/brushing (assuming no utiliz	ation) regard	ing the following are:									
3aa. Change in growth.													
<b>Softwood:</b> Ques #2 result: NA $m^3/ha/yr$	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: NA $m^3/ha/yr$									
Ques #3 result: -0.5 m <sup>3</sup> /ha/yr		Ques #3 result: $-0.5 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $-0.5 \text{ m}^3/\text{ha/yr}$									
-													
3ab. Length of time this change in growth w		0 //2 1/ )/4	<b>TT</b> 1 1										
Softwood: Ques #2 result: NA years Ques #3 result: 15 years	Mixedwood:	Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: NA years Ques #3 result: 10 years									
Ques #5 lesuit. 15 years		Ques #5 lesuit. 15 years		Ques #5 lesuit. 10 years									
3ac. Change in rotation based on harvestabl													
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result: NA years									
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result: -5 years									
3ad. Change in rotation based on maximum	MAI.												
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result: NA years									
Ques #3 result: -10 years		Ques #3 result: -10 years		Ques #3 result: -10 years									
3b. For existing immature stands expectati the following are:	ons from <b>juve</b>	nile spacing/pre-commercial thir	<b>ming</b> (assumi	ng no utilization) regarding									
3ba. Change in growth.													
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr									
Ques #3 result: -0.5 m <sup>3</sup> /ha/yr		Ques #3 result: -0.5 m <sup>3</sup> /ha/yr		Ques #3 result: $-0.5 \text{ m}^3/\text{ha/yr}$									
		-		· ·									
3bb. Length of time this change in growth la <b>Softwood:</b> Ques #2 result: NA years		Ques #2 regult: NA years	Uandwood	Quas #2 regult: NA years									
Ques #3 result: 20 years	Mixeuwoou:	Ques #2 result: NA years Ques #3 result: 20 years	naruwoou:	Ques #2 result: NA years Ques #3 result: 10 years									
3bc. Change in rotation based on harvestabl													
Softwood: Ques #2 result: NA years Ques #3 result: -10 years	Mixedwood:	Ques #2 result: NA years Ques #3 result: -10 years	Hardwood:	Ques #2 result: NA years Ques #3 result: -5 years									
Ques no result10 years		Ques #5 result10 years		$\chi_{ues} \pi_{J}$ result $J$ years									
3bd. Change in rotation based on maximum													
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result: NA years									
Ques #3 result: 0 years		Ques #3 result: 0 years		Ques #3 result: 0 years									

Jea. Change in growin.	3ca.	Change in growth.
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<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr Ques #3 result: -1.0 m <sup>3</sup> /ha/yr	edwood: Ques #2 result: NA m <sup>3</sup> /ha/yr Ques #3 result: -1.0 m <sup>3</sup> /ha/yr	Hardwood: Ques #2 resu Ques #3 resu	lt: NA m <sup>3</sup> /ha/yr lt: -1.0 m <sup>3</sup> /ha/yr
3cb. Length of time this change in growth lasted.Softwood: Ques #2 result: NA yearsQues #3 result: 20 years	edwood: Ques #2 result: NA years Ques #3 result: 20 years	Hardwood: Ques #2 resu Ques #3 resu	•
3cc. Change in rotation based on harvestable treeSoftwood: Ques #2 result: NA yearsQues #3 result: -5 years	edwood: Ques #2 result: NA years Ques #3 result: -5 years	Hardwood: Ques #2 resu Ques #3 resu	•
3cd. Change in rotation based on maximum MAI.Softwood: Ques #2 result: NA years Ques #3 result: 10 yearsMixe	edwood: Ques #2 result: NA years Ques #3 result: 10 years	Hardwood: Ques #2 resu Ques #3 resu	•

## **REGENERATED STANDS**

- Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood. 4.
- From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated 4a. stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood			Mixedwood Hardwood							
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
40	NA	NA	2.0	30	NA	NA	1.5		10	NA	NA	0.8
60	2.5	NA	2.5	50	2.8	NA	2.4		30	2.1	NA	2.0
80	3.0	NA	2.8	70	3.2	NA	2.9		50	2.5	NA	2.5
100*	3.0	NA	3.0	90*	3.4	NA	3.2		70*	2.6	NA	2.8
120	3.1	NA	2.9	110	3.1	NA	3.1		90	2.3	NA	2.6
140	NA	NA	2.8	130	NA	NA	3.0		110	NA	NA	2.4

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: NA%	Mixedwood: Ques #2 result: NA%	Hardwood: Ques #2 result: NA%
Ques #3 result: 20%	Ques #3 result: 20%	Ques #3 result: NA%

m<sup>3</sup>/ha/yr

Growth per ha/year expected on areas that will be managed by uneven-aged management. 4c.

<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr
Ques #3 result: 2.3 m <sup>3</sup> /ha/yr	Ques #3 result: 2.3 m <sup>3</sup> /ha/yr	Ques #3 result: NA m <sup>3</sup> /ha/yr

4d. After-cut growing stock level expecte	d to be left on a	reas that will be managed by unev	ven-aged mana	agement.	
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha		Ques #2 result: NA m <sup>3</sup> /ha	-	Ques #2 result: N	A m <sup>3</sup> /ha
Ques #3 result: 150 m <sup>3</sup> /ha		Ques #3 result: 150 m <sup>3</sup> /ha		Ques #3 result: N	A m <sup>3</sup> /ha
<ul><li>4e. Average cutting cycle used on areas the softwood: Ques #2 result: NA years Ques #3 result: 25 years</li></ul>		aged by uneven-aged managemen Ques #2 result: NA years Ques #3 result: 25 years		Ques #2 result: N Ques #3 result: N	
5. From Questionnaires #2 and #3 the re below. Figures are based on one-time		fertilization of regenerated stands	s have been ag	gregated and are g	iven
<ul><li>5a. Stand age range when fertilization wo</li><li>Softwood: Ques #2 result: NA &amp; NA yrs old Ques #3 result: 0 &amp; 30 yrs old</li></ul>		I: Ques #2 result: NA & NA yrs old Ques #3 result: 0 & 30 yrs old	Hardwood	: Ques #2 result: NA Ques #3 result: 0 &	
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: NA kg/ha Ques #3 result: NA kg/ha</li></ul>	Mixedwood:	Ques #2 result: NA kg/ha Ques #3 result: NA kg/ha	Hardwood:	Ques #2 result: N Ques #3 result: N	
5c. For sites distinguished as Good, Medi	um and Poor, th	nat proportion of sites that would	be fertilized.		
Good: Ques #2 result: NA%	Medium: Q	ues #2 result: NA%	Poor: Ques	#2 result: NA%	
Ques #3 result: 10%	Q	ues #3 result: 10%	Ques	#3 result: NA%	
5d. Expected increase in growth (m3/ha/y	r).				
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr		Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: N	[A m <sup>3</sup> /ha/yr
Ques #3 result: $1.0 \text{ m}^3/\text{ha/yr}$		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: N	•
-		-			2
5e. Length of time the increased growth in Softwood: Ques #2 result: NA years Ques #3 result: 15 years		last (years). Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: N Ques #3 result: N	
<b>6.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several comm	nents on round 2 again emphasize	immature star		
6a. For regenerated immature stands, exp	ectations from	cleaning/brushing (assuming no	utilization) reg	garding the following	ng are:
-					C
6aa. Change in growth.		3			3
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA $m^3/ha/yr$	Hardwood:	Ques #2 result: N	
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.	5 m <sup>3</sup> /ha/yr
6ab. Length of time this change in growth Softwood: Ques #2 result: NA years Ques #3 result: 15 years		Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: N Ques #3 result: 10	
6ac. Change in rotation based on harvestab Softwood: Ques #2 result: NA years Ques #3 result: -5 years		Ques #2 result: NA years Ques #3 result: -5 years	Hardwood:	Ques #2 result: N Ques #3 result: -5	
6ad. Change in rotation based on maximum <b>Softwood:</b> Ques #2 result: NA years Ques #3 result: -10 years		Ques #2 result: NA years Ques #3 result: -10 years	Hardwood:	Ques #2 result: N Ques #3 result: -1	

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: -0.5 m <sup>3</sup> /ha/yr		Ques #3 result: -0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	-0.5 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth la	asted.				
Softwood: Ques #2 result: NA years		Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: 20 years		Ques #3 result: 20 years		Ques #3 result:	10 years
6bc. Change in rotation based on harvestabl	le tree size.				
Softwood: Ques #2 result: NA years		Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: -10 years		Ques #3 result: -10 years		Ques #3 result:	-5 years
6bd. Change in rotation based on maximum	MAI.				
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: 0 years		Ques #3 result: 0 years		Ques #3 result:	0 years
6c. For regenerated immature stands, expe following are:	ctations from o	commercial thinning (including t	hinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: $-1.0 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $-1.0 \text{ m}^3/\text{ha/yr}$		Ques #3 result:	-
					,
6cb. Length of time this change in growth la				0 //0 1	
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	•
Ques #3 result: 20 years		Ques #3 result: 20 years		Ques #3 result:	20 years
6cc. Change in rotation based on harvestabl	le tree size.				
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
6cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: 10 years		Ques #3 result: 10 years		Ques #3 result:	5 years
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regener	ated stands ha	ve been aggrega	ted and are
7a. Change in MAI expected from greater	improvement				
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	-	Ques #2 result: NA m <sup>3</sup> /ha/yr	Uandwood	Ques #2 result:	NA m3/ha/um
	wiixeuwoou:	•	naruwoou:	-	
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	1.0 m <sup>3</sup> /na/yr
7b. Change in rotation expected based on l					
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: -10 years		Ques #3 result: -10 years		Ques #3 result:	-15 years
7c. Change in rotation expected based on 1	Maximum MA	I.			
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: -10 years		Ques #3 result: -10 years		Ques #3 result:	-20 years

# EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood			Mixedwood Hardwood							
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
130	NA	NA	3.0	140	NA	NA	2.5		90	NA	NA	2.0
150	3.6	NA	2.9	160	2.0	NA	2.4		110	1.4	NA	1.9
170	3.4	NA	2.8	180	1.9	NA	2.2		130	1.3	NA	1.7
190*	2.2	NA	2.6	200 *	1.8	NA	2.0		150*	1.2	NA	1.5
210	3.0	NA	2.4	220	1.6	NA	1.8		170	1.0	NA	1.3
230	NA	NA	2.0	240	NA	NA	1.6		190	NA	NA	1.0

1b. What proportion of the area is managed	by uneven-aged management.			
<b>Softwood:</b> Ques #2 result: NA%	Mixedwood: Ques #2 result: NA%	Hardwood:	Ques #2 result:	NA%
Ques #3 result: 10%	Ques #3 result: 10%		Ques #3 result:	0%
1c. Growth per ha/year on areas managed b	v uneven-aged management.			
<b>Softwood:</b> Ques #2 result: NA $m^3/ha/yr$		Handwood	Ques #2 result:	NA m <sup>3</sup> /ha/rm
	-		-	•
Ques #3 result: $2.5 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $2.2 \text{ m}^3/\text{ha/yr}$		Ques #3 result:	NA m <sup>3</sup> /ha/yr
1d. After-cut growing stock level left on are	as managed by uneven-aged management.			
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha	<b>Mixedwood:</b> Ques #2 result: NA m <sup>3</sup> /ha	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha
Ques #3 result: 150 m <sup>3</sup> /ha	Ques #3 result: $150 \text{ m}^3/\text{ha}$		Ques #3 result:	NA m <sup>3</sup> /ha
1e. Average cutting cycle used on areas man	naged by uneven-aged management?			
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood: Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: 30 years	Ques #3 result: 30 years		Ques #3 result:	NA years
2. From Questionnaires #2 and #3 the resu Figures are based on one-time application	lts regarding <b>fertilization</b> of existing stands ha	ve been aggreg	gated and are giv	en below.
2a. Stand age range when fertilization could	take place.			
Softwood: Ques #2 result: NA & NA yrs old	<b>Mixedwood:</b> Ques #2 result: NA & NA yrs old	Hardwood:	Ques #2 result: 1	NA & NA yrs old
Ques #3 result: 0 & 30 yrs old	Ques #3 result: 0 & 30 yrs old		Ques #3 result: (	
2b. Rate of fertilizer (kg/ha) application.				
	Mixedwood: Ques #2 result: NA kg/ha	Hardwood:	Ques #2 result:	NA kg/ha
Ques #3 result: NA kg/ha	Ques #3 result: NA kg/ha		Ques #3 result:	-

<ul><li>2c. For sites distinguished as Good, Medium</li><li>Good: Ques #2 result: NA%</li><li>Ques #3 result: 10%</li></ul>	Medium: Q		Poor: Ques	#2 result: NA% #3 result: 0%	
2d. Expected increase in growth (m3/ha/yr).					
	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: N	NA m <sup>3</sup> /ha/yr
Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result: N	IA m <sup>3</sup> /ha/yr
2e. Length of time the increased growth wo	uld last (vear	2)			
			Hardwood:	Ques #2 result: N	VA years
Ques #3 result: 10 years		Ques #3 result: 10 years		Ques #3 result: N	•
<b>3.</b> Comments from Questionnaire #1 regard would occur only on immature stands. S apply only to immature stands. The mean	Several comm	ents on round 2 again emphasize in	mmature star		
3a. For existing immature stands, expectation	ons from <b>clea</b>	ning/brushing (assuming no utiliza	ation) regardi	ing the following a	are:
3aa. Change in growth.					
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: N	NA m <sup>3</sup> /ha/yr
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0	.5 m <sup>3</sup> /ha/yr
3ab. Length of time this change in growth weSoftwood: Ques #2 result: NA yearsQues #3 result: 15 years		Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: N Ques #3 result: 1	•
3ac. Change in rotation based on harvestable	tree size.				
	Mixedwood:		Hardwood:	Ques #2 result: N	
Ques #3 result: -10 years		Ques #3 result: -10 years		Ques #3 result: -:	5 years
3ad. Change in rotation based on maximum NSoftwood: Ques #2 result: NA years Ques #3 result: -10 years		Ques #2 result: NA years Ques #3 result: -10 years	Hardwood:	Ques #2 result: N Ques #3 result: -:	
3b. For existing immature stands expectation the following are:	ns from <b>juve</b> i	nile spacing/pre-commercial thin	<b>ning</b> (assumi	ng no utilization)	regarding
3ba. Change in growth.					
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: N	NA m <sup>3</sup> /ha/yr
Ques #3 result: -1.0 m <sup>3</sup> /ha/yr		Ques #3 result: -1.0 m <sup>3</sup> /ha/yr		Ques #3 result: -0	0.8 m <sup>3</sup> /ha/yr
3bb. Length of time this change in growth lasSoftwood: Ques #2 result: NA yearsQues #3 result: 15 years		Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: N Ques #3 result: 1	
3bc. Change in rotation based on harvestable	tree size.				
Softwood: Ques #2 result: NA years			Hardwood:	Ques #2 result: N	
Ques #3 result: -10 years		Ques #3 result: -10 years		Ques #3 result: -	10 years
3bd. Change in rotation based on maximum N	MAI.				
Softwood: Ques #2 result: NA years			Hardwood:	Ques #2 result: N	
Ques #3 result: 0 years		Ques #3 result: 0 years		Ques #3 result: 0	years

3ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr <b>M</b>	lixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: -1.5 m <sup>3</sup> /ha/yr		Ques #3 result: -1.5 m <sup>3</sup> /ha/yr		Ques #3 result:	-1.0 m <sup>3</sup> /ha/yr
3cb. Length of time this change in growth laster	ed.				
Softwood: Ques #2 result: NA years Mi	lixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	15 years
Ques #3 result: 15 years		Ques #3 result: 15 years		Ques #3 result:	10 years
3cc. Change in rotation based on harvestable tr	ree size.				
Softwood: Ques #2 result: NA years Mi	lixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
3cd. Change in rotation based on maximum MA	AI.				
Softwood: Ques #2 result: NA years Mi	lixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: 10 years		Ques #3 result: 10 years		Ques #3 result:	5 years

## **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood				Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
60	NA	NA	2.5	40	NA	NA	1.8	20	NA	NA	1.0
0	1.9	NA	2.9	60	1.5	NA	2.4	40	1.2	NA	1.8
100	2.4	NA	3.1	80	2.1	NA	2.8	60	1.5	NA	2.2
120*	2.5	NA	3.0	100 *	2.2	NA	3.0	80*	1.6	NA	2.5
140	2.7	NA	2.9	120	2.1	NA	2.9	100	1.5	NA	2.3
160	NA	NA	2.7	140	NA	NA	2.7	120	NA	NA	2.0

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be ma	naged by uneven-aged management.
<b>Softwood:</b> Ques #2 result: NA%	Mixedwood: Ques #2 result: NA%
Ques #3 result: 20%	Ques #3 result: 10%

Hardwood: Ques #2 result: NA% Ques #3 result: NA%

4c	Growth per ha/year expected	on areas that will be managed by	uneven-aged management
$\tau c$ .	Growth per ha year expected	on areas that will be managed by	uneven aged management.

