RURAL ECONOMY

1995 ANNUAL REPORT



Department of Rural Economy

Faculty of Agriculture, Forestry, and Home Economics University of Alberta Edmonton, Canada

DEPARTMENT OF RURAL ECONOMY 1995 ANNUAL REPORT

Department of Rural Economy
Faculty of Agriculture, Forestry and Home Economics
University of Alberta
Edmonton, Alberta
T6G 2H1

Phone: 492-4225 Fax: 492-0268

March 1996

Table of Contents

Foreword	1
Department Staff	2
Academic Staff	2
Associated Academic Staff	2
Support Staff	2
Sessional Lecturers & Research Associates	2
Awards to Graduate Students in 1995	3
Awards to Staff in 1995	3
Professional Offices Held by Staff in 1995	3
Staff on Leave in 1995	4
Graduate Students Completing Programs in 1995, their Thesis Topics and Supervisors	4
Graduate Students Commencing and Continuing Programs Through 1995	5
Visiting Speakers and their Topics	5
Other Visiting Scholars	6
A Major Academic Activity: Rural Economy Participation in Sustainable Forest Management - A New Network of Centres of Excellence	7
International Projects	7
Publications 1995	8
Books and Chapters in Books	8
Oral Presentations, Posters, Proceedings and Abstracts and Other Items	10
Staff Papers and Project Reports	14
Research Projects Completed January 1 - December 31, 1995	16
Research in Progress as of December 31, 1995	17

Foreword

Meeting the Challenge: Rural Economy in 1995

The year 1995 brought continued budgetary challenges to the Department of Rural Economy, as for many other groups. We are meeting these challenges by focusing our efforts and resources on maintaining and building our areas of strength and by continuing to strive for excellence in teaching and research in these areas.

Rural Economy course offerings are increasing in demand by students enrolled in the new undergraduate programs introduced three years ago by the Faculty of Agriculture, Forestry and Home Economics. It is pleasing that undergraduate enrollments in this Faculty have increased over this time period and were maintained at a very healthy level during 1995, a year in which total University enrollments fell somewhat. Some one-fifth of students enrolled in the largest of the Faculty's programs, the B.Sc. in Environmental and Conservation Sciences, chose to major in the Rural Economy specialization area of Environmental Economics and Policy. A similar proportion of continuing enrollments in the B.Sc. Agriculture program are in the Applied Economics specialization. The numbers of students in the Agricultural/Food Business Management BSc. program, offered jointly by this Faculty and the Faculty of Business, continued a trend of slow increase. Rural Economy is the departmental "home base" for all three of these groups of undergraduate students.

There was also a continued increase in the number of students registered in Rural Economy's graduate programs during 1995, a year in which total graduate enrollments at the University of Alberta declined to some extent. The increasing demand for Rural Economy graduate programs apparently reflects two major factors. One of these is the success of excellent students in achieving scholarships and related awards. This is particularly evident for students in our PhD programs which are the fastest increasing component of the department's graduate programs. The second major factor is the considerable success of members of this department in achieving research grants, which provide support to a very large proportion of Rural Economy's graduate students.

During the year, 14 graduate students completed their studies; their research topics and supervisors are noted in the Annual Report. Another 49 students continued or commenced graduate studies during the year. Some 16 students were registered in our PhD programs in 1995. Thirteen PhD students are currently pursuing Agricultural Economics fields, two are in Rural Sociology and one is specializing in Forest Economics. Thirty-three of the ongoing graduate students are pursuing MSc (ie. thesis-based) programs, three students are in MAg programs involving course work plus a project. The distribution of masters students between major areas is: 21 in Agricultural Economics, 9 in Rural Sociology, and 3 in Forest Economics. It is pleasing that our student body attracts excellent students from a wide range of countries, as well as from Canada, and that numbers of Canadian students have the opportunity to pursue thesis research involving applied socio-economic analysis in several overseas locations. This opportunity is open to students through the provisions of several international projects and programs of the University, the Faculty, and the Department. These are briefly noted in the Annual Report. The growth in demand for Rural Economy's graduate programs is giving increasingly heavy supervisory loads for the department's faculty members, particularly in view of recent and current retirements.

Several changes in the department's staff complement occurred during the past year. Three long standing members of staff retired--Bill Phillips, Peter Apedaile and Wayne Anderson (whose major appointment was in Renewable Resources). Kevin Chen joined the department as Assistant Professor specializing in agricultural marketing economics. Janaki Alavalapati joined the department staff on a one-year Visiting Assistant Professor appointment to teach in the areas of resource and forest economics. Frank Novak commenced study leave in mid-1995. The department is most fortunate to have received continuation of the Alberta Agricultural Research Institute Award for the Research Professorship in Marketing of Value-Added Agricultural and Food Commodities, currently held by Jim Unterschultz, who completed his first full year as Assistant Professor in the department by virtue of this award. The endowment funds to establish the Cooperative Chair in Agricultural Marketing and Business grew during the year; an appointment to this position is expected in 1996. These positions, and the very welcome prospect of two new faculty appointments, of a resource economist and resource sociologist, arising from the University's early retirement replacement program, will lead to considerable changes in Rural Economy's staff resources in the forthcoming year. We expect that these will considerably contribute to meeting the challenge of providing for excellence in learning, teaching and research in our areas of strength in agricultural, resource and forest economics and resource sociology.

Michele M. Veeman Chair

Department Staff

Academic Staff

Wiktor L. Adamowicz, Ph.D. (Minnesota); Professor; Environmental Economics, Econometrics, Forest Economics.

A. Wayne Anderson, M.Sc. (Alberta); Associate Professor; Operations Research (to July 1995).

L. Peter Apedaile, Ph.D. (Iowa State); Professor; Agricultural Policy, Rural Development (to July 1995).

Len Bauer, Ph.D. (Oregon State); Professor; Farm Management, Production Economics.

Kevin Z. Chen, Ph.D. (Guelph); Assistant Professor; Agricultural Marketing and Policy (from July 1995).

James H. Copeland, M.Sc. (Alberta); Faculty Service Officer; Computing and Statistical Analysis.

Dhara S. Gill, Ph.D. (Cornell); Professor; Rural Sociology, Agricultural Extension.

Scott R. Jeffrey, Ph.D. (Minnesota); Associate Professor; Agricultural Business Management, Production Economics.

Mel L. Lerohl, Ph.D. (Michigan State); Professor; Production Economics, Agricultural Policy.

Martin K. Luckert, Ph.D. (British Columbia); Associate Professor; Forest Economics, Natural Resource Economics.

Eloise C. Murray, Ph.D. (Pennsylvania State); Professor; Gender Issues, Extension, International Development. Joint appointment with Women's Studies.

Frank S. Novak, Ph.D. (Illinois); Associate Professor; Finance, Production Economics.

William E. Phillips, Ph.D. (California at Berkeley); Professor; Forest Economics, Resource Economics (to July 1995).

Ed W. Tyrchniewicz, Ph.D. (Purdue); Professor and Dean; Policy, Transportation, Agricultural Policy, International Development.

Jim R. Unterschultz, Ph.D. (Alberta); Assistant Professor; Marketing, Finance.

Michele M. Veeman, Ph.D. (California at Berkeley); Professor and Chair; Marketing, Policy, Trade.

Terry S. Veeman, Ph.D. (California at Berkeley); Professor; International Development, Resource Economics. Joint appointment with Economics.

Associated Academic Staff

Janaki R.R. Alavalapati, Ph.D. (Alberta); Visiting Assistant Professor; Forest and Resource Economics.

Tom M. Beckley, Ph.D. (Wisconsin); Adjunct Professor; Forest Sociology.

G. Wayne Lamble, Ph.D. (Texas A & M); Adjunct Professor (Faculty of Extension); Extension Education.

Benoit Laplante, Ph.D. (Queen's); Adjunct Professor (World Bank); Environmental Economics.

Harold C. Love, Ph.D. (Iowa State); Professor Emeritus; Production Economics.

Travis W. Manning, Ph.D. (Minnesota); Professor Emeritus; Natural Resource Economics.

Glen A. Mumey, Ph.D. (Washington); Adjunct Professor (Faculty of Business); Finance, Management.

Brian T. Oleson, Ph.D. (Minnesota); Adjunct Professor (Canadian Wheat Board); Marketing, Trade.

