

OMAFRA – U of G  
Partnership KTT Funding  
Program - Approved  
Projects Spring 2010

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## Successful Projects Spring 2010

### David Kelton - Measuring the Impact of a Participatory Approach to Accelerating the Adoption of Practices and Procedures to Control Johne's Disease on Ontario Dairy Farms

#### **Executive Summary:**

Johne's disease (JD) is one of the most important production limiting diseases of Canadian dairy cattle costing in excess of \$20 million annually. We recently completed a 5-year Canadian study involving over 500 Ontario dairy herds in which we identified key farm management practices that if implemented, would control the spread of JD within and between farms. The same study also discovered that while key farm advisors made farm specific recommendations to implement these practices, the translation of these recommendations into practice by dairy producers was low. A global search for improved KTT methods identified a participatory practice based extension strategy that has been implemented with great success in dairy sectors in Australia and parts of the EU. The goal of this study is to measure the impact of this focus farm approach and clearly document the increase in knowledge translation and transfer that can be achieved if the technique is adopted more broadly.

### Wayne Caldwell - Doing Democracy with Circles: Workshops for Public Sector Professionals

#### **Executive Summary:**

This KTT project builds on the knowledge translation outcomes of a previous community-based research project on solving water quality issues along Lake Huron. This project was funded by OMAFRA and carried out in 2005. One of the primary results of the original project was a published book on the use of the circle process as a citizen engagement tool, called "Doing Democracy with Circles: Engaging Communities in Public Planning" (Living Justice Press, 2010). The circle process is a method for open and inclusive dialogue and active listening. <http://www.livingjusticepress.org/>

This proposed project will move the resources developed in the book into a practical learning context for public sector professionals. The main deliverable will be the development of a series of training modules for professionals such as planners, rural development practitioners, public health officials and others who regularly engage the public in their practice. The main KTT objective is to improve public consultation process through the adoption of innovative techniques that ensure meaningful dialogue and effective avenues for conflict resolution. The nature of the circle process lends itself particularly well to sensitive and potentially controversial issues.

This project reaches across the strategic priorities of OMAFRA, as a public sector well trained in citizen engagement can contribute to improved public policy and decision making around economic, environmental and social issues in rural communities.

## Wayne Caldwell - Best Practices in Rural Economic Development and Planning: A Learning Series for Municipal Councillors and Practitioners

### **Executive Summary:**

This project will enhance the KTT component of an ongoing research project funded by the OMAFRA/UoG partnership on best practices in planning for rural economic development in areas with limited or negative population growth.

This project will use a variety of methods to showcase the results of this research, primarily a How-To Manual on best practices in planning and economic development. The main KTT project deliverable will be a series of 8 – 10 professional development workshops for rural regions across southern, eastern and northern Ontario. The target audience will be municipal councillors and economic development practitioners in rural areas. These workshops will not only make the research available to front line workers in rural economic development but will also provide them with knowledge and tools that can be put into immediate action in their communities. Workshops will also be used to enhance and refine the How-To Manual with feedback from participants throughout the duration of the project. Other KTT methods include article submissions to Municipal World magazine and presentations at non-academic conferences such as the Association of Municipalities of Ontario AGM.

This project fits under the OMAFRA research theme of Rural Policy: Regional Development. After determining how a number of rural communities are planning successfully for economic development, this project will now put this information into the hands of key stakeholders as a way to build local planning and development capacity. It also has the potential to impact municipal policy decisions, particularly in terms of the process of community economic development.

## Khosrow Farahbakhsh - Application of learning alliances to enhancing economic and environmental sustainability of food processors through efficient use of resources

### **Executive Summary:**

Ontario food industry faces ever stringent environmental requirements, which many believe, could significantly increase the cost of compliance and hence the overall production costs. An alternate approach to compliance and pollution abatement is pollution prevention which promotes efficient use of resources. However, a shift in perception is required for meaningful and sustained pollution prevention. We propose to form learning alliances, multi-stakeholder learning platforms, in three food processing facilities in southern Ontario to develop a transferrable knowledge base on successful implementation of P2 strategies. Learning alliances attempt to address the barriers against KTT by engaging the end-users in the process of innovation. In a learning alliance innovation evolves through a cyclical process of problem definition, solution identification, implementation and reflection. By engaging each facility's select employees in this process, problems relevant to the facility's environmental needs will be identified, and specific solutions will be determined (UofGuelph research team and our partners (Ontario Food Industry Environmental Coalition (OFIEC) and Guelph Food Technology Center (GFTC)) will assist the learning alliance in this process). As these solutions are implemented by the employees of the facility, new knowledge is gained that will be documented by UoG, and shared with all participants. New insights are generated through a reflection process that allows for the modification of initial problems and further identification of new solutions.