<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood: Ques #2 result: NA m <sup>3</sup> /ha/yr
Ques #3 result: 2.5 m <sup>3</sup> /ha/yr	Ques #3 result: 2.5 m <sup>3</sup> /ha/yr	Ques #3 result: NA m <sup>3</sup> /ha/yr

4d.	After-cut growing stock level expected	l to be left on a	reas that will be managed by unev	en-aged man	agement.	
Soft	wood: Ques #2 result: NA m <sup>3</sup> /ha	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha
	Ques #3 result: 150 m <sup>3</sup> /ha		Ques #3 result: 150 m <sup>3</sup> /ha		Ques #3 result:	NA m <sup>3</sup> /ha
	Average cutting cycle used on areas th wood: Ques #2 result: NA years Ques #3 result: 30 years		aged by uneven-aged management Ques #2 result: NA years Ques #3 result: 30 years		Ques #2 result: Ques #3 result:	•
5.	From Questionnaires #2 and #3 the res below. Figures are based on one-time		fertilization of regenerated stands	have been ag	ggregated and are	given
5a. <b>Soft</b>	Stand age range when fertilization wou wood: Ques #2 result: NA & NA yrs old Ques #3 result: 0 & 30 yrs old	Mixedwood: (	Ques #2 result: NA & NA yrs old Ques #3 result: 0 & 30 yrs old		Ques #2 result: N Ques #3 result: 0 d	
	Rate of fertilizer (kg/ha). wood: Ques #2 result: NA kg/ha Ques #3 result: NA kg/ha	Mixedwood:	Ques #2 result: NA kg/ha Ques #3 result: NA kg/ha	Hardwood:	Ques #2 result: Ques #3 result:	
	For sites distinguished as Good, Mediu d: Ques #2 result: NA% Ques #3 result: 20%	Medium: Qu	nat proportion of sites that would b nes #2 result: NA% nes #3 result: 10%	Poor: Ques	#2 result: NA% #3 result: NA%	
5d.	Expected increase in growth (m3/ha/yr	.).				
Soft	wood: Ques #2 result: NA m <sup>3</sup> /ha/yr Ques #3 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr Ques #3 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	•
	Length of time the increased growth in wood: Ques #2 result: NA years Ques #3 result: 15 years		last (years). Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: Ques #3 result:	
6.	Comments from Questionnaire #1 rega would occur only on immature stands. apply only to immature stands. The m	Several comm	nents on round 2 again emphasize	immature star		
6a.	For regenerated immature stands, expe	ectations from	cleaning/brushing (assuming no u	tilization) reg	garding the follow	ving are:
6aa.	Change in growth.					
	wood: Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
	Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	0.5 m <sup>3</sup> /ha/yr
	Length of time this change in growth lawood: Ques #2 result: NA years Ques #3 result: 15 years		Ques #2 result: NA years Ques #3 result: 15 years	Hardwood:	Ques #2 result: Ques #3 result:	
	Change in rotation based on harvestable wood: Ques #2 result: NA years Ques #3 result: -10 years		Ques #2 result: NA years Ques #3 result: -10 years	Hardwood:	Ques #2 result: Ques #3 result:	
	Change in rotation based on maximum wood: Ques #2 result: NA years Ques #3 result: -10 years		Ques #2 result: NA years Ques #3 result: -10 years	Hardwood:	Ques #2 result: Ques #3 result:	

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: -1.0 m <sup>3</sup> /ha/yr		Ques #3 result: -1.0 m <sup>3</sup> /ha/yr		Ques #3 result:	-0.8 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth la	asted.				
Softwood: Ques #2 result: NA years		Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: 15 years		Ques #3 result: 15 years		Ques #3 result:	10 years
6bc. Change in rotation based on harvestabl	le tree size.				
Softwood: Ques #2 result: NA years		Ques #2 result: NA years	Hardwood:	Ques #2 result:	NA years
Ques #3 result: -10 years		Ques #3 result: -10 years		Ques #3 result:	-10 years
6bd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: 0 years		Ques #3 result: 0 years		Ques #3 result:	0 years
6c. For regenerated immature stands, expe following are:	ctations from <b>(</b>	commercial thinning (including t	hinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/vr
Ques #3 result: $-1.5 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $-1.5 \text{ m}^3/\text{ha/yr}$		Ques #3 result:	
				Ques no result.	1.0 III / IIu/ JI
6cb. Length of time this change in growth la					
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: 15 years		Ques #3 result: 15 years		Ques #3 result:	10 years
6cc. Change in rotation based on harvestabl	le tree size.				
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
6cd. Change in rotation based on maximum	MAI.				
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: 10 years		Ques #3 result: 10 years		Ques #3 result:	5 years
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regener	ated stands ha	ve been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	-	Ques #2 result: NA m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/vr
Ques #3 result: $0.3 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $0.3 \text{ m}^3/\text{ha/yr}$		Ques #3 result:	
				Ques #5 result.	0.5 m /ma/yr
7b. Change in rotation expected based on h					
Softwood: Ques #2 result: NA years	Mixedwood:	Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	-5 years
7c. Change in rotation expected based on I	Maximum MA	I.			
Softwood: Ques #2 result: NA years		Ques #2 result: NA years	Hardwood:	Ques #2 result:	
Ques #3 result: -5 years		Ques #3 result: -5 years		Ques #3 result:	-10 years

## EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood					Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
49	NA	1.5	1.4	40	NA	1.8	1.7		26	NA	2.2	1.9
69	1.7	1.8	1.6	60	2.1	2.0	1.9		46	2.4	2.4	2.3
89	1.7	1.8	1.7	80	1.9	2.0	1.9		66	2.5	2.4	2.4
109*	1.6	1.7	1.6	100 *	1.9	1.9	1.9		86*	2.1	2.2	2.3
129	1.5	1.7	1.4	120	1.8	1.8	1.7		106	1.9	2.0	2.1
149	NA	1.5	1.3	140	NA	1.6	1.5		126	NA	1.5	1.6

1b. What proportion of the area is manage	d by uneven-aged management.	
Softwood: Ques #2 result: 0%	Mixedwood: Ques #2 result: 1%	Hardwood: Ques #2 result: 0%
Ques #3 result: 1%	Ques #3 result: 4%	Ques #3 result: 0%
1c. Growth per ha/year on areas managed	by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 1.7 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 1.9 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 2.2 m <sup>3</sup> /ha/yr
Ques #3 result: 1.5 m <sup>3</sup> /ha/yr	Ques #3 result: $1.7 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $1.7 \text{ m}^3/\text{ha/yr}$
1d. After-cut growing stock level left on a	reas managed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 90 m <sup>3</sup> /ha	<b>Mixedwood:</b> Ques #2 result: 102 m <sup>3</sup> /ha	Hardwood: Ques #2 result: NA m <sup>3</sup> /ha
Ques #3 result: 68 m <sup>3</sup> /ha	Ques #3 result: 90 m <sup>3</sup> /ha	Ques #3 result: 27 m <sup>3</sup> /ha
1e. Average cutting cycle used on areas m	anaged by uneven-aged management?	
<b>Softwood:</b> Ques #2 result: 35 years	<b>Mixedwood:</b> Ques #2 result: 31 years	Hardwood: Ques #2 result: 20 years
Ques #3 result: 35 years	Ques #3 result: 43 years	Ques #3 result: 17 years
		-
2. From Questionnaires #2 and #3 the res	ults regarding fertilization of existing stands	have been aggregated and are given below.
Figures are based on one-time applicat	ions	
2a. Stand age range when fertilization cou	1	
Softwood: Ques #2 result: 25 & 76 yrs old	Mixedwood: Ques #2 result: 35 & 78 yrs old	Hardwood: Ques #2 result: 17 & 51 yrs old
Ques #3 result: 37 & 72 yrs old	Ques #3 result: 41 & 75 yrs old	Ques #3 result: 25 & 57 yrs old
2b. Rate of fertilizer (kg/ha) application.		
<b>Softwood:</b> Ques #2 result: 65 kg/ha	Mixedwood: Ques #2 result: 50 kg/ha	Hardwood: Ques #2 result: 20 kg/ha
Ques #3 result: 74 kg/ha	Ques #3 result: 56 kg/ha	Ques #3 result: 36 kg/ha
	<u> </u>	

<ul><li>2c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 10%</li><li>Ques #3 result: 9%</li></ul>	Medium: Q		Poor: Ques	#2 result: 8% #3 result: 8%
2d. Expected increase in growth (m3/ha/y	r).			
<b>Softwood:</b> Ques #2 result: 1.8 m <sup>3</sup> /ha/yr		Ques #2 result: $3.0 \text{ m}^3/\text{ha/yr}$	Hardwood:	Ques #2 result: $3.2 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 1.3 m <sup>3</sup> /ha/yr		Ques #3 result: 1.9 m <sup>3</sup> /ha/yr		Ques #3 result: $2.0 \text{ m}^3/\text{ha/yr}$
2e. Length of time the increased growth v				
<b>Softwood:</b> Ques #2 result: 9 years	Mixedwood:		Hardwood:	Ques #2 result: 12 years
Ques #3 result: 8 years		Ques #3 result: 8 years		Ques #3 result: 8 years
<b>3.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several commean of respons	nents on round 2 again emphasize in es to round 2 and 3 are given below	nmature stan	ds only. The results below
3a. For existing immature stands, expecta	tions from <b>clea</b>	ning/brushing (assuming no utiliza	tion) regardi	ing the following are:
3aa. Change in growth.				
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: $0.6 \text{ m}^3/\text{ha/yr}$	Hardwood:	Ques #2 result: $0.6 \text{ m}^3/\text{ha/yr}$
Ques #3 result: $0.4 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $1.0 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $0.7 \text{ m}^3/\text{ha/yr}$
3ab. Length of time this change in growth Softwood: Ques #2 result: 7 years Ques #3 result: 9 years		Ques #2 result: 7 yearsQues #3 result: 9 years	Hardwood:	Ques #2 result: 8 years Ques #3 result: 8 years
3ac. Change in rotation based on harvestab	ole tree size.			
<b>Softwood:</b> Ques #2 result: -10 years			Hardwood:	Ques #2 result: -8 years
Ques #3 result: -9 years		Ques #3 result: -8 years		Ques #3 result: -8 years
<ul><li>3ad. Change in rotation based on maximum</li><li>Softwood: Ques #2 result: -6 years</li><li>Ques #3 result: -6 years</li></ul>		Ques #2 result: -6 years Ques #3 result: -3 years		Ques #2 result: -5 years Ques #3 result: -3 years
3b. For existing immature stands expectat the following are:	ions from <b>juve</b>	nile spacing/pre-commercial thinr	<b>ning</b> (assumi	ng no utilization) regarding
3ba. Change in growth.				
<b>Softwood:</b> Ques #2 result: 0.1 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: $0.2 \text{ m}^3/\text{ha/yr}$	Hardwood:	Ques #2 result: $0.2 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.2 m <sup>3</sup> /ha/yr		Ques #3 result: $0.2 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $0.2 \text{ m}^3/\text{ha/yr}$
3bb. Length of time this change in growth				
Softwood: Ques #2 result: 8 years	Mixedwood:	- •	Hardwood:	Ques #2 result: 9 years
Ques #3 result: 9 years		Ques #3 result: 9 years		Ques #3 result: 8 years
3bc. Change in rotation based on harvestab	ole tree size.			
<b>Softwood:</b> Ques #2 result: -10 years	Mixedwood:		Hardwood:	Ques #2 result: -6 years
Ques #3 result: -8 years		Ques #3 result: -5 years		Ques #3 result: -4 years
3bd. Change in rotation based on maximum	n MAI			
<b>Softwood:</b> Ques #2 result: 0 years		Ques #2 result: 2 years	Hardwood:	Ques #2 result: 2 years
Ques #3 result: -1 years		Ques #3 result: 0 years		Ques #3 result: 0 years

3ca. Change in growth. <b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.1 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.1 m <sup>3</sup> /ha/yr
Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result:	•
3cb. Length of time this change in growth la	asted.				
Softwood: Ques #2 result: 12 years	Mixedwood:	Ques #2 result: 11 years	Hardwood:	Ques #2 result:	11 years
Ques #3 result: 12 years		Ques #3 result: 11 years		Ques #3 result:	10 years
3cc. Change in rotation based on harvestabl	e tree size.				
<b>Softwood:</b> Ques #2 result: -7 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	-2 years
Ques #3 result: -10 years		Ques #3 result: -8 years		Ques #3 result:	-5 years
3cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: 2 years	Mixedwood:	Ques #2 result: 2 years	Hardwood:	Ques #2 result:	0 years
Ques #3 result: 1 years		Ques #3 result: 0 years		Ques #3 result:	-1 years

# **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood					Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
30	NA	1.5	1.3	33	NA	1.9	1.7		8	NA	2.2	1.8
50	2.2	2.0	1.7	53	2.4	2.3	2.0		28	2.7	2.6	2.2
70	2.3	2.1	1.9	73	2.5	2.4	2.8		48	2.8	2.6	2.4
90*	2.1	2.1	1.8	93*	2.3	2.3	2.7		68*	2.6	2.5	2.4
110	2.2	1.9	1.7	113	2.4	2.3	2.6		88	2.6	2.1	2.2
130	NA	1.8	1.5	133	NA	2.0	1.8		108	NA	2.3	2.0

The aggregated results below are taken from rounds 2 and 3 survey results.

4b Proportion of the area that will be managed by uneven-aged management

+0. Troportion of the area that will b	e managed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 2%	Mixedwood: Ques #2 result: 6%	Hardwood: Ques #2 result: 13%
Ques #3 result: 2%	Ques #3 result: 12%	Ques #3 result: 2%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 1.9 m <sup>3</sup> /ha/yr	Mixe
Ques #3 result: 1.6 m <sup>3</sup> /ha/yr	

**xedwood:** Ques #2 result: 2.0 m<sup>3</sup>/ha/yr Ques #3 result: 1.8 m<sup>3</sup>/ha/yr Hardwood: Ques #2 result: 2.0 m<sup>3</sup>/ha/yr Ques #3 result: 1.7 m<sup>3</sup>/ha/yr

4d. After-cut growing stock level expected	l to be left on a	areas that will be managed by un	neven-aged mana	agement.
<b>Softwood:</b> Ques #2 result: 12 m <sup>3</sup> /ha	Mixedwood:	Ques #2 result: 103 m <sup>3</sup> /ha	Hardwood:	Ques #2 result: NA m <sup>3</sup> /ha
Ques #3 result: 40 m <sup>3</sup> /ha		Ques #3 result: 86 m <sup>3</sup> /ha		Ques #3 result: 36 m <sup>3</sup> /ha
<ul><li>4e. Average cutting cycle used on areas the Softwood: Ques #2 result: 32 years Ques #3 result: 34 years</li></ul>		aged by uneven-aged managem Ques #2 result: 29 years Ques #3 result: 29 years		Ques #2 result: 20 years Ques #3 result: 20 years
5. From Questionnaires #2 and #3 the res below. Figures are based on one-time		fertilization of regenerated sta	nds have been ag	gregated and are given
<ul><li>5a. Stand age range when fertilization wou</li><li>Softwood: Ques #2 result: 40 &amp; 88 yrs old Ques #3 result: 41 &amp; 76 yrs old</li></ul>	Mixedwood:	Ques #2 result: 43 & 97 yrs old Ques #3 result: 42 & 78 yrs old		s #2 result: 20 & 63 yrs old #3 result: 28 & 59 yrs old
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: 65 kg/ha Ques #3 result: 74 kg/ha</li></ul>	Mixedwood:	Ques #2 result: 100 kg/ha Ques #3 result: 81 kg/ha	Hardwood:	Ques #2 result: 25 kg/ha Ques #3 result: 36 kg/ha
<ul><li>5c. For sites distinguished as Good, Media</li><li>Good: Ques #2 result: 20%</li><li>Ques #3 result: 11%</li></ul>	Medium: Q	hat proportion of sites that woul ues #2 result: 5% ues #3 result: 5%	Poor: Ques	#2 result: 13% #3 result: 9%
5d. Expected increase in growth (m3/ha/yr	.).			
<b>Softwood:</b> Ques #2 result: 0.8 m <sup>3</sup> /ha/yr		Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: $0.9 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 1.2 m <sup>3</sup> /ha/yr		Ques #3 result: $1.0 \text{ m}^3/\text{ha/yr}$
<ul><li>5e. Length of time the increased growth in</li><li>Softwood: Ques #2 result: 12 years</li><li>Ques #3 result: 9 years</li></ul>		last (years). Ques #2 result: 15 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: 15 years Ques #3 result: 8 years
<b>6.</b> Comments from Questionnaire #1 rega would occur only on immature stands. apply only to immature stands. The me	Several comm	nents on round 2 again emphasi	ze immature star	
6a. For regenerated immature stands, expe	ectations from	cleaning/brushing (assuming r	o utilization) reg	arding the following are:
6aa. Change in growth. <b>Softwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.4 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr
<ul><li>6ab. Length of time this change in growth la</li><li>Softwood: Ques #2 result: 8 years</li><li>Ques #3 result: 8 years</li></ul>		Ques #2 result: 8 years Ques #3 result: 8 years	Hardwood:	Ques #2 result: 9 years Ques #3 result: 7 years
<ul><li>6ac. Change in rotation based on harvestabl</li><li>Softwood: Ques #2 result: -8 years</li><li>Ques #3 result: -7 years</li></ul>		Ques #2 result: -7 years Ques #3 result: -7 years	Hardwood:	Ques #2 result: -7 years Ques #3 result: -6 years
6ad. Change in rotation based on maximum Softwood: Ques #2 result: -7 years Ques #3 result: -5 years		Ques #2 result: -7 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: -5 years Ques #3 result: -5 years