T. Alf Petersen, Ph.D. (Washington State); Professor Emeritus; Farm Management, Extension.

Joseph J. Richter, Dr. Rer. Pol. (Graz, Austria); Professor Emeritus; Marketing, Trade.

Wolfgang M. Schultz, Ph.D. (Oklahoma State); Professor Emeritus; Production Economics, Natural Resource Economics.

William A. White, Ph.D. (Simon Fraser); Adjunct Professor (Canadian Forest Service); Forest Economics.

Support Staff

Sessional Lecturers & Research Associates

Judy Boucher, Computer Operator Liz Bruce, Graduate Secretary Kim Horton, Senior Accounts Clerk (to June 1995) Joan Wigmore, Senior Accounts Clerk (from July 1995) Wendy Williamson, Department Secretary Dawn Zrobok, Library Assistant Alberto Fantino, Research Associate Arlene Kwasniak, Sessional Lecturer Yanning Peng, Research Associate Kwamena Quagrainie, Research Associate Fiona Salkie, Research Associate Bruce Viney, Research Associate

Awards to Graduate Students in 1995

Sylvie Cauvier-Lepine - Circumpolar Boreal Alberta Research Grant

Cyril Chami - African Economic Research Consortium (AERC) Scholarship

Donna Dosman - B.J. McBain Scholarship

Mohamed Gheblawi - Libyan Secretariat of Higher Education Scholarship

Atakelty Hailu - University of Alberta PhD Scholarship

Jamie Hansen - International Centre for Research in Agroforestry (ICRAF)/University of Alberta/University of Laval Agroforestry Project

Lesley Just - International Development Research Centre (IDRC)/University of Alberta/University of Zimbabwe Value of Trees Project

- International Centre for Research in Agroforestry (ICRAF)/University of Alberta/University of Laval Agroforestry Project

Innocent Karamagi - African Economic Research Consortium (AERC) Scholarship

Joseph Karugia - Kenya-Canada General Training Programme Scholarship

Godfrey Kundhlande - International Development Research Centre (IDRC) Scholarship

Norman Lyster - The 1995/96 Winnipeg Commodity Exchange Fellowship Award

Funekile Mdluli - Canadian Commonwealth Scholarship

Christine Mhina - Canadian Commonwealth Scholarship

Stephen Phakisi - Canadian Commonwealth Scholarship

Kwamena Quagrainie - Canadian Commonwealth Scholarship

Ahmad Sabetghadam - Islamic Republic of Iran, Ministry of Culture & Higher Education Scholarship

Shawkat Shareef - Canadian Commonwealth Scholarship

Bruce Viney - The 1994/95Winnipeg Commodity Exchange Centennial Fellowship Award

Sonya Wytinck - John Proskie Memorial Scholarship

- McAllister Scholarship in Agriculture
- Thai-HRD Agroforestry Research Project Award

Yue Zhao - University of Alberta Ph.D. Scholarship

Jane Zheng - Canadian Wheat Board 1995/96 Agribusiness Award

Awards to Staff in 1995

Michele Veeman - Fellow, Canadian Agricultural Economics and Farm Management Society

Professional Offices Held by Staff in 1995

Wiktor Adamowicz - Member of Editorial Board, Journal of Agricultural and Resource Economics

- Peter Apedaile President, Canadian Rural Restructuring Foundation
- Len Bauer Chairman, Canada Expert Committee on Farm Management Services Society Executive; Member, Alberta Farm Management Advisory Committee; Member of Planning Committee for the International Farm Management Congress; Chairman of the Program Committee for the International Farm Management Congress
- Tom Beckley Secretary/Editor, Natural Resources Research Group (NRRG) of the Rural Sociological Society
- Dhara Gill Director, Human Resources Development for Sustainable Agroforestry and Environmental Conservation Project in Northern Thailand
- Scott Jeffrey Councillor, Canadian Agricultural Economics and Farm Management Society Executive; Member of the Advisory Council, Western Canadian Dairy Seminar
- Mel Lerohl Member, Alberta Agricultural Research Institute "Policy, Economics and Marketing" Research Committee
- Martin Luckert Associate Editor, Canadian Journal of Forest Research and Forestry Chronicle
- Eloise Murray Director, University of Alberta/Kenyatta University, ICDS/CIDA Project
- Jim Unterschultz Newsletter Editor and Member of the Executive, Alberta Agricultural Economics Association
- Michele Veeman Member, Advisory Committee on Agricultural Statistics to Statistics Canada.
- Terry Veeman President, Canadian Agricultural Economics and Farm Management Society; Director, International Association of Agricultural Economists Canada Chapter; Director, Canadian Water Resources Association Alberta Branch.

Staff on Leave in 1995

Frank Novak. July 1, 1995 - June 30, 1996

Graduate Students Completing Programs in 1995, their Thesis Topics and Supervisors

- Janaki Alavalapati. Analysis of Institutional and Macroeconomic Impacts on the Canadian Forest Sector. 118 p. Ph.D. (Luckert/Percy)
- Edith Baragar. Leadership Development for Rural Alberta: Historical Content and Contemporary Considerations. 90 p. M.Ag. (Gill)
- Solomon Chigume. Natural Resource Valuation Issues in Zimbabwe: The Potential Applicability of Nonmarket Valuation Approaches. 64 p. M.Ag. (Phillips)
- David Fullerton. Tradables in Rural Economies: A Development Analysis in Alberta, Nebraska and Sonora. 132 p. M.Sc. (Apedaile)
- Laura Graham. Economic Approaches to the Valuation of Small Wildlife Resources in Communal Areas in Zimbabwe. 278 p. M.Sc. (Phillips)
- Kristine McLeod. Incorporating Perceptions of Site Quality in a Discrete Choice Analysis. 122 p. M.Sc. (Adamowicz)

Wellington Mulinge. Effects of Property Rights on Economic Behaviour of Pastoral Societies in Northern Kenya: Analysis of and Test for Re Nullius versus Res Communes. 102 p. M.Sc. (Phillips)

Charles Orlick. Risk and Return Comparisons of Crop Rotations and Tillage Systems for Selected Areas in Alberta. 162 p. M.Sc. (Bauer)

Derek Parker. Soil Quality: Marginal Valuation and Socio-Economic Factors Influencing its Level in the Lowlands of Lesotho, Africa. 156 p. M.Sc. (Lerohl)

Kwamena Quagrainie. Effects of Advertising and Cholesterol Information on Canadian Meat Consumption. 92 p. M.Sc. (M. Veeman)

Sean Royer. The Value of Water Rights in Southern Alberta: A Hedonic Price Model Approach. 138 p. M.Sc. (T. Veeman)

Bonnie Rush. Meta-Analysis of Wildlife Benefit Estimates in a Canadian Context. 74 p. M.Sc. (Phillips/Adamowicz)

Bruce Viney, Alternative Pricing and Delivery Strategies for Alberta Cattle Feeders. 121 p. M.Sc. (Novak)

Jeffrey Ward. Performance of Cooperatives in Northern Thailand: A Case Study of Sanpatong and Hangdong Cooperatives. 140 p. M.Sc. (Tyrchniewicz)

Graduate Students Commencing and Continuing Programs Through 1995

Shiferaw Adilu, Ph.D. (Veeman, M.)

Kojo Akabua, Ph.D. (Adamowicz/Phillips)

Ray Block, M.Ag. (Jeffrey)

Peter Boxall, Ph.D. (Luckert/Adamowicz)

Orysia Boychuk, M.Sc. (Gill)

Donald Bresee, M.Sc. (Novak)

Gary Buchanan, M.Ag. (Gill)

Nelson Bungi, M.Sc. (Adamowicz)

Peter Cahill, M.Sc. (Adamowicz)

Sylvie Cauvier-Lepine, M.Sc. (Murray)

Cyril Chami, Ph.D. (Adamowicz, Veeman, T.)

Florence Mae Deans, M.Sc. (Gill)

Maureen Dolphin, M.Sc. (Veeman, T.)

Donna Dosman, Ph.D. (Adamowicz/Murray)

Ruth Freeman, M.Sc. (Veeman, T.)

Mohamed Gheblawi, Ph.D. (Adamowicz)

Atakelty Hailu, Ph.D. (Veeman, M.)

Jamie Hansen, M.Sc. (Tyrchniewicz)

Darla Hatton MacDonald, Ph.D.

