

Farm Level Policy Agricultural Policy Research Network

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Farm Level Policy Report (April 2005 to March 2006)

Overview

The FLP received final approval in March 2005, the previous budget year. The primary focus of the network in 2005-06 was to initiate farm level research. Several research projects to be undertaken by the management team were approved. The FLP also sent out a call for research proposals in June and after external review, several projects were selected for funding. The ten research projects, to be conducted at six universities across Canada, cover topics on farm income, market risk, land use, environment and rural development. The research is fully or partially supporting several graduate students located at universities across Canada. Work commenced on a workshop co-sponsored with the Canadian Agricultural Economics Association (CAES) and CATPRN.

Workshop

The FLP teamed up with CAES and CATPRN to organize a workshop. In part, this partnership was developed to increase the breadth of academic and other interest in a workshop. Due to the spring annual meeting of the CAES, the workshop was scheduled for October 15, 16 & 17 in Calgary Alberta. The topic theme is “Crises in Agricultural and Resource Sectors Workshop: Analysis of Policy Responses” (<http://www.farmlevel.re.ualberta.ca/Meetings/>). Government responses to crises are key policy initiatives. Governments have had to respond to numerous agriculture crises in the past decade. Two sessions will be devoted to BSE. The submission deadline for presentations was March 30, 2006. The organizing committee of V. Adamowicz Canada Research Chair U. of A/CAES, K. Baylis UBC/CATPRN and J. Unterschultz U of A/FLP will review the submission for inclusion in the workshop. In conjunction with the workshop, the editors of the Canadian Journal of Agricultural Economics agreed to have a special issue in 2007 devoted to workshop papers that meet specified peer review criteria. The special issue will provide a permanent record of the best research work presented and provide assurances that the work meets levels of academic standards. Guest editors of the special issue are Adamowicz, Baylis and Unterschultz. When the workshop program is finalized, discussants for each session will be recruited from AAFC and elsewhere. The workshop will be the major networking activity of the FLP in the 2006-07. The workshop call for papers is included as attachment 1.

Management Team and Leader Activities

The management team solicited research proposals and decided which proposals to fund. The network leader coordinated the set up of the research accounts and disbursement of funds. The team contributed to developing the theme for the joint workshop. The FLP leader attended three CAPI meetings/workshops. The APRN workshop in March 25 in Ottawa was attended by several FLP members. A. Weersink (U. of Guelph) gave a presentation on “Effects of Urbanization on Canadian Agriculture”. B. Stewart (graduate student U. of A.) gave a presentation “Measures and Causes of Divergent Productivity Growth in the Livestock and Crops Sectors: Manitoba, Saskatchewan and Alberta Provinces 1940-2004”. The FLP provided funding for the research presented by Weersink and Stewart. The FLP network leader provided assistance in organizing the program for the APRN workshop in March 2006.

Finances

Report for 2005-06 submitted separately to AAFC.

Research

A total of ten projects have been approved for research funding. The management team approved projects by Weersink, van Kooten, Clark and Schoney. A call for research proposals was sent out in the spring of 2005 for additional research. The call was emailed to all FLP members and to agriculture/resource economics department Chair/Head/Representatives in Canada. (i.e. UBC, U of A, U of S, U of M, Guelph, McGill, Laval and NSAC). The call was listed on the FLP website. The research call is attached to the report to AAFC (Attachment 2). There were a total of 11 proposals submitted under the call. A copy of the research proposal application is attached (attachment 3). Three external reviewers reviewed the proposals and ranked these proposals. The reviewers received a copy of the call for proposals, ranking sheet and the proposals. A ranking sheet is attached (attachment 4). The reviewers included one university academic with experience running a national research network under SSHRC/NSERC, one experienced agricultural economics researcher and AAFC (Ottawa). The ranking sheets from the reviewers and the research proposals are available upon request to the FLP network leader¹. Final decisions on funding research projects were made in August by the FLP management team after evaluating the external reviews and the management team reviews. It was decided to proceed with funding five new projects to further the FLP research objectives. Any further delays in funding research would make it difficult to meet key FLP objectives. Funding for projects commenced in September if appropriate. Due to the late funding start, several projects were unable to commence (i.e. fund graduate students) in September. One additional project was partially funded by the network leader using a general research fund.

¹ These reviews will be released under conditions that these documents will be treated as confidential documents.

The FLP research agreement outlines research leading to the following program objectives:

1. International Competitiveness.
2. Sustainable Production.
3. Risk Management.
4. Regional Integration.
5. Social Integration.