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: 0.3 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.4 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.4 m <sup>3</sup> /ha/yr
Ques #3 result: 0.2 m <sup>3</sup> /ha/yr		Ques #3 result: 0.3 m <sup>3</sup> /ha/yr		Ques #3 result:	0.3 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth l	asted.				
<b>Softwood:</b> Ques #2 result: 9 years	Mixedwood:	Ques #2 result: 9 years	Hardwood:	Ques #2 result:	
Ques #3 result: 10 years		Ques #3 result: 9 years		Ques #3 result:	8 years
6bc. Change in rotation based on harvestab					
<b>Softwood:</b> Ques #2 result: -8 years	Mixedwood:	Ques #2 result: -7 years	Hardwood:	Ques #2 result:	
Ques #3 result: -8 years		Ques #3 result: -8 years		Ques #3 result:	-7 years
6bd. Change in rotation based on maximum					_
Softwood: Ques #2 result: 2 years	Mixedwood:	Ques #2 result: 2 years	Hardwood:	Ques #2 result:	
Ques #3 result: -1 years		Ques #3 result: -1 years		Ques #3 result:	-1 years
6c. For regenerated immature stands, expendence following are:	ectations from <b>(</b>	commercial thinning (including	thinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.1 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.1 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$1.1 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result: 1.0 m <sup>3</sup> /ha/yr		Ques #3 result:	$1.0 \text{ m}^{3/\text{ha/yr}}$
-					
6cb. Length of time this change in growth l <b>Softwood:</b> Ques #2 result: 12 years		Ques #2 result: 11 years	Hardwood	Ques #2 result:	12 years
Ques #3 result: 12 years	mixed wood.	Ques #3 result: 11 years	Haruwoou.	Ques #2 result: Ques #3 result:	
6cc. Change in rotation based on harvestab	le tree size				
<b>Softwood:</b> Ques #2 result: -7 years		Ques #2 result: -4 years	Hardwood:	Ques #2 result:	-2 years
Ques #3 result: -8 years		Ques #3 result: -7 years		Ques #3 result:	
6cd. Change in rotation based on maximum	n MAI.				
<b>Softwood:</b> Ques #2 result: 2 years		Ques #2 result: 2 years	Hardwood:	Ques #2 result:	
Ques #3 result: 0 years		Ques #3 result: -1 years		Ques #3 result:	-1 years
7. From Questionnaires #2, and #3 the regiven below.	esults regarding	genetic improvement of regene	erated stands ha	ive been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.9 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.1 m <sup>3</sup> /ha/yr
Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result: 0.9 m <sup>3</sup> /ha/yr		Ques #3 result:	•
	1 1 1				-
7b. Change in rotation expected based on <b>Softwood:</b> Ques #2 result: -12 years		Ques #2 result: -12 years	Hardwood	Ques #2 result:	-10 years
Ques #3 result: -11 years		Ques #2 result: -12 years Ques #3 result: -11 years		Ques #2 result:	
-		-		Luco no result.	-0 ; 0410
7c. Change in rotation expected based on				0 110 5	2
Softwood: Ques #2 result: -2 years	Mixedwood:	Ques #2 result: -1 years	Hardwood:	Ques #2 result:	
Ques #3 result: -2 years		Ques #3 result: -2 years		Ques #3 result:	-5 years

## EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood				Hardwood				
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
40	NA	1.6	1.7	33	NA	1.9	2.0		23	NA	1.8	2.1
60	1.9	1.9	2.0	53	2.2	2.5	2.3		43	2.8	2.7	2.8
80	1.8	2.0	2.1	73	2.2	2.5	2.4		63	2.8	2.9	2.8
100*	1.7	1.8	2.0	93*	2.0	2.2	2.1		83*	2.6	2.4	2.5
120	1.5	1.6	1.7	113	1.9	1.8	1.8		103	2.3	2.0	2.0
140	NA	1.3	1.4	133	NA	1.5	1.5		123	NA	1.6	1.6

1b. What proportion of the area is manage	d by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 6%	Mixedwood: Ques #2 result: 13%	Hardwood: Ques #2 result: 19%
Ques #3 result: NA%	Ques #3 result: 9%	Ques #3 result: 10%
1c. Growth per ha/year on areas managed	by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 1.8 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 2.2 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 2.3 m <sup>3</sup> /ha/yr
Ques #3 result: $1.6 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $2.0 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $2.4 \text{ m}^3/\text{ha/yr}$
1d. After-cut growing stock level left on an	reas managed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 54 m <sup>3</sup> /ha	<b>Mixedwood:</b> Ques #2 result: $50 \text{ m}^3/\text{ha}$	<b>Hardwood:</b> Ques #2 result: 57 m <sup>3</sup> /ha
Ques #3 result: 43 m <sup>3</sup> /ha	Ques #3 result: $52 \text{ m}^3/\text{ha}$	Ques #3 result: $57 \text{ m}^3/\text{ha}$
1e. Average cutting cycle used on areas m	anaged by uneven-aged management?	
<b>Softwood:</b> Ques #2 result: 24 years	Mixedwood: Ques #2 result: 24 years	Hardwood: Ques #2 result: 21 years
Ques #3 result: 32 years	Ques #3 result: 29 years	Ques #3 result: 22 years
	ults regarding <b>fertilization</b> of existing stands have	ave been aggregated and are given below.
Figures are based on one-time applicat	ions	
2a. Stand age range when fertilization cou	ld taka placa	
	1	<b>Lardwood:</b> Ques #2 result: 12 & 36 yrs old
Ques #3 result: 14 & 35 yrs old	Ques #3 result: $8 \& 33$ yrs old	Ques #3 result: $7 \& 30$ yrs old
	2	
2b Rate of fertilizer (kg/ha) application		

2b. Rate of fertilizer (kg/ha) application.		
Softwood: Ques #2 result: 175 kg/ha	Mixedwood: Ques #2 result: 175 kg/ha	Hardwood: Ques #2 result: 175 kg/ha
Ques #3 result: 183 kg/ha	Ques #3 result: 175 kg/ha	Ques #3 result: 175 kg/ha

<ul><li>2c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 31%</li><li>Ques #3 result: 14%</li></ul>	Medium: Q		Poor: Ques	#2 result: 11% #3 result: 6%
2d. Expected increase in growth (m3/ha/y <b>Softwood:</b> Ques #2 result: 0.9 m <sup>3</sup> /ha/yr		Ques #2 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr
Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr
<ul><li>2e. Length of time the increased growth v</li><li>Softwood: Ques #2 result: 10 years</li><li>Ques #3 result: 9 years</li></ul>			Hardwood:	Ques #2 result: 11 years Ques #3 result: 8 years
<b>3.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several com	nents on round 2 again emphasize in	mmature star	
3a. For existing immature stands, expecta	tions from <b>clea</b>	ning/brushing (assuming no utiliza	ation) regard	ing the following are:
3aa. Change in growth.				
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.4 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr
Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: $0.7 \text{ m}^3/\text{ha/yr}$
3ab. Length of time this change in growth Softwood: Ques #2 result: 11 years Ques #3 result: 11 years		Ques #2 result: 6 years Ques #3 result: 6 years	Hardwood:	Ques #2 result: 9 years Ques #3 result: 7 years
<ul><li>3ac. Change in rotation based on harvestab</li><li>Softwood: Ques #2 result: -3 years</li><li>Ques #3 result: -2 years</li></ul>		Ques #2 result: 2 years Ques #3 result: 1 years	Hardwood:	Ques #2 result: 8 years Ques #3 result: 1 years
<ul><li>3ad. Change in rotation based on maximur</li><li>Softwood: Ques #2 result: 0 years</li><li>Ques #3 result: -1 years</li></ul>		Ques #2 result: 3 years Ques #3 result: -2 years	Hardwood:	Ques #2 result: 10 years Ques #3 result: 2 years
3b. For existing immature stands expectat the following are:	ions from <b>juve</b>	nile spacing/pre-commercial thin	<b>ning</b> (assumi	ng no utilization) regarding
3ba. Change in growth.				
<b>Softwood:</b> Ques #2 result: 0.9 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 1.1 m <sup>3</sup> /ha/yr
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr
3bb. Length of time this change in growth Softwood: Ques #2 result: 11 years Ques #3 result: 12 years		Ques #2 result: 11 years Ques #3 result: 9 years	Hardwood:	Ques #2 result: 14 years Ques #3 result: 12 years
3bc. Change in rotation based on harvestab Softwood: Ques #2 result: -3 years Ques #3 result: -7 years		Ques #2 result: 1 years Ques #3 result: -1 years	Hardwood:	Ques #2 result: 1 years Ques #3 result: -1 years
3bd. Change in rotation based on maximum Softwood: Ques #2 result: -1 years Ques #3 result: -2 years		Ques #2 result: 1 years Ques #3 result: -3 years	Hardwood:	Ques #2 result: 1 years Ques #3 result: -3 years

3ca. Change in growth. <b>Softwood:</b> Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	Mivedwood	Ques #2 result: 1.2 m <sup>3</sup> /ha/yr	Hardwood.	Ques #2 result:	$1.2 \text{ m}^{3/\text{h}_{3}/\text{yr}}$
Ques #3 result: $0.6 \text{ m}^3/\text{ha/yr}$	Mixeuwood.	Ques #2 result: $1.2 \text{ m}^{-1}/\text{ha/yr}$ Ques #3 result: $0.6 \text{ m}^{-3}/\text{ha/yr}$		Ques #2 result: Ques #3 result:	•
3cb. Length of time this change in growth la	asted.				
Softwood: Ques #2 result: 11 years	Mixedwood:	Ques #2 result: 13 years	Hardwood:	Ques #2 result:	12 years
Ques #3 result: 10 years		Ques #3 result: 8 years		Ques #3 result:	9 years
3cc. Change in rotation based on harvestabl	e tree size.				
<b>Softwood:</b> Ques #2 result: 2 years	Mixedwood:	Ques #2 result: 3 years	Hardwood:	Ques #2 result:	3 years
Ques #3 result: -1 years		Ques #3 result: -3 years		Ques #3 result:	-3 years
3cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: 3 years	Mixedwood:	Ques #2 result: 2 years		Ques #2 result:	•
Ques #3 result: -2 years		Ques #3 result: -2 years		Ques #3 result:	-2 years

## **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood					Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
19	NA	1.2	1.1	15	NA	1.2	1.0		1	NA	1.1	0.6
39	1.5	1.7	1.7	35	1.7	2.1	1.8		21	2.1	2.2	2.0
59	2.0	1.9	2.0	55	2.1	2.4	2.4		41	2.6	2.5	2.5
79*	1.8	2.0	2.1	75*	2.3	2.5	2.5		61*	2.8	2.7	2.9
99	1.7	1.8	1.8	95	2.1	2.1	2.1		81	2.5	2.3	2.6
119	NA	1.6	1.6	115	NA	1.7	1.7		101	NA	1.6	2.1

The aggregated results below are taken from rounds 2 and 3 survey results.

4b Proportion of the area that will be managed by uneven-aged management

40. I roportion of the area that will be managed by the ven-aged management.							
<b>Softwood:</b> Ques #2 result: 9%	Mixedwood: Ques #2 result: 18%	Hardwood: Ques #2 result: 21%					
Ques #3 result: 5%	Ques #3 result: 9%	Ques #3 result: 10%					

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 1.9 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 2.1 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 2.2 m <sup>3</sup> /ha/yr
Ques #3 result: 1.8 m <sup>3</sup> /ha/yr	Ques #3 result: 2.3 m <sup>3</sup> /ha/yr	Ques #3 result: 2.5 m <sup>3</sup> /ha/yr