(Adamowicz/Luckert)

Keehwan Jee, M.Sc. (Luckert)

Lesley Just, M.Sc. (Murray)

Innocent Karamagi, Ph.D. (Jeffrey/Veeman, T.)

Joseph Karugia, Ph.D. (Veeman, M.)

Dianne Korber, M.Sc. (Luckert/Beckley)

Godfrey Kundhlande, Ph.D. (Luckert/Adamowicz)

Peter Kuperis, M.Sc. (Veeman, M.)

Norman Lyster, M.Sc. (Lerohl) Sebastian Maurice, M.Sc. (Lerohl)

Funekile Mdluli, Ph.D. (Murray/Gill)

Craig Meisner, M.Sc. (Adamowicz)

Christine Mhina, M.Sc. (Veeman, T.)

John Parkins, M.Sc. (Gill)

Marilea Pattison, M.Sc. (Luckert/White)

Angela Pearson, M.Sc. (Veeman, T.)

Stephen Phakisi, M.Ag. (Veeman, M./Unterschultz)

Yasmin Rahemtulla, M.Sc. (Veeman, T./Adamowicz)

Philippa Rodrigues, M.Sc. (Luckert)

Ahmad Sabetghadam, Ph.D. (Gill/Murray)

Habibollah Salami, Ph.D. (Veeman, T.)

Shawkat Shareef, M.Sc. (Gill)

Andrew Spratt, M.Sc. (Unterschultz)

Christine Swan, M.Sc. (Lerohl)

Jeji Varghese, M.Sc. (Murray)

Michel Vincent, M.Ag. (Unterschultz)

Keri Wouters, M.Sc. (Murray)

Sonya Wytinck, M.Sc. (Veeman, T.)

Xiaosong Xu, Ph.D. (Jeffrey/Novak)

Yue Zhao, Ph.D. (Veeman, M./Jeffrey)

Jane Zheng, M.Sc. (Tyrchniewicz/Veeman, M.)

Visiting Speakers and their Topics

Michael A. Boland, PhD Candidate, Dept. of Agric. Econ., Purdue University, West Lafayette, Indiana. *Comparing the Performance of Cooperatives vs. Investor Oriented Firms*. June 5.

- John Caldwell, Policy Analyst, Agriculture and Agri-Food Canada, Ottawa. *The Changing Financial Structure of Canadian Agriculture*. February 2.
- Douglas Campbell, President, Canada Grains Council, Winnipeg. *Agricultural Subsidies in a Free Trade World: Canada and the United States.* (Joint with Robert Peterson.) January 9.
- Kevin Z. Chen, PhD Candidate, Dept. of Agric. Econ. & Business, University of Guelph, Ontario. Two Research Problems: (1) Regulation, Market Power and Advertising Effectiveness: The Canadian Dairy Processing Industries; and (2) Economics of Generic Net Income Stabilization Schemes. March 13.
- Louise Fortmann, Professor, Dept. of Forestry and Resource Management, University of California, Berkeley. *Tenures in Transition, Tenures in Conflict: Examples from the Zimbabwean Social Forest.* January 12.
- Ellen Goddard, Associate Professor, Dept. of Agricultural Economics & Business, University of Guelph, Ontario. *Current Research and Advertising of Agricultural Products*. March 17.
- Un-Seong Jeon, Associate Professor, Dept. of Livestock Management, Kangwon National University, Chuncheon, Korea. *Comparison of Canadian and Korean Agriculture*. August 3.
- Benoit Laplante, Sr. Economist, World Bank, Washington, D.C. *Incentives for Clean Technology Adoption Under Pigouvian Pricing*. September 26.
- Conrad P. Lyford, PhD Candidate, Dept. of Agricultural Economics, Michigan State University, East Lansing: *Management of Group Marketing Institutions Strategies for the 21st Century*. November 9.
- Robert Peterson, President, Washington-based National Grain Trade Council, Washington, D.C. *Agricultural Subsidies in a Free Trade World: Canada and the United States*. (Joint with Douglas Campbell.) January 9.
- Timothy J. Richards, Assistant Professor, School of Agribusiness & Environmental Resources, Arizona State University, Tempe, Arizona. *Marketing Order Impact on Fresh Lemon Retail-Farm Margins*. June 1.
- Robert Romain, Professor of Farm Management and President of CAEFMS, Université Laval, Quebec. *Economies of Size, Technical Efficiency and Cost of Production in the Dairy Sector in Quebec and Ontario.* March 29.
- Allan Walburger, Post-Doctoral Fellow, Dept. of Economics, University of Lethbridge, Alberta. *Modelling and Testing the Efficiency of Price Discovery in Live Cattle Markets: A Linear Systems State Space Approach.* March 9.
- Ron Weisenberger, Policy Secretariat, Alberta Agriculture, Food & Rural Development, Edmonton. *Future Directions* for Farm Safety Nets. March 6.

Other Visiting Scholars

- Ross Cullen, Senior Lecturer, Economics & Marketing Department, Lincoln University, Canterbury, New Zealand: February 17, 1995.
- Julia K. Gitobu, Professor & Head, Home Economics Dept., Kenyatta University, Nairobi, Kenya: January 6-16, 1995.
- Mohamed El Habib Ibrahim, Coordinator, Training Programme, International Centre for Research in Agroforestry, Nairobi, Kenya: November 6-7, 1995.
- Un-Seong Jeon, Associate Professor, Dept. of Livestock Management, Kangwon National University, Chuncheon, Korea: July 10-August 4, 1995.

Siriporn Kiratikarnkul, Lecturer, Dept. of Agric. Econ. & Cooperatives, Faculty of Agricultural Business, Maejo University, Thailand: July 15-22, 1995.

Chaval Lochaya, Professor & Head, Dept. of Landscape & Environmental Conservation, Maejo University, Thailand: July 25-August 5, 1995.

Masao Okada, Department of Agricultural Economics, Faculty of Agriculture, Meiji University: August, 1995.

Vitaly Ovsienko, Member, Editorial Board, Osnovy Publishers, Kiev, Ukraine: February 28-March 3, 1995.

Kenji Ozawa, Professor, Faculty of Economics, Niigata University, Japan: August 21, 1995.

Songvut Phetpradap, Vice-President for Special Affairs, Maejo University, Sansia, Chiang Mai, Thailand: May 23-June3, 1995.

A Major Academic Activity: Rural Economy Participation in Sustainable Forest Management - A New Network of Centres of Excellence

On July 5, 1995 Four New Networks of Centres of Excellence were announced, including the Sustainable Forest Management Network led by Dr. Ellie Prepas of the University of Alberta. This project, centred at the University of Alberta, but national in scope is a national research network focused on forest management, involving university, industry and government collaboration in research.

The Sustainable Forest Management NCE is funded by the three federal granting councils: The Natural Sciences and Engineering Research Council (NSERC), the Social Sciences and Humanities Research Council (SSHRC) and the Medical Research Council (MRC) in collaboration with Industry Canada. The total award for the Network from these councils is \$10.8 million for the period 1995 to 1999. The Network is also supported by several industry partners and provincial governments.

The Network strategy is to examine new approaches to forest management that can maintain the nation's forest based-economy while not compromising biodiversity and ecological goals. The Network has four theme areas: Ecological Basis of Sustainability, Planning and Practices, Socioeconomic Sustainability and Minimum Impact Technologies. The theme areas will interact to provide the linkages between ecology, forest practices, processing and pollution control technology and social and economic development that are necessary to develop new approaches to forestry and new forest policies.

The Faculty of Agriculture, Forestry and Home Economics plays a major role in the new NCE. Several faculty members are partners in the Network. Dr. Vic Adamowicz (Rural Economy) and Dr. Terry Veeman (Economics/Rural Economy) are theme leaders of the Socioeconomic Sustainability Theme. The department's role in the NCE illustrates its excellence in the areas of socio-economic research in issues of forestry and environmental science research.

International Projects

Human Resources Development for Sustainable Agroforestry and Environmental Conservation in Northern Thailand. D.S. Gill, Director.