## Tina Widowski - Animal Welfare and Food Animal Production - Training and education for leaders in Ontario's food animal sectors

### **Executive Summary:**

Animal welfare has become a part of doing business in animal agriculture. Legislative changes in many countries are influencing global trends in food production and trade. Food retailers are requiring assurance about the standards of animal care, and in response, many animal agriculture sectors are developing animal care auditing programs. Regulatory agencies are also under increasing public pressure concerning the treatment of livestock. In addition, animal welfare is increasingly viewed as being inextricably linked to animal health, food safety and public health; for example, the World Organization for Animal Health (OIE) identifies animal welfare as one of its top priority areas. For all of these reasons it is becoming clear that in order to maintain Ontario's global competitiveness in animal agriculture, its leaders in animal production, policy and regulation need to have a fundamental understanding about animal welfare generally, about animal welfare assessment tools, and about science-based animal welfare standards. We propose to develop and deliver a group of educational packages in farm animal welfare for a range of primary target audiences engaged in animal agri-food business and regulation in Ontario.

## Michele Guerin - Increasing poultry biosecurity by developing an instructional DVD with practical on-farm examples and promoting participation in interactive poultry biosecurity seminars

### **Executive Summary:**

The cost of disease, whether from endemic pathogens or from foreign animal disease, can be devastating; good biosecurity procedures are critical to maintain a healthy poultry industry in Ontario. Unfortunately, some producers and other industry players have been reluctant to adopt appropriate measures due a lack of communication, awareness and understanding. Farmers learn by seeing practical examples demonstrated; however, due to inherent health risks associated with having multiple visitors to a poultry farm, poultry farmers do not get the opportunity to see examples of biosecurity in other locations. Using KTT tools, this project will provide an innovative, user-friendly form of educational material to all 4000 commercial poultry producers across Canada, with special emphasis on producers from Ontario. This will be achieved by initiating formal and informal discussions between researchers, veterinarians, producers and representatives of the various sectors of the poultry industry. Following these discussions, a panel of opinion leaders selected amongst poultry producers will then serve as ambassadors for this program to their peers. Concomitantly, students from Animal Science and the Ontario Veterinary College will develop an educational, interactive DVD that will be mailed by the Poultry Industry Council to all producers. By combining face-to-face meetings at popular industry oriented events with an educational DVD that producers can consult at home, this KTT project will ensure that the biosecurity issues, solutions and best practices are well communicated and understood by end-users.

## Ken Leslie - CALF-ETERIA: Using CALF health and productivity as a template for an Evaluation of Translation and Extension of Research Information for Agriculture

### **Executive Summary:**

Recent research has found increasing evidence that newborn calf management is extremely important for long-term health and survival of dairy cattle. In addition, several key risk factors impacting these effects, and management programs for improvement of the situation, have been identified and refined. General adoption of these programs could be improved, and if so, would yield significant financial savings for the dairy industry. Nevertheless, leading producers, dairy veterinarians, extension educators and dairy researchers have been largely unsuccessful in making noteworthy improvements on an industry-wide basis. The CALF-ETERIA project is aimed at addressing this dilemma. At the outset, a survey of Ontario dairy producers will be developed, administered and analyzed to establish benchmark levels for stillbirth, dystocia, neonatal and young calf mortality, as well as to determine preferred management approaches utilized in Ontario dairy production systems. Information from the survey will be used to refine and prioritize the specific content of the KTT approaches Calf Management Clubs and Web-Based KTT. The approaches will be compared and contrasted for suitability for implementation on an industry-wide basis. Each KTT approach will be evaluated and quantified for its financial and animal health impact to measure success.