Softwond: Ques #2 result: 47 m <sup>3</sup> /ha Ques #3 result: 55 m <sup>3</sup> /ha       Mixedwond: Ques #2 result: 7 m <sup>3</sup> /ha Ques #3 result: 55 m <sup>3</sup> /ha       Hardwond: Ques #3 result: 55 m <sup>3</sup> /ha         4c. Average cutting cycle used on areas that will be managed by uneven-aged management. Softword: Ques #2 result: 24 years Ques #3 result: 20 years       Hardwood: Ques #2 result: 21 years Ques #3 result: 20 years         5. From Questionnaires #2 and #3 the results regarding fertilization of regenerated stands have been aggregated and are given below. Figures are based on one-time applications.       Hardwood: Ques #2 result: 12 & 38 yrs old Ques #3 result: 15 & 44 yrs old Ques #3 result: 15 & 90 yrs old       Hardwood: Ques #2 result: 12 & 38 yrs old Ques #3 result: 15 & 90 yrs old         5b. Rate of fertilizer (kg/ha). Softwood: Ques #2 result: 15 & kd yrs old Ques #3 result: 20 kg/ha Ques #3 result: 100 kg/ha Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 10 years       Hardwood: Ques #2 result: 15 years         6. Comments from Questionnaire #1 regarding thiming indicated his topic had to be psji into several categories and that thiming woid occur only on immature stands. cxpectations forn cleaning/brushing (assuming not utiliza	4d. After-cut growing stock level expected to b	e left on areas that will be managed by u	uneven-aged management.
de.       Average cutting cycle used on areas that will be managed by uneven-aged management.       Softwood: Ques #7 result: 24 years       Mixedwood: Ques #7 result: 20 years       Hardwood: Ques #2 result: 21 years         Softwood: Ques #3 result: 22 years       Ques #3 result: 20 years       Hardwood: Ques #2 result: 21 years       Ques #3 result: 20 years         5.       From Questionnaires #2 and #3 the results regarding fertilization of regenerated stands have been aggregated and are given below.       Figures are based on one-time applications.         5a.       Stand age range when fertilization would take place.       Softwood: Ques #2 result: 13 & 44 yrs old       Mixedwood: Ques #2 result: 150 kg/ha       Hardwood: Ques #2 result: 12 & 38 yrs old         Softwoad: Ques #2 result: 13 & 44 yrs old       Mixedwood: Ques #2 result: 150 kg/ha       Hardwood: Ques #2 result: 150 kg/ha       Ques #3 result: 20 kg/ha         Softwoad: Ques #3 result: 20 kg/ha       Mixedwoad: Ques #2 result: 150 kg/ha       Hardwood: Ques #3 result: 150 kg/ha         5c.       For sites distinguished as Good, Medium and Poor, that proportion of sites that would be fertilized.       Poor: Ques #3 result: 16%         Good: Ques #2 result: 13%       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr         Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 10 years       Qu	<b>Softwood:</b> Ques #2 result: 47 m <sup>3</sup> /ha <b>Mix</b>	<b>xedwood:</b> Ques #2 result: 47 m <sup>3</sup> /ha	Hardwood: Ques #2 result: 46 m <sup>3</sup> /ha
Softwood: Ques #2 result: 24 years Ques #3 result: 22 years       Mixedwood: Ques #2 result: 21 years Ques #3 result: 22 years       Hardwood: Ques #2 result: 21 years Ques #3 result: 20 years         5.       From Questionnaires #2 and #3 the results regarding fertilization of regenerated stands have been aggregated and are given below. Figures are based on one-time applications.       Hardwood: Ques #2 result: 28 years         5.       Softwood: Ques #2 result: 44 ys 30 yrs old Ques #3 result: 54 yors old Ques #3 result: 50 kg/ha Ques #3 result: 50 kg/ha Ques #3 result: 50 kg/ha Ques #3 result: 50 kg/ha Ques #3 result: 150 kg/ha Ques #3 result: 10 years Ques #3 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m	-	Ques #3 result: 55 m <sup>3</sup> /ha	Ques #3 result: $55 \text{ m}^3/\text{ha}$
Softwood: Ques #2 result: 24 years Ques #3 result: 22 years       Mixedwood: Ques #2 result: 21 years Ques #3 result: 22 years       Hardwood: Ques #2 result: 21 years Ques #3 result: 20 years         5.       From Questionnaires #2 and #3 the results regarding fertilization of regenerated stands have been aggregated and are given below. Figures are based on one-time applications.       Hardwood: Ques #2 result: 28 years         5.       Softwood: Ques #2 result: 44 ys 30 yrs old Ques #3 result: 54 yors old Ques #3 result: 50 kg/ha Ques #3 result: 50 kg/ha Ques #3 result: 50 kg/ha Ques #3 result: 50 kg/ha Ques #3 result: 150 kg/ha Ques #3 result: 10 years Ques #3 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m	-	-	-
Ques #3 result: 22 years       Ques #3 result: 20 years       Ques #3 result: 20 years         5.       From Questionnaires #2 and #3 the results regarding fortilization of regenerated stands have been aggregated and are given below. Figures are based on one-time applications.       Form Questionnaires #2 and #3 the results regarding fortilization of regenerated stands have been aggregated and are given below. Figures are based on one-time applications.         5a.       Stand age range when fertilization would take place.       Softwood: Ques #3 result: 5 & 30 yrs old Ques #3 result: 14 & 45 yrs old Ques #3 result: 5 & 30 yrs old Ques #3 result: 5 & 30 yrs old Ques #3 result: 150 kg/ha Ques #3 result: 20% Medium: Ques #2 result: 150 kg/ha Ques #3 result: 20% Medium: Ques #2 result: 150 kg/ha Ques #3 result: 150 kg/ha Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 16% gd/ha Ques #3 result: 0.6 m <sup>3</sup> /ha/yr         5d.       Expected increase in growth (m3/ha yr).       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         5et Length of time the increased growth indicated above last (years).       Mixedwood: Ques #3 result: 10 years       Ques #3 result: 13 years         6a.       Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results 10 years Ques #3 result: 10 years Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.8 m <sup>3</sup> /ha/yr			
<ul> <li>5. From Questionnaires #2 and #3 the results regarding fortilization of regenerated stands have been aggregated and are given below. Figures are based on one-time applications.</li> <li>5a. Stand age range when fertilization would take place.</li> <li>Softwood: Ques #2 result: 13 &amp; 44 yrs old Ques #3 result: 8 &amp; 30 yrs old Ques #3 result: 5 &amp; 30 yrs old Ques #3 result: 150 kg/ha Ques #3 result: 10% Ques #2 result: 150 kg/ha Ques #3 result: 10% Ques #3 result: 0%</li> <li>5d. Expected increase in growth (m3/ha/yr).</li> <li>Softwood: Ques #2 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 0.6 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 10 years Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques</li></ul>			
below. Figures are based on one-time applications.         Su. Stand age range when fertilization would take place.         Softwood: Ques #2 result: 13 & 44 yrs old         Mixedwood: Ques #3 result: 8 & 30 yrs old         Ques #3 result: 50 kg/ha         Mixedwood: Ques #2 result: 150 kg/ha         Ques #3 result: 50 kg/ha         Ques #3 result: 100 kg/ha         Q	Ques #5 lesuit: 22 years	Ques #5 fesult: 20 years	Ques #5 lesuit: 20 years
Sa. Stud age range when fertilization would take place.         Softwoot: Ques #2 result: 13 & 44 yrs old Ques #3 result: 3 & 43 yrs old       Mixedwood: Ques #2 result: 14 & 45 yrs old Ques #3 result: 5 & 30 yrs old       Hardwood: Ques #2 result: 12 & 38 yrs old Ques #3 result: 5 & 30 yrs old         Softwoot: Ques #2 result: 150 kg/ha Ques #3 result: 200 kg/ha       Mixedwood: Ques #2 result: 150 kg/ha Ques #3 result: 150 kg/ha       Hardwood: Ques #2 result: 150 kg/ha Ques #3 result: 150 kg/ha         Sc. For sites distinguished as Good, Medium and Poor, that proportion of sites that would be fertilized.       Good: Ques #2 result: 13%       Ques #3 result: 20%         Good: Ques #2 result: 13%       Ques #3 result: 0.6 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwoot: Ques #2 result: 10 years Ques #3 result: 10 years       Mixedwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr         Softwoot: Ques #2 result: 10 years Ques #3 result: 10 years       Mixedwood: Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 13 years Ques #3 result: 10 years         Softwoot: Ques #2 result: 10 years       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 13 years Ques #3 result: 10 years         Softwoot: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result 3 years Ques #3 result: 0.9 wars         Softwoot: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques			ands have been aggregated and are given
Softwood: Ques #2 result: 13 & 44 yrs old Ques #3 result: 5 & 30 yrs old Ques #3 result: 5 0 kg/ha Softwood: Ques #2 result: 150 kg/ha Ques #3 result: 150 kg/ha Ques #3 result: 150 kg/ha Ques #3 result: 130 kg/ha Ques #3 result: 130 kg/ha Ques #3 result: 130 kg/ha Ques #3 result: 130 kg/ha Sc. For sites distinguished as Good, Medium and Poor, that proportion of sites that would be fertilized. Good: Ques #2 result: 13% Ques #3 result: 13% Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 10 years Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 10 years Ques #3 result: 10 years Ques #3 result: 10 years Ques #3 result: 10 years Ques #3	below. Figures are based on one-time appli	ications.	
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Sb. Rate of fertilizer (kg/ha).       Mixedwood: Ques #2 result: 150 kg/ha       Hardwood: Ques #2 result: 150 kg/ha         Softwood: Ques #3 result: 200 kg/ha       Mixedwood: Ques #2 result: 150 kg/ha       Ques #3 result: 150 kg/ha         Sc. For sites distinguished as Good, Medium and Poor, that proportion of sites that would be fertilized.       Poor: Ques #2 result: 16%         Good: Ques #2 result: 13%       Medium: Ques #3 result: 20%       Poor: Ques #2 result: 16%         Sd. Expected increase in growth (m3/ha/yr).       Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 10 years       Hardwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #2 result: 10 years       Ques #3 result: 10 years       Ques #3 result: 13 years         Softwood: Ques #2 result: 10 years       Ques #3 result: 10 years       Hardwood: Ques #2 result: 13 years         Softwood: Ques #2 result: 10 years       Ques #3 result: 13 years       Ques #3 result: 13 years         Ques #3 result: 0 years       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 13 years         Softwood: Ques #2 result: 0 years       Ques #3 result: 13 years       Ques #3 result: 13 years         Softwood: Ques #2 result: 0 years       Ques #3 result: 0 years       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr		1	Hardwood: Ques #2 result: 12 & 38 yrs old
Softwood: Ques #2 result: 150 kg/ha Ques #3 result: 20% Ques #3 result: 20% Ques #3 result: 20% Ques #3 result: 20% Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 10 years Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.9 years Ques #3 result: 10 years Ques #3 result: 1 years Ques #3 result: 2 years Ques #3 result: 2 years Ques #3	Ques #3 result: 5 & 30 yrs old	Ques #3 result: 8 & 30 yrs old	Ques #3 result: 5 & 30 yrs old
Softwood: Ques #2 result: 150 kg/ha Ques #3 result: 20% Ques #3 result: 20% Ques #3 result: 20% Ques #3 result: 20% Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 10 years Ques #3 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.9 years Ques #3 result: 10 years Ques #3 result: 1 years Ques #3 result: 2 years Ques #3 result: 2 years Ques #3	5h Data of fortilizor (kg/ha)		
Ques #3 result: 200 kg/ha       Ques #3 result: 150 kg/ha       Ques #3 result: 150 kg/ha         Sc. For sites distinguished as Good, Medium and Poor, that proportion of sites that would be fertilized.       Poor: Ques #2 result: 16%         Good: Ques #2 result: 23%       Medium: Ques #2 result: 24%       Poor: Ques #2 result: 16%         Ques #3 result: 13%       Ques #3 result: 20%       Poor: Ques #2 result: 0.6         5d. Expected increase in growth (m3/ha/yr).       Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Mixedwood: Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #3 result: 10 years       Mixedwood: Ques #2 result: 10 years       Ques #3 result: 10 years         Softwood: Ques #3 result: 10 years       Mixedwood: Ques #2 result: 10 years       Ques #3 result: 15 years         6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands. Revectations from cleaning/brushing (assuming no utilization) regarding the following are:         6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:         6a. Change in growth.         Softwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.3 m <sup>3</sup> /ha/yr         Gues #3 result: 0.9 wars       Ques #3 result: 0.3 m <sup>3</sup> /ha/yr         Gues #3 result: 0.6 m <sup>3</sup> /ha/yr <t< td=""><td></td><td><b>redwood</b>: Oues #2 result: 150 kg/ha</td><td>Hardwood: Oues #2 result: 150 kg/ha</td></t<>		<b>redwood</b> : Oues #2 result: 150 kg/ha	Hardwood: Oues #2 result: 150 kg/ha
<ul> <li>5c. For sites distinguished as Good, Medium and Poor, that proportion of sites that would be fertilized. Good: Ques #2 result: 28% Medium: Ques #2 result: 24% Ques #3 result: 30%</li> <li>5d. Expected increase in growth (m3/ha/yr).</li> <li>Softwood: Ques #2 result: 0.5 m<sup>3</sup>/ha/yr Mixedwood: Ques #2 result: 0.6 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 10 years Ques #3 result: 10 years Ques #2 result: 10 years Ques #3 result: 0.5 m<sup>3</sup>/ha/yr</li> <li>6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on roud 2 again emphasize immature stands only. The results below apply only to immature stands. Expectations from cleaning/brushing (assuming no utilization) regarding the following are:</li> <li>6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:</li> <li>6aa. Change in growth.</li> <li>Softwood: Ques #2 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 0.3 m<sup>3</sup>/ha/yr Ques #3 result: 0.3 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 10 years Ques #3 result: 7 years Ques #3 result: 10 years Ques #3 result: 10 years Ques #3 result: 7 years Ques #3 result: 10 years Ques #3 r</li></ul>			
Good: Ques #2 result: 28% Ques #3 result: 33%       Medium: Ques #2 result: 24% Ques #3 result: 20%       Poor: Ques #2 result: 16% Ques #3 result: 00%         5d. Expected increase in growth (m3/ha/yr).       Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         5e. Length of time the increased growth indicated above last (years).       Mixedwood: Ques #3 result: 0 years Ques #3 result: 10 years       Hardwood: Ques #2 result: 13 years Ques #3 result: 13 years         6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:         6a. Change in growth.       Softwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.3 m <sup>3</sup> /ha/yr         6ab. Length of time this change in growth lasted.       Softwood: Ques #2 result: 10 years Ques #3 result: 7 years       Hardwood: Ques #2 result: 10 years Ques #3 result: 10 years         6ac. Change in rotation based on harvestable tree size.       Mixedwood: Ques #2 result: 7 years Ques #3 result: 10 years       Hardwood: Ques #2 result: 10 years Ques #3 result: 4 years         6ad. Change in rotation based on maximum MAI. Softwood: Ques #2 result: 1 years       Mixedwood:			
Ques #3 result: 13%Ques #3 result: 20%Ques #3 result: 0%5d. Expected increase in growth (m3/ha/yr).Softwood: Ques #2 result: 0.5 m3/ha/yrMixedwood: Ques #2 result: 0.6 m3/ha/yrHardwood: Ques #2 result: 0.5 m3/ha/yrSoftwood: Ques #3 result: 0.5 m3/ha/yrQues #3 result: 0.5 m3/ha/yrQues #3 result: 0.5 m3/ha/yrQues #3 result: 0.5 m3/ha/yr5e. Length of time the increased growth indicated above last (years).Softwood: Ques #2 result: 10 yearsHardwood: Ques #2 result: 10 yearsQues #3 result: 8 years6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:6aa. Change in growth.Softwood: Ques #2 result: 0.5 m3/ha/yrQues #3 result: 0.5 m3/ha/yrQues #3 result: 0.5 m3/ha/yrQues #3 result: 0.5 m3/ha/yrQues #3 result: 0.5 m3/ha/yrGab. Length of time this change in growth lasted.Softwood: Ques #2 result: 10 yearsQues #3			
5d. Expected increase in growth (m3/ha/yr).       Mixedwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #2 result: 10 years       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #2 result: 10 years       Mixedwood: Ques #2 result: 10 years       Ques #3 result: 13 years         Ques #3 result: 10 years       Ques #3 result: 8 years       Hardwood: Ques #2 result: 13 years         G. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:         6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:         6aa. Change in growth.         Softwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.8 m <sup>3</sup> /ha/yr         Gab. Length of time this change in growth lasted.       Softwood: Ques #3 result: 10 years       Ques #3 result: 10 years       Ques #3 result: 10 years         Gac. Change in rotation based on harvestable tree size.       Softwood: Ques #3 result: 10 years       Ques #3 result: 10 years       <			-
Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Softwood: Ques #2 result: 10 years Ques #3 result: 10 years       Mixedwood: Ques #2 result: 10 years Ques #3 result: 10 years       Hardwood: Ques #2 result: 13 years Ques #3 result: 15 years         6.       Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands. The mean of responses to round 2 and 3 are given below.       Hardwood: Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr         Gaa. Change in growth.       Softwood: Ques #2 result: 0.6 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.3 m <sup>3</sup> /ha/yr         6ab. Length of time this change in growth lasted.       Mixedwood: Ques #2 result: 7 years Ques #3 result: 10 years       Hardwood: Ques #2 result: 10 years Ques #3 result: 10 years         6ac. Change in rotation based on harvestable tree size.       Mixedwood: Ques #2 result: 2 years Ques #3 result: 4 years       Hardwood: Ques #2 result: 8 years         6ad. Change in rotation based on maximum MAI.       Mixedwood: Ques #2 result: 2 years Ques #3 result: -4 years       Hardwood: Ques #2 result: 8 years         6ad. Change in rotation based on maximum MA	Ques #5 lesuit. 15%	Ques #3 lesuit. 20%	Ques #3 lesuit. 0%
Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$ 5c.Length of time the increased growth indicated above last (years).Mixedwood: Ques #2 result: 10 years Ques #3 result: 10 years Ques #3 result: 10 yearsHardwood: Ques #2 result: 13 years Ques #3 result: 15 years6.Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands. The mean of responses to round 2 and 3 are given below.6a.For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are: 6aa. Change in growth.Softwood: Ques #2 result: $0.5 \text{ m}^3/\text{ha/yr}$ Mixedwood: Ques #2 result: $0.5 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.3 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.3 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.3 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $0.9 \text{ m}^3/\text{ha/yr}$ Ques #3 result: $10 \text{ years}$ Ques #3 result: $2 \text{ years}$ Ques #3 result: $2 \text{ years}$ Qu	5d. Expected increase in growth (m3/ha/yr).		
5e. Length of time the increased growth indicated above last (years).       Softwood: Ques #2 result: 10 years       Mixedwood: Ques #2 result: 10 years       Hardwood: Ques #2 result: 13 years         6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands. The mean of responses to round 2 and 3 are given below.       6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:         6a. Change in growth.       Softwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Mixedwood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr       Hardwood: Ques #2 result: 0.8 m <sup>3</sup> /ha/yr         6ab. Length of time this change in growth lasted.       Softwood: Ques #2 result: 10 years       Mixedwood: Ques #2 result: 7 years       Hardwood: Ques #2 result: 10 years         6ac. Change in rotation based on harvestable tree size.       Softwood: Ques #2 result: 1 years       Mixedwood: Ques #2 result: 2 years       Hardwood: Ques #2 result: 8 years         6ac. Change in rotation based on maximum MAI.       Softwood: Ques #2 result: 1 years       Mixedwood: Ques #2 result: 2 years       Hardwood: Ques #2 result: 8 years         6ad. Change in rotation based on maximum MAI.       Softwood: Ques #2 result: 1 years       Mixedwood: Ques #2 result: 2 years       Hardwood: Ques #2 result: 8 years	<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr <b>Mix</b>	<b>kedwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr
Softwood:Ques #2 result: 10 years Ques #3 result: 0.6 m3/ha/yr Ques #3 result: 0.6 m3/ha/yr Ques #3 result: 0.5 m3/ha/yr Ques #3 result: 0.5 m3/ha/yr Ques #3 result: 0.8 m3/ha/yr Ques #3 result: 0.8 m3/ha/yr Ques #3 result: 0.8 m3/ha/yr Ques #3 result: 0.9 m3/ha/yrHardwood: Ques #2 result: 0.8 m3/ha/yr Ques #3 result: 0.9 m3/ha/yr Ques #3 result: 10 years Ques #3 result: 10 yearsHardwood: Ques #2 result: 10 years Ques #3 result: 2 years Ques #3 result: 4 years6a. Change in rotation based on harvestable tree size. Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: 4 yearsHardwood: Ques #2 result: 8 years Ques #3 result: 4 years	Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Ques #3 result: 0.5 m <sup>3</sup> /ha/yr
Softwood:Ques #2 result: 10 years Ques #3 result: 0.6 m3/ha/yr Ques #3 result: 0.6 m3/ha/yr Ques #3 result: 0.5 m3/ha/yr Ques #3 result: 0.5 m3/ha/yr Ques #3 result: 0.8 m3/ha/yr Ques #3 result: 0.8 m3/ha/yr Ques #3 result: 0.8 m3/ha/yr Ques #3 result: 0.9 m3/ha/yrHardwood: Ques #2 result: 0.8 m3/ha/yr Ques #3 result: 0.9 m3/ha/yr Ques #3 result: 10 years Ques #3 result: 10 yearsHardwood: Ques #2 result: 10 years Ques #3 result: 2 years Ques #3 result: 4 years6a. Change in rotation based on harvestable tree size. Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: 4 yearsHardwood: Ques #2 result: 8 years Ques #3 result: 4 years			
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<ul> <li>6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands. The mean of responses to round 2 and 3 are given below.</li> <li>6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:</li> <li>6a. Change in growth.</li> <li>Softwood: Ques #2 result: 0.6 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 10 years Ques #2 result: 10 years Ques #3 result: 8 years</li> <li>6a. Change in rotation based on harvestable tree size.</li> <li>Softwood: Ques #2 result: 1 years Ques #3 result: -4 years</li> <li>6a. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>6a. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>6a. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>For regenerated in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>For regenerated in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>For regenerated in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>For regenerated in rotation based on maximum MAI.</li> </ul>			
<ul> <li>would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands. The mean of responses to round 2 and 3 are given below.</li> <li>6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:</li> <li>6a. Change in growth.</li> <li>Softwood: Ques #2 result: 0.6 m<sup>3</sup>/ha/yr Ques #2 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 10 years Ques #2 result: 10 years Ques #3 result: 8 years</li> <li>6a. Change in rotation based on harvestable tree size.</li> <li>Softwood: Ques #2 result: 1 years Ques #3 result: -4 years</li> <li>6a. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years</li> <li>6a. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>6a. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>For years Ques #2 result: 1 years</li> <li>Mixedwood: Ques #2 result: 2 years</li> <li>For years Ques #3 result: 4 years</li> </ul>			
<ul> <li>apply only to immature stands. The mean of responses to round 2 and 3 are given below.</li> <li>6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:</li> <li>6a. Change in growth.</li> <li>Softwood: Ques #2 result: 0.6 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 10 years Ques #2 result: 10 years Ques #3 result: 10 years Ques #3 result: 8 years</li> <li>6ac. Change in rotation based on harvestable tree size.</li> <li>Softwood: Ques #2 result: 1 years Ques #3 result: -1 years Ques #3 result: -4 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years Gat. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years Cause #3 result: -4 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years Cause #3 result: -4 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years Cause #3 result: -4 years</li> </ul>			
<ul> <li>6a. For regenerated immature stands, expectations from cleaning/brushing (assuming no utilization) regarding the following are:</li> <li>6a. Change in growth.</li> <li>Softwood: Ques #2 result: 0.6 m<sup>3</sup>/ha/yr Mixedwood: Ques #2 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr Ques #3 result: 0.3 m<sup>3</sup>/ha/yr Ques #3 result: 0.3 m<sup>3</sup>/ha/yr</li> <li>6ab. Length of time this change in growth lasted.</li> <li>Softwood: Ques #2 result: 10 years Ques #3 result: 7 years Ques #3 result: 7 years Ques #3 result: 8 years</li> <li>6ac. Change in rotation based on harvestable tree size.</li> <li>Softwood: Ques #2 result: 1 years Ques #3 result: -1 years Ques #3 result: -4 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> <li>Softwood: Ques #2 result: 1 years Mixedwood: Ques #2 result: 2 years</li> <li>6ad. Change in rotation based on maximum MAI.</li> </ul>			
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Softwood: Ques #2 result: 0.6 m³/ha/yr Ques #3 result: 0.5 m³/ha/yrMixedwood: Ques #2 result: 0.5 m³/ha/yrHardwood: Ques #2 result: 0.8 m³/ha/yr6ab. Length of time this change in growth lasted. Softwood: Ques #2 result: 10 years Ques #3 result: 8 yearsMixedwood: Ques #2 result: 7 years Ques #3 result: 7 years Ques #3 result: 7 yearsHardwood: Ques #2 result: 10 years Ques #3 result: 9 years6ac. Change in rotation based on harvestable tree size. Softwood: Ques #2 result: 1 years Ques #3 result: -4 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years6ad. Change in rotation based on maximum MAI. Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years	6a. For regenerated immature stands, expectation	ons from <b>cleaning/brushing</b> (assuming	no utilization) regarding the following are:
Softwood: Ques #2 result: 0.6 m³/ha/yr Ques #3 result: 0.5 m³/ha/yrMixedwood: Ques #2 result: 0.5 m³/ha/yrHardwood: Ques #2 result: 0.8 m³/ha/yr6ab. Length of time this change in growth lasted. Softwood: Ques #2 result: 10 years Ques #3 result: 8 yearsMixedwood: Ques #2 result: 7 years Ques #3 result: 7 years Ques #3 result: 7 yearsHardwood: Ques #2 result: 10 years Ques #3 result: 9 years6ac. Change in rotation based on harvestable tree size. Softwood: Ques #2 result: 1 years Ques #3 result: -4 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years6ad. Change in rotation based on maximum MAI. Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years			
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6ab. Length of time this change in growth lasted.         Softwood: Ques #2 result: 10 years Ques #3 result: 8 years       Mixedwood: Ques #2 result: 7 years Ques #3 result: 7 years         6ac. Change in rotation based on harvestable tree size.       Mixedwood: Ques #2 result: 1 years Ques #3 result: -4 years       Hardwood: Ques #2 result: 2 years Ques #3 result: -1 years         6ad. Change in rotation based on maximum MAI.       Mixedwood: Ques #2 result: 1 years       Hardwood: Ques #2 result: 2 years Ques #3 result: -4 years	- •		
Softwood: Ques #2 result: 10 years Ques #3 result: 8 yearsMixedwood: Ques #2 result: 7 years Ques #3 result: 7 yearsHardwood: Ques #2 result: 10 years Ques #3 result: 10 years6ac. Change in rotation based on harvestable tree size. Softwood: Ques #2 result: 1 years Ques #3 result: -4 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years Ques #3 result: -4 years6ad. Change in rotation based on maximum Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years Ques #3 result: -4 years6ad. Change in rotation based on maximum MAI. Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Mixedwood: Ques #2 result: 2 yearsHardwood: Ques #2 result: 8 years	Ques #3 result: 0.5 m <sup>5</sup> /ha/yr	Ques #3 result: 0.3 m <sup>3</sup> /ha/yr	Ques #3 result: $0.3 \text{ m}^3/\text{ha/yr}$
Softwood: Ques #2 result: 10 years Ques #3 result: 8 yearsMixedwood: Ques #2 result: 7 years Ques #3 result: 7 yearsHardwood: Ques #2 result: 10 years Ques #3 result: 10 years6ac. Change in rotation based on harvestable tree size. Softwood: Ques #2 result: 1 years Ques #3 result: -4 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years Ques #3 result: -4 years6ad. Change in rotation based on maximum Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Ques #3 result: -1 yearsHardwood: Ques #2 result: 8 years Ques #3 result: -4 years6ad. Change in rotation based on maximum MAI. Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Mixedwood: Ques #2 result: 2 yearsHardwood: Ques #2 result: 8 years	6ab. Length of time this change in growth lasted		
Ques #3 result: 8 yearsQues #3 result: 7 yearsQues #3 result: 10 years6ac. Change in rotation based on harvestable tree size.Mixedwood: Ques #2 result: 2 years Ques #3 result: -4 yearsHardwood: Ques #2 result: 8 years Ques #3 result: -1 years6ad. Change in rotation based on maximum MAI. Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years Ques #2 result: 2 yearsHardwood: Ques #2 result: 8 years Ques #3 result: -4 years			<b>Hardwood:</b> Ques #2 result: 10 years
Softwood: Ques #2 result: 1 years Ques #3 result: -4 years       Mixedwood: Ques #2 result: 2 years Ques #3 result: -1 years       Hardwood: Ques #2 result: 8 years Ques #3 result: -4 years         6ad. Change in rotation based on maximum Softwood: Ques #2 result: 1 years       Mixedwood: Ques #2 result: 2 years       Hardwood: Ques #2 result: 8 years         Hardwood: Ques #2 result: 1 years       Mixedwood: Ques #2 result: 2 years       Hardwood: Ques #2 result: 8 years			
Softwood: Ques #2 result: 1 years Ques #3 result: -4 years       Mixedwood: Ques #2 result: 2 years Ques #3 result: -1 years       Hardwood: Ques #2 result: 8 years Ques #3 result: -4 years         6ad. Change in rotation based on maximum Softwood: Ques #2 result: 1 years       Mixedwood: Ques #2 result: 2 years       Hardwood: Ques #2 result: 8 years         Hardwood: Ques #2 result: 1 years       Mixedwood: Ques #2 result: 2 years       Hardwood: Ques #2 result: 8 years			
Ques #3 result: -4 yearsQues #3 result: -1 yearsQues #3 result: -4 years6ad. Change in rotation based on maximumMAI.Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 yearsHardwood: Ques #2 result: 1 years			Hardwood. Ones #2 result. & years
6ad. Change in rotation based on maximum MAI.MAI.Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 yearsHardwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 years			
Softwood: Ques #2 result: 1 yearsMixedwood: Ques #2 result: 2 yearsHardwood: Ques #2 result: 8 years			2
Ques #5 result: -2 years Ques #5 result: -1 years Ques #5 result: -4 years			
	Ques #3 result: -2 years	Ques #5 result: -1 years	Ques #5 result: -4 years