This 3-year project, approved in 1994, has completed the first year of operation. This faculty-based CIDA-funded project of institutional linkage with Maejo University, Changmai, Thailand involves several staff members as technical advisors. Work during the year included development of draft environmental economics curriculum at Maejo University, To introduce the subject matter area nationally a national workshop on environmental economics was organized by Maejo University at which Terrence Veeman was a featured speaker. Dr. S. Phetpradap, Professor Chaval Lochaya and Professor Siriporn Kiratkarmkul of Maejo University visited the department to hold discussions with Dr. T.S. Veeman (environment and water resources), Dr. M. Luckert (forest policy), Dr. E.C. Murray (gender analysis in natural resources), Dr. W.L. Adamowicz (environment science curriculum) and Dr. D.S. Gill (technology transfer).

Sonya Wytinck, a Rural Economy graduate student undertook field research in the economics of water

resources in Thailand at Maejo University during the year, under the supervision of Dr. T.S. Veeman and with field supervision from Dr. Varaporn Punyawadee.

Alberta/Zimbabwe Value of Trees Project

This project, which started in 1992, will continue into 1997:

W.E. Phillips/M. Veeman, Directors

Funded by IDRC

Leslie Watson (U of A), Frank Matose (U of Z), Solomon Chigume (U of Z) and Laura Graham (U of A) had all completed Master's degrees by the end of December, 1995. Godfrey Kundhlande (U of Z) is currently undertaking graduate studies in Rural Economy. During the past year Alison Goebel (U of A) undertook Ph.D. thesis field research in Zimbabwe. Other activities during the year involved contributions to a research and training workshop on research methodologies to value Mzola State Forest in Zimbabwe by Martin Luckert, Wiktor Adamowicz, Michele Veeman and Godfrey Kundhlande.

University of Alberta/Kenyatta University Link Project

This project, funded in 1987, ended in 1995:

E.C. Murray, Director

ICDS/CIDA Funded

On-going institutional support was provided and a revised graduate degree proposal was developed.

ICRAF/University of Alberta/University of Laval Project

This faculty-based project provides opportunities for graduate student research in Agroforestry. Two Rural Economy MSc students received awards to aid their thesis research projects during the year. Leslie Just undertook research on tree tenure rights of women farmers in Uganda. Jamie Hansen commenced research on economic aspects of tenure systems in agroforestry in Malawi during the year.

Publications 1995¹

Books and Chapters in Books

- Adamowicz, W.L. 1995. Alternative Valuation Techniques: A Comparison and Movement to a Synthesis. In: J. Corkingdale and K.G. Willis, editors. *Environmental Valuation: New Directions*. CAB International, p. 144-159.
- Cymbal, C. and M. Veeman. 1995. "Canadian Agriculture and Article XI: An Economic Analysis of Tariffication for Poultry Products." In: R. Gray, T. Becker and A. Schmitz (editors). World Agriculture in a Post-GATT Environment: New Rules, New Strategies. University of Saskatchewan, University Extension Press, Saskatoon. p. 236-265.
- Haley, D. and M.K. Luckert. 1995. Policy Instruments for Sustainable Development in the British Columbia Forestry Sector. In: A.D. Scott and D. Cohen (eds). *Institutions For Sustainable Development in Natural Resources in British Columbia*. UBC Press, Vancouver. p. 54-79.
- Jeffrey, S.R. and M.D. Faminow. 1995. Programming Models: Potential Applications to Agricultural Marketing Research. In: G.J. Scott (ed.) *Prices, Products and People: Analyzing Agricultural Markets in Developing Countries*. Lynne Rienner Publishers, p. 439-60.

Luckert, M.K. 1995. Tenures as Economic Instruments for Multiple Forest Values. In: M. Ross, editor. Forest

¹A listing of previous publications since 1991 is contained in University of Alberta, Department of Rural Economy *Publications 1991-1995*.

Management in Canada. Canadian Institute of Resources Law, Calgary. p. 291-314.

Refereed Journal Articles

- Alavalapati, J.J., M.K. Luckert and D.S. Gill. 1995. Adoption of Agroforestry Practices: A Case Study from Andhra Pradesh, India. *Agroforestry Systems* 32(1):1-14.
- Apedaile, L. P. and D. Harrington. 1995. Structural Policies for Trade Harmony. *Canadian Journal of Agricultural Economics* Special Issue:241-253.
- Apedaile, L.P., C. Barnard, R. Bollman and B. Calkins. 1995. Structure of Agricultural Household Earnings in North America. *Canadian Journal of Agricultural Economics* Special Issue:91-114.
- Beckley, T.M. 1995. Community Ability and the Relationship Between Economic and Social Well-Being in Forest-dependent Communities. *Society and Natural Resources* 8:261-266.
- Beckley, T.M. 1995. Sociology's Potential to Improve Forest Management and Inform Forest Policy. *The Forestry Chronicle* 71(6):712-719.
- Boxall, P.C. 1995. The Economic Value of Lottery-rationed Recreational Hunting. *Canadian Journal of Agricultural Economics* 43(1):119-131.
- Boxall, P.C. and B.L. McFarlane. 1995. Analysis of Discrete, Dependent Variables in Human Dimensions Research: Participation in Residential Wildlife Appreciation. *Wildlife Society Bulletin* 23(2):283-289.
- Condon, B. and W. Adamowicz. 1995. The Economic Value of Moose Hunting in Newfoundland. *Canadian Journal of Forest Research* 25(2):319-328.
- Dong, X.Y., T.S. Veeman and M.M. Veeman. 1995. China's Grain Imports: An Empirical Study. *Food Policy* 20(4):323-338.
- Gill, D.S. and B. Matthews. 1995. Changes in the Breadwinner Role: Punjabi Families in Transition. *Journal of Comparative Family Studies* XXVI(2):255-263.
- Jeffrey, S.R. and L. Bauer. 1995. Sustaining our Relevance: Issues and Challenges for Farm Management Research. Canadian Journal of Agricultural Economics 43(1):15-21.
- Lerohl, M.L. and G.C. van Kooten. 1995. Is Soil Erosion a Problem on the Canadian Prairies? *Prairie Forum* 20(1):107-121.
- Luckert, M.K. and D. Haley. 1995. The Allowable Cut Effect (ACE) as a Policy Instrument in Canadian Forestry. *Canadian Journal of Forest Research*. 25(1):1821-1829.
- Morton, K.M., W.L. Adamowicz, and P.C. Boxall. 1995. Economic Effects of Environmental Quality Change on Recreational Hunting in Northwestern Saskatchewan: A Contingent Behaviour Analysis. *Canadian Journal of Forest Research* 25(6):912-920.
- Peters, T., W. Adamowicz and P. Boxall. 1995. The Influence of Choice Set Considerations in Modelling the Benefits from Improved Water Quality. *Water Resources Research* 31(7):1781-1787.
- Salkie, F., M.K. Luckert and W.E. Phillips. 1995. An Economic Analysis of Landowner Propensity for Woodlot Management and Harvesting in Northwestern Saskatchewan. *Forestry Chronicle* 71(4):451-458.

- Veeman, M.M. 1994. "Implications of NAFTA and GATT for the Canadian Red Meat Sector," *Canadian Journal of Agricultural Economics* 42(4):473-483.
- Vega Garcia, C, P.M. Woodard, S.J. Titus, W.L. Adamowicz and B.S. Lee. 1995. A Logit Model for Predicting the Daily Occurrence of Human Caused Forest Fires. *International Journal of Wildland Fire* 5(2):101-111.
- Watson, D., W. Adamowicz and P. Boxall, 1994. An Economic Analysis of Recreational Fishing and Environmental Ouality Changes in the Upper Oldman River Basin. *Canadian Water Resources Journal* 19(3):213-225.

