

2017 APPROVED FUNDING FOR RESEARCH

| RESEARCHER | PROJECT | START | END | MPSG TOTAL FUNDING | TOTAL VALUE |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|--------------------|-------------|
| ON-FARM NETWORK | | | | | |
| TAC | Soybean Response to Foliar Fungicide | 2017 | 2017 | \$23,625 | \$23,625 |
| TAC | Soybean Response to Fungicide and Insecticide Seed Treatment | 2017 | 2017 | \$22,575 | \$22,575 |
| TAC | Comparing Accuracy of Yield Data between Calibrated Yield Monitor and Scale | 2017 | 2017 | \$5,513 | \$5,513 |
| MPSG | Soybean Response to Potassium Fertilizer | 2017 | 2017 | \$50,000 | \$50,000 |
| Antara | In-furrow SoyGreen for IDC in Soybean | 2017 | 2017 | \$9,923 | \$9,923 |
| Antara | Foliar SoyGreen for IDC in Soybean | 2017 | 2017 | \$6,615 | \$6,615 |
| Agri Skills | Suitability of Pinto Bean Varieties for Direct Harvest | 2017 | 2017 | \$20,000 | \$20,000 |
| MPSG | Evaluation of Single vs. double Inoculation Strategies for Soybean – Western Manitoba | 2017 | 2017 | – | – |
| MPSG | Field Pea Response to Foliar Fungicide | 2017 | 2017 | – | – |
| MPSG | Dry Bean Response to Foliar Fungicide | 2017 | 2017 | – | – |
| TAC | Effects of Seed Applied Inoculant on Soybean Yield | 2016 | 2017 | \$84,000 | \$84,000 |
| TAC | Effects of Lower Seeding Rates on Yields – Western Manitoba | 2015 | 2017 | \$75,600 | \$75,600 |
| U of M – Lawley | Soybean Residue Management | 2014 | 2017 | \$68,616 | \$255,850 |
| SOYBEAN – Agronomy | | | | | |
| AAFC – Mohr | Management Practices to Optimize Establishment and Early-Season Growth of Soybean | 2017 | 2019 | \$144,022 | \$144,022 |
| U of M – Gulden | Rotational Effects and Optimized Plant Spatial Arrangement for Wheat Production in Manitoba | 2017 | 2020 | \$82,800 | \$349,140 |
| U of M – Costamagna | Determining the Role of Crop and Non-Crop Habitats to Provide Sustainable Aphid Suppression in Soybean | 2017 | 2019 | \$107,838 | \$215,677 |
| U of M – Flaten | Soybean Response to Potassium Fertility and Fertilizer in Manitoba | 2017 | 2018 | \$85,226 | \$170,453 |
| U of M – Tenuta | Manitoba Survey and Molecular Quantification of Soybean Cyst Nematode | 2017 | 2018 | \$121,612 | \$243,225 |
| U of M – Lawley | Cover Crop Strategies for Dry Bean and Soybean Crops in Manitoba | 2017 | 2019 | \$195,444 | \$195,444 |
| U of M – Lawley | Predicting Soybean Phenology in Manitoba | 2017 | 2019 | \$96,400 | \$192,800 |
| U of M – Oresnik | Frequency of Soybean Rotation and Persistence of Rhizobia in Manitoba Soils | 2017 | 2018 | \$68,700 | \$68,700 |
| PAMI – Simundsson | Seed Mortality Due to Air Seeder Damage | 2017 | 2017 | \$40,660 | \$90,660 |
| U of M – Paliwal | Determination and Modelling of EMC Characteristics for Manitoba-Grown Soybeans | 2017 | 2017 | \$32,746 | \$32,746 |
| AAFC – Mohr | Enhancing Manitoba Soybean Yield and Quality under Sub-Optimal Conditions | 2017 | 2017 | \$54,165 | \$54,165 |
| AAFC – Mohr | Sustainable Soybean Cropping Systems for Western Manitoba | 2017 | 2021 | \$98,325 | \$196,651 |
| AAFC – Mohr | Effect of Preceding Glyphosate Application on Nutrient Levels in Soybean | 2017 | 2017 | \$58,466 | \$58,466 |
| Linnaeus – Eynck | Relay-Cropping of Winter Camelina and Short-Season Soybeans | 2016 | 2017 | \$7,000 | \$10,000 |
| MB Ag – Gaultier | Manitoba General and Herbicide-Resistant Weed Surveys | 2016 | 2017 | \$8,078 | \$121,862 |
| U of M – Gulden | Defining and Refining the End of the Critical Period of Weed Control in Soybean for Manitoba | 2016 | 2017 | \$57,500 | \$115,000 |
| U of M – Oresnik | Determining Efficacy of qPCR to Determine <i>Bradyrhizobium japonicum</i> Populations in Fields | 2016 | 2017 | \$26,443 | \$52,885 |
| U of M – Podolsky MacMillan | Soybean Hail Damage Re-Growth Assessment | 2015 | 2017 | \$44,710 | \$132,030 |
| U of M – Podolsky MacMillan | Late Planting of Early Maturing Soybeans | 2015 | 2017 | \$25,719 | \$51,438 |
| U of M – Tenuta | Soybeans for Improved Soil Health | 2014 | 2017 | \$322,348 | \$322,348 |
| AAFC – Mohr | Effect of Soil Temperature at Different Planting Dates and Residue Management on Soybean | 2014 | 2017 | \$49,600 | \$148,800 |
| AAFC – Larney | Comparison of Dry Bean and Soybean for Agronomic Traits, Inputs, Diseases and Nitrogen-Fixing Benefits to Following Crops, Water Use and Harvest Losses | 2013 | 2017 | \$15,000 | \$59,087 |
| SOYBEAN – Pathology & Variety Improvement | | | | | |
| U of M – Daayf | Frequency of Soybean Rotations: Exploring Root Rot and Foliar Pathogens | 2017 | 2018 | \$106,000 | \$106,000 |
| BU – Cassone | The Most Comprehensive Survey of Foliar Diseases in Manitoba Soybean | 2016 | 2018 | \$112,509 | \$112,509 |
| U of M – Daayf | Characterizing the Fusarium Species that Affect Major Crops in Manitoba | 2016 | 2017 | \$47,400 | \$174,800 |