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.8 m <sup>3</sup> /ha/yr
Ques #3 result: 0.2 m <sup>3</sup> /ha/yr		Ques #3 result: 0.2 m <sup>3</sup> /ha/yr		Ques #3 result:	0.2 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth la	asted.				
Softwood: Ques #2 result: 14 years		Ques #2 result: 13 years	Hardwood:	Ques #2 result:	14 years
Ques #3 result: 10 years		Ques #3 result: 7 years		Ques #3 result:	9 years
6bc. Change in rotation based on harvestabl	le tree size.				
<b>Softwood:</b> Ques #2 result: -2 years	Mixedwood:	Ques #2 result: 0 years	Hardwood:	Ques #2 result:	
Ques #3 result: -4 years		Ques #3 result: -2 years		Ques #3 result:	-3 years
6bd. Change in rotation based on maximum					
<b>Softwood:</b> Ques #2 result: 1 years	Mixedwood:	Ques #2 result: 1 years	Hardwood:	Ques #2 result:	
Ques #3 result: -3 years		Ques #3 result: -1 years		Ques #3 result:	-3 years
6c. For regenerated immature stands, expe following are:	ectations from <b>(</b>	commercial thinning (including t	hinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.8 \text{ m}^3/\text{ha/vr}$
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result:	
				<b>C</b>	, , j -
6cb. Length of time this change in growth la				0 //0 1	10
<b>Softwood:</b> Ques #2 result: 13 years	Mixedwood:	Ques #2 result: 14 years	Hardwood:	Ques #2 result:	
Ques #3 result: 10 years		Ques #3 result: 11 years		Ques #3 result:	11 years
6cc. Change in rotation based on harvestabl					
<b>Softwood:</b> Ques #2 result: 0 years	Mixedwood:	Ques #2 result: 1 years	Hardwood:	Ques #2 result:	
Ques #3 result: -2 years		Ques #3 result: -2 years		Ques #3 result:	-2 years
6cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: 1 years	Mixedwood:	Ques #2 result: -1 years	Hardwood:	Ques #2 result:	
Ques #3 result: -2 years		Ques #3 result: -2 years		Ques #3 result:	-2 years
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regeneration	ated stands ha	ve been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.8 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.4 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	•
-		•			one ili yilay ji
7b. Change in rotation expected based on l				0 110	4
Softwood: Ques #2 result: 6 years	Mixedwood:	Ques #2 result: 5 years	Hardwood:	Ques #2 result:	
Ques #3 result: 1 years		Ques #3 result: -1 years		Ques #3 result:	-1 years
7c. Change in rotation expected based on 1					
<b>Softwood:</b> Ques #2 result: 5 years	Mixedwood:	Ques #2 result: 4 years	Hardwood:	Ques #2 result:	
Ques #3 result: 1 years		Ques #3 result: -1 years		Ques #3 result:	-1 years

# EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood					Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
53	NA	2.5	2.1	42	NA	2.0	2.1		50	NA	1.9	2.0
73	1.9	2.3	2.3	62	2.3	2.3	2.4		70	2.4	2.2	2.3
93	1.9	2.2	2.3	82	2.6	2.5	2.5		90	2.2	2.3	2.3
113*	1.7	2.1	2.2	102 *	2.2	2.3	2.1		110*	2.0	2.0	2.0
133	1.5	1.9	1.9	122	1.9	2.1	2.0		130	1.8	1.8	1.8
153	NA	1.7	1.6	142	NA	2.0	1.7		150	NA	1.7	1.6

1b. What proportion of the area is manage	d by uneven-aged management.	
Softwood: Ques #2 result: 15%	Mixedwood: Ques #2 result: 32%	Hardwood: Ques #2 result: 47%
Ques #3 result: 15%	Ques #3 result: 25%	Ques #3 result: 50%
1c. Growth per ha/year on areas managed	by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 2.4 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 2.7 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 2.1 m <sup>3</sup> /ha/yr
Ques #3 result: $2.0 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $2.2 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $2.5 \text{ m}^3/\text{ha/yr}$
1d. After-cut growing stock level left on a	reas managed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 58 m <sup>3</sup> /ha	<b>Mixedwood:</b> Ques #2 result: 62 m <sup>3</sup> /ha	Hardwood: Ques #2 result: 65 m <sup>3</sup> /ha
Ques #3 result: $50 \text{ m}^3/\text{ha}$	Ques #3 result: $50 \text{ m}^3/\text{ha}$	Ques #3 result: 63 m <sup>3</sup> /ha
1e. Average cutting cycle used on areas m	anaged by uneven-aged management?	
<b>Softwood:</b> Ques #2 result: 20 years	<b>Mixedwood:</b> Ques #2 result: 22 years	Hardwood: Ques #2 result: 22 years
Ques #3 result: 17 years	Ques #3 result: 19 years	Ques #3 result: 22 years
<b>2.</b> From Ouestionnaires #2 and #3 the res	ulte recording fortilization of evicting stands	have been accreted and are given below
Figures are based on one-time applicat	ults regarding <b>fertilization</b> of existing stands	have been aggregated and are given below.
rigures are based on one-time applicat	10113	
2a. Stand age range when fertilization cou	ld take place.	
Softwood: Ques #2 result: 13 & 38 yrs old	<b>Mixedwood:</b> Ques #2 result: 13 & 39 yrs old	Hardwood: Ques #2 result: 13 & 39 yrs old
Ques #3 result: 11 & 33 yrs old	Ques #3 result: 11 & 31 yrs old	Ques #3 result: 6 & 33 yrs old
2b. Rate of fertilizer (kg/ha) application.		
Softwood: Ques #2 result: 200 kg/ha	Mixedwood: Ques #2 result: 200 kg/ha	Hardwood: Ques #2 result: 225 kg/ha
Ques #3 result: 200 kg/ha	Ques #3 result: 208 kg/ha	Ques #3 result: 235 kg/ha

2c. For sites distinguished as Good, Medium and PoorGood: Ques #2 result: 25%Medium:Ques #3 result: 17%	the proportion of sites that would b Ques #2 result: 18% Ques #3 result: 9%	Poor: Ques #	#2 result: 8% #3 result: 8%
2d. Expected increase in growth (m3/ha/yr).			
	<b>d:</b> Ques #2 result: 1.2 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr	Ques #3 result: 0.9 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr
	-		-
2e. Length of time the increased growth would last (ye		TT 1 1	0
Softwood: Ques #2 result: 6 years Mixedwoo Ques #3 result: 5 years	d: Ques #2 result: 6 years Ques #3 result: 5 years		Ques #2 result: 5 years Ques #3 result: 5 years
Ques #5 result. 5 years	Ques #5 result. 5 years	·	Ques #5 result. 5 years
<b>3.</b> Comments from Questionnaire #1 regarding thinnin would occur only on immature stands. Several com apply only to immature stands. The mean of response	nments on round 2 again emphasize	e immature stand	
3a. For existing immature stands, expectations from <b>cl</b>	eaning/brushing (assuming no util	ization) regardir	ng the following are:
3aa. Change in growth.			
	<b>d:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.6 m <sup>3</sup> /ha/yr
Ques #3 result: $0.8 \text{ m}^3/\text{ha/yr}$	Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr
3ab. Length of time this change in growth would last.	1. 0	TT 1 1	0
Softwood: Ques #2 result: 12 years Mixedwoo Ques #3 result: 11 years	<b>d:</b> Ques #2 result: 7 years Ques #3 result: 6 years		Ques #2 result: 7 years Ques #3 result: 5 years
Ques «5 lesult. 11 years	Ques no result. O years	·	Ques no result. 5 years
3ac. Change in rotation based on harvestable tree size.			
	<b>d:</b> Ques #2 result: 7 years		Ques #2 result: 7 years
Ques #3 result: -3 years	Ques #3 result: -1 years	(	Ques #3 result: -1 years
3ad. Change in rotation based on maximum MAI.			
Softwood: Ques #2 result: 6 years Mixedwoo	<b>d:</b> Ques #2 result: 7 years		Ques #2 result: 7 years
Ques #3 result: -1 years	Ques #3 result: 0 years	(	Ques #3 result: 0 years
3b. For existing immature stands expectations from <b>juv</b> the following are:	venile spacing/pre-commercial th	<b>inning</b> (assumin	ng no utilization) regarding
3ba. Change in growth.			
	<b>d:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 1.1 m <sup>3</sup> /ha/yr
Ques #3 result: $0.9 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $0.9 \text{ m}^3/\text{ha/yr}$		Ques #3 result: $0.9 \text{ m}^3/\text{ha/yr}$
3bb. Length of time this change in growth lasted.			
	d: Ques #2 result: 8 years		Ques #2 result: 8 years
Ques #3 result: 10 years	Ques #3 result: 8 years	(	Ques #3 result: 7 years
3bc. Change in rotation based on harvestable tree size.			
	<b>d:</b> Ques #2 result: 5 years		Ques #2 result: 5 years
Ques #3 result: -5 years	Ques #3 result: -4 years	(	Ques #3 result: -4 years
3bd. Change in rotation based on maximum MAI.			
	<b>d:</b> Ques #2 result: 6 years	Hardwood:	Ques #2 result: 6 years
Ques #3 result: 0 years	Ques #3 result: -1 years		Ques #3 result: 0 years

<ul> <li>3ca. Change in growth.</li> <li>Softwood: Ques #2 result: 1.0 m<sup>3</sup>/ha/yr Ques #3 result: 0.8 m<sup>3</sup>/ha/yr</li> </ul>	Mixedwood:	Ques #2 result: 0.9 m <sup>3</sup> /ha/yr Ques #3 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	•
3cb. Length of time this change in growth	lasted.				
<b>Softwood:</b> Ques #2 result: 9 years	Mixedwood:	Ques #2 result: 8 years	Hardwood:	Ques #2 result:	8 years
Ques #3 result: 9 years		Ques #3 result: 10 years		Ques #3 result:	11 years
3cc. Change in rotation based on harvestab	ole tree size.				
<b>Softwood:</b> Ques #2 result: 5 years	Mixedwood:	Ques #2 result: 5 years	Hardwood:	Ques #2 result:	5 years
Ques #3 result: -2 years		Ques #3 result: -2 years		Ques #3 result:	-3 years
3cd. Change in rotation based on maximur	n MAI.				
<b>Softwood:</b> Ques #2 result: 5 years	Mixedwood:	Ques #2 result: 5 years	Hardwood:	Ques #2 result:	5 years
Ques #3 result: 1 years		Ques #3 result: 1 years		Ques #3 result:	1 years

# **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood					Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
27	NA	2.8	2.7	21	NA	1.5	2.2		21	NA	1.5	1.9
47	2.8	3.2	3.1	41	2.8	2.8	2.7		41	3.1	2.7	2.4
67	2.8	2.9	2.9	61	2.9	3.0	2.9		61	2.9	2.7	2.8
87*	2.6	2.6	2.8	81*	2.5	2.8	2.8		81*	2.7	2.6	2.8
107	2.3	2.3	2.3	101	2.1	2.5	2.5		101	2.5	2.3	2.2
127	NA	1.9	1.9	121	NA	2.2	2.2		121	NA	1.9	1.9

The aggregated results below are taken from rounds 2 and 3 survey results.

