RURAL ECONOMY

An Overview of Agriculture in the Rural Municipalities of the Lower Souris River Watershed

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Project Report #08-03

Project Report

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The authors are, respectively, research assistant (and undergraduate student), associate professor and professor.

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Abstract

A statistical overview of agriculture in the region encompassed by the Lower Souris River Watershed committee was undertaken. The region in the south east corner of the province of Saskatchewan has about 8%of the total number of farms in Saskatchewan, and this has remained relatively consistent since the early 1980s. The actual number of has decreased and Statistics Canada reports that the total number of farms in crop district 1A and 1B in the 2006 census is 1,823 and 1,743, respectively. The area of farms in crop district 1 is currently about 7% of the total area of farms in Saskatchewan. Statistics Canada reports that the total area of farms in crop district 1A and 1B in the 2006 census is 2,687,728 and 2,312,446, respectively. The report also provides an overview of crops grown and livestock numbers. This report is part of an ongoing study of this region.

JEL Classification Code: Q150

Keywords: Acreage, Agricultural Land, Cropland.

Introduction

The objective of this report is to build a statistical idea of the farming in each rural municipality or crop district in the Lower Souris River Watershed to guide future research. The historical data outlined here will be used for further analysis. Every effort has been made to gather data specific to the Lower Souris region, as per rural municipality or crop district. Where data this specific was not available, estimates were used for all of Saskatchewan.

The principle data sources used for this research were Statistics Canada and Saskatchewan Agriculture and Food. Census reports by Statistics Canada were obtained online for years 2001 and 2006, and from old census reports for previous years. All data from Saskatchewan Agriculture and Food were obtained online.

In the following section I will detail some general information about the Lower Souris River Watershed from their online Background Report. In the next section I will discuss the number and size of farms, the operating arrangements and the use of land. Next I will discuss some general trends in crop yields and acreage, livestock and then in capital and expenses in the region. Finally, I will summarize the key findings and conclude.

Statistics Canada reported 44,329 farms in Saskatchewan in 2006 and this number has been declining since the mid 1930's, as depicted in Figure 1. These farms encompass an area of 64,253,845 acres. Saskatchewan represents approximately 20% of the total number of farms in Canada, and approximately 38% of the total farm area in Canada. Saskatchewan is Canada's most important region in the production of grain, especially of cereal crops (Saskatchewan Agriculture and Food 2007).

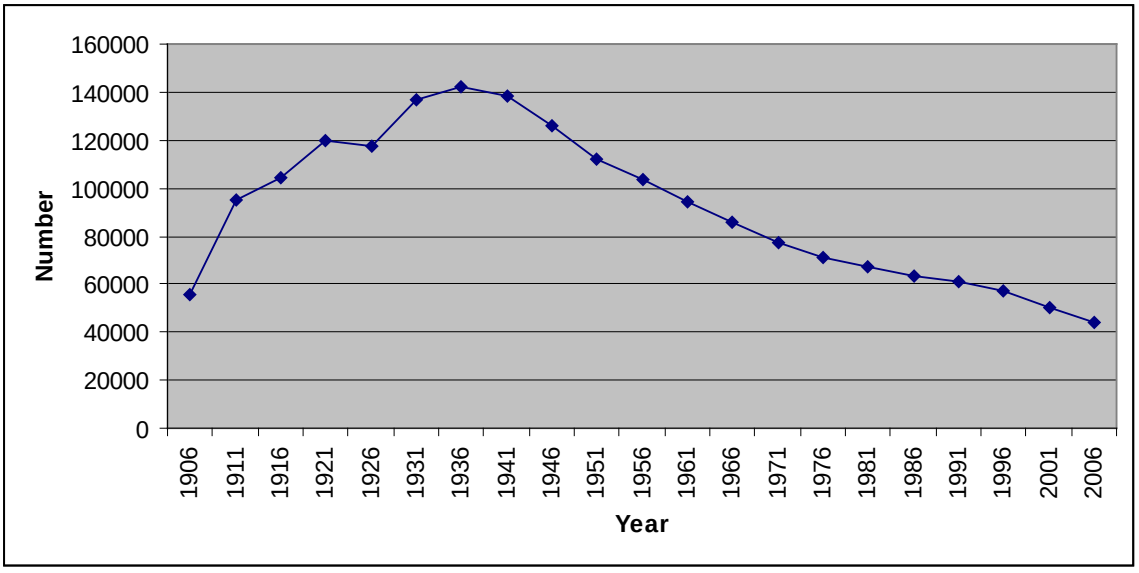

Figure 1: Number of Agriculture Census Farms in Saskatchewan from 1906 to 2006, Saskatchewan Agriculture and Food

General Information on Lower Souris River Watershed

The Lower Souris River Watershed is found in the south-east portion of Saskatchewan and is bounded by both Manitoba and North Dakota. The native vegetation is Aspen Parkland, although about 80% of the land is currently used for crops. The

population in 2001 was approximately 14,300, 37% of which make up the rural population. The main economic activities include agriculture and oil and gas.

The agriculture portion consists of beef and dairy enterprises, feedlots, forage areas, hogs and crops. Statistics Canada reported in 1996 that there were roughly 500 farms reporting livestock. There are also approximately six approved cattle feedlots in the watershed, each containing over 300 animal units, and two dairies. Forage areas must increase in the near future to support livestock growth. Hogs have not traditionally been found in this area, but there are approximately ten hog operations presently approved by Saskatchewan Agriculture and Food; however, these may not yet be built or operating. Wheat, durum and barley acres have decreased over time while canola, pea, and sunflower acres have increased.

Figure 2 is an image of Saskatchewan from Saskatchewan Agriculture and Food with all the crop districts and municipalities. The Lower Souris Watershed region is made up of 20 rural municipalities and 19 urban municipalities. Currently, there are 15 participating rural municipalities: #1, 2, 3, 31, 32, 61, 91, 92, 93, 94, 121, 122, 123, 124 and 125. These are shown in Figure 3 and all of these municipalities are encompassed into crop district 1A and 1B.

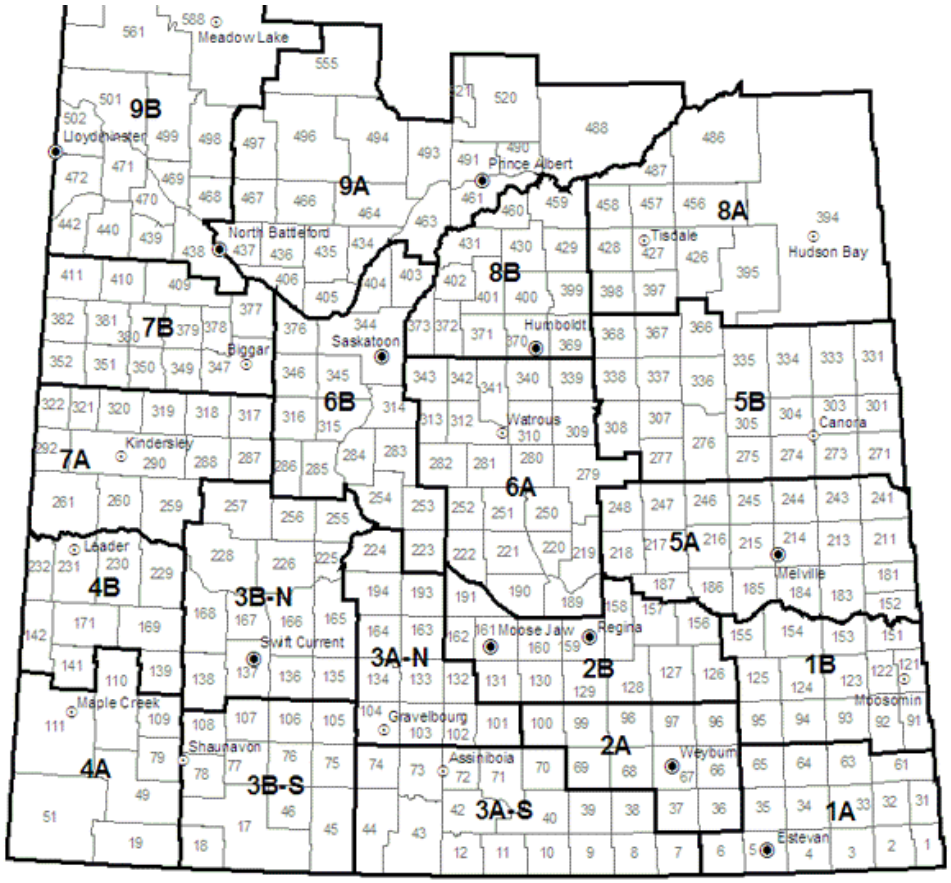

Figure 2: Crop Districts and Rural Municipalities in Saskatchewan, Saskatchewan Agriculture and Food

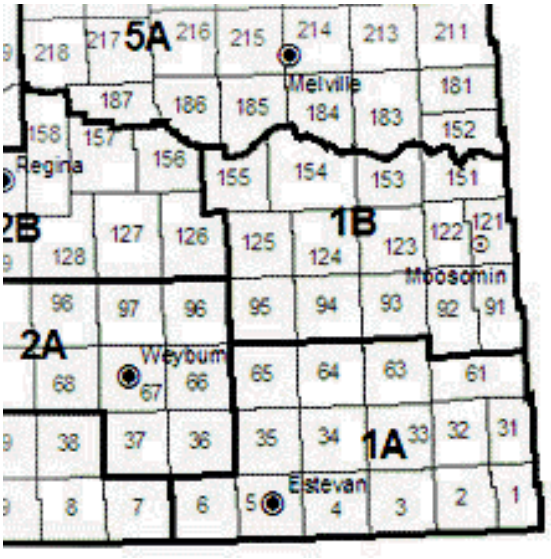

Figure 3: Crop Districts and Rural Municipalities in the Lower Souris Region, Saskatchewan Agriculture and Food

Number and Size of Farms

The number of farms in crop district 1 currently consists of roughly 8% of the total number of farms in Saskatchewan, and this has remained relatively consistent since the early 1980s. However, the actual number of farms in crop district 1 has decreased over the same time period. Statistics Canada reports that the total number of farms in crop district 1A and 1B in the 2006 census is 1,823 and 1,743, respectively, whereas in 1981 5,559 farms were reported for the entire region.

The area of farms in crop district 1 is currently about 7% of the total area of farms in Saskatchewan. This number is down slightly from 8% in 1981. Statistics Canada reports that the total area of farms in crop district 1A and 1B in the 2006 census is 2,687,728 and 2,312,446, respectively. In 1981, 5,268,647 were reported for the entire region.

An obvious conclusion is that the average farm size has been increasing over time producing fewer farms. The average farm size in 1981 was 948 acres, whereas in 2006 this figure increased to 1402 acres. This same trend has been observed all across Canada. Figure 4 shows the tendency towards larger farm sizes over time.

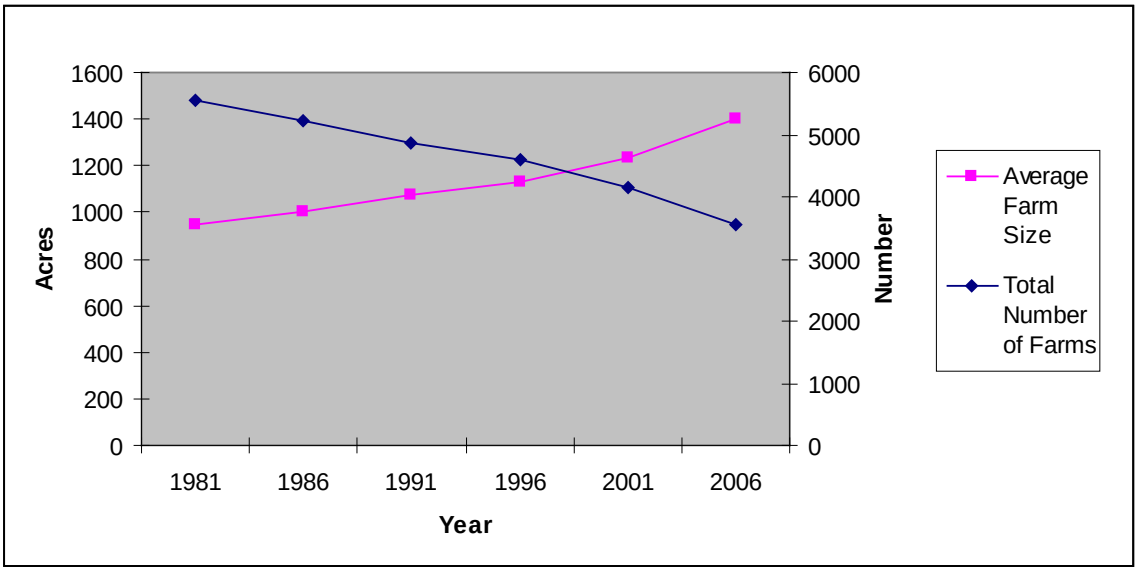

Figure 4: Average Farm Size and Total Number of Farms in Crop District 1 from 1981 to 2006, Statistics Canada[1]

Figure 5 depicts the proportion of various farm operating arrangements. The most common arrangement is sole proprietorship, although the proportion of the total number of farms wherein this arrangement exists has been declining since about 1981. The proportion that both partnerships and corporations take out of the total number of farms has been increasing slightly, although they are still far below the proportion that is considered to be sole proprietorships.

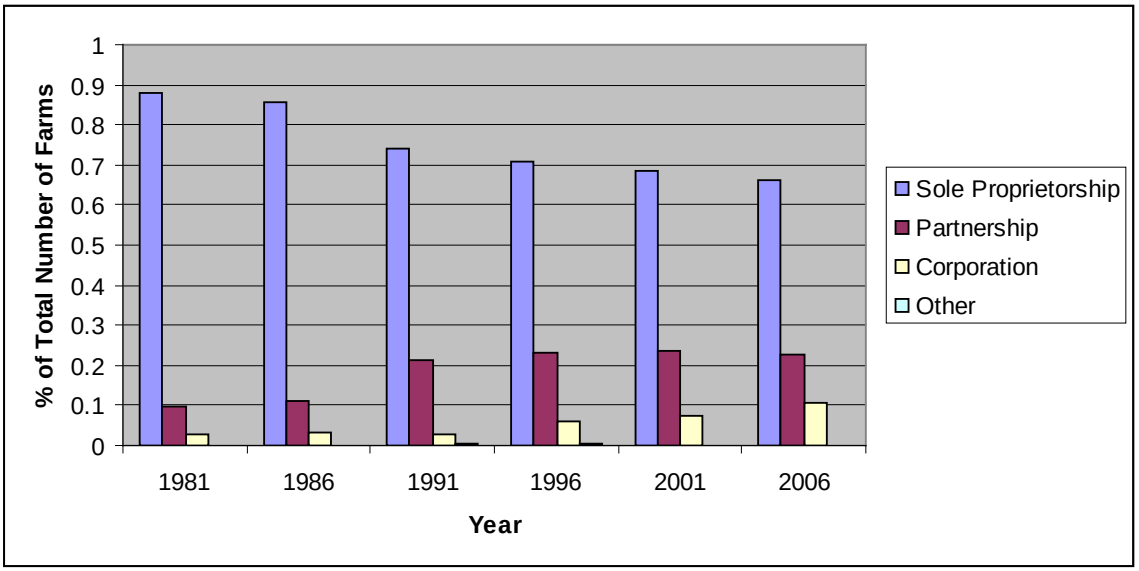

Figure 5: Farm operating arrangements for crop district 1 from 1981 to 2006, Statistics Canada[2]

[1] Average farm size was calculated by dividing total area of farms by total number of farms. Numbers were totaled for area of farms and number of farms for crop district 1A and 1B.

Farm land area has been classified into four uses of land: land in crops, summerfallow, tame or seeded pasture (improved) and natural land for pasture (unimproved). Most of the land in crop district 1 is used for crops and this seems to be increasing slightly, as viewed in Figure 6. Land used as summerfallow or as natural land for pasture is relatively equal and both have been decreasing since the early 1980's, although there has been more of the latter than the former in recent years. Tame or seeded pasture has been a very minor portion of the area in crop district 1, but it does seem to be increasing slightly.