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|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------|--------------------|---------------------|
| <i>SOYBEAN – Pathology & Variety Improvement continued</i> | | | | | |
| U of M – Stasolla | Enhancing Water Stress Tolerance in Soybean Through Phytoalbumin Manipulations | 2016 | 2018 | \$123,000 | \$173,000 |
| AAFC – Hou | Soybean Protein Content Variation Among Genotypes Grown in Manitoba and Ottawa | 2015 | 2017 | \$144,000 | \$144,000 |
| AAFC – Savitch | Supporting Western and Northern Expansion of Soybean and Corn in Canada | 2015 | 2016 | \$42,525 | \$147,050 |
| LU – Belzile | SoyaGen: Improving Yield and Disease Resistance in Short-Season Soybean | 2015 | 2018 | \$160,000 | \$375,000 |
| AAFC – Morrison | Variation in Soybean Seed Quality Parameters: The Manitoba Advantage | 2015 | 2016 | \$62,400 | \$134,400 |
| U of M – Daayf | Alternatives to Reduce Root Rots in Soybean and Other Pulses | 2014 | 2017 | \$105,000 | \$240,000 |
| AAFC – Cober | Short Season Soybean Improvement and Very Short Season Herbicide Tolerant Soybean Development | 2013 | 2017 | \$90,000 | \$748,535 |
| AAFC – McLaren | Prevalence, Incidence and Virulence of Phytophthora Root Rot of Soybean in Manitoba Soybean Fields | 2013 | 2017 | \$300,000 | \$683,908 |
| DRY BEAN – Agronomy | | | | | |
| U of M – Gulden | Optimizing Plant Spatial Arrangement and Weed Management for Field Bean Production | 2015 | 2019 | \$236,325 | \$236,325 |
| U of M – Tenuta | Identification and Significance of Plant Parasitic Nematodes of Pulse Crops and Soybean | 2013 | 2017 | \$165,776 | \$770,158 |
| U of M – Ayele | Mitigating the Deleterious Effects of Above Normal Soil Moisture on the Productivity of Pulse Crops Through Seed Treatment | 2014 | 2017 | \$80,000 | \$80,000 |
| U of G – Gillard | Dry Bean Agronomy and Pest Management Studies | 2013 | 2017 | \$50,000 | \$969,915 |
| DRY BEAN – Pathology & Variety Improvement | | | | | |
| AAFC – Hou | Evaluation and Selection of Azuki Beans for Adaptation and Production in Manitoba | 2017 | 2019 | \$108,000 | \$108,000 |
| CGC – Wang | Effect of Cultivar, Growing Location and Year on Dietary Fibre Content, Trypsin Inhibitor Activity and Oligosaccharides in Manitoba-Grown Dry Beans | 2016 | 2017 | \$43,200 | \$43,200 |
| AAFC – Marsolais | Developing Herbicide Tolerance in Dry Beans | 2013 | 2017 | \$50,000 | \$368,550 |
| AAFC – Hou | Development of Dry Bean Cultivars and Germplasm with High Yield, Disease Resistance and Marketable Seed Quality for Production in Manitoba | 2013 | 2017 | \$325,000 | \$695,129 |