## Alan Ker - Policy Education Program (PEP)

### **Executive Summary:**

The Department of Food, Agricultural, and Resource Economics, in consultation with OMAFRA staff and the agri-food sector, is seeking support for the delivery of three “policy education” sessions per year for three years on relevant topics to the Ontario agri-food industry. While topics for 2011/12 and 2012/13 have not yet been considered, we are expecting to deliver sessions on “alternative energy”, “business risk management”, and “changing consumer preferences” or “low total factor productivity” in 2010/11. Policies surrounding these topics account for a significant amount of federal-provincial monetary resources and are likely to be an integral part of the next “growing forward” policy agenda. Domestic and international speakers will be brought in to assist in ‘accelerating the transformation of knowledge into use’ by discussing policy implications, outcomes, alternatives, intended and unintended consequences, international ramifications (trade and WTO), etc. of current and proposed policies. These sessions will provide a platform for input from various stakeholders across the supply chain as well as the public sector. Delivery of a Policy Education Program (PEP) will enhance and support the Rural and Agricultural Policy Research Theme by bringing current and on-going rural and agricultural policy research to stakeholders and by doing so provide a platform for shaping future policy.

## Alison Duncan - Agri-food for Healthy Aging (A-HA): Building connections and advancing knowledge within the agri-food, nutrition and health sectors

### **Executive Summary:**

Agri-food for Healthy Aging (A-HA) was created in 2007 through the efforts of MaRS Landing, SchlegelUW Research Institute for Aging, and the Universities of Guelph and Waterloo to address a gap in research activity and dissemination in agri-food, nutrition and health as they apply to aging. A-HA is an active collaborative research and networking group that aims to realize opportunities for Ontario's agri-food and health sectors to improve the health and wellbeing of older adults through the innovative use of food. Advancing knowledge in this area will alleviate projected stresses on the health care system and contribute to thriving agriculture and food sectors. KTT is a core activity of A-HA and A-HA is unique across North America in its focus on translating research results that demonstrate linkages between agriculture, food, nutrition and health as they pertain to older adults. A-HA scientists hold expertise in applied nutrition/dietetics, nutritional sciences, food sensory science and human health, and its program coordinator has expertise in KTT activities. A-HA's commitment to its core mandate of KTT rationalizes the current proposal, which has the following objectives: (1) to share results of research in agri-food and nutrition, as they apply to healthy aging, with numerous stakeholders; (2) to increase collaborative research and dissemination opportunities that demonstrate linkages between agriculture, food and nutrition for healthy aging; (3) to build connections and partnerships with new audience stakeholders, and; (4) to train highly qualified personnel. These efforts will collectively contribute to a thriving agri-food sector by informing producers and the food industry to realize market opportunities, and helping the health sector realize health benefits to consuming Ontario's innovative agri-foods (e.g. functional foods). Although the focus is on older adults, the knowledge gained can have a broader application for health preventive strategies throughout the lifespan.

## Paula Menzies - Development and Assessment of Quality Milk Courses for Ontario Dairy Sheep and Dairy Goat Producers

### **Executive Summary:**

The goat and sheep dairy industries in Ontario are strong. However, a limitation to growth is KTT support of the production of quality milk. In 2001, the Office of the Auditor General of Ontario identified unacceptable goat milk quality as requiring extension and regulatory effort to address. OMAFRA responded by hiring new personnel in the Food Inspection Branch to work with the industry. There is a need for additional support by developing training courses to help sheep and goat farmers produce quality milk. Two courses, one for each species, will address all aspects of the production of quality milk from milking procedure to milk transport, animal management to equipment management. Information from around the world will be translated into an interactive course using text, narration, photographs and video. The courses will be available both as a DVD and a paper-based workbook. They will be designed to educate and to evaluate the knowledge of the producer, and to promote a relationship with support personnel such as veterinarians, equipment dealers, processors, and OMAFRA extension and regulatory personnel. The intended outcome, which fits with OMAFRA stated priorities, will be healthier animals, producing more and higher quality milk, with improved food safety for Ontario consumers.