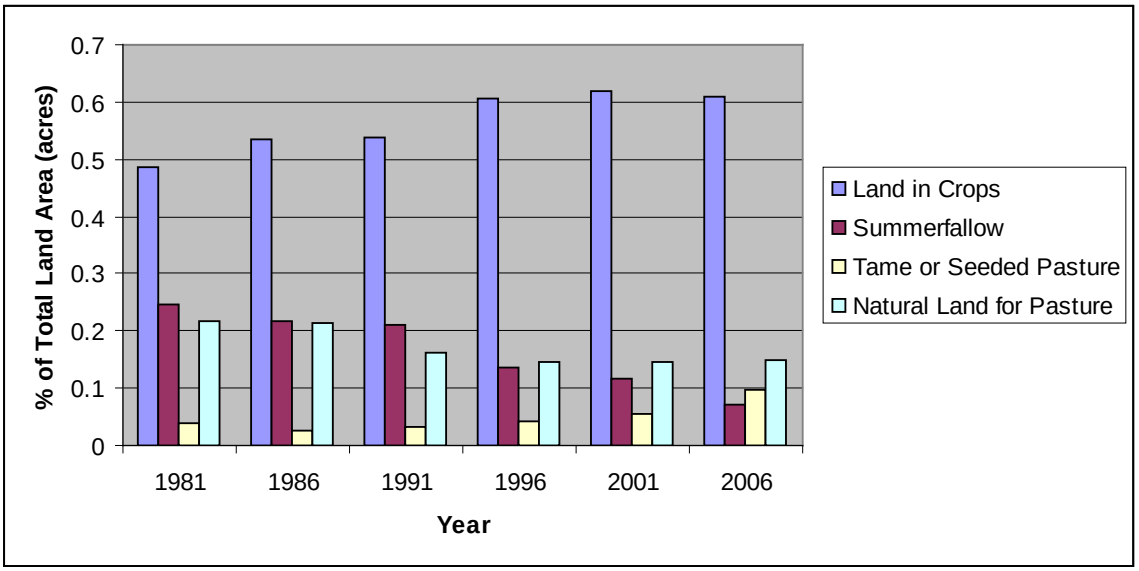

Figure 6: Farm land area classified by use of land in crop district 1 from 1981 to 2006, Statistics Canada[3]

Crop Yields and Acreage

The following figures depict the seeded acres, harvested acres, yield (bushels per acre) and production (tones) for several crops in crop district 1. These crops are spring wheat, canola, durum, oats, winter wheat, barley, flaxseed and total rye.

As viewed in Figure 7, the seeded and harvested acres of spring wheat closely follow one another over time. Since the mid-1990's the gap between acres seeded and acres harvested has diminished. This likely represents improved technology and efficiency. Seeded and harvested acres of spring wheat have been declining since the early 1990's, and today we are at a level that is lower than it was in the 1970's.

[2] Numbers were totaled for farm operating arrangements for crop district 1A and 1B. Each series is presented as a percent of the total number of farms in crop district 1. Although an effort was made to report the true data, some census reports had different definitions for each series and thus there is some ambiguity in these data.

[3] Data for farm land area was totaled for crop district 1A and 1B. Each series is reported as a percent of the total land area in crop district 1.

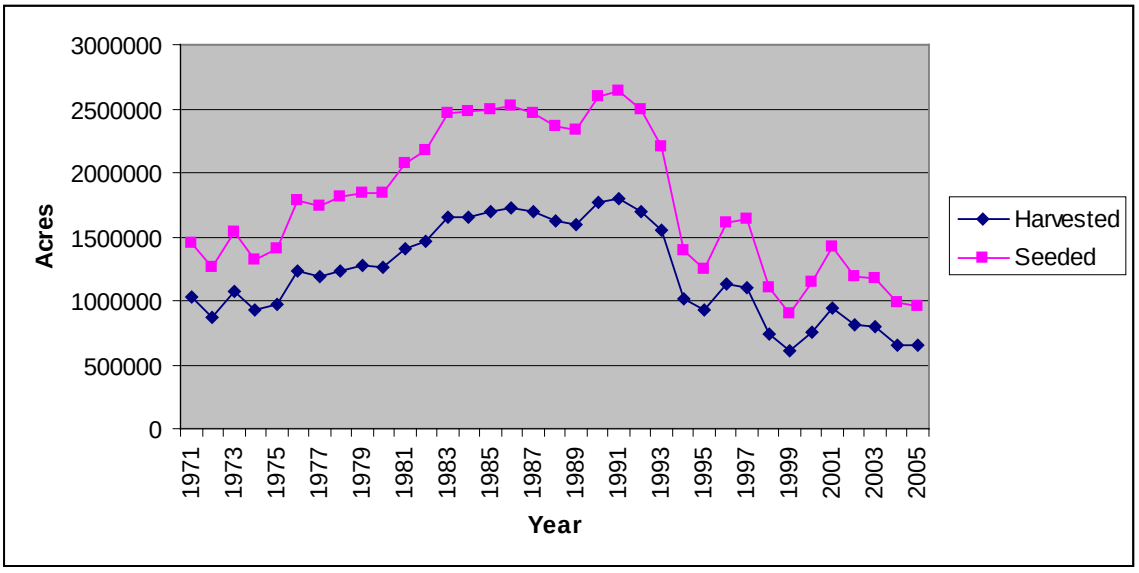

Figure 7: Acres of Spring Wheat Seeded and Harvested for Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food[4]

Figure 8 depicts the historical spring wheat yield. Although the yield is quite variable from year to year, the general trend over time is slightly positive. This could also reflect increasing technology and efficiency which continually improve yields per acre.

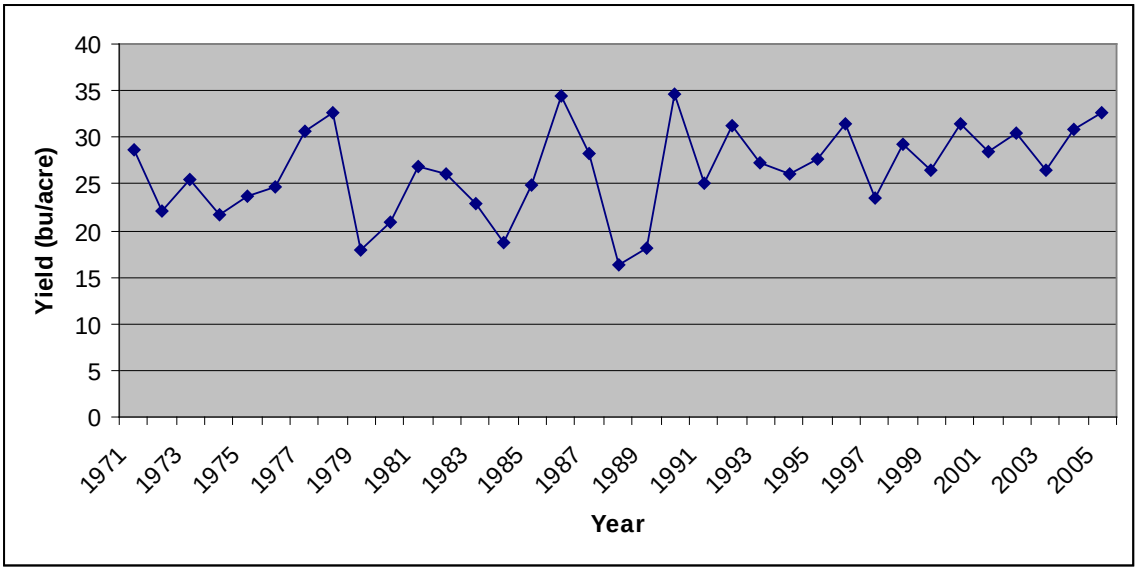

Figure 8: Spring Wheat Yield for Crop District 1 from 1971 to 2005, Saskatchewan Food and Agriculture[5]

[4] Spring Wheat acres seeded and harvested for crop district 1A and 1B were totaled. This is repeated for all other seeded and harvested graphs below.

[5] Spring Wheat yields for crop district 1A and 1B were averaged. This is repeated for all other yield graphs below.

Spring wheat production, shown in Figure 9, steadily increased from the early 1970's to the early 1990's. Since then, however, it has been steadily decreasing. Thus, although the yield per acre of spring wheat has been increasing, the overall production of spring wheat is decreasing.

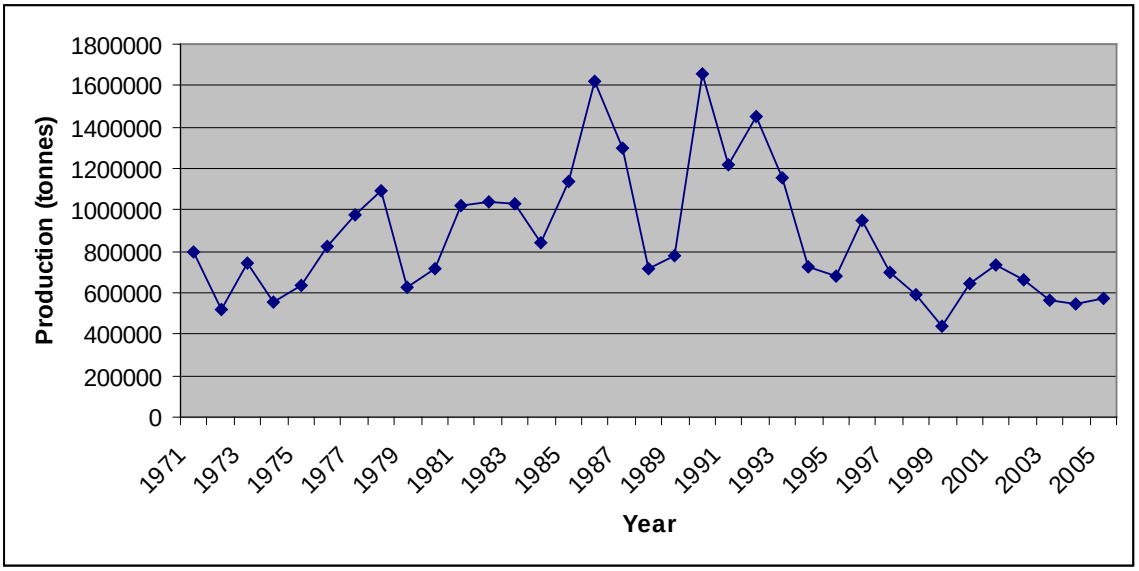

Figure 9: Spring Wheat Production for Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food[6]

The acres of canola seeded and harvested almost exactly follow each other over time (Figure 10). Up until the early 1980's, canola was not grown in significant quantities thus the graphs were limited to the years after 1981. Since then, however, the number of acres seeded and harvested has increased dramatically. The number of acres seems to have remained at a constant level since the mid 1990's.

[6] Spring Wheat production for crop district 1A and 1B were totaled. This was repeated for all other production graphs below.

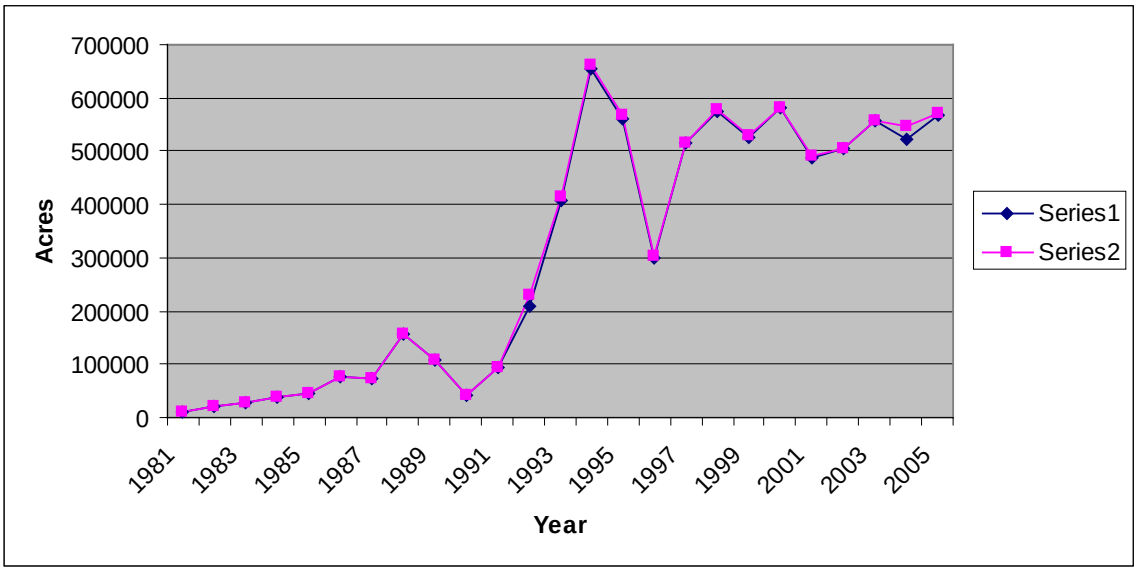

Figure 10: Acres of Canola Seeded and Harvested in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The yield per acre of canola has been variable, although it seems to be increasing over time (Figure 11). Again, canola was not grown in significant quantities until the early 1980's, and it has increased to approximately 25 bu/acre in recent years.

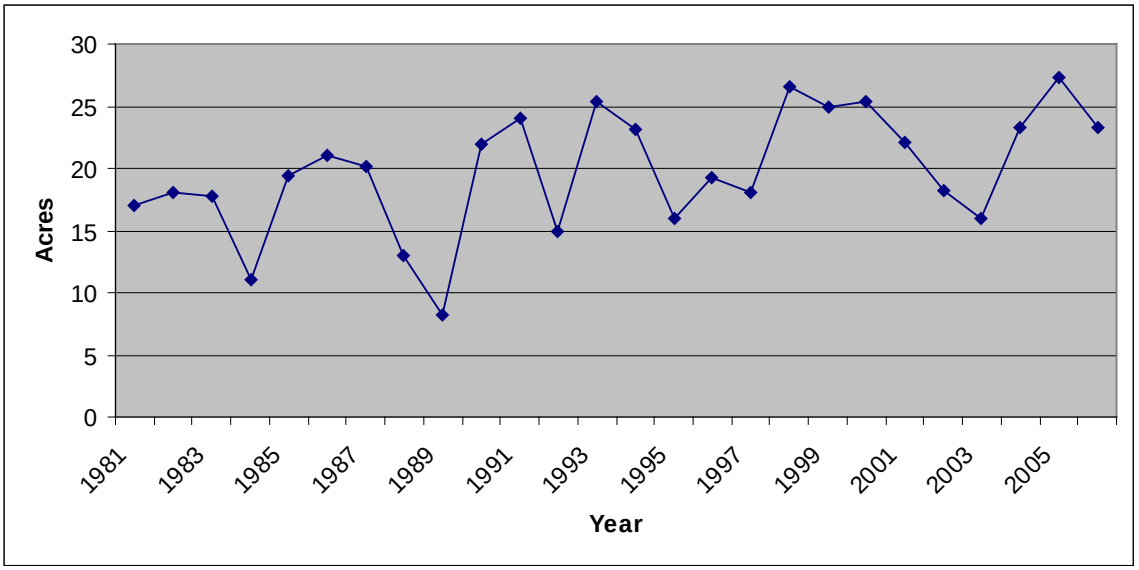

Figure 11: Canola Yield in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The before-mentioned decline in spring wheat production could be, in part, due to increasing canola production, as depicted in Figure 12. In the early 1990's, when spring wheat production began to decline, canola production began to increase rapidly.

