OMAFRA – U of G Partnership Research Program - Approved Projects 2014/’15

DERIVED FROM APPENDIX A: 2014/15 OMAFRA – UOFG PARTNERSHIP RESEARCH PROGRAM, SUMMARY OF FULL PROPOSALS RECOMMENDED FOR FUNDING
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Agricultural and Rural Policy
Approved Projects 2014/’15

1. **Wanhong Yang** - Extending WEBs/WBBE Modelling and Interface to Examine Cost Effectiveness of Agricultural BMP Policies in a Representative Watershed of the Lake Erie Basin
2. **John Cranfield & Getu Hailu** - Understanding and Monitoring investment, competitiveness, employment & productivity in Ontario's food manufacturing sector
3. **Brady Deaton** - Farmland Valuation and Farmland Rents
4. **Helen Hambly** - Outcome Analysis for Rural Broadband Infrastructure, Applications and Adoption in Southwestern Ontario
5. **Alan Ker** - Modelling Ontario's Chicken industry for Policy Analysis
6. **Al Lauzon** - Diversifying Rural Economies through Social Enterprise: The Role of Rural Municipalities as Intermediaries

Bioeconomy – Industrial Uses
Approved Projects 2014/’15

1. **Brandon Gilroyed** - Determination of a Sugarcorn to Ethanol and Co-products Value Chain
2. **Ian Tetlow** - Development of Hybrid Branching Enzymes for Industrial Processing of Starch-Based Polymers
3. **Tariq Akhtar** - Engineering Alternative Sources for Natural Rubber in Plants
4. **Douglas Goff** - Development of Natural Binders from Canadian Agricultural By-products for Applications in the Landscaping Industry
5. **Marcel Schlaf** - Tetradentate ruthenium and iridium complexes as high-temperature, water and acid-stable man-made catalysts for the hydrodeoxygenation of biomass derived molecules to high-value chemicals

Emergency Management
Approved Projects 2014/’15

1. **Alan Ker** - Developing an Economic Model of Ontario’s Pork Sector with Application to Disease Outbreak and Policy Response Analysis
2. **Cynthia Scott-Dupree** - Sustainable Management and Survey for Brown Marmorated Stink Bug in Ontario
4. **Baozhong Meng** - Development and implementation of highly effective, high-throughput, and affordable diagnostic technologies to combat the emerging virus diseases faced by Ontario grape/wine industry
5. **Patricia V. Turner** - Evaluation of Methods for On-Farm Euthanasia and Humane Depopulation of Commercial Meat Rabbits
6. **Zvonimir Poljak** - Novel PRRSV genotypes: tracking the emergence, transmission pathways, clinical impact, and pathogenicity
7. **Amy Greer** - Using network analysis and dynamic models to develop an understanding of the opportunities and challenges for disease control in equine populations

8. **Eva Nagy** - Development of avian reovirus as a biotherapeutic against poultry pathogens

**Environmental Sustainability**

**Approved Projects 2014/’15**


2. **John Lauzon** - Investigation of Nitrification Inhibition for Improved Recovery and Reduced Loss of Hog Manure at Various Application Timings

3. **Kari Dunfield** - Exploring the link between soil biodiversity and soil health using a long term cover crop trial


5. **Jana Levison** - Presence and fate of neonicotinoids in groundwater resources in Ontario

6. **Paul Sibley** - Risk Assessment of Neonicotinoid Insecticides to Non-target soil and Aquatic Organisms: Chronic Exposures and Sublethal Endpoints

7. **Gary Parkin** - Quantifying the Impact of Tile Drainage on Groundwater Recharge and Protection under Future Climatic Conditions

8. **John Fitzgibbon** - Management of Phosphorous loads on a Field to Watershed Basis: An assessment of current practices as an integrated system

**Food for Health**

**Approved Projects 2014/’15**

1. **Scott Ryan** - Targeting Neurodegeneration to Maintaining Brain Health with Functional Foods

2. **David Mutch** - Assessing the effects of novel omega-3 formulations on cardiovascular, inflammatory and metabolic health in young adults

3. **Gopinadhan Paliyath** - Formulation of a new designer functional food from Ontario-grown agricultural produce with anti-inflammatory and cancer-preventive properties

4. **Lindsay Robinson** - All About Apples: Obesity-related health benefits and communication strategies to increase apple knowledge, purchase and consumption in Ontario

5. **David Dyck** - Grape pomice as a treatment for insulin resistance associated with loss of estrogen

6. **Wayne Caldwell** - Mining Local Food in Northern Ontario

7. **Sunghwan Yi** - Nudge-based approaches to increasing vegetable consumption among young adults in Ontario

8. **Suresh Neethirajan** - Screening Ontario Grown Onion Varieties for Antimicrobial and Antioxidant Synergistic Properties
Products and Value Chains
Approved Projects 2014/’15

1. Keith Warriner - Comparative Study on the Effect of UV and High Hydrostatic Pressure on Health Related Constituents of Plant Derived Beverages
2. Sanaa Ragaee - Modifying non-gluten proteins for improved gluten-free food products
3. Amar Mohanty - Adding value to Local Purpose Grown Natural Fibres and Industrial co-products through Collaboration in Biocomposites Development
4. Alexandra Grygorczyk - Building the foundation to bring ethnic flowers to the Ontario market
5. Andreas Boecker - Media Analysis of the Agricultural Biotechnology Innovation Value Chain
6. Medhat Moussa - Development of a robotic system for early detection and daily scouting of diseases in greenhouses

Production Systems – Animals
Approved Projects 2014/’15

1. Paula Menzies - Investigation of immune response of sheep to gastrointestinal nematode infection under Ontario grazing conditions for purposes of selection of genetically resistant animals
2. Stephen LeBlanc - Use of precision technology to enhance detection and treatment of metabolic disease in dairy cows
3. Todd Duffield - Diagnostic patterns for ketosis in lactating dairy cows and an innovative management approach to treatment
4. James Squires - Use of dietary additives to control boar taint
5. Elizabeth Scholtz - Nitric oxide’s role in equine endometritis and evaluation of a novel potential preventive or therapeutic option
6. Shayan Sharif - The effect of in ovo delivery of nutrients and feed additives on the development of the immune system
7. William Allan King - Early detection of low litter size producing boars
8. Shayan Sharif - Enhancing immunity to avian influenza viruses
9. Sarah Woottton - Development of a vaccine to protect against Toxoplasma gondii infection in sheep
10. Todd Duffield - Factors associated with veal calf well-being and mortality in the Ontario veal calf industry

Production Systems – Plants
Approved Projects 2014/’15

1. Katerina Jordan - Managing plant-parasitic nematodes in tomatoes in Ontario - Stage 1: Population dynamics, effects on yield and threshold development
2. Alireza Navabi - An Examination of Environmental Adaptation of Wheat in Ontario as Influenced by Vernalization and Photoperiod Response Genes
3. Youbin Zheng - Development of New High-yielding and High-quality Soybeans with New SCN-resistant Sources for Ontario
4. **Barry Shelp** - Improving Nutrient Use Efficiency of Potted Chrysanthemums Grown in a Subirrigation System

5. **Paul Goodwin** - Evaluating soil amendments as a new IPM tool for management of replant disease of ginseng


7. **William Lubitz** - Characterizing and modeling the microclimate in southern Ontario high tunnels to improve crop yields

8. **Daryl Somers** - Development of new apple varieties with molecular breeding technology