4b Proportion of the area that will be managed by uneven-aged management

+0. Troportion of the area that will be	managed by the ven aged management.	
<b>Softwood:</b> Ques #2 result: 25%	Mixedwood: Ques #2 result: 43%	Hardwood: Ques #2 result: 45%
Ques #3 result: 23%	Ques #3 result: 33%	Ques #3 result: 51%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 2.1 m <sup>3</sup> /ha/yr	N
Ques #3 result: 2.5 m <sup>3</sup> /ha/yr	

**Mixedwood:** Ques #2 result: 2.5 m<sup>3</sup>/ha/yr Ques #3 result: 2.6 m<sup>3</sup>/ha/yr Hardwood: Ques #2 result: 2.2 m<sup>3</sup>/ha/yr Ques #3 result: 2.5 m<sup>3</sup>/ha/yr

4d. After-cut growing stock level expecte <b>Softwood:</b> Ques #2 result: 93 m <sup>3</sup> /ha		reas that will be managed by un Ques #2 result: 93 m <sup>3</sup> /ha	•	agement. Ques #2 result: 110 m <sup>3</sup> /ha
Ques #3 result: 66 $m^3/ha$	Mixeuwood.	Ques #3 result: 84 $m^3/ha$		Ques #2 result: 110 $\text{m}^{-1/14}$ Ques #3 result: 82 $\text{m}^{3/14}$
<ul><li>4e. Average cutting cycle used on areas th</li><li>Softwood: Ques #2 result: 23 years</li><li>Ques #3 result: 22 years</li></ul>		aged by uneven-aged managem Ques #2 result: 22 years Ques #3 result: 22 years		Ques #2 result: 22 years Ques #3 result: 19 years
<b>5.</b> From Questionnaires #2 and #3 the re below. Figures are based on one-time		fertilization of regenerated sta	nds have been ag	gregated and are given
<ul><li>5a. Stand age range when fertilization wo</li><li>Softwood: Ques #2 result: 11 &amp; 35 yrs old Ques #3 result: 15 &amp; 24 yrs old</li></ul>	Mixedwood:	Ques #2 result: 11 & 36 yrs old Ques #3 result: 15 & 24 yrs old		es #2 result: 11 & 36 yrs old es #3 result: 15 & 32 yrs old
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: 200 kg/ha Ques #3 result: 200 kg/ha</li></ul>	Mixedwood:	Ques #2 result: 200 kg/ha Ques #3 result: 239 kg/ha	Hardwood:	Ques #2 result: 225 kg/ha Ques #3 result: 175 kg/ha
<ul><li>5c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 52%</li><li>Ques #3 result: 19%</li></ul>	Medium: Q	hat proportion of sites that woul ues #2 result: 33% ues #3 result: 21%	Poor: Ques	#2 result: 5% #3 result: 12%
5d. Expected increase in growth (m3/ha/y	vr).			
<b>Softwood:</b> Ques #2 result: 1.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: $0.4 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.9 m <sup>3</sup> /ha/yr		Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: $1.4 \text{ m}^3/\text{ha/yr}$
<ul><li>5e. Length of time the increased growth i</li><li>Softwood: Ques #2 result: 6 years</li><li>Ques #3 result: 6 years</li></ul>		last (years). Ques #2 result: 7 years Ques #3 result: 7 years	Hardwood:	Ques #2 result: 7 years Ques #3 result: 6 years
<b>6.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several comm	nents on round 2 again emphasi	ze immature star	
6a. For regenerated immature stands, exp	ectations from	<b>cleaning/brushing</b> (assuming r	no utilization) reg	garding the following are:
6aa. Change in growth.				
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0.8 m <sup>3</sup> /ha/yr
6ab. Length of time this change in growth <b>Softwood:</b> Ques #2 result: 9 years Ques #3 result: 8 years		Ques #2 result: 8 years Ques #3 result: 7 years	Hardwood:	Ques #2 result: 9 years Ques #3 result: 8 years
6ac. Change in rotation based on harvestab Softwood: Ques #2 result: 9 years Ques #3 result: -3 years		Ques #2 result: 7 years Ques #3 result: -2 years	Hardwood:	Ques #2 result: 7 years Ques #3 result: -3 years
6ad. Change in rotation based on maximur Softwood: Ques #2 result: 9 years Ques #3 result: -3 years		Ques #2 result: 7 years Ques #3 result: -1 years	Hardwood:	Ques #2 result: 7 years Ques #3 result: -2 years

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.8 m <sup>3</sup> /ha/yr
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	0.5 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth l	asted.				
Softwood: Ques #2 result: 13 years		Ques #2 result: 11 years	Hardwood:	Ques #2 result:	11 years
Ques #3 result: 12 years		Ques #3 result: 9 years		Ques #3 result:	10 years
6bc. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: 7 years	Mixedwood:	Ques #2 result: 7 years	Hardwood:	Ques #2 result:	
Ques #3 result: -3 years		Ques #3 result: -3 years		Ques #3 result:	-3 years
6bd. Change in rotation based on maximum					
<b>Softwood:</b> Ques #2 result: 7 years	Mixedwood:	Ques #2 result: 7 years	Hardwood:	Ques #2 result:	
Ques #3 result: 0 years		Ques #3 result: 1 years		Ques #3 result:	0 years
6c. For regenerated immature stands, experience following are:	ectations from <b>(</b>	commercial thinning (including	thinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.6 \text{ m}^3/\text{ha/yr}$
Ques #3 result: $0.4 \text{ m}^3/\text{ha/yr}$		Ques #3 result: 0.4 m <sup>3</sup> /ha/yr		Ques #3 result:	$0.4 \text{ m}^3/\text{ha/yr}$
				-	
6cb. Length of time this change in growth l		0 1/2 1/2 0	<b>TT</b> J J -	0	0
Softwood: Ques #2 result: 11 years Ques #3 result: 9 years	Mixeawooa:	Ques #2 result: 9 years Ques #3 result: 8 years	Hardwood:	Ques #2 result: Ques #3 result:	
· ·				<b>C</b>	- j
6cc. Change in rotation based on harvestab		0	Handmaada	0	(
Softwood: Ques #2 result: 7 years Ques #3 result: -3 years	Mixeawooa:	Ques #2 result: 6 years Ques #3 result: -1 years	Hardwood:	Ques #2 result: Ques #3 result:	
Ques «5 result. 5 years		Ques #5 lesuit. 1 years		Ques #5 Tesuit.	2 years
6cd. Change in rotation based on maximum					_
Softwood: Ques #2 result: 8 years	Mixedwood:	Ques #2 result: 7 years	Hardwood:	Ques #2 result:	•
Ques #3 result: 1 years		Ques #3 result: 1 years		Ques #3 result:	1 years
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regene	rated stands ha	ve been aggrega	ted and are
given below.					
7a. Change in MAI expected from greater	-				
<b>Softwood:</b> Ques #2 result: 0.9 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.1 m <sup>3</sup> /ha/yr
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result:	$0.7 \text{ m}^3/\text{ha/yr}$
7b. Change in rotation expected based on	harvestable tree	e size.			
<b>Softwood:</b> Ques #2 result: 6 years		Ques #2 result: 6 years	Hardwood:	Ques #2 result:	7 years
Ques #3 result: -3 years		Ques #3 result: -3 years		Ques #3 result:	-3 years
7c. Change in rotation expected based on	Maximum MA	I.			
<b>Softwood:</b> Ques #2 result: 6 years		Ques #2 result: 6 years	Hardwood:	Ques #2 result:	
Ques #3 result: -3 years		Ques #3 result: -3 years		Ques #3 result:	-3 years

## EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood					Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
44	NA	0.8	0.7	32	NA	1.2	0.9		18	NA	1.5	0.9
64	1.0	1.2	1.2	52	1.5	1.6	1.5		38	1.4	1.7	1.6
84	1.1	1.1	1.2	72	1.6	1.7	1.6		58	2.0	2.1	2.0
104*	0.9	1.0	1.0	92*	1.4	1.5	1.4		78*	1.7	18	1.8
124	0.7	0.8	0.7	112	1.0	1.0	1.0		98	1.5	1.5	1.5
144	NA	0.6	0.5	132	NA	0.8	0.6		118	NA	1.0	0.9

1b. What proportion of the area is manage	d by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 6%	Mixedwood: Ques #2 result: 10%	Hardwood: Ques #2 result: 5%
Ques #3 result: 5%	Ques #3 result: 7%	Ques #3 result: 0%
1c. Growth per ha/year on areas managed	by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 1.3 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 1.7 m <sup>3</sup> /ha/yr
Ques #3 result: $1.0 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $1.3 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $1.5 \text{ m}^3/\text{ha/yr}$
1d. After-cut growing stock level left on an	reas managed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 40 m <sup>3</sup> /ha	<b>Mixedwood:</b> Ques #2 result: 85 m <sup>3</sup> /ha	<b>Hardwood:</b> Ques #2 result: $113 \text{ m}^3/\text{ha}$
Ques #3 result: $40 \text{ m}^3/\text{ha}$	Ques #3 result: 95 m $^3$ /ha	Ques #3 result: 120 m <sup>3</sup> /ha
Ques #5 result. To hir /ha		Ques #5 fesult. 120 fil /ila
1e. Average cutting cycle used on areas m	anaged by uneven-aged management?	
<b>Softwood:</b> Ques #2 result: 30 years	<b>Mixedwood:</b> Ques #2 result: 25 years	Hardwood: Ques #2 result: 22 years
Ques #3 result: 30 years	Ques #3 result: 28 years	Ques #3 result: 30 years
	-	
-	ults regarding fertilization of existing stands	s have been aggregated and are given below.
Figures are based on one-time applicat	ions	
2a. Stand age range when fertilization cou	-	
Softwood: Ques #2 result: 51 & 62 yrs old Ques #3 result: 58 & 70 yrs old	<b>Mixedwood:</b> Ques #2 result: 44 & 56 yrs old	Hardwood: Ques #2 result: 38 & 49 yrs old
Ques #5 lesuit. $50 \propto 70$ yrs old	Ques #3 result: 50 & 63 yrs old	Ques #3 result: 38 & 52 yrs old
2b. Rate of fertilizer (kg/ha) application.		

<ul><li>2c. For sites distinguished as Good, Med</li><li>Good: Ques #2 result: 38%</li><li>Ques #3 result: 42%</li></ul>	Medium: Q	he proportion of sites that would b ues #2 result: 26% Dues #3 result: 25%	Poor: Ques	#2 result: 0% #3 result: 0%
2d. Expected increase in growth (m3/ha/y Softwood: Ques #2 result: 0.9 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #2 result: 0.9 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 1.2 m <sup>3</sup> /ha/yr Ques #3 result: 0.7 m <sup>3</sup> /ha/yr
2e. Length of time the increased growth v Softwood: Ques #2 result: 10 years Ques #3 result: 10 years		s). Ques #2 result: 10 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: 10 years Ques #3 result: 10 years
<b>3.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The r	. Several com	nents on round 2 again emphasize	immature star	
3a. For existing immature stands, expecta	ations from <b>clea</b>	ning/brushing (assuming no utili	zation) regard	ing the following are:
<ul> <li>3aa. Change in growth.</li> <li>Softwood: Ques #2 result: 1.0 m<sup>3</sup>/ha/yr Ques #3 result: 0.5 m<sup>3</sup>/ha/yr</li> </ul>	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.1 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr
<ul><li>3ab. Length of time this change in growth</li><li>Softwood: Ques #2 result: 26 years</li><li>Ques #3 result: 18 years</li></ul>		Ques #2 result: 27 years Ques #3 result: 18 years	Hardwood:	Ques #2 result: 16 years Ques #3 result: 14 years
<ul><li>3ac. Change in rotation based on harvestal</li><li>Softwood: Ques #2 result: -5 years</li><li>Ques #3 result: -8 years</li></ul>		Ques #2 result: -5 years Ques #3 result: -8 years	Hardwood:	Ques #2 result: -2 years Ques #3 result: -7 years
<ul><li>3ad. Change in rotation based on maximum</li><li>Softwood: Ques #2 result: 0 years</li><li>Ques #3 result: 0 years</li></ul>		Ques #2 result: 0 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: 0 years Ques #3 result: 0 years
3b. For existing immature stands expecta the following are:	tions from <b>juve</b>	nile spacing/pre-commercial thi	<b>nning</b> (assumi	ing no utilization) regarding
3ba. Change in growth. <b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr
3bb. Length of time this change in growth <b>Softwood:</b> Ques #2 result: 29 years Ques #3 result: 23 years		Ques #2 result: 28 years Ques #3 result: 23 years	Hardwood:	Ques #2 result: 20 years Ques #3 result: 18 years
3bc. Change in rotation based on harvestal <b>Softwood:</b> Ques #2 result: -8 years Ques #3 result: -10 years		Ques #2 result: -8 years Ques #3 result: -10 years	Hardwood:	Ques #2 result: -8 years Ques #3 result: -8 years
3bd. Change in rotation based on maximum Softwood: Ques #2 result: -4 years Ques #3 result: -3 years		Ques #2 result: -4 years Ques #3 result: -3 years	Hardwood:	Ques #2 result: -4 years Ques #3 result: -3 years

3ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.3 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.3 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.3 m <sup>3</sup> /ha/yi
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result:	0.8 m <sup>3</sup> /ha/yr
3cb. Length of time this change in growth la	asted.				
<b>Softwood:</b> Ques #2 result: 14 years	Mixedwood:	Ques #2 result: 14 years	Hardwood:	Ques #2 result:	13 years
Ques #3 result: 14 years		Ques #3 result: 13 years		Ques #3 result:	13 years
3cc. Change in rotation based on harvestabl	e tree size.				
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	-5 years
Ques #3 result: -7 years		Ques #3 result: -7 years		Ques #3 result:	-6 years
3cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: 0 years	Mixedwood:	Ques #2 result: 0 years	Hardwood:	Ques #2 result:	0 years
Ques #3 result: 2 years		Ques #3 result: 2 years		Ques #3 result:	2 years

# **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood				Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
16	NA	0.9	0.4	6	NA	0.6	0.3	NA	NA	0.9	0.5
36	0.9	0.9	0.9	26	0.9	1.1	1.0	16	1.1	1.3	1.0
56	1.2	1.2	1.3	46	1.6	1.8	1.8	36	1.7	2.0	1.9
76*	1.2	1.4	1.4	66*	1.8	1.7	1.8	56*	2.	2.1	2.1
96	1.0	1.1	1.1	86	1.5	1.4	1.4	76	1.7	1.9	1.9
116	NA	0.8	0.9	106	NA	0.5	0.7	96	NA	1.7	1.7

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be managed by uneven-aged management.

ior rependent of the thet that will b	e managea of ane en agea management	
<b>Softwood:</b> Ques #2 result: 8%	Mixedwood: Ques #2 result: 12%	Hardwood: Ques #2 result: 5%
Ques #3 result: 10%	Ques #3 result: 17%	Ques #3 result: 0%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 1.1 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: 1.4 m <sup>3</sup> /ha/yr
Ques #3 result: 1.1 m <sup>3</sup> /ha/yr	Ques #3 result: 1.4 m <sup>3</sup> /ha/yr

Hardwood: Ques #2 result: 1.7 m<sup>3</sup>/ha/yr Ques #3 result: NA m<sup>3</sup>/ha/yr

4d. After-cut growing stock level expected	d to be left on a	areas that will be managed by ur	neven-aged mana	agement.	
<b>Softwood:</b> Ques #2 result: 40 m <sup>3</sup> /ha		Ques #2 result: $60 \text{ m}^3/\text{ha}$	•	Ques #2 result:	65 m <sup>3</sup> /ha
Ques #3 result: 40 m <sup>3</sup> /ha		Ques #3 result: 60 m <sup>3</sup> /ha		Ques #3 result:	NA m <sup>3</sup> /ha
<ul><li>4e. Average cutting cycle used on areas th</li><li>Softwood: Ques #2 result: 15 years</li><li>Ques #3 result: 15 years</li></ul>		aged by uneven-aged managem Ques #2 result: 13 years Ques #3 result: 10 years		Ques #2 result: Ques #3 result:	•
5. From Questionnaires #2 and #3 the re below. Figures are based on one-time		fertilization of regenerated star	nds have been ag	ggregated and are	e given
<ul><li>5a. Stand age range when fertilization wo</li><li>Softwood: Ques #2 result: 42 &amp; 55 yrs old Ques #3 result: 50 &amp; 62 yrs old</li></ul>	Mixedwood:	Ques #2 result: 36 & 50 yrs old Ques #3 result: 40 & 52 yrs old		es #2 result: 35 & es #3 result: 35 &	
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: 283 kg/ha Ques #3 result: 254 kg/ha</li></ul>	Mixedwood:	Ques #2 result: 300 kg/ha Ques #3 result: 267 kg/ha	Hardwood:	Ques #2 result: Ques #3 result:	
<ul><li>5c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 29%</li><li>Ques #3 result: 42%</li></ul>	Medium: Q	hat proportion of sites that woul ues #2 result: 29% ues #3 result: 25%	Poor: Ques	#2 result: 0% #3 result: 0%	
5d. Expected increase in growth (m3/ha/y	r).				
<b>Softwood:</b> Ques #2 result: 0.9 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.9 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.2 m <sup>3</sup> /ha/yr
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.4 m <sup>3</sup> /ha/yr		Ques #3 result:	0.7m <sup>3</sup> /ha/yr
<ul><li>5e. Length of time the increased growth in</li><li>Softwood: Ques #2 result: 10 years</li><li>Ques #3 result: 10 years</li></ul>		last (years). Ques #2 result: 10 years Ques #3 result: 10 years	Hardwood:	Ques #2 result: Ques #3 result:	
<b>6.</b> Comments from Questionnaire #1 reg would occur only on immature stands apply only to immature stands. The n	. Several comm	nents on round 2 again emphasi	ze immature star		
6a. For regenerated immature stands, exp	ectations from	cleaning/brushing (assuming n	o utilization) reg	garding the follow	wing are:
6aa. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.1 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr Ques #3 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	
6ab. Length of time this change in growth Softwood: Ques #2 result: 26 years Ques #3 result: 18 years		Ques #2 result: 23 years Ques #3 result: 18 years	Hardwood:	Ques #2 result: Ques #3 result:	
6ac. Change in rotation based on harvestab Softwood: Ques #2 result: -3 years Ques #3 result: -6 years		Ques #2 result: -3 years Ques #3 result: -6 years	Hardwood:	Ques #2 result: Ques #3 result:	
6ad. Change in rotation based on maximum Softwood: Ques #2 result: 0 years Ques #3 result: 0 years		Ques #2 result: 0 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: Ques #3 result:	