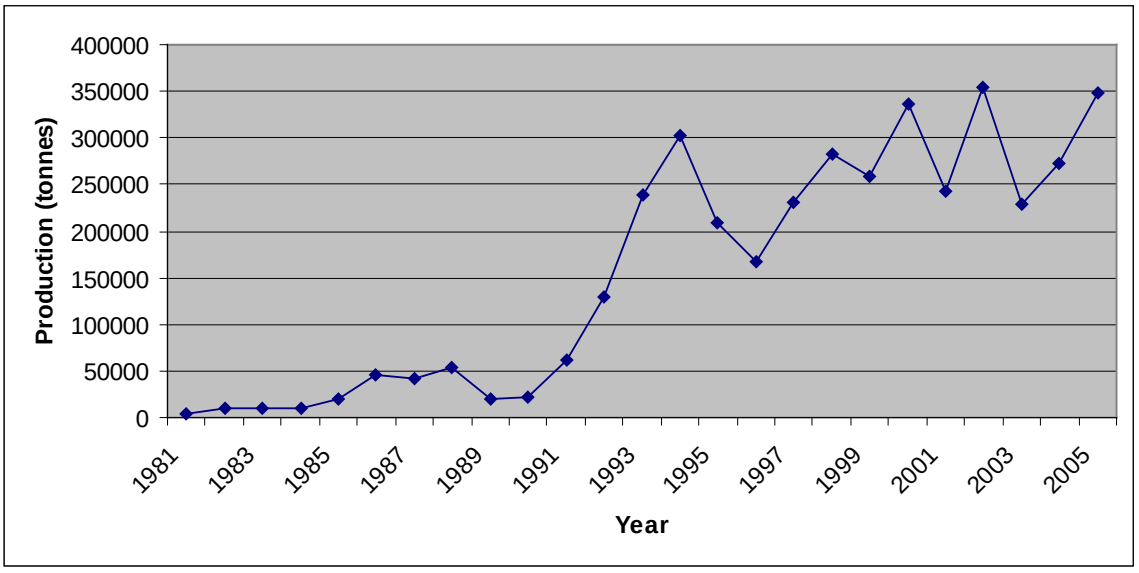

Figure 12: Canola Production in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The acres of durum harvested and seeded has been quite variable since the early 1970's (Figure 13). It has ranged from approximately 50,000 acres to over 350,000 acres. Overall, the number of acres does not seem to be increasing or decreasing, but rather remaining at a relatively constant level. Data for crop district 1A in 1991 were missing.

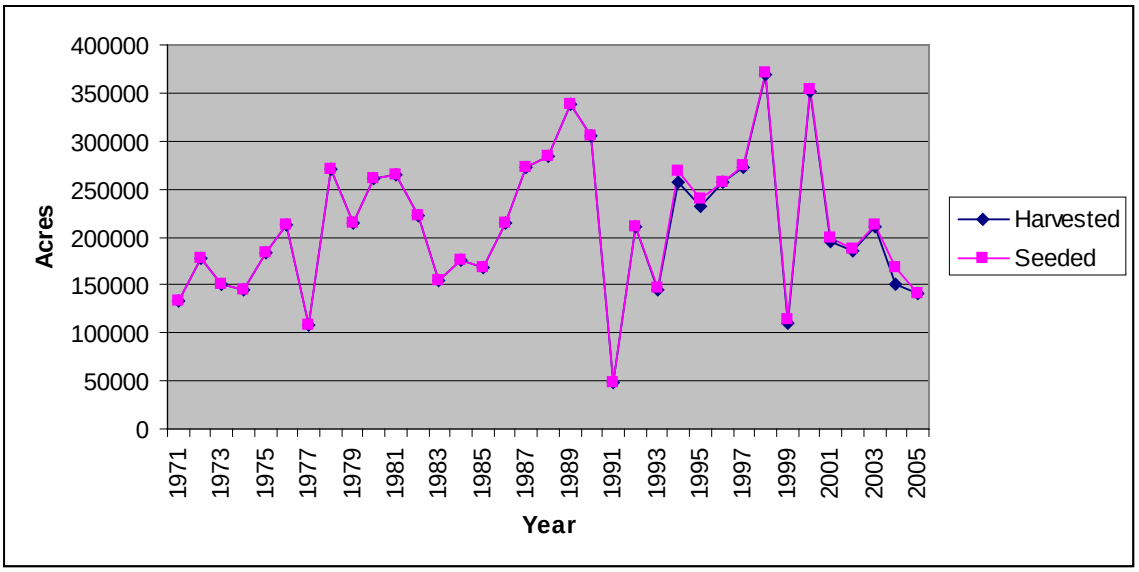

Figure 13: Acres of Durum Harvested and Seeded in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

In the early 1990's, durum yield suddenly increased to close to 60 bu/acre. Prior to this increase it averaged at 25 bu/acre. Since the early 1990's, durum yield has averaged at 30 bu/acre (Figure 14).

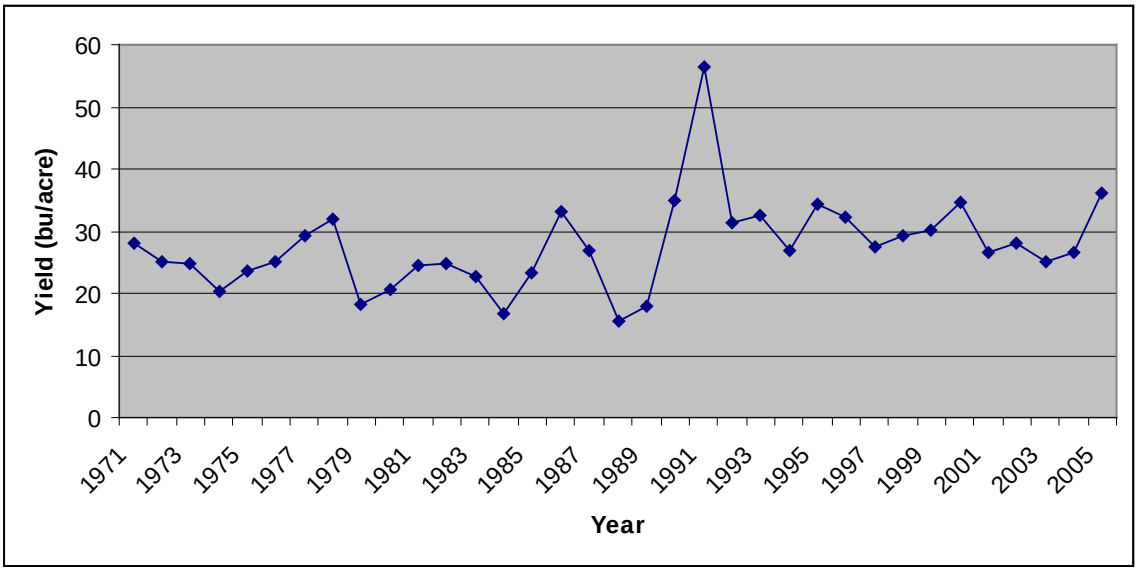

Figure 14: Durum Yield for Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Durum production in crop district 1 has been highly variable since 1971, but seems to be slightly on the rise, as depicted in Figure 15.

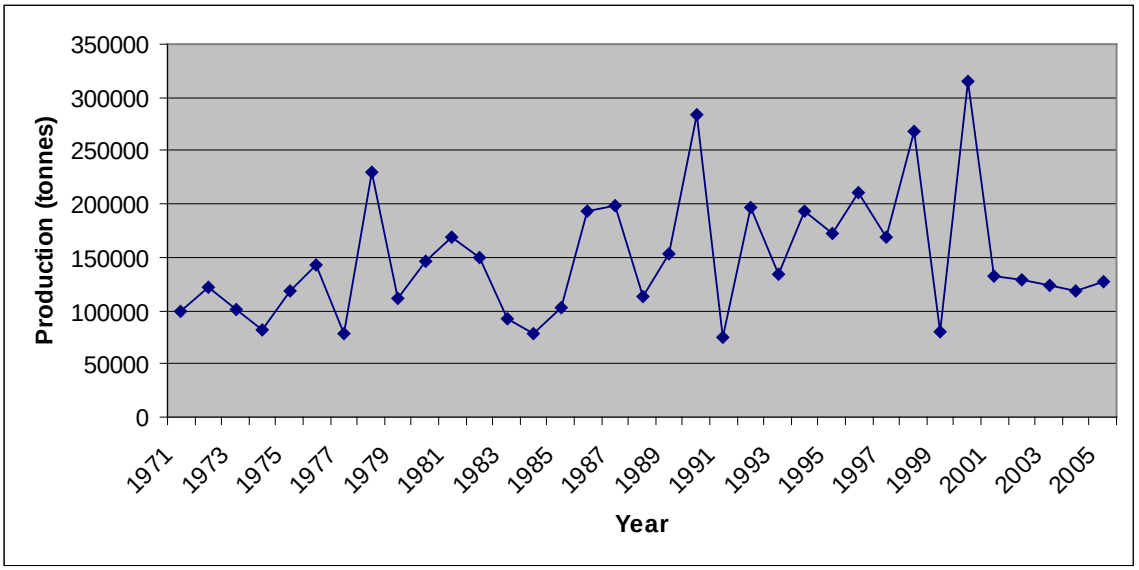

Figure 15: Durum Production in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The acres of oats seeded and harvested in crop district 1 do not follow each other as closely as canola and durum (Figure 16). The number of acres seems to have dipped in the late 1980's, increased in the mid 1990's, and then varied at approximately 250,000 acres since.

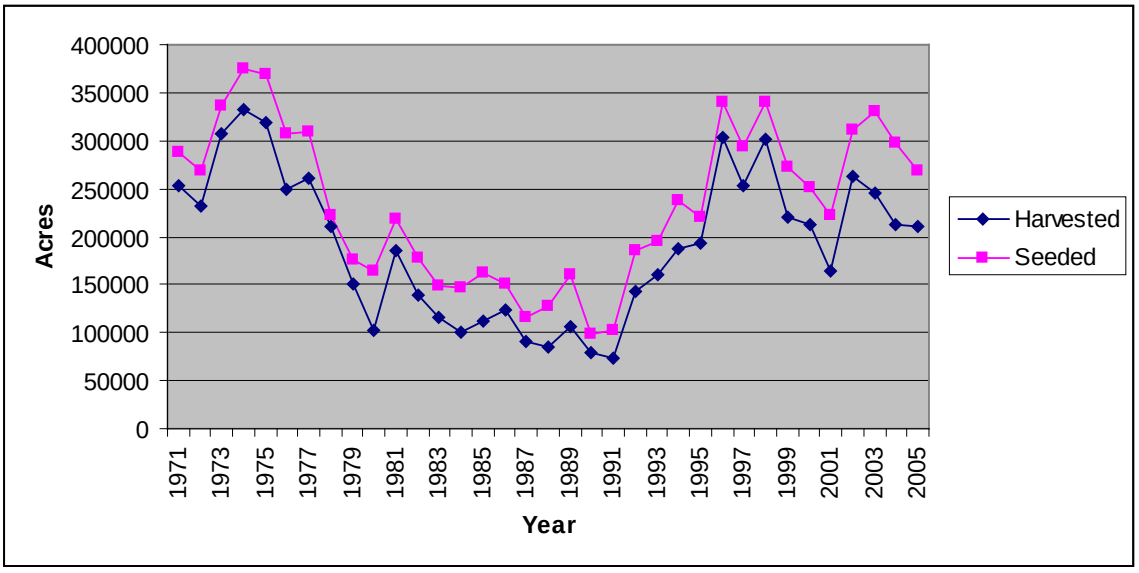

Figure 16: Acres of Oats Seeded and Harvested in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Oat yield has remained high since the early 1970's, although it was highly variable during the 1980's (Figure 17). In 2005 the yield was about 60 bu/acre.

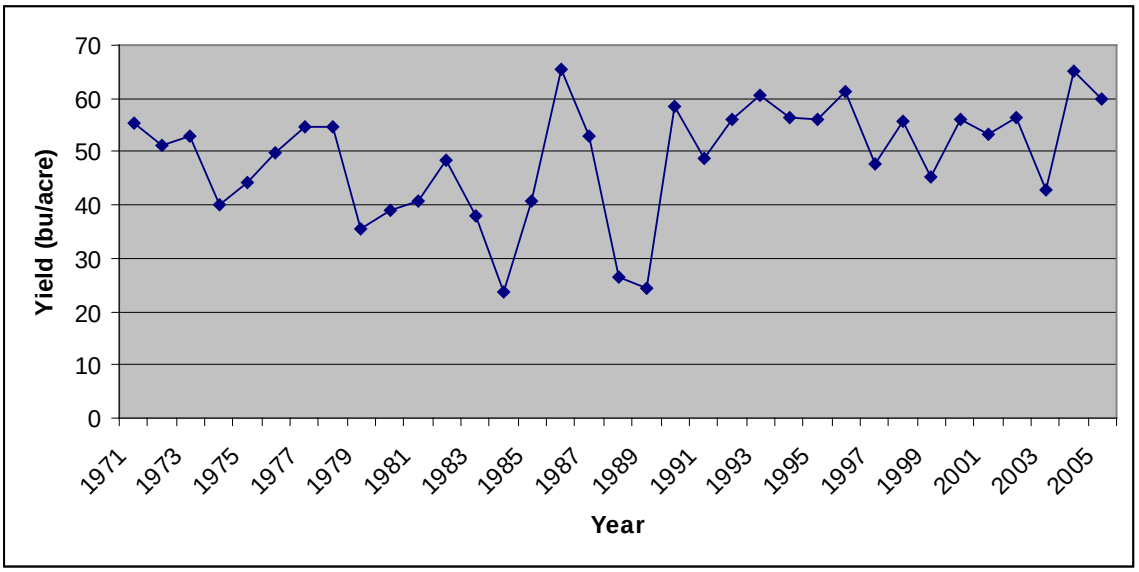

Figure 17: Oat Yield in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The production of oats in crop district 1 declined in the late 1970's and stayed low until the early 1990's. The production drastically increased around this time and has remained close to 200,000 tonnes since then. Figure 18 depicts this trend.

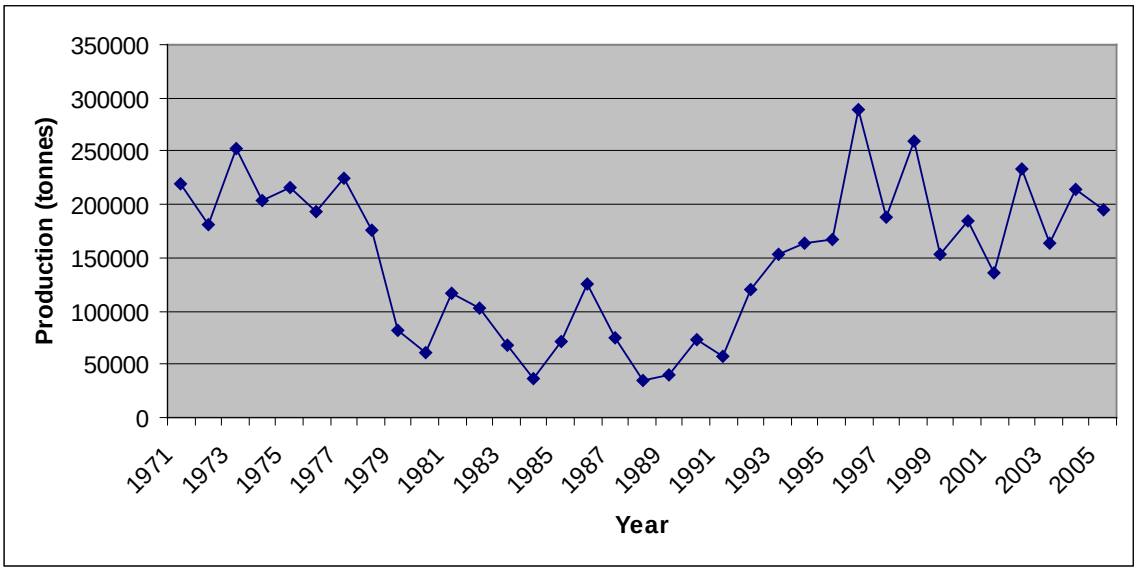

Figure 18: Oats Production in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Winter wheat was only grown in this region in significant quantities in the early 1980's. Again, winter wheat acres seeded and harvested seem to closely follow one another. In 1985, the number of acres devoted to this crop spiked to over 120,000 acres, but it declined just as severely shortly after. It seems to be increasing in recent years, although it is still highly variable (Figure 19).