Oral Presentations, Posters, Proceedings and Abstracts and Other Items

- Adamowicz, W., P. Boxall, M. Williams and J. Louviere. 1995. "Stated Preference Approaches for Measuring Passive Use Values: Choice Experiments versus Contingent Valuation." Paper presented at the 5th Canadian Resource and Environmental Economics Study Group, Vancouver, B.C., September 30-October 6.
- Adamowicz, W., and B. Condon. "Socio-economic Aspects of Marten Management." 1995. Paper presented at the 2nd International Martes Conference, Edmonton, Alberta, August 13.
- Adamowicz, W. 1995. "Non-timber Values: Economics, Politics or Both." Presented at the Department of Renewable Resources seminar series, University of Alberta, Edmonton, February.
- Adamowicz, W., P. Boxall, M. Williams, J. Swait and J. Louviere. 1995. "A Comparison of Stated Preference Approaches to the Measurement of Environmental Values." Selected paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Akabua, K., W. Adamowicz, W. Phillips, P. Trelawny, and B. Condon. 1995. "A Model of the Demand for Lottery-rationed Moose Hunting Within the Western Newfoundland Model Forest." In: P.F. Newton (ed). Canadian Forest Service Modelling working group: Proceedings of the ninth annual meeting and workshop. Canadian Forest Service, Newfoundland and Labrador Region Information Report N-X-295: 41-46.
- Akabua, K. 1995. "Non-timber Values in the Western Newfoundland Model Forest: A Utility Consistent Approach." Presented at the Department of Rural Economy, University of Alberta, Edmonton, December 4.
- Alavalapati, J., H. Salami, M. Luckert and T.S. Veeman. 1995. "Effect of Environmental Constraints on the Logging Sector: A Case Study of British Columbia." Paper presented at the Western Forest Economists Conference, Wemme, Oregon, May 1-3.
- Apedaile, L.P., H.I. Feedman, M. Solomonovich, S.G.M. Schilizzi and L. Belostotski. 1995. "Living on the Edge; Agriculture on the Edge of Environmental Sustainability." Poster presentation at Research Revelations '95, University of Alberta, Edmonton.
- Apedaile, L., C. Barnard, R. Bollman and B. Calkins. 1995 "The Structures of Agricultural Earning in North America; Positioning for Trade Liberalization." Working Paper #22. Cat. No. 21-6010MPE2200. Agriculture Division, Statistics Canada, Ottawa. 41 p.
- Beckley, T.M. 1995. "Sociological Perspectives on and Contributions to Sustainable Forestry Development."

 Presented at the 87th Annual Meeting of the Canadian Institute of Forestry, Halifax, Nova Scotia, August.
- Beckley, T.M. 1995. "A Canadian Perspective on Public Benefits from Private Forests." Presented at the Annual Meeting of the Society of American Foresters, Portland, ME, November 1.

- Beckley, T.M. 1995. "Sustainable Forest Development in Canada: Sociological Perspectives." *The Forestry Chronicle* 71(3):362-63. (non-peer reviewed).
- Boxall, P.C. 1995. "Campgrounds and Fee Permit Systems: Developing a Valid Census System for Facilitating Recreation Management." Presented at Shaping Tomorrow's North: The Role of Tourism and Recreation, Thunder Bay, Ontario, October 12-15.
- Buchanan, G. and E. Murray. 1995. Import Replacement: The Lloydminster, Alberta Experience. *Small Town* May-June: 10-13. (non-reviewed).
- Chen, K.Z., K. D. Meilke, and C. Turvey. 1995. "The Economics of Generic Income Stabilization Schemes." Selected paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Chen, K.Z. and K. Meilke. 1995. "A Simple Analytics of Transferable Production Quota: Implications for the Marginal Cost of Ontario Milk Production." Selected paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Chen, K.Z., K. Meilke, and C. Turvey. 1995. "A Theory of Prudent Farm Household." Selected paper presented at the American Association of Agricultural Economics Annual Meeting, Indianapolis, Indiana, August 6-9.
- Chen, K.Z. 1995. "Precautionary Savings, Production, and Income Risk: Examinations of Theory and Policy." Unpublished Ph.D. Dissertation, University of Guelph, August.
- Condon, B. and W. Adamowicz. 1995. "Non-timber Valuation in Newfoundland Canada: A Comparative Analysis of Use and Non-Use Value Estimation." In: M. Kohl, P. Bachmann, P. Brassel and G. Preto (eds). The Monte Verita Conference on Forest Survey Designs. Swiss Federal Institute of Technology Zurich, p. 116-129.
- Condon, B. and W. Adamowicz. 1995. "Economic Evaluation of Non-timber Resources in Newfoundland: A CVM Approach." I.D. Thompson, editor. Proceedings of the International Union of Game Biologists XXI Congress, 158-161.
- Copeland, J. 1995. "An Agricultural Economist's Guide to Computing at the U of A." Presented at the Department of Rural Economy, University of Alberta, Edmonton, September 18.
- Deans, M. 1995. "Rural Widows: Contributing to Family and Community." Paper presented at the Canadian Research Institute for the Advancement of Women's Conference, Northern Voices, Prince George, B. C., November 10-12.
- Englin, J., P. Boxall and D. Watson. 1995. "Backcountry Recreation in Central Canadian Parks: A Systems Approach." Presented at Shaping Tomorrow's North: The Role of Tourism and Recreation, Thunder Bay, Ontario, October 12-15.
- Fantino, A.A., T.S. Veeman and Y. Peng. 1995. "An Analysis of the Structure of Production in Agriculture: Canadian Prairies, 1948-1991." Contributed paper presented at the Annual Meeting of the Canadian Agricultural Economics and Farm Management Society, Ottawa, Ontario, July 9-12.
- Gill, D.S. 1995. "The Concept of the Breadwinner in Punjabi Families in Transition, Canada." Paper presented in XI International Meeting of the Indian Association for Canadian Studies Conference, New Delhi, April 22-25.
- Gitobu, J. and E. Murray (eds.) 1995. "Home Economics Research in Kenya." Kenyatta University, Nairobi, Kenya.
- Graham, L. 1995. "Economic Approaches to the Valuation of Small Wildlife Resources in the Communal Areas of

- Zimbabwe." Presented at the Department of Rural Economy, University of Alberta, Edmonton, March 27.
- Gray, P.A., P.C. Boxall, R. Reid, F.L. Filion, E. Duwors, A. Jacquemot, P. Bouchard, and A. Bath. 1994. "The Importance of Wildlife to Canadians: Results from Three National Surveys." Thompson, I.D. (editor).
 Proceedings of the International Union of Game Biologists XXI Congress, Canadian Forest Service, Chalk River, Ontario. 1:151-157.
- Hailu, A. and M. Veeman. 1995. "Canadian Consumption of Selected Foods: A Comparison of Four Demand Systems on Data for Meat and Fats and Oils." Selected contributed paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Haley, D. and M.K. Luckert. 1995. "Institutional Barriers of the Sustainable Development of British Columbia's Forests." Proceedings of the 14th Commonwealth Forestry Conference. Kuala Lampur, Malaysia.
- Jeffrey, S.R. 1995. "The Economics of BST Use." Invited presentation at the Western Canadian Dairy Seminar in Red Deer, March.
- Jeffrey, S.R. 1995. Review of: "Agricultural Management Economics: Activity Analysis and Decision Making." By A.N. Rae. *Canadian Journal of Agricultural Economics* 43(2)316-8.
- Jeffrey, S.R. and F.S. Novak. 1995. "Evaluating NISA as a Stabilization Program: A Firm-Level Simulation Analysis." Presented at the Department of Rural Economy, University of Alberta, Edmonton, April 10.
- Just, L., E. Murray, and T. Tuchak. 1995. "Barely Visible: The Data Available about Canadian Inuit Women." In: Oakes and Reiwe (eds.) *Human Ecology of the North* 3:79-90.
- Korber, D. 1995. "Adapting Traditional Harvest Survey Data to a Measure of Forest Dependence." Presented at the Department of Rural Economy, University of Alberta, Edmonton, November 27.
- Kundhlande, G. 1995. "Empirical Measures of Rates of Time Preference Among Rural Household in Zimbabwe." Invited presentation at the Beijer Institute Research Seminar July 10-13, 1995, Gozo, Malta. Also invited presentation at the Conference on Environment and Development, September 9-11.
- Kundhlande, G. 1995. "Market Based Valuations of Forest Resources." Invited presentation at workshop, The Economics of Deforestation Using Qualitative and Quantitative Approaches., Gwaii, Zimbabwe, August.
- Laplante, B. and M.K. Luckert. 1994. Reply to Hansis and Apotheker on: The Wastepaper Dilemma: Will Newsprint Recycling Legislation Kill Two Birds With One Stone? *Society and Natural Resources* 70(6):601-603.
- Lerohl, M.L. 1995. "Information Technology: Its Application in Marketing Services." Discussion group report for Workshop Issue of Canadian Journal of Agricultural Economics.
- Lerohl, M.L. 1995. Poster: "Impact of NAFTA on the Beef Industry in Alberta." Poster presentation at Research Revelations '95, University of Alberta, Edmonton.
- Lerohl, M.L. 1995. Poster: "Impact of NAFTA on the Beef Industry in Alberta." Poster presentation at Ranch Day '95, Kinsella.
- Lerohl, M.L. and G.A. Mumey. 1995. Abstract: "Agriculture Business Management The Emerging Agriculture-Business Curriculum." *Agriculture Economics* 12:222-223.
- Luckert, M.K. 1995. "In Search of Forest Tenure Solutions to Potential Market Failures in British Columbia." Invited