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.8 m <sup>3</sup> /ha/yr
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr		Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result:	$0.7 \text{ m}^3/\text{ha/yr}$
6bb. Length of time this change in growth l	asted.				
Softwood: Ques #2 result: 29 years		Ques #2 result: 25 years	Hardwood:	Ques #2 result:	
Ques #3 result: 23 years		Ques #3 result: 22 years		Ques #3 result:	18 years
6bc. Change in rotation based on harvestab					
<b>Softwood:</b> Ques #2 result: -2 years	Mixedwood:	Ques #2 result: -2 years	Hardwood:	Ques #2 result:	
Ques #3 result: -9 years		Ques #3 result: -9 years		Ques #3 result:	-8 years
6bd. Change in rotation based on maximum					
<b>Softwood:</b> Ques #2 result: 0 years	Mixedwood:	Ques #2 result: 0 years	Hardwood:	Ques #2 result:	
Ques #3 result: 0 years		Ques #3 result: 0 years		Ques #3 result:	0 years
6c. For regenerated immature stands, expendence following are:	ectations from <b>(</b>	commercial thinning (including	thinning plus f	ïnal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.3 m <sup>3</sup> /ha/yr	Mixedwood	Ques #2 result: 1.3 m <sup>3</sup> /ha/yr	Hardwood	Ques #2 result:	$1.4 \text{ m}^{3/\text{ha/yr}}$
Ques #2 result: $1.5 \text{ m}^{-3}/\text{ha/yr}$	macu woou.	Ques #2 result: $1.5 \text{ m}^{-1}$ /ha/yr Ques #3 result: $0.8 \text{ m}^{-3}$ /ha/yr	Haruwoou.	Ques #2 result: Ques #3 result:	
Ques #5 result. 0.7 In 7 ha/yr		Ques #5 lesuit. 0.8 III <sup>-</sup> /IId/yi		Ques #5 lesuit.	0.8 m <sup>-</sup> /ma/yr
6cb. Length of time this change in growth l					
<b>Softwood:</b> Ques #2 result: 14 years	Mixedwood:	Ques #2 result: 14 years	Hardwood:	Ques #2 result:	
Ques #3 result: 16 years		Ques #3 result: 15 years		Ques #3 result:	14 years
6cc. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood:	Ques #2 result: -5 years	Hardwood:	Ques #2 result:	
Ques #3 result: -7 years		Ques #3 result: -7 years		Ques #3 result:	-6 years
6cd. Change in rotation based on maximum	n MAI.				
<b>Softwood:</b> Ques #2 result: 0 years		Ques #2 result: 0 years	Hardwood:	Ques #2 result:	
Ques #3 result: 2 years		Ques #3 result: 2 years		Ques #3 result:	2 years
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regene	rated stands ha	ve been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr	-	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.7 \text{ m}^3/\text{ha/yr}$
Ques #3 result: $0.6 \text{ m}^3/\text{ha/yr}$		Ques #2 result: $0.7 \text{ m}^3/\text{ha/yr}$		Ques #3 result:	•
				Ques #5 Tesuit.	0.0 m /ma/yr
7b. Change in rotation expected based on			<b></b>	0 115 -	0
<b>Softwood:</b> Ques #2 result: -8 years	Mixedwood:	Ques #2 result: -8 years	Hardwood:	Ques #2 result:	
Ques #3 result: -8 years		Ques #3 result: -8 years		Ques #3 result:	-o years
7c. Change in rotation expected based on					
<b>Softwood:</b> Ques #2 result: -6 years	Mixedwood:	Ques #2 result: -6 years	Hardwood:	Ques #2 result:	
Ques #3 result: -8 years		Ques #3 result: -8 years		Ques #3 result:	-8 years

# EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood				Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
0	NA	2.4	0	10	NA	1.5	0.6	25	NA	1.6	1.2
20	1.5	1.7	1.3	30	1.6	1.8	1.5	42	1.4	1.9	1.7
40	1.6	1.8	1.5	50	2.0	2.2	1.9	65	1.7	2.1	2.0
60*	1.5	1.8	1.6	70*	2.1	2.2	2.0	85*	2.2	2.1	2.2
80	1.2	1.6	1.4	90	2.0	2.2	1.9	105	2.1	2.0	2.0
100	NA	1.4	1.0	110	NA	1.8	1.7	125	NA	1.8	1.9

1b. What proportion of the area is manage	ed by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 11%	Mixedwood: Ques #2 result: 28%	Hardwood: Ques #2 result: 44%
Ques #3 result: 17%	Ques #3 result: 48%	Ques #3 result: 60%
1c. Growth per ha/year on areas managed	by uneven-aged management.	
<b>Softwood:</b> Ques #2 result: 1.6 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: $2.1 \text{ m}^3/\text{h}$	ha/yr Hardwood: Ques #2 result: $2.1 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 1.6 m <sup>3</sup> /ha/yr	Ques #3 result: $2.0 \text{ m}^3/\text{h}$	na/yr Ques #3 result: 2.1 m <sup>3</sup> /ha/yr
1d. After-cut growing stock level left on a	reas managed by uneven-aged management	ent.
<b>Softwood:</b> Ques #2 result: 105 m <sup>3</sup> /ha	<b>Mixedwood:</b> Ques #2 result: 105 m <sup>3</sup> /	ha <b>Hardwood:</b> Ques #2 result: 109 m <sup>3</sup> /ha
Ques #3 result: 88 m <sup>3</sup> /ha	Ques #3 result: 98 m <sup>3</sup> /ha	a Ques #3 result: 105 m <sup>3</sup> /ha
1e. Average cutting cycle used on areas n	nanaged by uneven-aged management?	
<b>Softwood:</b> Ques #2 result: 21 years	Mixedwood: Ques #2 result: 19 years	Hardwood: Ques #2 result: 19 years
Ques #3 result: 23 years	Ques #3 result: 20 years	Ques #3 result: 20 years
2. From Questionnaires #2 and #3 the re- Figures are based on one-time applica		ands have been aggregated and are given below.
2a. Stand age range when fertilization cou	ild take place.	
Softwood: Ques #2 result: 37 & 49 yrs old	Mixedwood: Ques #2 result: 33 & 50 yrs o	Hardwood: Ques #2 result: 45 & 58 yrs old
Ques #3 result: 43 & 55 yrs old	Ques #3 result: 40 & 53 yrs o	Ques #3 result: 50 & 67 yrs old
2b. Rate of fertilizer (kg/ha) application.		
Softwood. Ques #2 regult: 229 kg/ha	Mixedwood, Ques #2 result: 262 kg/h	undwood Ques #2 result: 222 kg/ha

<ul><li>2c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 35%</li><li>Ques #3 result: 38%</li></ul>	Medium: Q		Poor: Ques	#2 result: 6% #3 result: 3%
2d. Expected increase in growth (m3/ha/y	r).			
<b>Softwood:</b> Ques #2 result: 0.8 m <sup>3</sup> /ha/yr		Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr
Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr
2e. Length of time the increased growth w			Tandruada	Ques #2 regult. Queens
<b>Softwood:</b> Ques #2 result: 9 years Ques #3 result: 10 years	Mixeuwoou:	Ques #2 result: 9 yearsIQues #3 result: 10 years	naruwoou:	Ques #2 result: 9 years Ques #3 result: 10 years
Ques no result. To years		Ques "S lesuit Toyeus		Ques no result. To years
<b>3.</b> Comments from Questionnaire #1 reg would occur only on immature stands, apply only to immature stands. The m	Several comn	nents on round 2 again emphasize in	nmature stan	
3a. For existing immature stands, expecta	tions from <b>clea</b>	ning/brushing (assuming no utiliza	tion) regardi	ng the following are:
3aa. Change in growth.				
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: $0.6 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: $0.7 \text{ m}^3/\text{ha/yr}$
-				· ·
3ab. Length of time this change in growth <b>Softwood:</b> Ques #2 result: 16 years		Ques #2 result: 18 years	Uandwood.	Ques #2 result: 21 years
Ques #3 result: 13 years	wiixeuwoou:	Ques #2 result: 18 years		Ques #3 result: 13 years
				Quee no recent re jeans
3ac. Change in rotation based on harvestab				
Softwood: Ques #2 result: -8 years Ques #3 result: -7 years	Mixedwood:	Ques #2 result: -6 yearsIQues #3 result: -7 years	Hardwood:	Ques #2 result: -7 years Ques #3 result: -7 years
Ques #3 result7 years		Ques #3 result7 years		Ques #5 lesuit7 years
3ad. Change in rotation based on maximum	n MAI.			
<b>Softwood:</b> Ques #2 result: -1 years	Mixedwood:		Hardwood:	Ques #2 result: -3 years
Ques #3 result: -1 years		Ques #3 result: -1 years		Ques #3 result: -1 years
3b. For existing immature stands expectat the following are:	ions from <b>juve</b>	nile spacing/pre-commercial thinr	<b>ning</b> (assumi	ng no utilization) regarding
3ba. Change in growth.				
<b>Softwood:</b> Ques #2 result: 0.9 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: 0.8 m <sup>3</sup> /ha/yr
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: $0.8 \text{ m}^3/\text{ha/yr}$
		-		-
3bb. Length of time this change in growth 1 <b>Softwood:</b> Ques #2 result: 16 years		Ques #2 result: 17 years	Uandwood.	Ques #2 result: 20 years
Ques #3 result: 13 years	wiizeuwoou.	Ques #2 result: 17 yearsIQues #3 result: 15 years		Ques #3 result: 15 years
				(
3bc. Change in rotation based on harvestab				0
Softwood: Ques #2 result: -9 years Ques #3 result: -8 years	Mixedwood:	Ques #2 result: -7 yearsIQues #3 result: -7 years	Hardwood:	Ques #2 result: -7 years Ques #3 result: -7 years
Ques no resulto years		Ques no result. 7 years		Ques 113 result7 years
3bd. Change in rotation based on maximum				
Softwood: Ques #2 result: -3 years	Mixedwood:		Hardwood:	Ques #2 result: -3 years
Ques #3 result: -2 years		Ques #3 result: -2 years		Ques #3 result: -2 years

3ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	1.0 m <sup>3</sup> /ha/yr
Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result:	0.8 m <sup>3</sup> /ha/yr
3cb. Length of time this change in growth la	asted.				
<b>Softwood:</b> Ques #2 result: 15 years	Mixedwood:	Ques #2 result: 13 years	Hardwood:	Ques #2 result:	13 years
Ques #3 result: 15 years		Ques #3 result: 14 years		Ques #3 result:	14 years
3cc. Change in rotation based on harvestabl	e tree size.				
<b>Softwood:</b> Ques #2 result: -8 years	Mixedwood:	Ques #2 result: -7 years	Hardwood:	Ques #2 result:	-7 years
Ques #3 result: -6 years		Ques #3 result: -6 years		Ques #3 result:	-5 years
3cd. Change in rotation based on maximum	MAI.				
<b>Softwood:</b> Ques #2 result: 4 years	Mixedwood:	Ques #2 result: 2 years	Hardwood:	Ques #2 result:	2 years
Ques #3 result: 3 years		Ques #3 result: 2 years		Ques #3 result:	2 years

## **REGENERATED STANDS**

- 4. Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood.
- 4a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood		Mixedwood					Hardwood			
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI		Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
NA	NA	2.7	0.7	10	NA	1.3	0.7		50	NA	1.6	1.6
18	0.4	1.9	0.7	30	0.9	1.7	1.4		70	1.2	2.0	1.9
38	0.9	2.0	1.5	50	1.5	2.3	1.9		90	1.7	2.2	2.0
58*	1.7	2.1	1.8	70*	1.7	2.3	2.0		110*	1.9	2.1	2.1
78	1.5	1.8	1.7	90	1.7	2.1	1.8		130	1.8	2.0	1.9
98	NA	1.7	1.3	110	NA	2.0	1.6		150	NA	1.8	0.9

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be managed by uneven-aged management.

ion insportaon of the title that while	e managea of ane en agea management	
<b>Softwood:</b> Ques #2 result: 12%	Mixedwood: Ques #2 result: 32%	Hardwood: Ques #2 result: 57%
Ques #3 result: 17%	Ques #3 result: 45%	Ques #3 result: 57%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.

<b>Softwood:</b> Ques #2 result: 1.7 m <sup>3</sup> /ha/yr	
Ques #3 result: 1.1 m <sup>3</sup> /ha/yr	

**Mixedwood:** Ques #2 result: 2.1 m<sup>3</sup>/ha/yr Ques #3 result: 2.0 m<sup>3</sup>/ha/yr Hardwood: Ques #2 result: 2.2 m<sup>3</sup>/ha/yr Ques #3 result: 1.2 m<sup>3</sup>/ha/yr

4d. After-cut growing stock level expected	d to be left on a	areas that will be managed by un	even-aged mana	agement.	
<b>Softwood:</b> Ques #2 result: 103 m <sup>3</sup> /ha		Ques #2 result: $103 \text{ m}^3/\text{ha}$	-	Ques #2 result:	107 m <sup>3</sup> /ha
Ques #3 result: 88 m <sup>3</sup> /ha		Ques #3 result: 98 m <sup>3</sup> /ha		Ques #3 result:	-
4e. Average cutting cycle used on areas th				0	10
<b>Softwood:</b> Ques #2 result: 20 years Ques #3 result: 23 years	Mixedwood:	Ques #2 result: 18 years Ques #3 result: 20 years	Hardwood:	Ques #2 result: Ques #3 result:	
Ques #3 result. 23 years		Ques #5 lesuit. 20 years		Ques #5 lesuit.	20 years
5. From Questionnaires #2 and #3 the res		fertilization of regenerated star	nds have been ag	ggregated and are	e given
below. Figures are based on one-time	applications.				
5a. Stand age range when fertilization wo	uld take place				
Softwood: Ques #2 result: 27 & 42 yrs old	1	Ques #2 result: 31 & 47 yrs old	Hardwood: Qu	es #2 result: 36 &	52 yrs old
Ques #3 result: 37 & 48 yrs old		Ques #3 result: 42 & 53 yrs old		es #3 result: 58 &	
5b. Rate of fertilizer (kg/ha).					
Softwood: Ques #2 result: 238 kg/ha	Mixedwood:	Ques #2 result: 263 kg/ha	Hardwood:	Ques #2 result:	288 kg/ha
Ques #3 result: 229 kg/ha	1.11100.0000	Ques #3 result: 254 kg/ha		Ques #2 result:	
-		-			-
5c. For sites distinguished as Good, Medi				110 11 604	
Good: Ques #2 result: 33% Ques #3 result: 38%	-	ues #2 result: 27% ues #3 result: 25%	-	#2 result: 6% #3 result: 3%	
Ques #3 Tesuit. 38%	Q	ues #5 lesult. 2570	Ques	5 #5 lesuit. 570	
5d. Expected increase in growth (m3/ha/y	r).				
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: $1.1 \text{ m}^3/\text{ha/yr}$	Hardwood:	Ques #2 result:	0.7 m <sup>3</sup> /ha/yr
Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result:	0.6m <sup>3</sup> /ha/yr
	1 1 1	1 ( )			
5e. Length of time the increased growth in <b>Softwood:</b> Ques #2 result: 11 years		ast (years). Ques #2 result: 11 years	Hardwood	Ques #2 result:	11 years
Ques #3 result: 10 years	witzeuwoou.	Ques #2 result: 11 years Ques #3 result: 10 years		Ques $#2$ result: Ques $#3$ result:	
					<u> </u>
6. Comments from Questionnaire #1 reg					
would occur only on immature stands. apply only to immature stands. The m				nds only. The re	sults below
apply only to miniature stands. The n	lean of respons	les to found 2 and 5 are given be	10w.		
6a. For regenerated immature stands, expe	ectations from	<b>cleaning/brushing</b> (assuming n	o utilization) reg	garding the follow	wing are:
(a. Change in groupsth					
6aa. Change in growth. <b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Minodanooda	Ourse #2 manules 1 1 m 3/h a /um	Handmaada	O	0.8
•	Mixeawooa:	Ques #2 result: $1.1 \text{ m}^3/\text{ha/yr}$	Hardwood:	Ques #2 result:	
Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result:	$0.7 \text{ m}^{3/\text{ha}/\text{yr}}$
6ab. Length of time this change in growth	lasted.				
Softwood: Ques #2 result: 15 years	Mixedwood:	Ques #2 result: 18 years	Hardwood:	Ques #2 result:	21 years
Ques #3 result: 13 years		Ques #3 result: 14 years		Ques #3 result:	13 years
6ac. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -8 years		Ques #2 result: -7 years	Hardwood:	Ques #2 result:	-8 years
Ques #3 result: -7 years		Ques #3 result: -7 years		Ques #3 result:	
fad Change in notation have done with	- MAT				
6ad. Change in rotation based on maximun <b>Softwood:</b> Ques #2 result: -2 years		Ques #2 result: -2 years	Hardwood	Ques #2 result:	-3 years
Ques #3 result: -1 years		Ques #2 result: -2 years Ques #3 result: -1 years		Ques $#2$ result: Ques $#3$ result:	
		-		-	-

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: 0.6 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.5 m <sup>3</sup> /ha/yr
Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result:	0.8 m <sup>3</sup> /ha/yr
6bb. Length of time this change in growth l	asted.				
Softwood: Ques #2 result: 15 years		Ques #2 result: 17 years	Hardwood:	Ques #2 result:	20 years
Ques #3 result: 13 years		Ques #3 result: 15 years		Ques #3 result:	15 years
6bc. Change in rotation based on harvestab	le tree size.				
<b>Softwood:</b> Ques #2 result: -10 years	Mixedwood:	Ques #2 result: -8 years	Hardwood:	Ques #2 result:	
Ques #3 result: -8 years		Ques #3 result: -7 years		Ques #3 result:	-7 years
6bd. Change in rotation based on maximum					
<b>Softwood:</b> Ques #2 result: -3 years	Mixedwood:	Ques #2 result: -3 years	Hardwood:	Ques #2 result:	
Ques #3 result: -2 years		Ques #3 result: -2 years		Ques #3 result:	-2 years
6c. For regenerated immature stands, expension following are:	ectations from <b>(</b>	commercial thinning (including	thinning plus f	inal harvest) reg	arding the
6ca. Change in growth.					
<b>Softwood:</b> Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$1.0 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result: 0.8 m <sup>3</sup> /ha/yr		Ques #3 result:	•
				<b>C</b>	,
6cb. Length of time this change in growth l					
<b>Softwood:</b> Ques #2 result: 13 years	Mixedwood:	Ques #2 result: 12 years	Hardwood:	Ques #2 result:	
Ques #3 result: 15 years		Ques #3 result: 14 years		Ques #3 result:	14 years
6cc. Change in rotation based on harvestab	le tree size.				
Softwood: Ques #2 result: -8 years	Mixedwood:	Ques #2 result: -7 years	Hardwood:	Ques #2 result:	
Ques #3 result: -8 years		Ques #3 result: -8 years		Ques #3 result:	-7 years
6cd. Change in rotation based on maximum	n MAI.				
<b>Softwood:</b> Ques #2 result: 0 years	Mixedwood:	Ques #2 result: 0 years	Hardwood:	Ques #2 result:	•
Ques #3 result: 2 years		Ques #3 result: 2 years		Ques #3 result:	2 years
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regene	erated stands ha	we been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.8 m <sup>3</sup> /ha/yr	-	Ques #2 result: 0.6 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.4 \text{ m}^3/\text{ha/vr}$
Ques #3 result: $0.8 \text{ m}^3/\text{ha/yr}$		Ques #2 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result:	•
				Ques no result.	0.7 III /IId/yI
7b. Change in rotation expected based on 2			<b></b> -		_
Softwood: Ques #2 result: -8 years	Mixedwood:	Ques #2 result: -7 years	Hardwood:	Ques #2 result:	
Ques #3 result: -8 years		Ques #3 result: -8 years		Ques #3 result:	-8 years
7c. Change in rotation expected based on	Maximum MA	I.			
<b>Softwood:</b> Ques #2 result: -8 years	Mixedwood:	Ques #2 result: -7 years	Hardwood:	Ques #2 result:	
Ques #3 result: -9 years		Ques #3 result: -8 years		Ques #3 result:	-8 years