## Melanie Lang - Enhancing BUS\*4550/4560, Interdisciplinary Product Development Course

### **Executive Summary:**

BUS\*4550/4560 is an applied special topics course where students from various majors work with collaborators from the agricultural industry. The course is named 'Interdisciplinary Product Development' and provides students an opportunity to develop new products and ideas using different agri-commodity inputs. Students from business and food science majors work together in teams to develop new products and present their ideas to the industry sponsors for their consideration and feedback. During this intense eight-month development process, students receive customized instruction and mentoring while developing a complete business plan for a new and unique product. We are requesting funding for a KTT staff person and activities to further the translation of the ideas to the broader community audience and increase awareness and usage. Currently, the course addresses the OMAFRA key strategic priorities of thriving agriculture and food sectors, strong rural communities and safe food, healthy animals and healthy environment. Our students have helped create marketing communication plans and repositioning strategies for Ontario agriculture commodities. They have proposed new infrastructure to support agriculture by-product processing and energy conversion and have ensured the integration of biodegradable materials in the development of their products.

## François Tardif - Enhancing the KTT of Field Crop Production information to Ontario growers

### **Executive Summary:**

Field crop producers demand expert advice and information from research and extension programs that benefit their operation. OMAFRA field crop staff, through existing KTT initiatives (i.e. their toll-free cropline), receive questions and comments from thousands of producers each year and content is produced to address client needs.

The challenge in knowledge transfer is that factors affecting production systems (pests, fertility, agronomy) are often unpredictable and may not happen every year, but when they do, individuals involved in KTT must access past content quickly, modernize and allow access within hours so that clients are able to make informed decisions.

Information platforms, like the Agri-Food Tech Transfer eNetwork, Grain Farmers of Ontario, OMAFRA and the University of Guelph websites are tools that can accelerate KTT. These sites demand timely and dynamic content from their users. The OMAFRA field crop unit and researchers in the Department of Plant Agriculture can provide timely content that is simultaneously integrated into these sites. This project will enhance and support production systems for field crop producers in Ontario by:

- Creating an archival system that will provide a way to retrieve, modernize and deliver content for field crop production systems in a dynamic media environment (audio, video, written, web 2.0 etc.) in a more time sensitive manner than what can currently be accommodated. This archive will automatically provide content to other information platforms.
- Create video content for the administrative portal from 10 OMAFRA/UofG research projects.
- Employ the services of professional writers to craft multiple information pieces from each of the OMAFRA/UofG research projects.

- Initiate a marketing and communication plan that maximizes awareness and use of the information produced by OMAFRA/UofG research projects in field crop production.

## Janice LeBoeuf - Exploring the effectiveness of mobile web browsing, open data, and social media technology to improve communication with clients

### **Executive Summary:**

This project would explore the current use of web and smartphone technologies, as well as online information channels, by our clients (knowledge users) in the Ontario agricultural industry. These technologies can be used for transferring information, enhancing two-way communication with knowledge users, developing decision tools and engaging clients. Although this project is based on the Production Systems theme, the findings would be applicable to multiple projects across research themes and across organizations.

1. Provide a questionnaire to Ontario growers/agricultural industry to determine current use of smartphone and desktop widget platforms, as well as online information channels (Twitter, social media). A tool such as SurveyMonkey would be used, as it is low-cost and easy for respondents to use.

Key OMAFRA priorities addressed: providing timely information; giving clients access to new, developing, and existing knowledge; developing technical information resources; packaging new knowledge/technology; building networks; exploring ways to better meet the information needs of client groups.

## Scott McEwan & Andrijana Rajic - Developing capacity for knowledge translation and transfer in agri-food public health in Canada

### **Executive Summary:**

The proposed project will increase capacity to conduct knowledge synthesis, translation and transfer (KTT) in the agri-food public health sector through targeted and complementary research activities (addressing Priority B). The project will include the development of a scoping review framework and “summary of findings” table tool for systematic reviews-meta-analyses in agri-food public health, a framework for using scoping-systematic reviews in support of risk assessment and decision analyses, and an evaluation of the knowledge and attitudes of agri-food professionals and stakeholders towards the utility of systematic reviews and KTT. This project will accelerate “evidence into practice” in the agri-food public health sector by ensuring that agri-food professionals and researchers in Canada are properly equipped with the knowledge and tools necessary to understand, use and apply knowledge synthesis and KTT methods. This project supports OMAFRA’s Emergency Management, Agricultural and Rural Policy and Food for Health research themes and Strategic Priority #3, by ensuring that current evidence aimed at providing safe food, healthy animals and a healthy environment is effectively synthesized and translated to achieve evidence-based policy and practice in Canada.