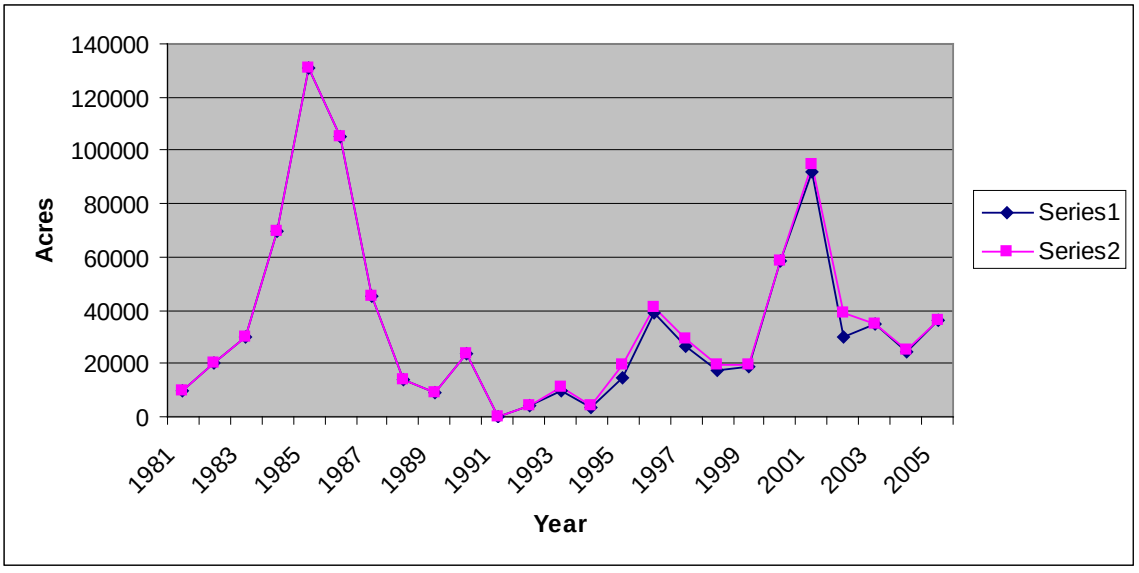

Figure 19: Acres of Winter Wheat Seeded and Harvested in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Winter wheat yield per acre declined in the early 1980's decreasing even to zero in 1991. Since the early 1990's, it has shown signs of increasing (Figure 20).

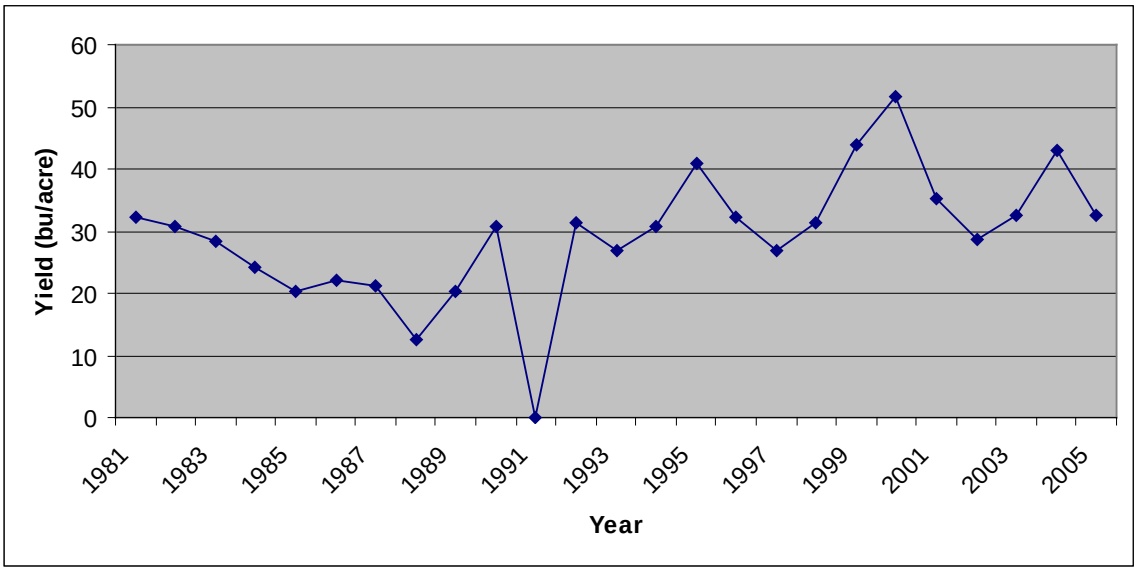

Figure 20: Winter Wheat Yield in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Figure 21 shows the winter wheat production in crop district 1 since its beginning in 1981. There were two large increases in the production; one in the mid 1980's and the other around 2001. Overall, winter wheat seems to be increasing in this region.

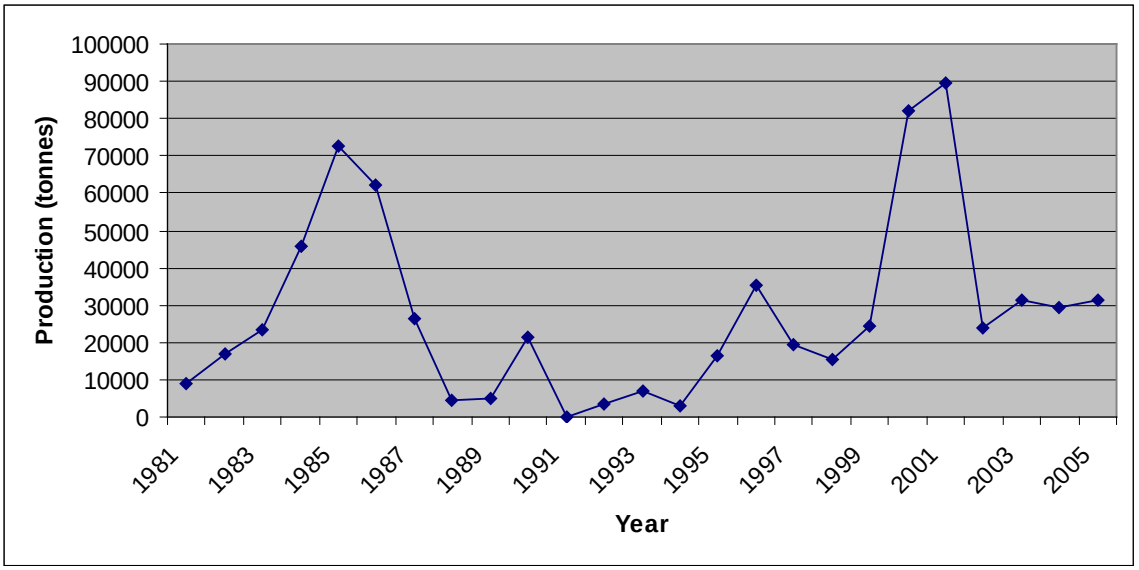

Figure 21: Winter Wheat Production in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The acres of barley seeded and harvested decreased at a decreasing rate until the early 1990's when it began to increase. It reached approximately 450,000 acres and then decreased slightly to where it is today; at approximately 350,000 acres (Figure 22).

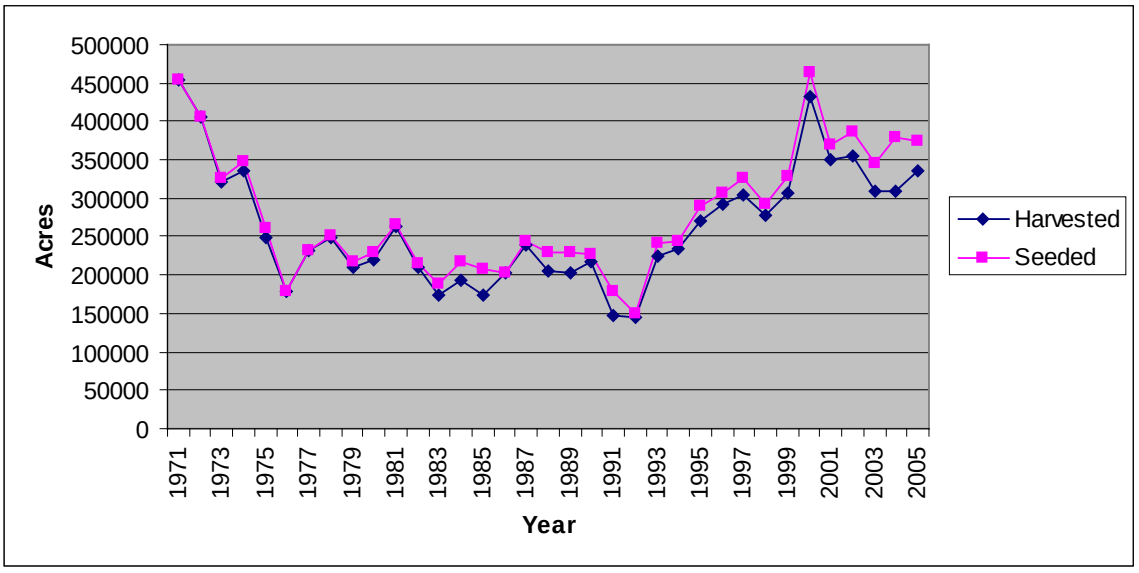

Figure 22: Acres of Barley Seeded and Harvested in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Barley yield per acre has been highly variable, but overall it seems to be on the rise. In 2005 the yield was just over 50 bu/acre (Figure 23).

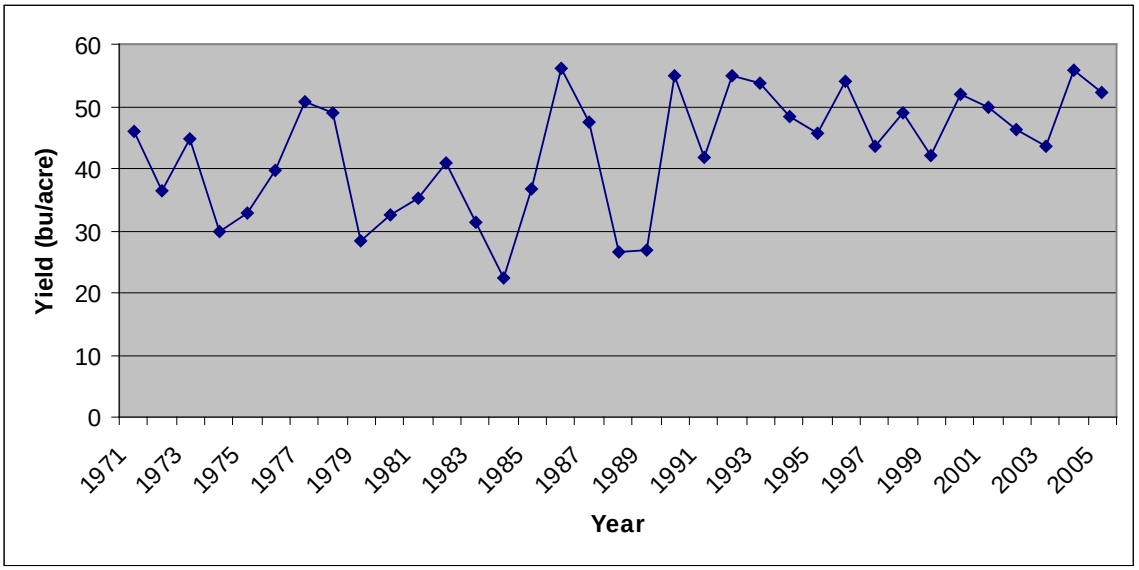

Figure 23: Barley Yield in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Barley production in crop district 1, although highly variable, declined until the mid 1980's, and has been rising ever since, as depicted in Figure 24.

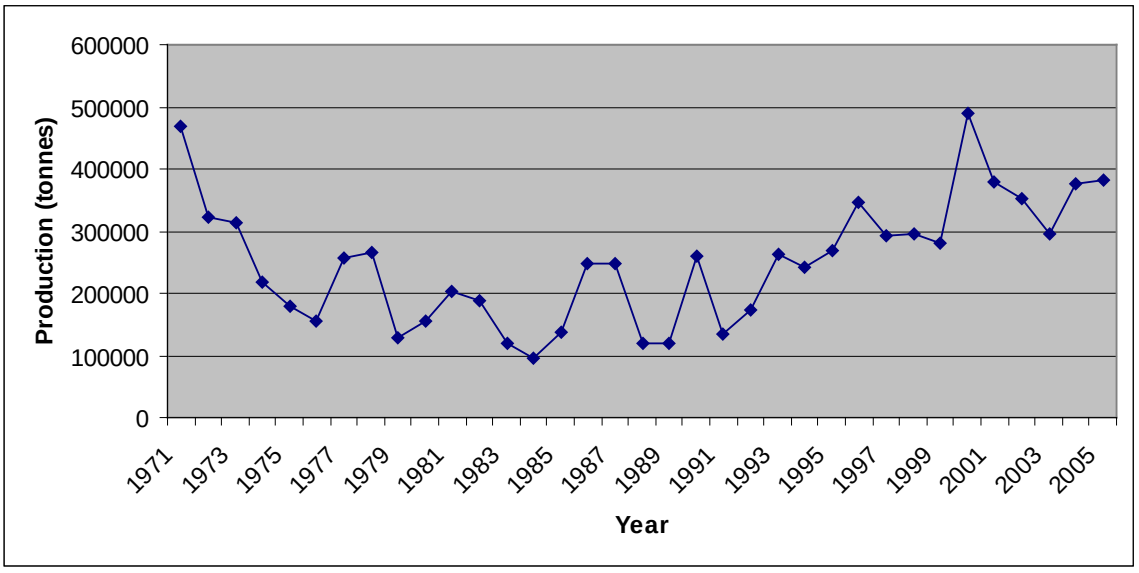

Figure 24: Barley Production in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The acres of flaxseed seeded and harvested in crop district 1 remained relatively low until the early 1990's when it increased dramatically (Figure 25). The number of acres harvested remained very similar to the number of acres seeded, except in 2004 when the number of acres harvested were about 10,000 acres lower than the number of acres seeded.

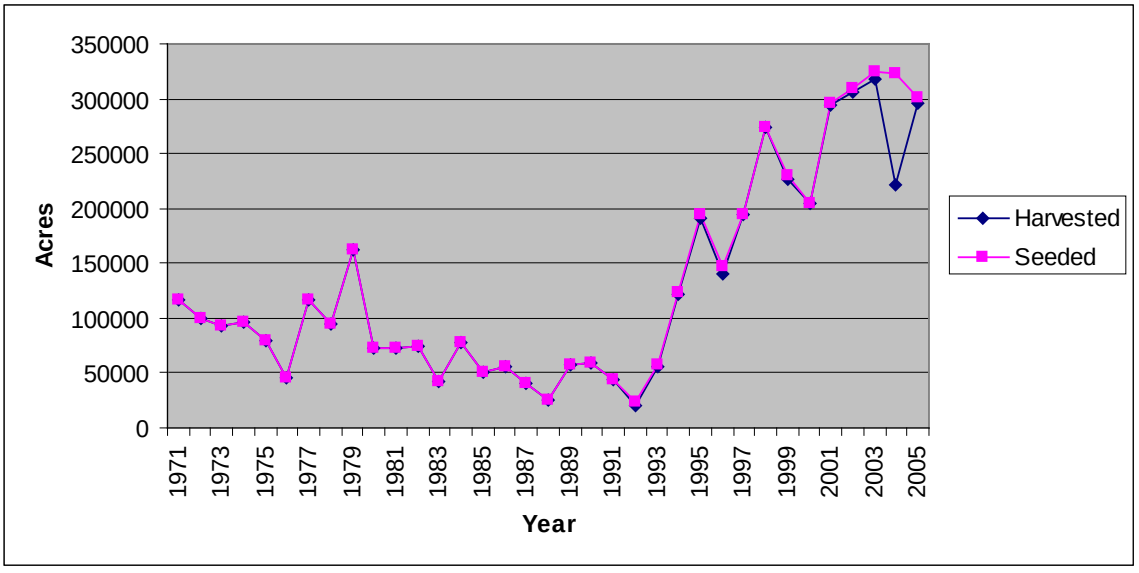

Figure 25: Acres of Flaxseed Seeded and Harvested in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Flaxseed yield per acre has been variable over time, although generally it seems to be on the rise. In 2005, the yield was more than 20 bu/acre (Figure 26).