# EXISTING STANDS

- 1. Growth (MAI) of existing stands for softwood, mixedwood and hardwood.
- 1a. From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of existing stands are provided below. In most cases, Questionnaire #2 and #3 results led to mean MAI maximization which was inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Softv	wood			Mixed	lwood			Hardy	wood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
85	NA	1.9	1.9	80	NA	2.2	2.2	55	NA	1.9	1.9
105	1.7	1.9	2.0	100	2.1	2.2	2.3	75	1.9	2.0	2.0
125	1.6	1.6	1.9	120	1.9	1.9	2.1	95	1.9	1.9	1.9
145*	1.5	1.5	1.8	140	1.8	1.8	2.0	115*	1.9	1.8	1.8
165	1.4	1.5	1.7	160	1.6	1.7	1.9	135	1.7	1.5	1.6
185	NA	1.4	1.6	180	NA	1.5	1.8	155	NA	1.2	1.2

<ul><li>1b. What proportion of the area is manage</li><li>Softwood: Ques #2 result: 5%</li><li>Ques #3 result: 5%</li></ul>	Mixedwood: Ques		Hardwood:	Ques #2 result: Ques #3 result:	
1c. Growth per ha/year on areas managed	by uneven-aged man	agement.			
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha/yr	Mixedwood: Ques	#2 result: NA m <sup>3</sup> /ha/	yr Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha/yr
Ques #3 result: 1.5 m <sup>3</sup> /ha/yr	Ques	#3 result: NA m <sup>3</sup> /ha/y	yr	Ques #3 result:	NA m <sup>3</sup> /ha/yr
1d. After-cut growing stock level left on a	reas managed by une	ven-aged management.			
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha	Mixedwood: Ques	#2 result: NA m <sup>3</sup> /ha	Hardwood:	Ques #2 result:	NA m <sup>3</sup> /ha
Ques #3 result: 100 m <sup>3</sup> /ha	Ques	#3 result: NA m <sup>3</sup> /ha		Ques #3 result:	NA m <sup>3</sup> /ha
<ul><li>1e. Average cutting cycle used on areas m</li><li>Softwood: Ques #2 result: 30 years</li><li>Ques #3 result: 30 years</li></ul>	Mixedwood: Ques	ged management? #2 result: NA years #3 result: NA years	Hardwood:	Ques #2 result: Ques #3 result:	•
2. From Questionnaires #2 and #3 the res Figures are based on one-time application		zation of existing stand	ls have been aggre	gated and are give	ven below.
<ul><li>2a. Stand age range when fertilization cou</li><li>Softwood: Ques #2 result: 5 &amp; 30 yrs old Ques #3 result: 5 &amp; 30 yrs old</li></ul>	Mixedwood: Ques	s #2 result: 0 & 30 yrs old s #3 result: 0 & 30 yrs old		Ques #2 result: 0 Ques #3 result: 0	-
<ul><li>2b. Rate of fertilizer (kg/ha) application.</li><li>Softwood: Ques #2 result: 200 kg/ha Ques #3 result: NA kg/ha</li></ul>	_	#2 result: NA kg/ha #3 result: NA kg/ha	Hardwood:	Ques #2 result: Ques #3 result:	-

2c. For sites distinguished as Good, Medium and PoolGood: Ques #2 result: 55%MediumQues #3 result: 25%	or, the proportion of sites that would Ques #2 result: 0% Ques #3 result: 0%	be fertilized. <b>Poor:</b> Ques #2 result: 0% Ques #3 result: 0%
2d. Expected increase in growth (m3/ha/yr).		
	ood: Ques #2 result: 0.3 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr	Ques #3 result: 0.3 m <sup>3</sup> /ha/yr	Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$
2e. Length of time the increased growth would last (		
	ood: Ques #2 result: 15 years	Hardwood: Ques #2 result: 10 years
Ques #3 result: 15 years	Ques #3 result: 13 years	Ques #3 result: 10 years
<b>3.</b> Comments from Questionnaire #1 regarding thin would occur only on immature stands. Several c apply only to immature stands. The mean of resp	omments on round 2 again emphasiz	e immature stands only. The results below
3a. For existing immature stands, expectations from	<b>cleaning/brushing</b> (assuming no uti	lization) regarding the following are:
3aa. Change in growth.		
	ood: Ques #2 result: 0.5 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: $0.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$	Ques #3 result: $0.5 \text{ m}^3/\text{ha/yr}$
	Ques #5 lesuit. 0.5 in /ha/yi	
3ab. Length of time this change in growth would last.Softwood: Ques #2 result: 15 yearsMixedwoQues #3 result: 15 years	ood: Ques #2 result: 15 years Ques #3 result: 13 years	Hardwood: Ques #2 result: 10 years Ques #3 result: 10 years
3ac. Change in rotation based on harvestable tree size		
	ood: Ques #2 result: -5 years	Hardwood: Ques #2 result: -5 years
Ques #3 result: -5 years	Ques #3 result: -5 years	Ques #3 result: -5 years
3ad. Change in rotation based on maximum MAI.Softwood: Ques #2 result: -5 yearsMixedwoQues #3 result: -5 years	ood: Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood: Ques #2 result: -5 years Ques #3 result: -5 years
3b. For existing immature stands expectations from <b>j</b> the following are:	uvenile spacing/pre-commercial th	<b>inning</b> (assuming no utilization) regarding
3ba. Change in growth.		
	<b>bod:</b> Ques #2 result: $-0.5 \text{ m}^3/\text{ha/yr}$	<b>Hardwood:</b> Ques #2 result: $-0.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: -0.5 m <sup>3</sup> /ha/yr	Ques #3 result: -0.5 m <sup>3</sup> /ha/yr	Ques #3 result: $-0.5 \text{ m}^3/\text{ha/yr}$
3bb. Length of time this change in growth lasted.		
	ood: Ques #2 result: 15 years	Hardwood: Ques #2 result: 10 years
Ques #3 result: 15 years	Ques #3 result: 13 years	Ques #3 result: 10 years
3bc. Change in rotation based on harvestable tree size		
	ood: Ques #2 result: -10 years	Hardwood: Ques #2 result: -10 years
Ques #3 result: -10 years	Ques #3 result: -10 years	Ques #3 result: -10 years
3bd. Change in rotation based on maximum MAI.		
	ood: Ques #2 result: 0 years	Hardwood: Ques #2 result: 0 years
Ques #3 result: 0 years	Ques #3 result: 0 years	Ques #3 result: 0 years

3ca. Change in growth.		
<b>Softwood:</b> Ques #2 result: -1.0 m <sup>3</sup> /ha/yr	<b>Mixedwood:</b> Ques #2 result: -1.0 m <sup>3</sup> /ha/yr	<b>Hardwood:</b> Ques #2 result: -1.0 m <sup>3</sup> /ha/yr
Ques #3 result: -1.0 m <sup>3</sup> /ha/yr	Ques #3 result: -1.0 m <sup>3</sup> /ha/yr	Ques #3 result: -1.0 m <sup>3</sup> /ha/yr
3cb. Length of time this change in growth	lasted.	
<b>Softwood:</b> Ques #2 result: 20 years	Mixedwood: Ques #2 result: 20 years	Hardwood: Ques #2 result: 15 years
Ques #3 result: 20 years	Ques #3 result: 17 years	Ques #3 result: 15 years
3cc. Change in rotation based on harvestal	ble tree size.	
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood: Ques #2 result: -5 years	Hardwood: Ques #2 result: -5 years

Ques #3 result: -5 years	Ques #3 result: -5 years	Ques #3 result: -5 years
3cd. Change in rotation based on maximum		
Softwood: Ques #2 result: 10 years Ques #3 result: 0 years	Mixedwood: Ques #2 result: 10 years Ha Ques #3 result: 0 years	ardwood: Ques #2 result: 10 years Ques #3 result: 0 years

## **REGENERATED STANDS**

- Growth (MAI) of regenerated stands for softwood, mixedwood and hardwood. 4.
- From Questionnaires #1, #2 and #3, aggregate (mean) responses from survey participants about growth of regenerated 4a. stands are provided below. In most cases, Questionnaire #2 and #3 results led to a mean MAI maximizations which were inconsistent with Questionnaire #1 age estimate of maximum MAI. The age classes were set in 20 year increments from Questionnaire #1 results that gave estimates of the ages of maximum MAI's which are denoted by an asterisk. The MAI should estimates are maximum at the 20 year age class where maximum biological growth is expected for pulpwood utilization for the region.

	Sof	twood			Mix	edwood			Н	ardwood	
Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI	Age	Que#1 MAI	Que#2 MAI	Que#3 MAI
55	NA	1.8	1.8	45	NA	2.0	2.0	15	NA	1.9	1.9
75	1.6	1.9	1.9	65	2.2	2.1	2.1	35	2.1	2.2	2.2
95	2.1	2.0	2.0	85	2.6	2.2	2.2	55	2.7	2.3	2.3
115*	2.1	2.0	2.0	105 *	2.5	2.2	2.2	75*	2.7	2.3	2.4
135	1.9	1.9	1.9	125	2.4	2.1	2.1	95	2.5	2.2	2.3
155	NA	1.8	1.8	145	NA	1.9	1.9	115	NA	1.9	2.1

The aggregated results below are taken from rounds 2 and 3 survey results.

4b. Proportion of the area that will be	e managed by uneven-aged management.
<b>Softwood:</b> Ques #2 result: 5%	Mixedwood: Ques #2 result: 0%
Oues #3 result: 5%	Oues #3 result: 0%

Hardwood: Ques #2 result: 0% Ques #3 result: 0%

4c. Growth per ha/year expected on areas that will be managed by uneven-aged management.
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**Softwood:** Ques #2 result: NA m<sup>3</sup>/ha/yr Ques #3 result: 1.5 m<sup>3</sup>/ha/yr

**Mixedwood:** Ques #2 result: NA m<sup>3</sup>/ha/yr Ques #3 result: NA m<sup>3</sup>/ha/yr

Hardwood: Ques #2 result: NA m<sup>3</sup>/ha/yr Ques #3 result: NA m<sup>3</sup>/ha/yr

4d. After-cut growing stock level expecte	d to be left on a	areas that will be managed by une	even-aged mana	agement.		
<b>Softwood:</b> Ques #2 result: NA m <sup>3</sup> /ha		Ques #2 result: NA m <sup>3</sup> /ha	-	Ques #2 result: 1	NA m <sup>3</sup> /ha	
Ques #3 result: 150 m <sup>3</sup> /ha		Ques #3 result: NA m <sup>3</sup> /ha		Ques #3 result: 1	NA m <sup>3</sup> /ha	
<ul><li>4e. Average cutting cycle used on areas th</li><li>Softwood: Ques #2 result: 30 years</li><li>Ques #3 result: 30 years</li></ul>		aged by uneven-aged managemer Ques #2 result: NA years Ques #3 result: NA years		Ques #2 result: 1 Ques #3 result: 1		
5. From Questionnaires #2 and #3 the results regarding <b>fertilization</b> of regenerated stands have been aggregated and are given below. Figures are based on one-time applications.						
<ul><li>5a. Stand age range when fertilization wo</li><li>Softwood: Ques #2 result: 5 &amp; 30 yrs old Ques #3 result: 5 &amp; 30 yrs old</li></ul>	Mixedwood:	Ques #2 result: 0 & 30 yrs old Ques #3 result: 0 & 30 yrs old		Ques #2 result: 0 & Ques #3 result: 0 & 3		
<ul><li>5b. Rate of fertilizer (kg/ha).</li><li>Softwood: Ques #2 result: 200 kg/ha Ques #3 result: NA kg/ha</li></ul>	Mixedwood:	Ques #2 result: NA kg/ha Ques #3 result: NA kg/ha	Hardwood:	Ques #2 result: 1 Ques #3 result: 1		
<ul><li>5c. For sites distinguished as Good, Medi</li><li>Good: Ques #2 result: 55%</li><li>Ques #3 result: 30%</li></ul>	Medium: Q	hat proportion of sites that would ues #2 result: 0% ues #3 result: 0%	Poor: Ques	#2 result: 0% #3 result: 0%		
5d. Expected increase in growth (m3/ha/y	/r).					
<b>Softwood:</b> Ques #2 result: 0.7 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.3 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	0.5 m <sup>3</sup> /ha/yr	
Ques #3 result: 0.7 m <sup>3</sup> /ha/yr		Ques #3 result: 0.6 m <sup>3</sup> /ha/yr		Ques #3 result: (	).5 m <sup>3</sup> /ha/yr	
<ul><li>5e. Length of time the increased growth i</li><li>Softwood: Ques #2 result: 13 years</li><li>Ques #3 result: 15 years</li></ul>		last (years). Ques #2 result: 15 years Ques #3 result: 13 years	Hardwood:	Ques #2 result: Ques #3 result:		
6. Comments from Questionnaire #1 regarding thinning indicated this topic had to be split into several categories and that thinning would occur only on immature stands. Several comments on round 2 again emphasize immature stands only. The results below apply only to immature stands. The mean of responses to round 2 and 3 are given below.						
6a. For regenerated immature stands, expectations from <b>cleaning/brushing</b> (assuming no utilization) regarding the following are:						
6aa. Change in growth.		2			2	
<b>Softwood:</b> Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: 0.5 m <sup>3</sup> /ha/yr Ques #3 result: 0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: ( Ques #3 result: (		
6ab. Length of time this change in growth <b>Softwood:</b> Ques #2 result: 15 years Ques #3 result: 15 years		Ques #2 result: 15 years Ques #3 result: 13 years	Hardwood:	Ques #2 result: Ques #3 result:		
6ac. Change in rotation based on harvestab Softwood: Ques #2 result: -5 years Ques #3 result: -5 years		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: - Ques #3 result: -		
6ad. Change in rotation based on maximur Softwood: Ques #2 result: -5 years Ques #3 result: -5 years		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: - Ques #3 result: -		

6ba. Change in growth?					
<b>Softwood:</b> Ques #2 result: -0.5 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -0.5 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	-0.5 m <sup>3</sup> /ha/yr
Ques #3 result: -0.5 m <sup>3</sup> /ha/yr		Ques #3 result: -0.5 m <sup>3</sup> /ha/yr		Ques #3 result:	-0.5 $m^3/ha/yr$
6bb. Length of time this change in growth le Softwood: Ques #2 result: 15 years Ques #3 result: 15 years		Ques #2 result: 15 years Ques #3 result: 13 years	Hardwood:	Ques #2 result: Ques #3 result:	
6bc. Change in rotation based on harvestabl Softwood: Ques #2 result: -10 years Ques #3 result: -10 years		Ques #2 result: -10 years Ques #3 result: -10 years	Hardwood:	Ques #2 result: Ques #3 result:	
6bd. Change in rotation based on maximum Softwood: Ques #2 result: 0 years Ques #3 result: 0 years		Ques #2 result: 0 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: Ques #3 result:	
6c. For regenerated immature stands, expe following are:	ectations from (	commercial thinning (including	thinning plus f	inal harvest) reg	arding the
6ca. Change in growth. Softwood: Ques #2 result: -1.0 m <sup>3</sup> /ha/yr Ques #3 result: -1.0 m <sup>3</sup> /ha/yr	Mixedwood:	Ques #2 result: -1.0 m <sup>3</sup> /ha/yr Ques #3 result: -1.0 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result: Ques #3 result:	•
6cb. Length of time this change in growth 1 Softwood: Ques #2 result: 20 years Ques #3 result: 20 years		Ques #2 result: 20 years Ques #3 result: 17 years	Hardwood:	Ques #2 result: Ques #3 result:	
6cc. Change in rotation based on harvestabl Softwood: Ques #2 result: -5 years Ques #3 result: -5 years		Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: Ques #3 result:	
6cd. Change in rotation based on maximum Softwood: Ques #2 result: 10 years Ques #3 result: 0 years		Ques #2 result: 10 years Ques #3 result: 0 years	Hardwood:	Ques #2 result: Ques #3 result:	
7. From Questionnaires #2, and #3 the regiven below.	sults regarding	genetic improvement of regener	rated stands ha	we been aggrega	ted and are
7a. Change in MAI expected from greater	improvement.				
<b>Softwood:</b> Ques #2 result: 0.3 m <sup>3</sup> /ha/yr	-	Ques #2 result: 0.3 m <sup>3</sup> /ha/yr	Hardwood:	Ques #2 result:	$0.5 \text{ m}^3/\text{ha/yr}$
Ques #3 result: 0.3 m <sup>3</sup> /ha/yr		Ques #3 result: 0.3 m <sup>3</sup> /ha/yr		Ques #3 result:	•
7b. Change in rotation expected based on l Softwood: Ques #2 result: -5 years Ques #3 result: -5 years		e size. Ques #2 result: -5 years Ques #3 result: -5 years	Hardwood:	Ques #2 result: Ques #3 result:	
7c. Change in rotation expected based on 1	Maximum MA	I.			

, et change in found in provide custed on Frankling in fit.					
<b>Softwood:</b> Ques #2 result: -5 years	Mixedwood: Ques #2 result: -5 years	<b>Hardwood:</b> Ques #2 result: -10 years			
Ques #3 result: -5 years	Ques #3 result: -5 years	Ques #3 result: -10 years			