- paper presented to the Executive Workshop: Economic Instruments for Protection of Forest Resources. Victoria, B.C., June.
- Luckert, M.K. 1995. "In Search of Aboriginal Values in Forest Resources: The Applicability of Non-market Valuation Techniques." Paper presented at the Meeting of the Western Forest Economists, Wemme, Oregon, May.
- Luckert, M.K. 1995. "The Allowable Cut Effect (ACE) in Canadian Forest Policy?" Invited paper presented at the Department of Renewable Resources, University of Alberta, Edmonton, March.
- Luckert, M.K. 1995. "Efficiency Implications of Silvicultural Expenditures From Separating Ownership and Management on Canadian Forest Lands." Presented at the Department of Rural Economy, University of Alberta, Edmonton, February 6.
- Luckert, M.K. 1995. "Issues Associated with Values of Trees in Zimbabwe." Invited presentation delivered at: Southern Exposure: University of Alberta Linkages. Sponsored by the International Centre, January.
- Maurice, S.A. 1995. "The Effects of Investment on the Entry and Exit Decisions of Farmers in Canada." Presented at Canadian Agricultural Economics and Farm Management Society Annual Meeting, July 9-12.
- Morton, K., W. Adamowicz and P. Boxall. 1995. "An Economic Assessment of Forestry Activity on Whitetail Deer and Moose Hunting in Northwestern Saskatchewan." I.D. Thompson, editor. Proceedings of the International Union of Game Biologists XXI Congress, 162-167.
- Novak, F. and B. Viney. 1995. Poster: "Alternative Pricing and Delivery Strategies for Alberta Cattle Feeders." University of Alberta Ranch Day Poster Session.
- Novak, F. and E. Munro. 1995. Poster: "Profitability and Risk of Retained Ownership of Beef Calves." University of Alberta Ranch Day Poster Session.
- Novak, F.S. and J.R. Unterschultz. 1995. "An Econometric Analysis of the Relationship Between the Alberta and United States Livestock Markets." Presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Novak, F. 1995. "Environmental and Financial Stability of Forest Management Practices." Presented at the Department of Rural Economy, University of Alberta, Edmonton, April 3.
- Parker, D.A. 1995. "Marginal Value of Soil Quality in Lesotho." Presented at the Department of Rural Economy, University of Alberta, Edmonton, January 16.
- Pattison, M. 1995. "Forest Regeneration Standards and Tenure: Principal Agent Analysis." Presentation at the Meeting of the Southern Forest Economists, New Orleans, Louisiana, April.
- Pattison, M. 1995. "Forest Regeneration Standards and Tenure: A Principal Agent Analysis." Presented at the Department of Rural Economy, University of Alberta, Edmonton, November 6.
- Quagrainie, K. and M. Veeman. 1995. "Effects of Generic Advertising and Cholesterol Awareness on Canadian Meat Consumption." Selected contributed paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Quagrainie, K. 1995. "Effects of Advertising and Cholesterol Information on Meat Demand." Presented at the Department of Rural Economy, University of Alberta, Edmonton, September 25.
- Richards, T.J. and S.R. Jeffrey. 1995. "Cost and Efficiency in Alberta Dairy Production." Contributed paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July

- Royer, S.A. 1995. "Value of Water Rights in Southern Alberta." Presented at the Department of Rural Economy, University of Alberta, Edmonton, February 27.
- Salami, H. and T.S. Veeman. 1995. "Effects of Education and Research on Productivity Growth in the Iranian Crop Sector." Contributed paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Salami, H., J. Alavalapati and T. Veeman. 1995. "Effects of Technical Change and Subsidies in the Agricultural Sector on the Economy of Iran: A General Equilibrium Analysis." Presented at the Sixth International CGE Modeling Conference, Waterloo, Ontario, October 26-28.
- Salami, H., J. Alavalapati and T. Veeman. 1995. "Effects of Technical Change in the Agricultural Sector on the Economy of Iran." Presented at the Department of Rural Economy, University of Alberta, Edmonton, October 30
- Turvey, C., K. Meilke, A. Weersink, K. Chen, and R. Sarker. 1995. *The Transfer Efficiency Assessment of Individual Income-Based Whole Farm Support Programs*. A Report prepared for Industry and Policy Analysis Division, Agriculture Canada. The Department of Agricultural Economics and Business, University of Guelph, Guelph.
- Veeman, M. and Y. Peng. 1995. "Canadian Dairy Demand." Final Report to Agriculture and Agri-Food Canada, October.
- Veeman, T.S. 1995. "Water Policy in Alberta." Presentation at the Annual Conference of the Alberta Agricultural Economics Association, Red Deer, Alberta, May 4-5.
- Veeman, T.S. 1995. "Agricultural and Resource Economics: Challenges for the 21st Century." Presidential Address at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12.
- Viney, B.G. 1995. "Alternative Pricing and Delivery Strategies for Alberta Cattle Feeders." Presented at the Department of Rural Economy, University of Alberta, Edmonton, October 2.
- White, W.A. 1995. "Ecological Economics: Forest Economics Done Right?" Presented at the Department of Rural Economy, University of Alberta, Edmonton, January 30.
- Xu, X. and M. Veeman. 1995. "Model Choice and Structural Specification for Canadian Meat Consumption." Selected contributed paper presented at the Canadian Agricultural Economics and Farm Management Society Annual Meeting, Ottawa, Ontario, July 9-12
- Xu, X. and S.R. Jeffrey. 1995. "Efficiency and Technical Progress in Traditional and Modern Agriculture: Evidence from Rice Production in China." Selected paper presented at the American Association of Agricultural Economics Annual Meeting, Indianapolis, Indiana, August 6-9.

Staff Papers and Project Reports

- Adamowicz, W., P. Boxall, M. Williams and J. Louviere. 1995. *Stated Preference Approaches for Measuring Passive Use Values: Choice Experiments versus Contingent Valuation*. Staff Paper 95-03. Department of Rural Economy, University of Alberta, Edmonton. 30 p.
- Alavalapati, J.R.R. and M.B. Percy. 1995. The Stumpage Price Increases in British Columbia Forests: Impacts on the

- Coastal and Interior Regions of the Province. Western Centre for Economic Research, University of Alberta, Information Bulletin #27.
- Apedaile, L., C. Barnard, R. Bollman and B. Calkins. 1995. *Positioning for Trade Liberalization: Structure of Earnings, Comparative and Competitive Advantage of Agricultural Households in the United States and Canada*. Project Report 95-05. Department of Rural Economy, University of Alberta, Edmonton. 119 p.
- Armstrong, G.W., F.S. Novak and W.L. Adamowicz. 1995 *Environmental and Financial Sustainability of Forest Management Practices*. Staff Paper 95-07. Department of Rural Economy, University of Alberta. 14 p.
- Bauer, L., S.R. Jeffrey and C.C. Orlick. 1995. *A Comparison of Risk Between Continuous and Fallow Cropping Regimes*. AARI Project No. 94-0492. Project Report 95-08. Department of Rural Economy, University of Alberta, Edmonton. 64 p.
- Beckley, T.M. and A. Sprenger. 1995. *Social, Political and Cultural Dimensions of Forest-Dependence: The Communities of the Lower Winnipeg Basin.* Report Series 1995-I. The Rural Development Institute, Brandon, Manitoba. 49 p.
- Beckley, T.M. and D. Korber. 1995. *Sociology's Potential to Improve Forest Management and Inform Forest Policy*. Staff Paper 95-01. Department of Rural Economy, University of Alberta, Edmonton. 27 p.
- Boxall, P.C., D.O. Watson, and J. Englin. 1995. Analysis of the Revealed Preferences of Backcountry Recreationists for Forest and Park Management Features in the Canadian Shield Region. Canada-Manitoba Partnership Agreement in Forestry Report, Canadian Forest Service, Winnipeg, Manitoba.
- Campbell, B., J. Clarke, M. Luckert, F. Matose, C. Musvoto, and I. Scoones. 1995. Local Level Economic Evaluation of Savanna Woodland Resources: Village Cases From Zimbabwe. Research Series Volume 3, Number 2, Hidden Harvest Project. International Institute for Environment and Development: London.
 87 p.
- Hatton MacDonald, D., W. Adamowicz, T. Beckley, L. Just, M. Luckert, E. Murray and W. Phillips. 1995. *An Investigation of Issues in Resource Valuation with Aboriginal and Non-Aboriginal People in La Ronge, Saskatchewan.* Project Report to Canadian Forest Service. 30 p. + appendices.
- Luckert, M.K. and J. Alavalapati. 1995. *Short-run Timber Supply Behavior of Timber Quota Holders in Alberta*. Project Report #5005, Canadian Forest Service, Northern Forestry Centre, Edmonton. 33p.
- Murray, E., W. Adamowicz, T. Beckley, D. Hatton MacDonald, L. Just, M. Luckert and W. Phillips. 1995. *Non-market Valuation Biases Due to Aboriginal Cultural Characteristics in Northern Saskatchewan: The Values Structures Component*. Staff Paper 95-05. Department of Rural Economy, University of Alberta, Edmonton. 17 p.
- Novak, F.S. and B. Viney. 1995. Alternative Pricing and Delivery Strategies for Alberta Cattle Feeders. AARI Project Report #940490. Project Report 95-06. Department of Rural Economy, University of Alberta, Edmonton. 112 p.
- Orlick, C.C., L. Bauer and S.R. Jeffrey. 1995. *An Annotated Bibliography of Crop Rotation and Tillage Literature with Special Emphasis on the Canadian Prairies*. Staff Paper 95-08. Department of Rural Economy, University of Alberta, Edmonton. 36 p.
- Peters, T., W.K. Adamowicz and P.C. Boxall. 1995. *A Random Utility Analysis of Southern Alberta Sportfishing*. Project Report 95-02. Department of Rural Economy, University of Alberta, Edmonton. 53 p.