These research objectives as outlined in the research agreement will be achieved through selected case studies/research on land use farm profitability, competitiveness, risk, rural structure, externalities related to water quality and disease vectors, human health and farm level issues in emerging supply chains. The proposed methodologies may include use of survey based instruments, existing models, IFCN, micro-simulation and other methodologies. A more extensive description of the research objectives and methodologies are described in the research agreement.

The research at six universities across Canada meets the FLP objectives in the following areas. Below is a list of research locations and general research topic.

- Competiveness and Risk
 - Cash Crop Farms Competitiveness–Saskatchewan (U. of S.)
 - Pricing and Risk Management of Canola in W. Canada (U. of A. & U. of M.)
 - Agricultural Productivity in Western Canada (U. of A.)
- Sustainable Production
 - Determinants of On-Farm Investments in Environmental Protection (NSAC)
 - A Farm Simulation Model of BMP Adoption For Improvements of Off-Farm Water Quality (U. of A)
- Regional Integration (Land Use)
 - Crop Rotations, soil degradation and land use policy in PEI (NSAC)
 - Mitigating and Compensating Agricultural Land-Use Externalities in B.C. (U. of Victoria)
 - Effects of Urbanization on Canadian Agriculture (Land Use In Ontario) (Guelph)
 - The Effect of Land Use Restrictions on Agricultural and Residual Land Values (Guelph)
- Social Integration
 - Development of agent-based models of farm and rural structural change (U. of S.)
 - Understanding rates of farm-based agri-business start-ups, failure and growth in rural Canada (Guelph)

The research project descriptions are on the FLP website (<http://www.farmlevel.re.ualberta.ca/>). The list below provides a summary of the progress to the end of the fiscal year 2005-06 on the approved research projects directly funded by the FLP.

FLP-500 – Dr. D. Clark - NSAC

Project title: Environmental Impacts of Crop Rotations in PEI.

Project Director: Dr. J. Stephen Clark, Nova Scotia Agricultural College

Progress:

A graduate student will complete the project. This graduate student is currently completing classes as partial fulfillment of the degree. Two papers are attached to this document. The first is a proposal to do an Optimal Control model of crop rotations in PEI. The second is a paper for a professor in soil science to familiarize the student with some of the biophysical aspects of his problem.

FLP-501 – Dr. C. van Kooten – University of Victoria

Project title: Mitigating and Compensating Agricultural Land Use Externalities in British Columbia

Progress:

An intensive literature review of economic issues at the urban-rural is approximately 80% complete.

During the period January – March 2006, work on the project shifted to include two graduate students, one MS candidate and one PhD candidate. The students' work is focused on literature review, including assessment of relevant farm-level models, and on learning modelling programs that will be used in the research. Interviews with area farmers and agricultural representatives from government and agribusiness have raised concerns about the effectiveness and appropriateness of land owner surveys. We have not eliminated this as an important component of the research, but have also started to explore other avenues for data collection that will address the same land-use and externality issues. To this end we have obtained current and detailed (by parcel) land-use and value data for the focus regions, in GIS format. We are beginning to explore and design spatial econometric models that will answer some of the key research questions using this extensive data set. Overall progress on the project will show the expected milestones for March 2006 not quite completed. This is due to the fact that work was not initiated until August 2005, and the budget was adjusted to reflect this. Progress on the portion of the project pertaining to the agriculture/nature interface has been slow and not

a focus in the past nine months, due to the fact that the necessary funding from other sources did not materialize.

FLP-502 – Dr. D. Schoney – University of Saskatchewan

Project title: Typical Cash Crop-Farms – Saskatchewan (IFCN)

Progress:

The data collection for the project is complete. Workshops for brown and black soil zones were conducted. Currently we are working on a write up for Saskatchewan and are working on a way to include Manitoba and Alberta.

FLP-503 – Dr. D. Schoney – University of Saskatchewan

Project title: Development of Agent-based Models of Farm and Rural Structural Change

Progress:

The revised simulation model including a new financial module is approximately 25% complete. Committee meetings are taking place and a graduate student is in place to take over the NetLogo programming. Additional funds were applied for and approved.

FLP-504 – Dr. A. Weersink – University of Guelph

Project title: Effects of Urbanization on Canadian Agriculture

Progress:

The compilation of data from Stats Canada in Ottawa is complete the regression analysis has been conducted.