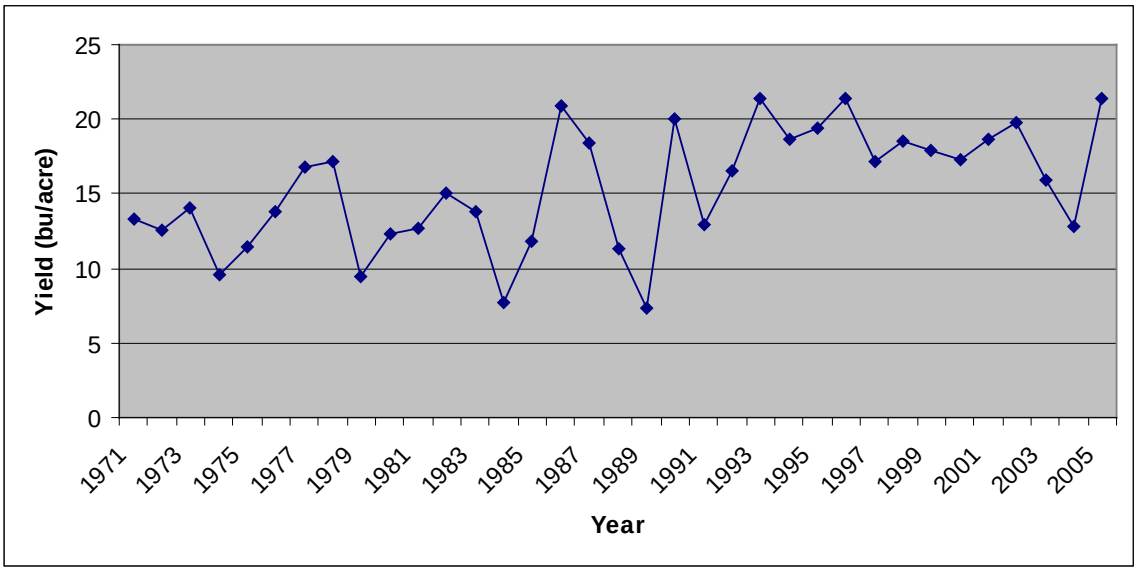

Figure 26: Flaxseed Yield in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Flaxseed production remained relatively low throughout most of the 1970's and 80's. In the early 1990's, its production began to increase steadily, although in recent years it has oscillated widely. Flaxseed production is shown in Figure 27.

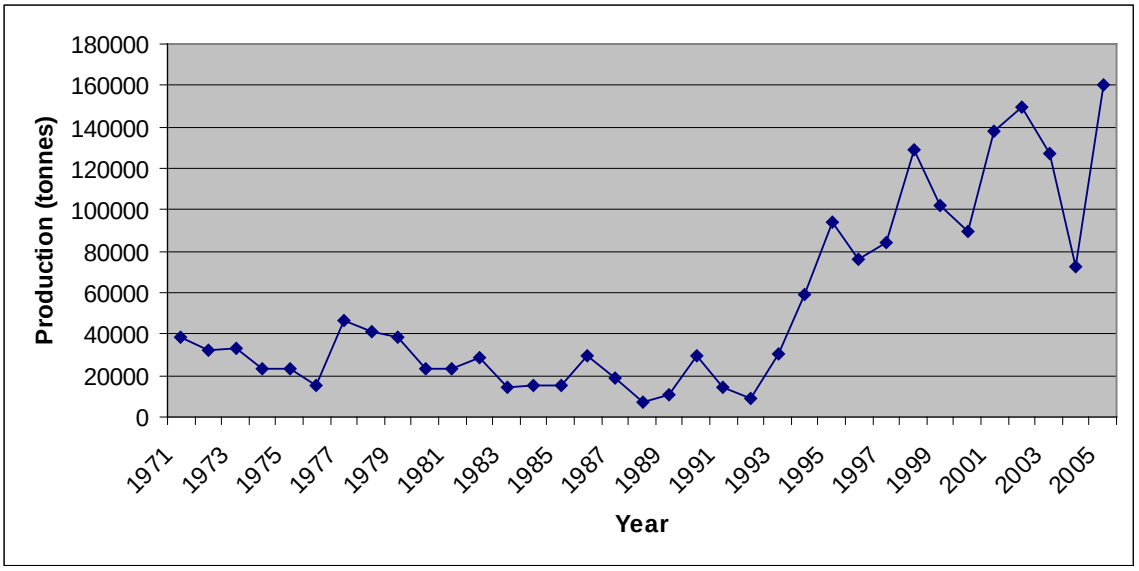

Figure 27: Flaxseed Production in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

The acres harvested and seeded of total rye has been variable over time and seems to be declining slightly (Figure 28). The number of acres seeded has followed closely the number of acres harvested, except in 1992 and 1993 when no acres were seeded; although some acres were still harvested in those years. This may be attributed to missing data.

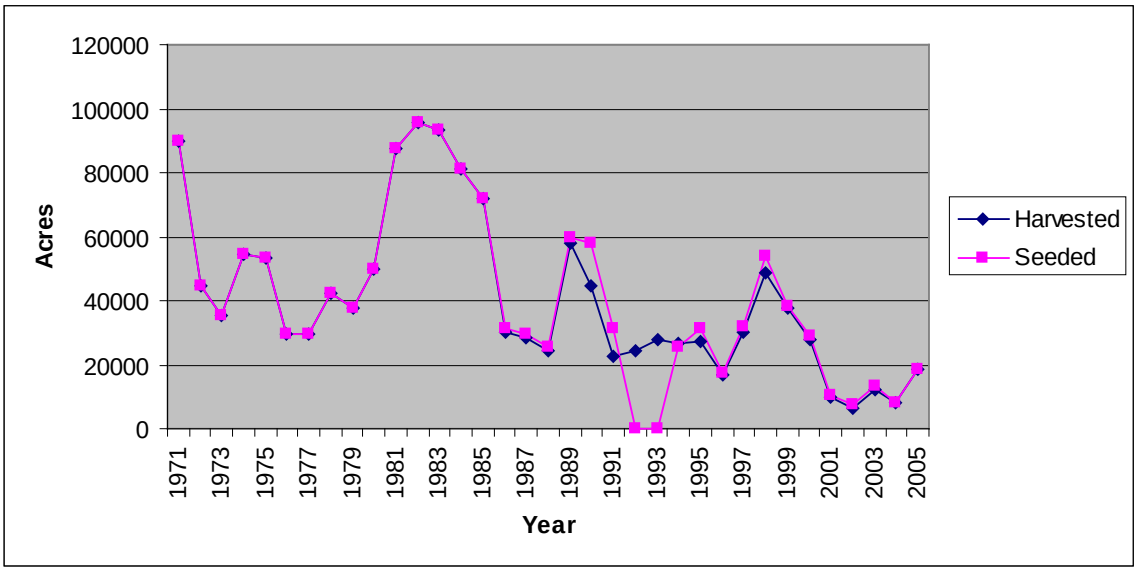

Figure 28: Acres of Total Rye Seeded and Harvested in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Total rye yield per acre has been variable, but increasing in this region since the early 1970's. In 2005, the yield was approximately 35 bu/acre (Figure 29).

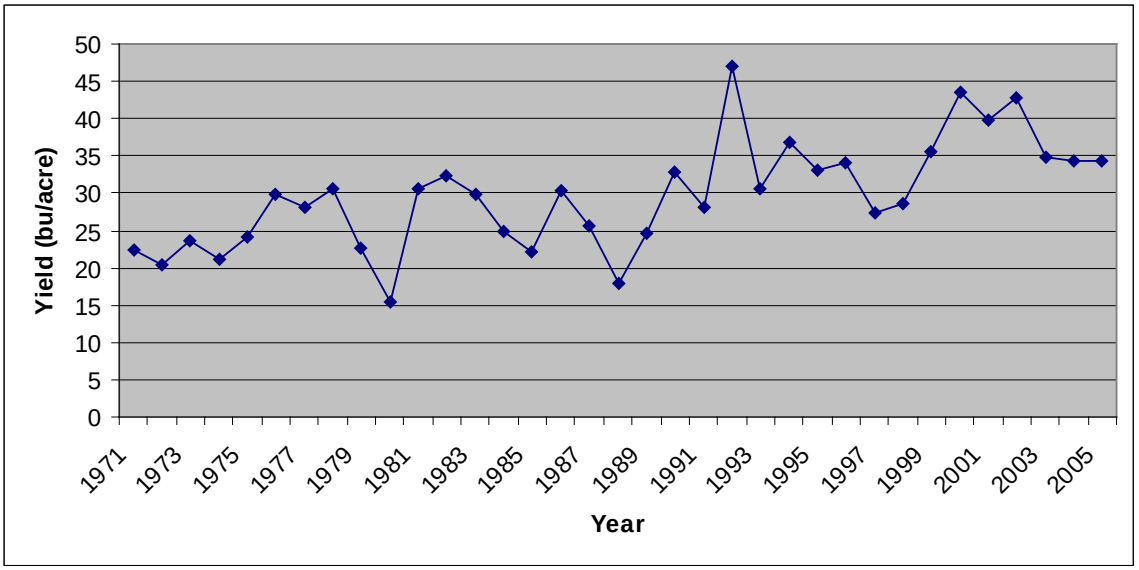

Figure 29: Total Rye Yield in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Total rye production in crop district 1 had a large increase in the early 1980's, but seems to overall be decreasing slightly in this region. This is depicted in Figure 30.

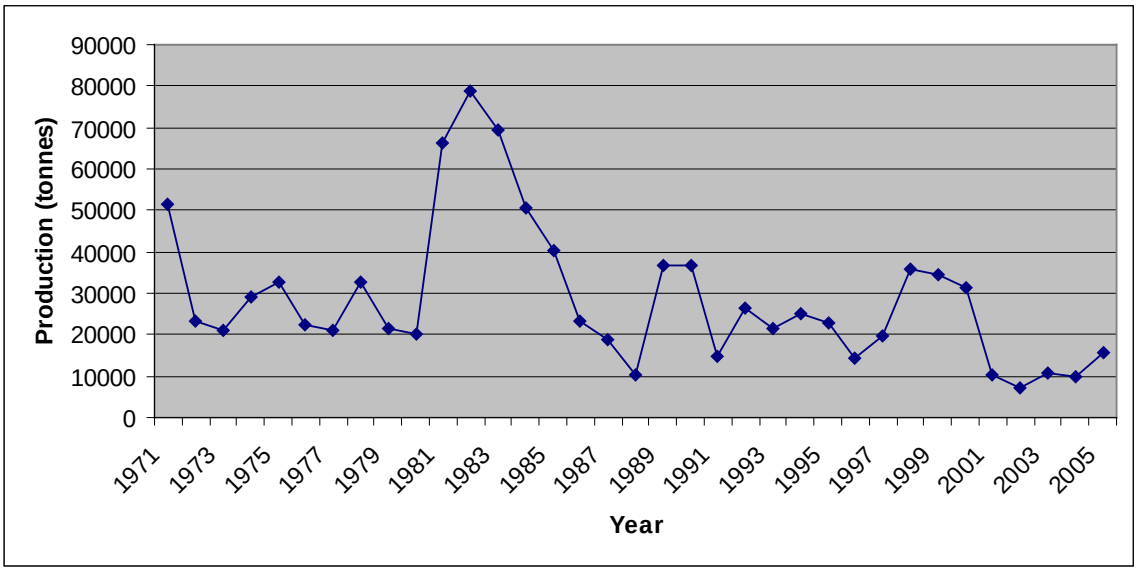

Figure 30: Total Rye Production in Crop District 1 from 1971 to 2005, Saskatchewan Agriculture and Food

Livestock[7]

The total number of cattle and calves in crop district 1 has been steadily increasing since the late 1980's. This trend closely mirrors that of the whole province, as depicted in Figure 31. From the total cattle and calves, the numbers of cows and calves have been increasing and the numbers of bulls, steers and heifers have remained relatively constant.

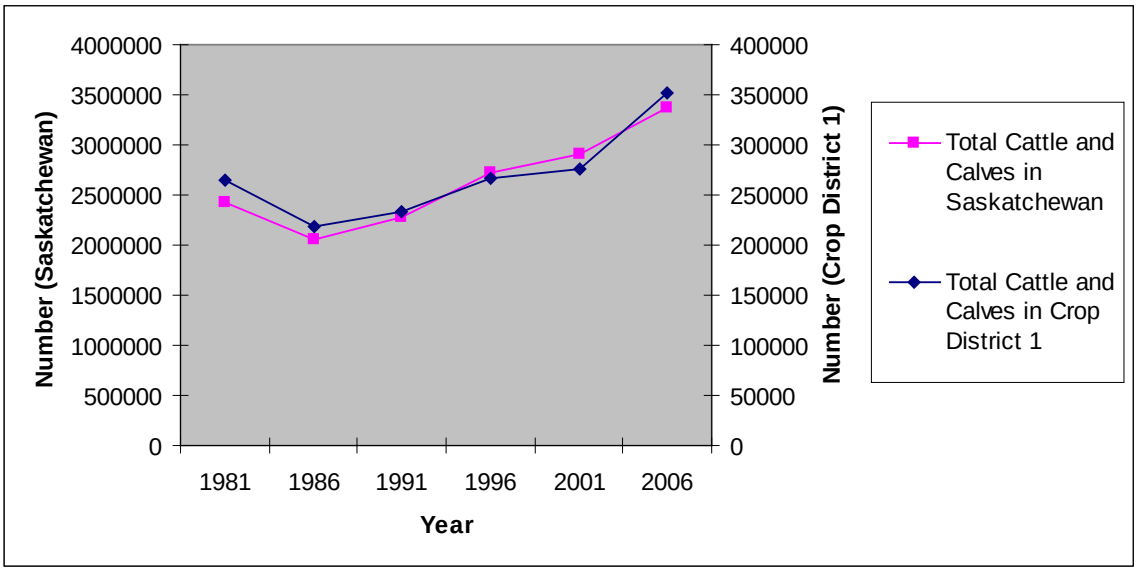

Figure 31: Total Cattle and Calves from 1981 to 2006, Statistics Canada

[7] Data for all livestock were totaled for crop district 1A and 1B.

The total number of cows, including both dairy and beef cows, in crop district 1 have been increasing since 1986. In 2006, Statistics Canada reported 157,128 cows in the region (Figure 32).

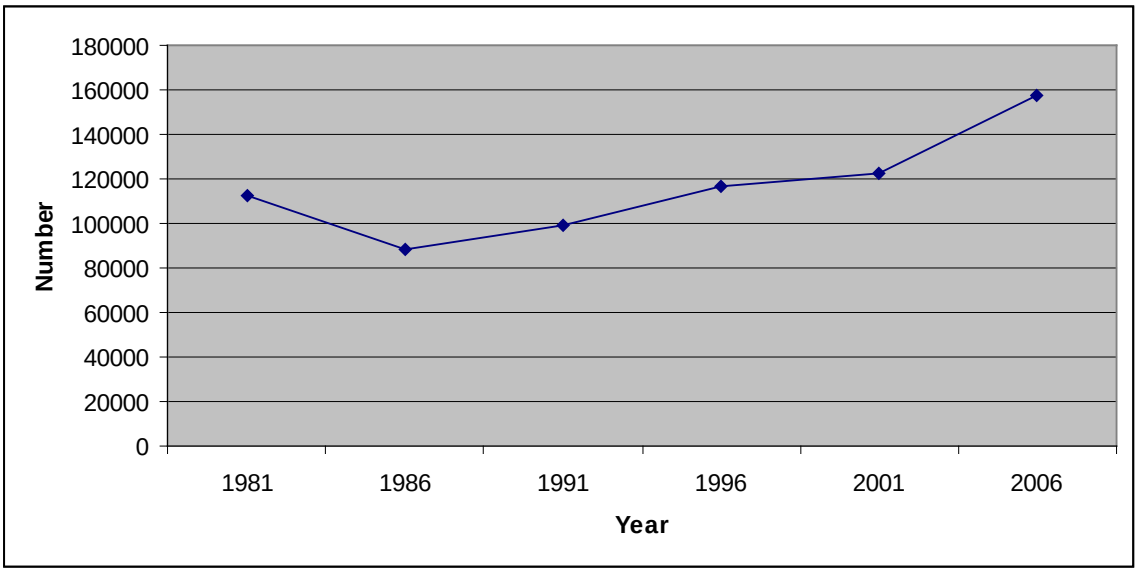

Figure 32: Total Cows in Crop District 1 from 1981 to 2006, Statistics Canada

Since 1981, there have been many more beef cows in the region than dairy cows. However, this difference has become more pronounced since 1991. Both beef and dairy cows decreased from 1981 to 1991, increased in 1996, and then have decreased to 2006 (Figure 33).