- Phillips, W., J. Beck, D. Boulter, D. Booth and K. Clark. 1995. *A Delphi Study of Growth and Yield in Canada's Forests. Report of a Scientific Survey*. Project Report 95-03. Department of Rural Economy, University of Alberta, Edmonton. 86 p.
- Richards, T.J. and S.R. Jeffrey. 1995. *Hedonic Pricing of Dairy Bulls An Alternative Index of Genetic Merit.* AARI Project Report 94M658. Project Report 95-04. Department of Rural Economy, University of Alberta, Edmonton. 29 p.
- Salkie, F.J., W.L. Adamowicz and M.K. Luckert. 1995. Waster Management Behaviour of Households: A Case Study of a Strike in Saskatchewan. Staff Paper 95-06. Department of Rural Economy, University of Alberta, Edmonton. 28 p.
- Schilizzi, S. and L. Apedaile (compilers). 1995. Report of Discussions. Workshop on Applications of Complex Systems Science and Method to Agriculture, Rural and Environmental Issues. Project Report 95-07. Department of Rural Economy, University of Alberta, Edmonton. 42 p.
- Tanguay, M.R., W.L. Adamowicz and P.C. Boxall. 1995. An Economic Evaluation of Wetland Caribou Conservation Programs in Northwestern Saskatchewan. Project Report 95-01. Department of Rural Economy, University of Alberta, Edmonton. 58 p.
- Veeman, M. and X. Dong. 1995. *The Economics of a Regulated Dairy Market: An Empirical Analysis of Factors Determining the Value of Fluid Milk Quota*. Staff Paper 95-09. Department of Rural Economy, University of Alberta, Edmonton. 23 p.
- Veeman, T.S., A.A. Fantino, and Y. Peng. 1995. *Capital Formation, Technical Change, and Profitability in Prairie Agriculture*. AARI Project Report No. 920199. Project Report 95-09. Department of Rural Economy, University of Alberta, Edmonton. 48 p.
- Xu, X. and S.R. Jeffrey. 1995. *Efficiency and Technical Progress in Traditional and Modern Agriculture: Evidence from Rice Production in China*. Staff Paper 95-02. Department of Rural Economy, University of Alberta, Edmonton. 22 p.
- Yen, S.T., P.C. Boxall and W.L. Adamowicz. 1995. *An Economic Analysis of Donations for Environmental Conservation*. Staff Paper 95-04. Department of Rural Economy, University of Alberta, Edmonton. 34 p.

Research Projects Completed January 1 - December 31, 1995

- Adamowicz, W.L. and P. Boxall. "The Evaluation and Incorporation of Non-Timber Goods and Services in Integrated Resource Management Decisions." Funded by Forestry Canada.
- Adamowicz, W.L. and P. Boxall. "The Measurement of Non-Timber Values: An Investigation of Travel Cost Methodologies." Funded by Forestry Canada.
- Alavalapati, J., M.K. Luckert and W.L. Adamowicz. "A Vector Autoregression Approach to Modelling the Pulp and Paper Industry in Canada." Unfunded.
- Apedaile, L.P., R. Bollman, C. Barnard and B. Calkins. "Comparative Study of Canada/United States Structural Change in the Structure of Agriculture." Statistics Canada.
- Apedaile, L.P., H.I. Freedman, S. Schilizzi and M. Solomonovich. "Dynamics and Persistence of Interacting Agricultural Systems: Incomes, Wealth and Environmental Degradation." NSERC and SSHRC.

- Bauer, L. and D. Bushe. "Development of Farm Business Management Training Modules: Various Topics." Funded by University of Alberta, Alberta Agriculture and B.C. Ministry of Agriculture.
- Gill, D.S. and J. Gelfand. "An Assessment of Participatory Research Techniques for Rural Development in Colombia." Funded by IDRC.
- Jeffrey, S.R and T. Richards. "Hedonic Pricing of Dairy Bulls: An Alternative Index of Genetic Merit." Funded by Alberta Agricultural Research Institute Matching Grants Program and Alta Genetics Inc.
- Lerohl, M.L. "Short and Intermediate Term Effects on Alberta Beef Producers of Canada-U.S.-Mexico Freer Trade." Funded by Alberta Agricultural Research Institute.
- Luckert, M.K. and J. Alavalapati. "The Short Run Supply Behaviour of Timber Quota Holders in Alberta." Funded by Forestry Canada.
- Luckert, M.K. and D. Haley. "The Role of Forest Tenures in Providing for Sustainable Forestry." Funded by Sustainable Development Research Institute, University of British Columbia.
- Luckert, M.K., M. Pattison and W. White. "Analysis of Compliance of Forest Tenure Holders with Regeneration Requirements." Funded by the Canadian Forest Service.
- Luckert, M.K., T. Beckley, D. Hatton MacDonald, L. Just, E. Murray and W. Phillips. "Non-market Valuation Biases Due to Aboriginal Cultural Characteristics in Northern Saskatchewan." Funded by Canadian Forest Service.
- Murray, E. "Kenyatta University Up-Grading of Home Economics Project." Funded by Canadian International Development Association.
- Novak, F.S. "An Evaluation of Pricing and Delivery Strategies for Alberta Beef Producers." Funded by Alberta Agricultural Research Institute, Farming for the Future Project.
- Phillips, W.E. and W. White. "Studies and Research in Forest Economics Associated With Renewable Resource Management." Funded by Forestry Canada.
- Veeman, M. and Y. Peng. "Canadian Dairy Demand." Funded by Agriculture and Agri-Food Canada.
- Veeman, T.S. "Capital Formation, Technical Change and Profitability in Prairie Agriculture." Funded by Alberta Agricultural Research Institute.