Presentations:

- “Urbanization Effect on Ontario Farmers” Dairy Farmers of Ontario Research Day, University of Guelph, February 24, 2006.
- “The Impact of Urbanization on Canadian Agriculture” AAFC Research Policy Network Meeting, Alymer PQ, March 24, 2006.
- “The Financial Viability of Ontario’s Commercial Farmers- Proposed Research” Farm Income and Related Analysis, OMAFRA Seminar Series, Guelph, March 28, 2006.

Publications:

Jayasinghe-Mudalige, Udith, Alfons Weersink, Brady Deaton, Martin Beaulieu, and Mike Trant. 2006. "Effect of Urbanization on the Adoption of Environmental Management Systems in Canadian Agriculture." *International Journal of Agricultural Resources, Governance and Ecology*. Forthcoming.

FLP-505 – Dr. E. Yiridoe – NSAC

Project title: Determinants of On-Farm Investments in Environmental Protection

Progress:

Because of difficulty in hiring a Graduate Research Assistant, the start date for the project was postponed from September 2005, and started effectively in February 2006. A fulltime Research Associate has been hired for the same project budget salary/wages. It is expected that the full time RA will speed up the research work, and complete the project earlier than originally planned with a graduate student.

Because of the delay in starting the project, unused salary for the Research Associate for January –March is carried over to the next quarter.

FLP-506 – Dr. P. Boxall – University of Alberta

Project title: A Farm Simulation Model of BMP Adoption for Improvements to Off-Farm Water Quality

Progress:

A review of farm simulation modelling literature including a detailed examination of the currently available models is approximately 45% complete. The development of yield functions for crop types in southern Manitoba and construction of suitable weather and price distributions using econometric methods is approximately 25% completed. As well the development of yield functions for crop types in southern Manitoba and construction of suitable weather and price distributions using econometric methods is approximately 25% complete.

FLP-507 – Dr. J. Unterschultz – University of Alberta

Project title: Farm level Pricing and Risk Management of Canola in Western Canada

Progress:

The time period has been used to find matching funding. The University of Manitoba collaborators of D. Brewin and J. Carlberg have a graduate student in place starting May 2006 to undertake research on market efficiency. The Govt. of Manitoba/U of M. have committed to providing \$20,000 of matching funding over the period of the project. Unterschultz and collaborators applied to the Alberta Funding consortium for additional

matching funds of \$56,820. The funding from the consortium members, AARI and the Alberta Canola Producers Commission, has been conditionally approved. The U. of A. will have a new graduate student in place by September 2006. Plans are under way to have a researcher meeting in Winnipeg in May or June. Thus in total the \$40,000 commitment from the FLP has levered an additional \$76,000 in research funds on market based risk management.

FLP-509 – Dr. B. J. Deaton, Jr. – University of Guelph

Project title: The Effect of Land-use Restrictions on Agricultural and Residential Land Values

Progress:

Project scheduled to start April 1, 2006.

FLP-515 – Dr. S. Henson – University of Guelph

Project title: Understanding rates of farm-based agri-business start-up, failure and growth in rural Canada

Progress:

Milestones:

Completion of literature review (30 November 2005)	100%
Completion of in-depth interviews (28 February 2006)	80%
Completion of survey data collection (30 June 2006)	20%

First stage of data collection was delayed by problems recruiting participants for the in-depth interviews. However, these interviews are now almost complete. Further, an additional stage of data analysis has been introduced. This involves data from the Farm Finance Survey undertaken by Statistics Canada and the on-going survey of farms and agribusinesses by the Canadian Federation of Independent Business that will be employed to estimate a series of econometric models on the determinants of participation in farm-based agribusinesses.

No presentations to date – data collection and analysis in progress. Dissemination plan has been defined for the next year.

No publications to date – data collection and analysis in progress. Publication plan has been defined for the next year.

Additional Research Project: T. Veeman (U. of A.)

One additional project was partially funded using the network leader’s general research account at the U. of A. The research project is “Measures and Causes of Divergent

Productivity Growth in the Livestock and Crops Sectors: Manitoba, Saskatchewan and Alberta Provinces 1940-2004". Dr. T Veeman is the project leader and supervising a M.Sc. graduate student. The network leader's general research fund was used to purchase data for the project. The project was nearing completion as of March 30, 2006.

Attachment 1: Workshop call for papers

Attachment 2: 2005-06 research call by FLP

Attachment 3: FLP research application

Attachment 4: Reviewer ranking sheet for research proposals