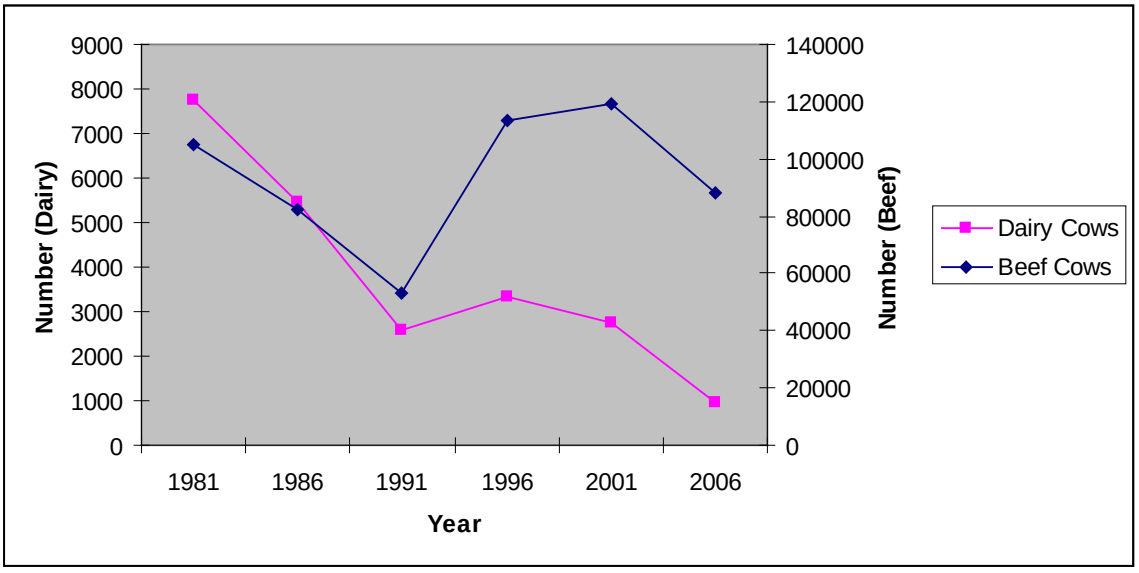

Figure 33: Beef and Dairy Cows in Crop District 1 from 1981 to 2006, Statistics Canada

The number of heifers in crop district 1 slightly decreased until 1996, and then increased at an increasing rate to 2006. The data below includes both beef and dairy heifers. Statistics Canada reported 37,970 heifers in the region in 2006 (Figure 34).

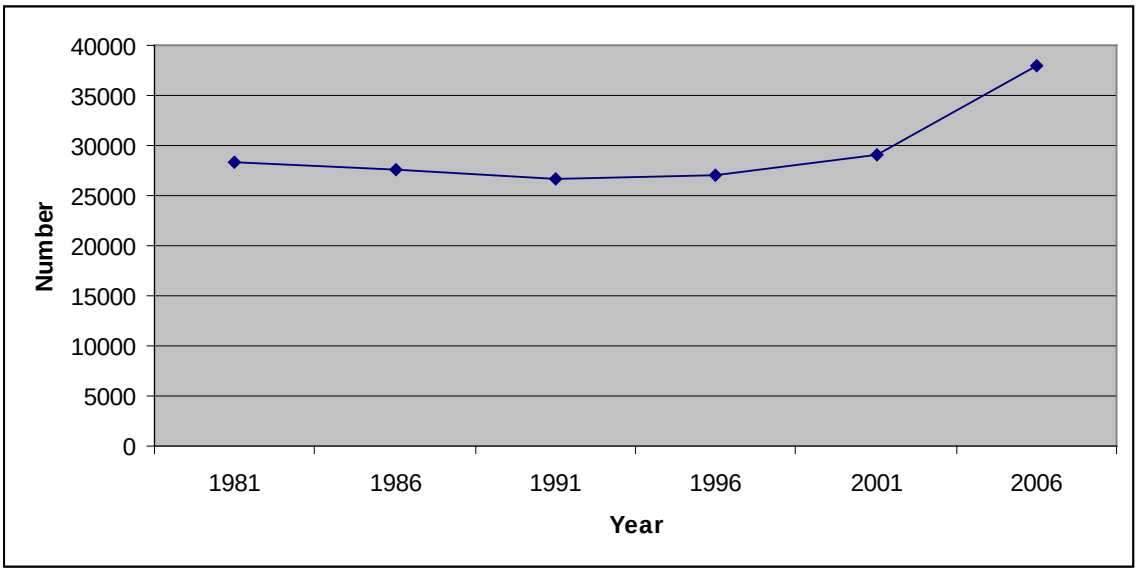

Figure 34: Heifers in Crop District 1 from 1981 to 2006, Statistics Canada

The number of steers in crop district 1 has been variable. The number in 2006 was reported to be 17,130 which is slightly below the number in 1981 (Figure 35).

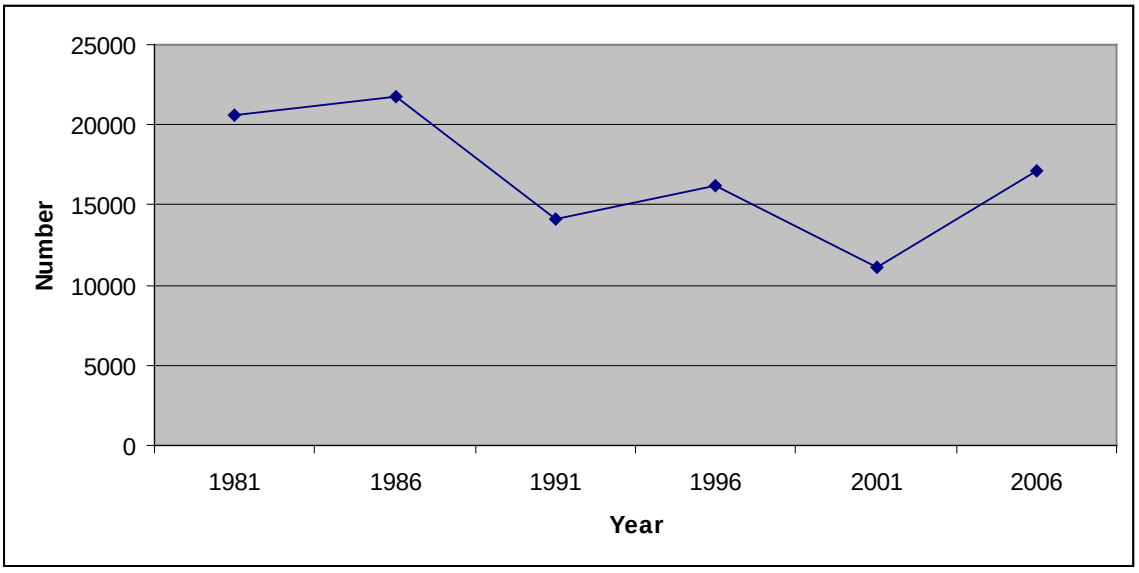

Figure 35: Steers in Crop District 1 from 1981 to 2006, Statistics Canada

The number of calves in crop district 1 has been increasing since 1986. 132,599 were reported in the region in 2006 (Figure 36).

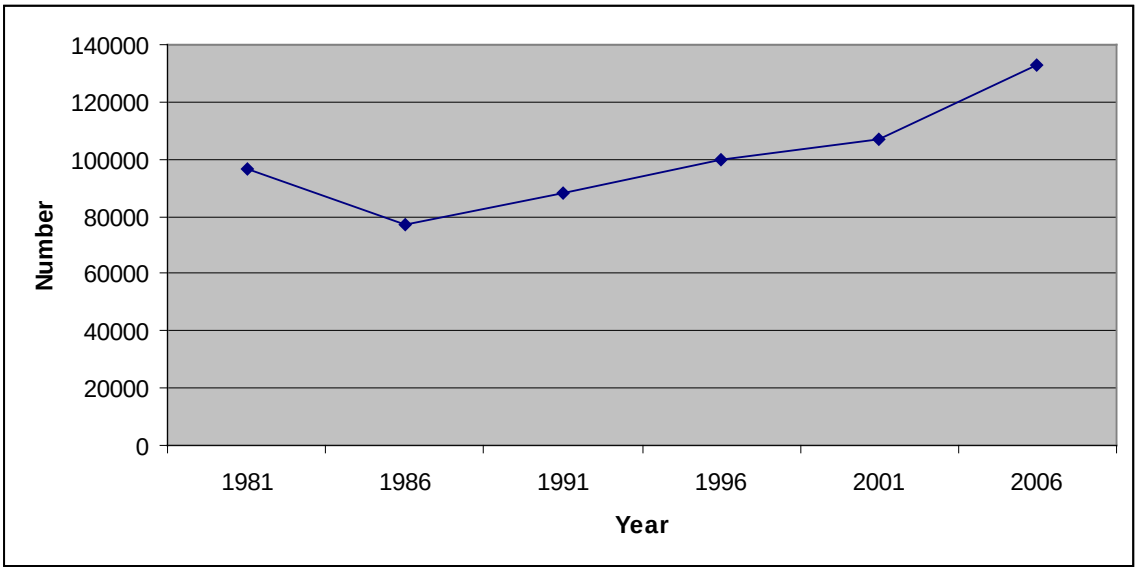

Figure 36: Calves in Crop District 1 from 1981 to 2006, Statistics Canada

The number of bulls has been slightly variable, although it is rising on the whole. In 2006, 7470 were reported in the region (Figure 37).

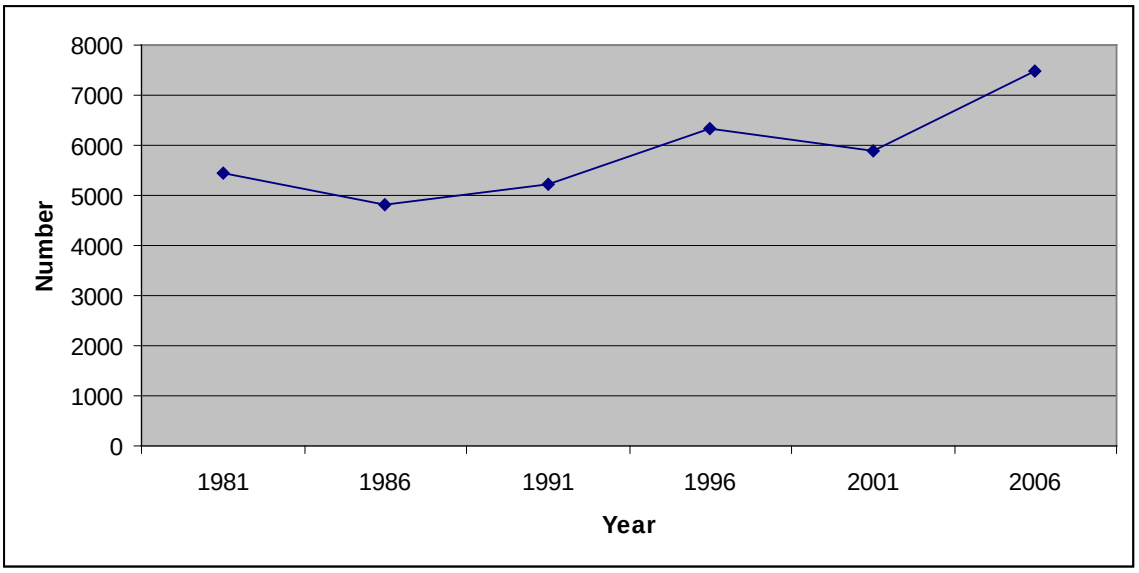

Figure 37: Bulls in Crop District 1 from 1981 to 2006, Statistics Canada

Hens and chickens are the next most popular form of livestock in crop district 1 after cattle. The number of hens and chickens in crop district 1 has been rapidly decreasing since the early 1980's; according to Statistics Canada, in 2006 there were 18,213 and in 1981 there were 187,171. This represents a 90% decrease over 25 years. However, the numbers of hens and chickens in Saskatchewan as a whole have been increasing since the mid 1990's, as shown in Figure 38. It seems that hen and chicken farming has become less important in crop district 1.

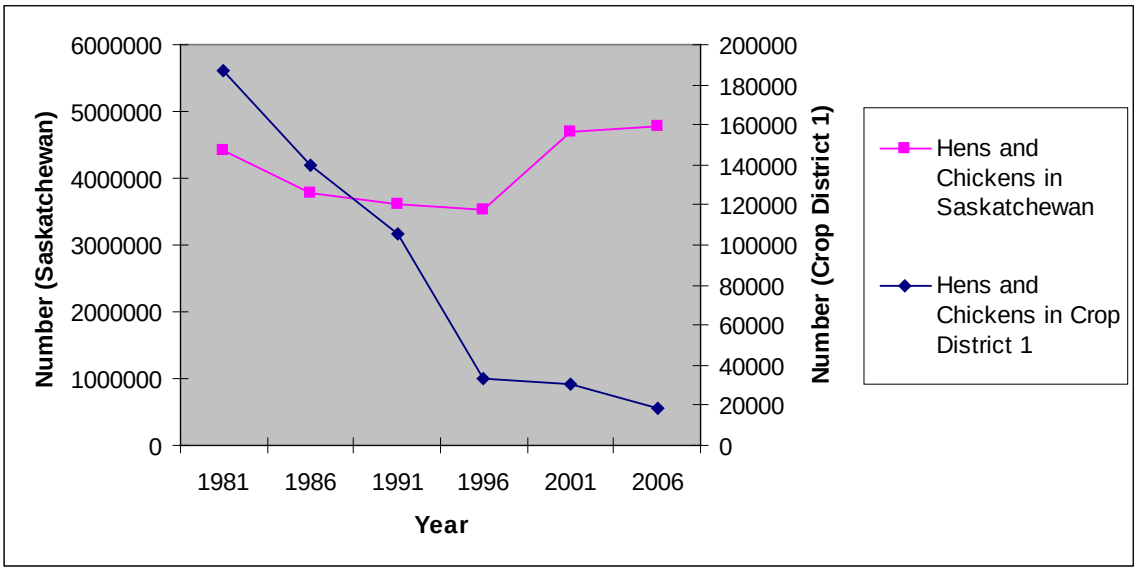

Figure 38: Total Hens and Chickens from 1981 to 2006, Statistics Canada

The number of pigs in crop district 1 has been variable from year to year, although overall it seems to be increasing. The number of pigs in Saskatchewan has been steadily increasing since the early 1980's, as shown in Figure 39. It seems that pig farming has become more important in crop district 1.

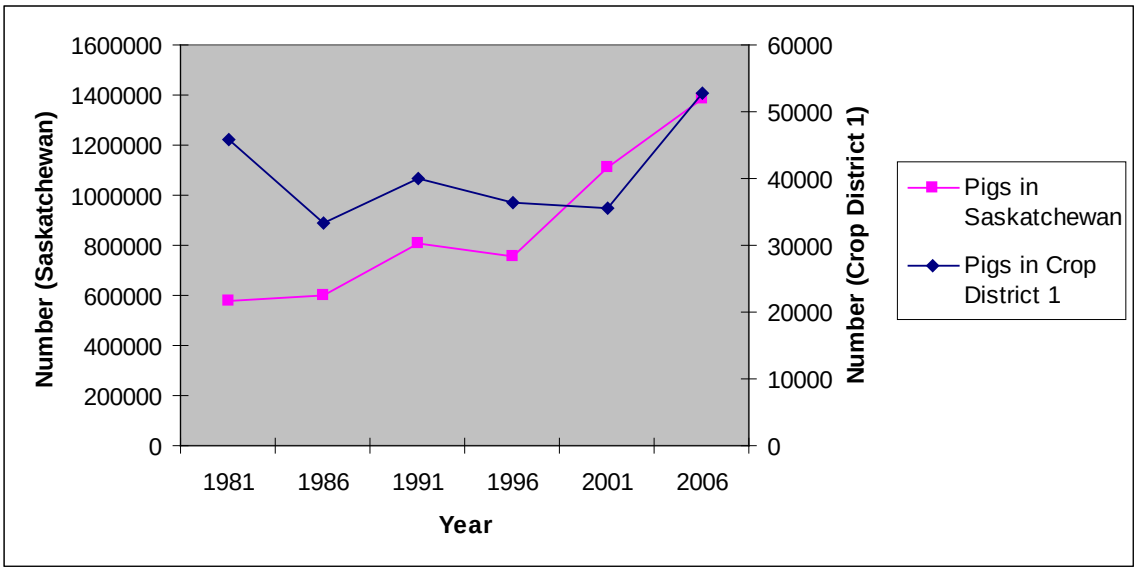

Figure 39: Total Number of Pigs from 1981 to 2006, Statistics Canada

The numbers of horses, ponies, sheep and lambs steadily increased throughout most of the 1990's, but have sharply declined since 2001. The numbers of goats in crop district 1 have also steadily been increasing, although there was a slight decline in 1996.

Capital and Cost of Production

Total farm capital in crop district 1 has been increasing over time, as shown in Figure 40. Most of the capital has been devoted to land and buildings, although this seems to be decreasing in recent years. The value of farm machinery and equipment has been relatively stable over time. The value of livestock and poultry has varied slightly more, but overall has also remained relatively stable.