Research in Progress as of December 31, 1995

- Adamowicz, W.L. "Development of a Survey Instrument and Choice Experiment for Evaluating Non-Timber Values and Community Preferences for Forest Resources." Funded by Canadian Forest Service.
- Adamowicz, W.L. "Household Bargaining Models and Choices Under Risk." Funded by Endowment for the Future Fund.
- Adamowicz, W.L. "Modeling Non-timber Benefits via Benefits Transfers." Funded by Network of Centres of Excellence on Sustainable Forest Management.
- Adamowicz, W.L. and P.M. Boothe. "Environmental/Economics Study Group." Funded by Alberta Environment.
- Adamowicz, W., T. Beckley, M. Luckert, W. White. "Assessing the Economic Impacts of a Natural Disturbance Forest

- Management Regime." Funded by Network of Centres of Excellence on Sustainable Forest Management.
- Adamowicz, W., P. Kennedy, B. Laplante, M. Luckert. "Economics of Waste Management." Funded by Environment Canada.
- Adamowicz, W.L. and W.E. Phillips. "Study to Derive a Framework for the Evaluation of Non-Timber Values in the Context of Timber Production With Specific Reference to Wildlife Concerns." Funded by Forestry Canada.
- Apedaile, L.P. "Alberta Agriculture, Food and Rural Development." Funded by Alberta Agriculture, Food and Rural Development.
- Apedaile, LP. "New Tradeables, Rural Alliances, and Liberalizing Trade: A Prairie Rural Development Strategy." Funded by Association of Alberta Municipalities and Counties and Human Resources Development Canada.
- Apedaile, L.P. "Social and Economic Restructuring in Rural Canada: Opportunities and Impacts of the North America Free Trade Agreement." Funded by SSHRC.
- Apedaile, L.P. and S. Schilizzi. "Application of Theories of Complex Dynamical Systems to Micro, Meso and Macro Linkages in Rural Economies." Unfunded.
- Apedaile, L.P., S. Zhu and B. Calkins. "Structural Change in Agriculture and Transitions in Economic Governances in China, Taiwan and Canada." Unfunded.
- Bauer, L. "A Comparison of Risk Between Continuous and Fallow Cropping Regimes." Funded by Alberta Agriculture, Farming for the Future.
- Beckley, T. "Co-management and Controversy in Northwest Saskatchewan's Forest." Funded by Canadian Forest Service.
- Beckley, T.M. "Forest Sociology." Funded by Canadian Forest Service.
- Beckley, T.M. "Lower Liard Valley Forest Use Survey." Funded by Canadian Forest Service.
- Beckley, T and M. Luckert. "Social, Cultural and Political Dimensions of Forest-Dependence in the Communities of the Lower Winnipeg Basin." Funded by the Rural Development Institute and Canadian Forest Service.
- Beckley, T. and P. Boxall. "Stakeholder Values." Funded by Manitoba Model Forest.
- Beckley, T., P. Boxall and W. White. "Socio-Economics." Funded by Foothills Model Forest.
- Beckley, T., E. Murray, W. White. "Sustainable Communities." Funded by Network of Centres of Excellence on Sustainable Forest Management.
- Gill, D.S. "A Select International Bibliography of Agriculture Extension Education." Unfunded.
- Gill, D.S. "Thailand Human Resources Agroforestry Project." Funded by CIDA.
- Gill, D.S. and G. Buchanan. "Economic Development Activities and Strategies: A Comparative Analysis of Northeastern Alberta Communities." Unfunded.
- Gill, D.S. and M. Deans. "Tradable Firms in Rural Communities: Employer and Employee Participation in Organizations and Social Networks." Funded by Human Resources Development Canada.
- Gill, D.S., A.M. Moreno and R. Keenan. "Participatory Policies in Land Tenure Reform: A Comparative Analysis of

- Nicaragua and El Salvador." Unfunded.
- Jeffrey, S.R. "Demand for Forages in Western Canada." Funded by the University of Manitoba, Faculty of Agriculture.
- Jeffrey. S.R. "An Evaluation of Manure Compaction for Alberta Livestock Operations." (Interdisciplinary with AFNS and Renewable Resources). Funded by Canada-Alberta Environmentally Sustainable Agriculture (CAESA) Program and Alberta Agricultural Research Institute..
- Jeffrey, S.R. and M.D. Faminow. "The Use of Nearly Optimal Linear Programming in Management Decision Making."

 Unfunded.
- Lerohl, M.L. "Grain-Livestock Industry Research." Funded by Alberta Agriculture.
- Lerohl, M.L. "The Impact of South American Integration on the North American Beef Market." Funded by Alberta Agricultural Research Institute, Farming for the Future Project.
- Luckert, M.K. "Efficiency Implications of Separating Ownership from Management on Canadian Forest Lands."
 Unfunded.
- Luckert, M.K. and D. Haley. "Problems Governments Face When Designing Forest Tenures." Unfunded.
- Luckert, M.K., P. Kennedy and B. Laplante. "Economic Instruments for Municipal Solid Waste Management." Funded by Environment Canada.
- Luckert, M.K. and T.S. Veeman. "Sustainable Forest Management." Funded by Network of Centres of Excellence on Sustainable Forest Management.
- Luckert, M.K. and W. White. "Principal Agents and Forestry." Funded by Canadian Forest Service.
- Luckert, M.K., V. Lieffers and W. Adamowicz. "Economic Analysis of Ecologically Based Mixedwood Silviculture at the Stand and Forest Level." Funded by Alberta Environment.
- McGill, W.B., J.J. R. Feddes, S.R. Jeffrey, N.G. Juma and J.J. Kennelly. "Sustainability of Manure Management." Funded by Canada-Alberta Environmentally Sustainable Agriculture (CAESA) Program.
- Morgan, J., G.W. Lamble and D.S. Gill. "Alberta Rural and Agricultural Leadership Research." Funded by Alberta Agriculture.
- Novak, F.S. "An Economic Analysis of Alternative Whole Farm Stabilization Programs." Funded by Alberta Agricultural Research Institute Matching Grants Program. Matching Funds from SSHRC Project re: NISA.
- Novak, F.S. "Price Risk Management Strategies for Alberta Hog Producers." Funded by University of Alberta Central Research Fund.
- Novak, F.S. "Risk Management Strategies for Hog Producers." University of Alberta Swine Research Endowment Trust.
- Novak, F.S. and S. Jeffrey. "Economic Analysis of NISA." Funded by Social Science and Humanities Research Council.
- Novak, F.S. and S. Jeffrey. "Alternative Farm Stabilization." Funded by Alberta Agricultural Research Institute.
- Phillips, W.E. and W.L. Adamowicz. "Value of Wildlife in Alberta." Funded by Alberta Environmental Protection, Fish and Wildlife Services.

- Tyrchniewicz, E.W. "Forestry Sector's Interface with the Transport Sector." Funded by Forestry Canada.
- Tyrchniewicz, E.W. and M.L. Lerohl. "Grain Handling and Transportation Efficiency Study." Funded by Alberta Economic Development and Trade.
- Unterschultz, J.R. "Marketing of Value-Added Agricultural and Food Products." Funded by Alberta Agricultural Research Institute.
- Unterschultz, J.R. and M.M. Veeman. "Meat Demand Attributes for Packaging and Origin." Funded by Alberta Agriculture Research Institute.
- Veeman, M.M. "Consumers' Perceptions of Environmental and Health Risks: Impacts on Demand for Dairy Products." Funded by University of Alberta Central Research Fund.
- Veeman, M.M. "Dairy Demand Analysis." Funded by Alberta Agriculture Research Institute Matching Grant Program. Matching Funds from Agriculture Canada.
- Veeman, M.M. "Economic Impacts of Supply Management." Unfunded.
- Veeman, M.M. and W. Adamowicz. "Consumers' Perceptions of Environmental and Health Risks: Milk Case Study." Funded by University of Alberta Endowment Fund for the Future.
- Veeman, M.M. and W.E. Phillips, et al. "Value of Trees (Alberta/Zimbabwe)." Funded by IDRC.
- Veeman, M.M. and J.R. Unterschultz. "Canadian Beef Demand in Korea." Funded by Federal-Provincial Market Development Council.
- Veeman, M.M. and T.S. Veeman, "GATT Liberalization and World Grain Markets: Potential and Constraints for Western Canada." Funded by Alberta Agriculture Research Institute.
- Veeman, T.S. "Science, Technology and Competitiveness in Alberta's Agriculture and Food Sector." Funded by Alberta Agriculture Research Institute.
- Veeman, T.S. and M. Luckert. "Economic Issues in Assessing Sustainable Development in Forestry." Funded by Network of Centres of Excellence on Sustainable Forest Management.
- Veeman, T.S. and M.M. Veeman. "Conserving Water in Irrigated Agriculture: The Economics and Valuation of Water Rights." Funded by Canada-Alberta Environmentally Sustainable Agriculture (CAESA) Program.
- Veeman, T., W. Adamowicz, T. Horbulyk and J. Church. "Green Plan Economic Instruments for Water Resource Allocation: A Theoretical and Empirical Assessment of Pricing and Rights Trading." Funded by Environment Canada.