| AAFC – Conner | Identify Advanced Dry Bean Breeding Lines or Coop Entries with Resistance to Common Bacterial Blight, Anthracnose and White Mould. Develop New Methods for Controlling Halo Blight in Dry Beans | 2013 | 2017 | \$75,000 | \$203,993 |
| AAFC – Conner | Evaluation of Root Rot Resistance in Dry Bean Cultivars | 2013 | 2017 | \$60,000 | \$60,000 |
| AAFC – McLaren | Root Rot Pathogens of Dry Bean: Identification, Distribution and Risk Assessment in Manitoba | 2013 | 2017 | \$45,000 | \$366,947 |
| FIELD PEA | | | | | |
| AAFC – Conner | Evaluation of Root Rot Resistance in Field Pea Cultivars | 2013 | 2017 | \$10,000 | \$40,000 |
| AAFC – McLaren | Root Rot Pathogens of Field Pea; Identification, Distribution and Risk Assessment in Manitoba | 2013 | 2017 | \$45,000 | \$153,100 |
| NUTRITION & END-USE | | | | | |
| RRC – McRae | Investigating Factors Influencing the Quality of Cooked Whole Beans | 2017 | 2017 | \$8,209 | \$15,354 |
| U of M – Jones | Comparison of Roasted Pulse Snacks, Pulse Chips and Commercial Snacks on Post-Prandial Food Intake, Appetite and Glycaemic Response in Healthy Young Adults | 2017 | 2017 | \$21,178 | \$118,795 |
| CIGI – Soiwnyk | Effect of Genotype and Environment on Pulse Flour Quality and Baking Performance | 2016 | 2017 | \$25,000 | \$425,001 |
| CCARM – Zahradka | Effect of Processing on Health Benefits Associated with Bean Consumption | 2016 | 2017 | \$67,907 | \$123,032 |
| CCARM – Zahradka | Cardiovascular Health Benefits of Soybean Crops | 2016 | 2016 | \$18,500 | \$73,000 |
| MSVU – Luhovy | The Effect of Whole Cooked Beans and Peas on Satiation, Satiety and Food Intake in Children | 2015 | 2017 | \$15,800 | \$15,800 |
| U of M – Aluko | Extraction and Functional Characterization of Cholesterol-Binding Indigestible Proteins from Manitoba-Grown Pulses | 2015 | 2017 | \$91,300 | \$91,300 |
| FDC – Appah | Developing Pulse-Based Shelf Stable Chili Using Retort Processing | 2015 | 2016 | \$29,000 | \$32,000 |
| 2017 NEW PROJECT FUNDING | | | | \$1,568,041 | \$2,498,548 |
| TOTAL PROJECT FUNDING COMMITMENTS | | | | \$4,972,297 | \$11,608,100 |

AAFC – Agriculture and Agri-Food Canada
 Antara – Antara Agronomic Services
 BU – Brandon University
 CCARM – Canadian Centre for Agri-Food Research in Health and Medicine

CGC – Canadian Grain Commission
 Cigi – Canadian International Grains Institute
 FDC – Food Development Centre
 Linnaeus – Linnaeus Plant Sciences
 LU – Laval University

MB Ag – Manitoba Agriculture
 MPSG – Manitoba Pulse & Soybean Growers
 MSTVU – Mount Saint Vincent University
 PAMI – Prairie Agricultural Machinery Institute
 RRC – Red River College

TAC – Tone Ag Consulting
 U of G – University of Guelph
 U of M – University of Manitoba