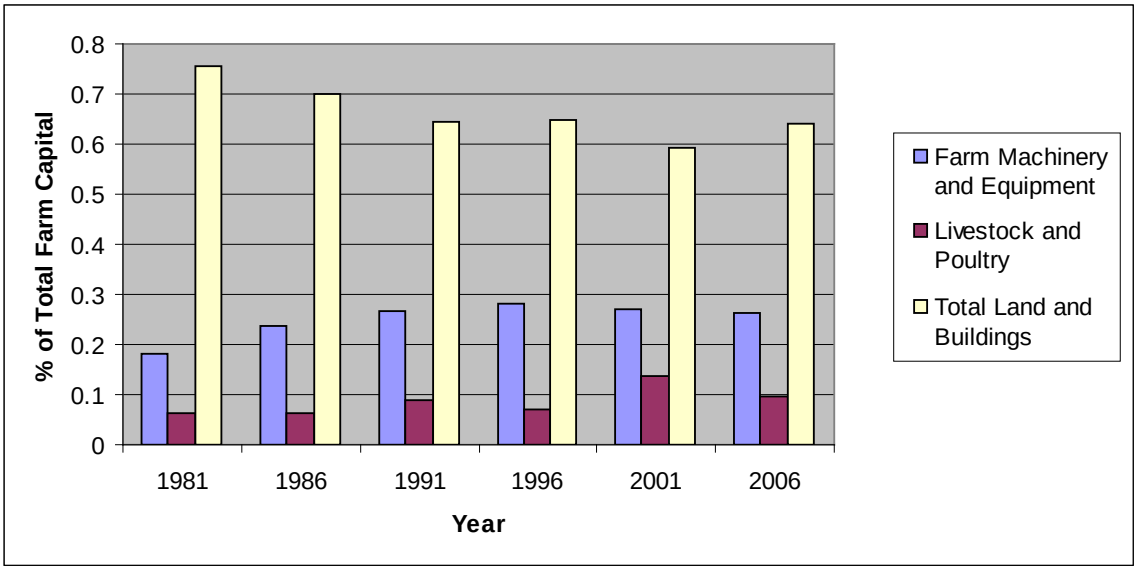

Figure 40: Farm Capital in Crop District 1 from 1981 to 2006, Statistics Canada[8]

Farm business operating expenses have also been steadily increasing since the early 1980's. In Figure 41, crop expenditures include feed, supplements, seed, fertilizers, lime and other agricultural chemicals. Since the early 1990's, crop expenses have taken a higher and higher proportion of the total operating expenses, and since the late 1980's livestock expenses have taken an ever smaller proportion. In 1991, crop and livestock expenses cost approximately equal proportions of the total operating expenses.

[8] Data for farm capital was totaled for crop district 1A and 1B.

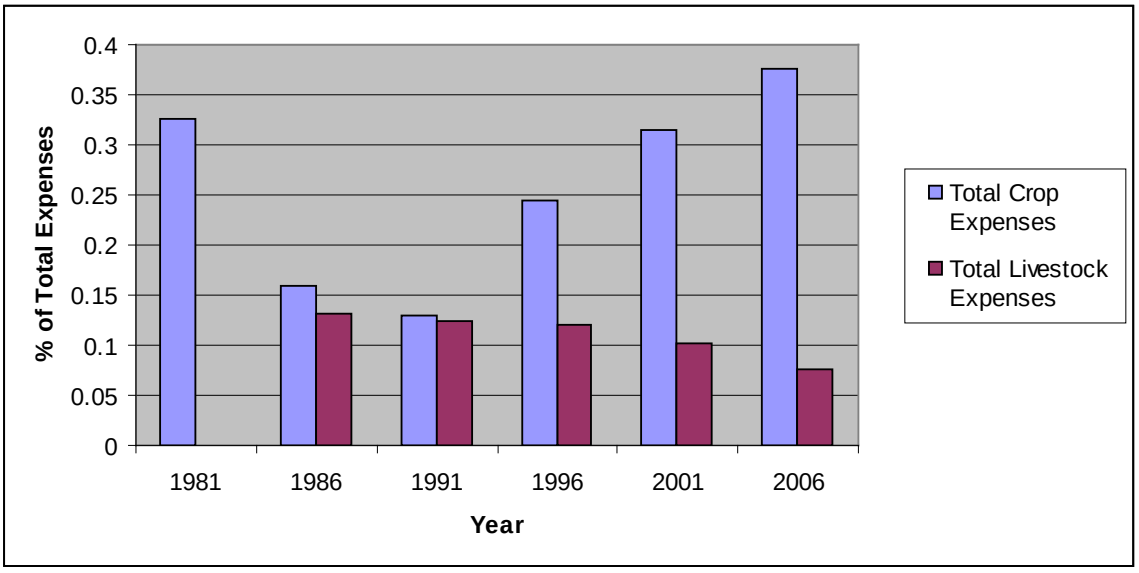

Figure 41: Farm Business Operating Expenses for Crop District 1 from 1981 to 2006, Statistics Canada[9]

Summary and Conclusions

Roughly 38% of the total farm area in Canada is found in Saskatchewan making it a very important region, especially for cereal crops. Average farm sizes have been increasing meaning that actual numbers of farms are declining. Most farms report only one operating arrangement, and a very small percentage report a partnership or corporation.

The amount of land used for crops is on the rise, and crop yields per acre are increasing as well implying improved technology and efficiency. However, harvested acres, seeded acres and production of spring wheat are declining, partly due to the rising importance of other oilseed crops such as canola. There has not been much difference in the acreage of durum over the last 3 decades, although the yield per acre and production may be slightly increasing. Oat acreage and production has also been steady, although the yield per acre seems to be increasing slightly. There is evidence that winter wheat, barley and flaxseed are becoming more important crops in this region as the acreage, production, and yield show signs of increasing. The acreage and production of rye has been declining in recent years, although again the yield per acre is increasing slightly.

Cattle, calves, cows, heifers, bulls and pigs are increasing, while steers, hens and chickens are declining drastically. Dairy and beef cows have been decreasing, although currently there are much more beef cows than dairy cows in this region.

The value of land and buildings shows signs of decreasing, while the value of livestock and poultry, and farm machinery and equipment remain constant. Crop expenditures are taking higher and higher proportions of total farm expenditures while livestock expenditures seem to be taking smaller proportions.

[9] Data for farm business operating expenses were totaled for crop district 1A and 1B. Data for livestock expenses in 1981 was unavailable and many other types of expenses were not included in the figure such as wages and rent.

References

Lower Souris River Watershed. 2007. Background Report Lower Souris River Watershed. Received August 13, 2007 from http://www.lowersourisriverwatershed.com /index.html

Saskatchewan Agriculture and Food. 2007. Saskatchewan Crop Yields by Rural Municipality. Received August 15, 2007 from http://www.agr.gov.sk.ca/

Statistics Canada 2006 Census. 2007. Agricultural Profile of Saskatchewan. Received August 17, 2007 from http://www.statcan.ca/

Statistics Canada 2001 Census. 2002. Agricultural Profile of Saskatchewan. Received August 17, 2007 from http://www.statcan.ca/

Statistics Canada 1996 Census. 1997. Agricultural Profile of Saskatchewan. Published by authority of the Minister of Industry. Catalogue no. 95-179-XPB. ISBN 0-660-59278-9. Ottawa.

Statistics Canada 1991 Census. 1992. Agricultural Profile of Saskatchewan. Published by authority of the Minister of Industry, Science and Technology. Catalogue no. 95-370. ISBN 0-660-57243-5. Ottawa.

Statistics Canada 1986 Census. 1987. Agricultural Profile of Saskatchewan. Published by authority of the Minister of Supply and Services Canada. Catalogue no. 96-110. ISBN 0-660-53547-5. Ottawa.

Statistics Canada 1981 Census. 1982. Agricultural Profile of Saskatchewan. Published by authority of the Minister of Supply and Services Canada. Catalogue no. 96-909. ISBN 0-660-51300-5. Ottawa.

Appendix A: Data in Tabular Form

Number of Livestock in Crop District 1

	Total Cattle and Calves	Total Cows	Dairy Cows	Beef Cows	Heifers	Steers	Calves	Bulls
1981	264075	112538	7730	104808	28253	20600	96731	5430
1986	219192	88105	5476	82629	27578	21768	76931	4810
1991	233715	99334	2577	53466	26632	14139	88373	5237
1996	265918	116761	3315	113446	27010	16178	99642	6327
2001	275079	122095	2734	119361	29091	11061	106942	5890
2006	352297	157128	941	87922	37970	17130	132599	7470

Number of Crop Acres in Crop District 1

	Total Wheat	Spring Wheat	Durum	Winter Wheat	Oats	Barley	Mixed Grains
1981	1683133	1394007	264434	8006	184515	262408	5612
1986	2046290	1942168	214096	104122	126503	196556	4859
1991	2044558	1794039	48745	5224	102951	179354	5408
1996	1577869	1238071	308841	30957	316197	341029	3190
2001	1191184	456289	204104	35987	236999	340510	7325
2006	897634	751852	109361	36421	282354	282506	11368

Number of Crop Acres in Crop District 1

	Total Rye	Canola	Flaxseed	Mustard Seed	Sunflower	Dry Field Peas	Lentils
1981	87657	0	74803	18885	13181	934	0
1986	33219	75072	56098	47640	4890	1459	7278
1991	31352	94143	43268	31059	13778	2389	14340
1996	30362	328725	148030	65750	9275	48870	13408
2001	12754	478062	250607	39861	6766	137342	41928
2006	32514	489968	312982	16604	5622	126968	34501

Farm Land Area Classified by Use of Land in Crop District 1

	Total Area of Farms	Land in Crops	Summer-fallow	Tame or Seeded Pasture	Natural Land for Pasture
1981	5268647	2563422	1293552	199992	1150401
1986	5238084	2799818	1130613	139236	1126187
1991	5228002	2820382	1097336	172246	846597
1996	5187043	3138007	712050	216892	754595
2001	5096131	3148425	588930	273305	743111
2006	5000174	3039053	350287	479581	739154

Farm Capital in Crop District 1

	Total Farm Capital	Farm Machinery and Equipment	Livestock and Poultry	Total Land and Buildings
1981	$2,400,473,921	$433,519,535	$149,233,199	$1,817,731,187
1986	$2,124,742,047	$506,664,251	$133,715,688	$1,484,362,108
1991	$2,061,894,628	$553,487,193	$179,932,510	$1,328,474,925
1996	$2,403,283,469	$673,598,895	$169,853,277	$681,210,941
2001	$2,492,007,384	$675,301,970	$337,326,895	$1,479,378,519
2006	$2,677,775,340	$702,081,209	$257,914,882	$1,717,779,249

Farm Business Operating Expenses in Crop District 1

	Total Expenses	Total Crop Expenses	Total Livestock Expenses
1981	$110,261,340	$36,037,461	$0
1986	$245,779,792	$39,203,357	$32,241,693
1991	$333,198,058	$43,018,149	$41,117,566
1996	$368,609,248	$89,905,209	$44,611,175
2001	$387,253,588	$121,662,515	$39,650,114
2006	$457,970,469	$172,066,222	$35,181,172

Operating Arrangements in Crop District 1

	Total Number of Farms	Sole Proprietorship	Partnership	Corporation	Other
1981	5559	4877	528	142	12
1986	5233	4477	585	161	10
1991	4871	3603	1046	144	16
1996	4592	3243	1059	278	12
2001	4137	2828	986	316	7
2006	3566	2366	817	377	6

Other Livestock in Crop District 1

	Hens and Chickens	Pigs	Sheep and Lambs	Horses and Ponies	Goats
1981	187171	45747	5840	7260	0
1986	140203	33454	4995	9373	525
1991	105250	39932	5221	9161	765
1996	33448	36493	4274	14513	534
2001	30288	35585	13284	14949	1529
2006	18213	52876	8892	11410	1374

Spring Wheat, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	593000	593000	28	451100
1972	487000	487000	20.9	277000
1973	612000	612000	25.3	422000
1974	539000	539000	23.4	343000
1975	549000	549000	24.6	368100
1976	669000	669000	24.3	442400
1977	624000	624000	27.3	462900
1978	653000	653000	31.8	565600
1979	704000	704000	19.8	379200
1980	666000	666000	21.6	391100
1981	742000	742000	25.5	514300
1982	751000	751000	26.3	538100
1983	852000	852000	22.3	516800
1984	842000	842000	18.7	428000
1985	886000	886000	23.1	557900
1986	930000	930000	34.7	878600
1987	914000	914000	27.9	694500
1988	883000	883000	13.9	335000
1989	842000	842000	16.2	371400
1990	949500	949500	31.9	824200
1991	949700	949700	23.4	605600
1992	928000	901000	33.2	814000
1993	930900	892300	28.5	691100
1994	652900	641100	26.2	457000
1995	632954	626833	25	426843
1996	645657	642552	29	506823
1997	566227	563714	21.4	327824
1998	393678	392747	26.6	284539
1999	324388	320153	23.6	205678
2000	366287	364492	28.9	286987
2001	466914	464407	26	328629
2002	424051	418686	28	319068
2003	410005	407186	24	265647
2004	379275	322655	30.8	270372
2005	343540	338047	30	276222

Spring Wheat, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	431000	431000	29.3	344000
1972	386000	386000	23.3	245000
1973	461000	461000	25.7	323000
1974	387000	387000	20.1	212000
1975	429000	429000	22.8	266100
1976	558000	558000	25.2	383200
1977	559000	559000	33.9	515200
1978	576000	576000	33.4	524000
1979	565000	565000	16	246100
1980	589000	589000	20.3	325200
1981	665000	665000	28.2	510600
1982	713000	713000	25.8	500600
1983	804000	804000	23.5	514000
1984	815000	815000	18.7	415300
1985	805000	805000	26.5	579600
1986	797000	797000	34.3	744600
1987	776000	776000	28.7	605400
1988	743000	743000	18.7	378700
1989	745000	745000	20.2	410300
1990	823200	823200	37.3	836300
1991	844400	844400	26.7	613600
1992	729700	797700	29.2	633800
1993	682100	655400	25.9	462300
1994	382000	375200	25.9	264500
1995	338656	307118	30.4	254241
1996	489671	485843	33.7	445302
1997	541410	535019	25.4	370024
1998	353064	352370	32.1	308200
1999	292583	288586	29.3	230209
2000	394037	392231	33.8	361149
2001	479822	478646	31	403449
2002	395253	387557	32.9	346452
2003	386319	384610	28.8	301949
2004	362208	328771	30.7	274498
2005	311274	309945	35.1	295971

Canola, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	59900	59900	18.8	25500
1972	32600	32600	17.7	13100
1973	34800	34800	16.3	12900
1974	36000	36000	13.8	11300
1975	46100	46100	12.9	13500
1976				
1977				
1978				
1979				
1980	10800	10800	14.5	3500
1981	5100	5100	18	2100
1982	5800	5800	20.4	2700
1983	8100	8100	15.4	2800
1984	6700	6700	10.6	1600
1985	11200	11200	16.7	4300
1986	29100	29100	25	16500
1987	28600	28600	23.6	15300
1988	60000	60000	15.7	21300
1989	42000	42000	5	4800
1990	14400	14400	20.3	6600
1991				
1992	93200	85000	28.1	54200
1993	151900	149600	27.6	93800
1994	307200	304900	21	145200
1995	277313	276831	18.4	115372
1996	148672	148375	24.7	83064
1997	250019	250019	18	101806
1998	262063	261351	21.4	126568
1999	250909	249351	21.7	122930
2000	299025	297944	25.6	173047
2001	279015	276039	21.4	133651
2002	299161	298806	29	196319
2003	305093	304563	16.7	115013
2004	282727	274845	25	155899
2005	309643	307055	25.6	178577