## Sara Mann - Young Workers in Ontario's Rural Labour Market: Current Realities and Strategic Options for Employees and Employers

### **Executive Summary:**

The focus of this KTT proposal is to disseminate the results of our research from our current OMAFRA project and also to share our expertise in the area of training, selection and retaining younger workers. Our KTT plans involve outreach to practitioners and industry partners. We propose to disseminate and discuss our findings from our OMAFRA research project in five additional rural community workshops outside of the areas where we will be gathering and presenting our research results. The purpose of these additional workshops is to bring together local employers, government/public policy representatives, and younger workers to offer our insights and findings and to see if they apply and are generalizable to interested parties elsewhere in rural Ontario. We will provide an overview of our research findings from our OMAFRA project on the current realities facing younger workers in rural Ontario (their skills, training, needs, desires etc.) and also provide suggestions and best practices for employers as to how to select, attract and retain the best employees. These workshops will be open to the public and will be aimed at employers in rural Ontario.

This proposal addresses the following objectives:

1. To disseminate research knowledge to relevant user audiences,
2. To expand the networking and collaboration activities among U of G's research community.

## Sara Mann - Human Resource Management Practices in the Agri-sector: A Tool for Rural Employers

### **Executive Summary:**

The focus of this KTT proposal is to share my expertise in Human Resource Management (HRM) with employers in rural Ontario through the development of an online tool (as well as a CD). This proposal includes the development and marketing of a software package that would provide interview questions and performance appraisal questions to employers that are both legally defensible and high in procedural fairness. Throughout my interactions with many growers, farmers, producers etc. in rural Ontario, it has been brought to my attention that they would benefit greatly from a computer program that would help them develop such questions. This tool is based on decades of research in the HRM literature, and is actually quite simple in principle. However, through my research in a previous OMAFRA grant it was found that rural employers rarely implement HRM practices at all (no structured interview questions and no performance appraisals). This software would first prompt the employers to enter the duties of a particular job, at which point the software program would produce 1) structured interview questions and also 2) performance appraisal measures that are both content valid and reliable. These questions and measures would be legally defensible (because they are based on the content of the job) and would also increase the motivation and performance of the employees because they will feel the process is fair and transparent. The structured interview questions will also increase the likelihood of finding individuals with a strong fit between the person and the job.

## Gayle Ecker - Market survey to enable enhancement of the existing KTT by Equine Guelph to Ontario's extensive equine industry

### **Executive Summary:**

The aim of this proposal is to provide the foundation for a transformative enhancement of existing KTT provided by Equine Guelph (EG) to the equine industry in Ontario. It falls under Priority A. It is the first phase of a multi-phase approach to enhancing the outreach to the equine industry.

EG is a University Centre, funded by the equine industry, which promotes equine research and dissemination of its results and other relevant information, via programs of communication and nondegree education. The current KTT mechanism includes targeted newsletters and bulletins, websites, non-degree course offerings, seminars, and numerous public presentations annually. Much of the information derives from research funded through EG that meets OMAFRA Production Systems priorities: Animal health, welfare, production efficiency, and environmental impact.

We intend to evaluate the effectiveness and weaknesses of existing KTT, using a questionnaire to quantify how well disseminated information has reached and is being used by individuals handling horses on a daily basis, by owners/managers of larger stables, and by associations/regulatory bodies. We will also poll industry's preferred methods for receiving such information. Results would be used to develop an enhanced KTT system (in conjunction with data already being gathered on other fronts on the demographics of the equine industry, on methods to improve commercialisation of intellectual property from equine research, and methods to increase and transform the research program itself) with the next phase of this project. Our hope is to transform the KTT mechanism to the level that we can predict the outcome of distributing applicable information via that route and to address gaps in service to the equine industry for their communication/education/information needs