Canola, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	40900	40900	18.8	17400
1972	22300	22300	17.6	8900
1973	23800	23800	16.5	8900
1974	24700	24700	13.7	7700
1975	31500	31500	13	9300
1976				
1977				
1978				
1979				
1980	22700	22700	14	7200
1981	5500	5500	19.6	2400
1982	14500	14500	19.5	6400
1983	19800	19800	16.9	7600
1984	33000	33000	11.6	8700
1985	34800	34800	19.4	15300
1986	46100	46100	28.2	29400
1987	44500	44500	25.5	25700
1988	98000	98000	14.9	33100
1989	66000	66000	10.2	15300
1990	28200	28200	22.8	14600
1991	94100	94100	28.9	61700
1992	136700	124600	26.3	74200
1993	261000	257100	25	145800
1994	353100	350400	19.8	157100
1995	288629	282867	14.6	93740
1996	154769	152342	24.4	84443
1997	266500	266500	21.2	128405
1998	315128	314629	21.8	155293
1999	279038	275010	21.7	135568
2000	283966	283372	25.4	163277
2001	212633	211781	22.6	108579
2002	206748	206589	33.8	158278
2003	252996	252293	19.9	113708
2004	264219	248320	20.8	117183
2005	262052	260657	28.8	170117

Durum, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	106000	106000	27	77900
1972	125000	125000	25.6	87100
1973	120000	120000	24.5	79900
1974	106000	106000	20.8	60100
1975	125000	125000	24.1	82100
1976	175000	175000	24.7	117500
1977	90000	90000	25.7	62900
1978	204000	204000	30.7	170600
1979	159000	159000	20.1	86900
1980	192000	192000	20.7	107900
1981	208000	208000	22.6	128200
1982	169000	169000	24.8	114000
1983	119000	119000	21.5	69600
1984	129000	129000	16	56000
1985	123000	123000	21.3	71400
1986	162000	162000	33.3	146600
1987	183000	183000	27	134700
1988	195000	195000	12.9	68400
1989	235000	235000	14.7	94300
1990	217400	217400	32.7	193500
1991				
1992	185100	185100	35.5	178900
1993	131000	128800	34.1	119500
1994	224000	214500	27.9	162700
1995	216148	216065	26	152825
1996	229076	229076	29.5	183710
1997	239412	237339	21.3	137321
1998	322659	321733	25.8	225781
1999	106747	101562	26.2	72289
2000	322477	321034	32.4	283103
2001	187702	183319	24.8	123574
2002	169954	167293	24.8	112875
2003	184372	182857	20.3	101247
2004	148102	133851	29.5	107610
2005	125755	124391	32.8	111108

Durum, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	28000	28000	28.9	22000
1972	53000	53000	24.3	35000
1973	31000	31000	24.9	21000
1974	39000	39000	19.8	21000
1975	59000	59000	23	37000
1976	37000	37000	25.5	25600
1977	18000	18000	32.6	16000
1978	66000	66000	33.2	59700
1979	55000	55000	16.1	24200
1980	69000	69000	20.6	38700
1981	57000	57000	26.6	41200
1982	53000	53000	24.8	35700
1983	35000	35000	23.7	22500
1984	46000	46000	17.3	21700
1985	45000	45000	25	30600
1986	52000	52000	33.2	47000
1987	89000	89000	26.7	64600
1988	89000	89000	18.2	44200
1989	104000	104000	21	59300
1990	88700	88700	37.2	89800
1991	48700	48700	56.4	74900
1992	25700	25300	27	18600
1993	16400	16400	31.1	13900
1994	44500	42600	26.1	30300
1995	24064	16497	42.8	19236
1996	27358	27358	35.2	26189
1997	35205	35205	33.5	32056
1998	47499	47499	32.8	42409
1999	8019	7938	34.1	7357
2000	31619	31619	36.7	31598
2001	11151	11151	28.1	8527
2002	17755	17755	31.3	15127
2003	28135	28135	30	22943
2004	20032	17694	23.4	11286
2005	15734	15734	39.3	16832

Winter Wheat, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971				
1972				
1973				
1974				
1975				
1976				
1977				
1978				
1979				
1980				
1981	5000	5000	32.2	4400
1982	10000	10000	30.2	8200
1983	15000	15000	27.6	11300
1984	35000	35000	24.1	22900
1985	59000	59000	18.9	30300
1986	58000	58000	20.7	32700
1987	28400	28400	21.6	16700
1988	9000	9000	8	2000
1989	3000	3000	17.7	1400
1990	7200	7200	24.4	4800
1991				
1992	1900	1800	30.6	1500
1993	5600	5000	21.3	2900
1994	300	300	32.3	300
1995				
1996	13136	13136	30	10730
1997	14247	13890	27	10205
1998	4025	3392	29.7	2739
1999	4044	3869	39.3	4135
2000	25182	25182	52.2	35772
2001	42217	40624	30.9	34168
2002	16226	12266	25.2	8420
2003	18659	18659	39.2	19881
2004	14626	14626	48.1	19145
2005	25153	25153	30.4	20831

Winter Wheat, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971				
1972				
1973				
1974				
1975				
1976				
1977				
1978				
1979				
1980				
1981	5000	5000	32.2	4400
1982	10000	10000	31.5	8600
1983	15000	15000	29.2	11900
1984	35000	35000	24.1	22900
1985	72000	72000	21.5	42100
1986	47000	47000	23.3	29700
1987	16900	16900	21	9700
1988	5000	5000	16.8	2300
1989	6000	6000	22.7	3700
1990	16600	16600	36.9	16700
1991				
1992	2600	2500	32.3	2200
1993	5300	4800	32.5	4300
1994	3800	3100	29.3	2500
1995	19372	14894	41	16634
1996	27938	25936	34.7	24491
1997	15057	12279	26.9	8998
1998	15164	13975	33.2	12622
1999	15320	15142	48.7	20057
2000	33510	33510	50.8	46305
2001	52251	51297	39.8	55609
2002	22923	17553	32.3	15416
2003	16435	16435	25.6	11456
2004	10325	9664	38.1	10026
2005	10984	10984	34.5	10308

Oats, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	118000	108000	52.3	87100
1972	113000	99000	54.2	82800
1973	140000	133000	51.7	106000
1974	156000	136200	40.6	85200
1975	163000	152000	47.7	111900
1976	130000	100000	47.6	73300
1977	143000	118800	45.9	84100
1978	93000	91000	55.6	78100
1979	68000	66000	37.2	37900
1980	65000	50000	36	27700
1981	86000	74000	39	44500
1982	68000	54000	50.3	41900
1983	52000	40000	38.4	23700
1984	54000	38000	24.5	14400
1985	64000	40000	40.6	25000
1986	57000	51000	66.2	52100
1987	47000	39000	51	30700
1988	56300	37000	24.8	14200
1989	70000	52000	21	16800
1990	36100	32000	51.5	25400
1991	40800	27800	45.6	19600
1992	65700	48200	60.8	45200
1993	63300	55800	57.2	49200
1994	83600	64400	56.1	55700
1995	84265	81017	56.9	71081
1996	133215	126371	57.3	111734
1997	131064	118326	44.6	81377
1998	152255	137529	55.4	117421
1999	126675	105123	45.2	73353
2000	96109	81522	55.9	70324
2001	82442	59874	52	48036
2002	124913	103444	50.4	80438
2003	148596	109088	39.9	67126
2004	128565	88761	62.2	85163
2005	106007	89463	56.9	78445

Oats, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	169000	146000	58.7	132200
1972	156000	132000	48.1	97900
1973	197000	175000	54.5	147000
1974	218000	196300	39.4	119300
1975	206000	166000	40.6	103900
1976	178000	150000	52	120200
1977	167000	142900	63.5	140000
1978	130000	119000	53.6	98400
1979	107000	84000	33.6	43500
1980	100000	52000	41.7	33400
1981	133000	111000	42.6	72900
1982	110000	86000	46.5	61600
1983	97000	75000	37.8	43700
1984	92000	63000	22.6	22000
1985	98000	73000	40.6	45700
1986	94000	73000	64.8	72900
1987	69000	52000	55.2	44200
1988	71900	48000	27.9	20700
1989	90000	55000	27.7	23500
1990	61600	48000	65.6	48600
1991	62200	46400	52.1	37300
1992	119300	95000	51.6	75600
1993	132300	104500	64.3	103600
1994	153600	123400	56.9	108300
1995	135609	111326	55.5	95323
1996	206673	176624	65.2	177666
1997	162526	135139	50.9	106018
1998	187552	164581	56.1	142514
1999	145462	115314	45.3	80512
2000	155376	131461	56	113607
2001	140547	105165	54.5	88434
2002	187090	159606	62.4	153480
2003	181865	135901	46	96411
2004	169923	123560	67.9	129408
2005	161717	120377	63	116973

Barley, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	240000	240000	45	248000
1972	218000	218000	35	166300
1973	189000	187000	43.2	176000
1974	177000	169000	30.2	111000
1975	129000	124000	35.6	96000
1976	80000	80000	37.6	65600
1977	107000	107000	45.4	105800
1978	90000	90000	48.8	95600
1979	81000	81000	29.6	52300
1980	99000	98000	30.6	65300
1981	108000	108000	34.5	81000
1982	89000	86000	41.4	77600
1983	89000	82000	31.5	56200
1984	110000	97000	23.5	49500
1985	103000	91000	36.9	73100
1986	103000	102000	56.8	126200
1987	126000	126000	44.9	123300
1988	115400	104000	26.2	59300
1989	122600	108200	22.8	53800
1990	115600	109500	50.9	121400
1991	96300	71300	39	60600
1992	84500	82500	56.1	100800
1993	124900	119400	52.8	137100
1994	94400	90700	53	104700
1995	123576	121101	44.7	117750
1996	126881	125156	51.3	139711
1997	136862	129959	42.9	121428
1998	132680	126947	50.6	139921
1999	152785	146249	41.6	132486
2000	222862	213420	50.8	236131
2001	186622	179604	47.4	185427
2002	214563	206245	43.3	194457
2003	160079	150199	39	127661
2004	187224	153876	55.4	185509
2005	181442	167747	49.6	181073

Barley, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	215000	215000	47.2	221000
1972	188000	188000	37.9	155200
1973	136000	135000	46.3	136000
1974	171000	167000	29.7	108000
1975	133000	125000	30.1	82000
1976	98000	98000	42.1	89900
1977	125000	125000	56	152400
1978	161000	158000	49.3	169600
1979	136000	130000	26.9	76200
1980	130000	121000	34.2	90100
1981	158000	155000	35.7	120600
1982	127000	124000	40.5	109300
1983	100000	93000	31	62900
1984	107000	96000	21.5	45000
1985	105000	82000	36.8	65700
1986	100000	100000	55.5	120800
1987	117000	113000	50	123000
1988	113100	102000	27.1	60300
1989	106000	95700	30.8	64200
1990	111500	108500	59	139300
1991	83100	76200	44.7	74100
1992	64700	61500	53.5	71700
1993	116100	104600	54.9	124900
1994	149900	144000	44	137900
1995	165900	149413	46.8	152292
1996	180456	167323	57	207547
1997	190089	175434	44.5	169869
1998	160072	150700	47.4	155465
1999	176719	160801	42.3	148015
2000	241263	217961	53.2	252311
2001	183136	169592	52.2	192814
2002	172870	147926	49.2	158382
2003	186508	159274	48.1	166896
2004	192232	155818	56.5	191653
2005	192251	168157	54.6	200006

Flaxseed, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	67800	67800	11.7	20100
1972	47400	47400	12.1	14600
1973	46100	46100	13.2	15500
1974	47600	47600	9.7	11700
1975	42500	42500	11.4	12300
1976	33500	33500	12.3	10400
1977	77100	77100	13	25500
1978	43300	43300	15.1	16600
1979	67200	67200	10	17100
1980	25300	25300	11.1	7100
1981	36300	36300	11.4	10500
1982	49300	49300	15.5	19400
1983	28000	28000	12.9	9200
1984	49000	49000	7.2	8900
1985	26000	26000	10.1	6700
1986	25600	25600	19.7	12800
1987	18200	18200	16.8	7800
1988	10000	10000	9.4	2400
1989	27300	27300	6.2	4300
1990	32000	32000	18.5	15000
1991	17800	17800	11.6	5200
1992	13000	12400	16.5	5200
1993	21700	21100	22.2	11900
1994	50300	49800	17.4	22100
1995	76778	76778	19.8	38545
1996	67537	67537	21.8	37338
1997	98536	98536	15.9	39697
1998	142411	142411	18.5	66902
1999	144018	141088	17.4	62275
2000	121094	120391	17.4	53197
2001	188726	186967	17.7	84021
2002	190124	188802	17.5	83784
2003	185897	180299	14.3	65438
2004	162940	115064	14.1	41264
2005	173704	169836	21.1	90900

Flaxseed, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	49100	49100	14.9	18600
1972	52400	52400	13	17300
1973	47300	47300	14.9	17900
1974	48000	48000	9.5	11600
1975	36500	36500	11.5	10700
1976	12900	12900	15.4	5000
1977	40400	40400	20.6	21100
1978	50600	50600	19.2	24700
1979	95600	95600	9	21800
1980	47200	47200	13.5	16100
1981	36700	36700	13.9	13000
1982	25800	25800	14.7	9600
1983	14800	14800	14.7	5500
1984	29200	29200	8.3	6200
1985	24200	24200	13.5	8300
1986	30500	30500	22	17000
1987	21800	21800	19.9	11000
1988	15100	15100	13.2	5000
1989	29400	29400	8.5	6300
1990	27000	27000	21.5	14700
1991	25500	25500	14.3	9300
1992	9900	8100	16.5	3400
1993	36000	34900	20.7	18400
1994	73400	72700	19.9	36700
1995	118069	114831	18.9	55259
1996	80165	72747	21	38796
1997	95632	95632	18.5	44832
1998	130778	130778	18.6	61766
1999	85774	84725	18.5	39765
2000	84184	83507	17.2	36393
2001	107630	107382	19.7	53618
2002	118578	117078	22.1	65671
2003	138090	137731	17.5	61342
2004	160036	107074	11.4	30992
2005	127870	126018	21.7	69568

Total Rye, Crop District 1A

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	58500	58500	22.5	33500
1972	29000	29000	20.6	15200
1973	22900	22900	23.6	13700
1974	35200	35200	21.2	19000
1975	34700	34700	24.2	21300
1976	19200	19200	29.7	14500
1977	19200	19200	28.3	13800
1978	27400	27400	30.5	21200
1979	24600	24600	22.6	14100
1980	31100	31100	18	14200
1981	62300	62300	28.9	45800
1982	68000	68000	32.4	56000
1983	68000	68000	28.8	49700
1984	58700	58700	24.5	36500
1985	46200	46200	22.2	26100
1986	18900	18400	31	14500
1987	18200	17700	26.7	12000
1988	16100	15300	15.2	5900
1989	38400	37500	25.4	24200
1990	37900	29100	31.4	23200
1991	20800	14900	21.1	8000
1992	0	22100	41.5	23200
1993	0	21500	29.9	16400
1994	17400	18041	37.5	17185
1995	25039	22202	31.8	18059
1996	12581	12539	31.6	10232
1997	23243	22033	24.2	13405
1998	34549	32276	29.4	24152
1999	28612	28457	36	26030
2000	22429	22066	44.8	25094
2001	7430	7148	40.2	7291
2002	7464	6412	42.9	6983
2003	8849	8180	34.7	7214
2004	7039	6905	53.7	9422
2005	11782	11676	33.7	9992

Total Rye, Crop District 1B

Year	Seeded (acres)	Harvested (acres)	Yield (bu/acre)	Production (tonnes)
1971	31600	31600	22.4	18000
1972	15600	15600	20.4	8100
1973	12300	12300	23.7	7400
1974	19100	19100	21.2	10300
1975	18700	18700	24.2	11500
1976	10300	10300	30.2	7900
1977	10400	10400	28	7400
1978	14700	14700	30.8	11500
1979	13300	13300	22.5	7600
1980	18600	18600	12.9	6100
1981	25000	25000	32.4	20600
1982	27600	27600	32.4	22700
1983	25200	25200	30.9	19800
1984	22400	22400	25.1	14300
1985	25400	25400	22	14200
1986	12200	11900	29.8	9000
1987	11100	10800	24.4	6700
1988	9300	8800	20.6	4600
1989	21200	20700	24	12600
1990	19900	15300	34.2	13300
1991	10500	7500	35.2	6700
1992	0	2200	52.7	3000
1993	0	6200	31.1	4900
1994	8300	8591	36.2	7900
1995	6388	5277	34.2	4638
1996	4671	4177	36.4	3907
1997	8853	8025	30.3	6119
1998	19421	16635	28	11823
1999	9594	9241	35.1	8247
2000	6492	5789	42.1	6193
2001	3171	2940	39.5	2946
2002				
2003	4584	4028	35.1	3592
2004	1363	1174	14.9	443
2005	6678	6615	35	5883