**Manitoba Potato Research Committee**

**List of RESEARCH PRIORITIES**

**PLANT PROTECTION:**

* Late blight fungicide evaluation (including an improved understanding of phosphorous acid as part of a disease management strategy, considering risk management and economics)
* Late blight forecasting models
* Weed control (nightshade, wild buckwheat)
* Impact of soil amendments and fumigants on health and soil borne pathogens
* Pest monitoring and/ or improved management of pests such as late blight, Colorado potato beetle, potato psyllid, scab, wireworm, viruses causing tuber necrosis
* PVY- Management of new strains. Are transmission methods changing?
* Improved Verticillium detection. How can new diagnostic methods be put to practice in the field for decision making? How do test results align with field symptoms?

**CROP MANAGEMENT / PHYSIOLOGY:**

* Variety specific agronomics i.e. fertility, water management
* Impact of abiotic and environmental Factors (and combinations of) on yield and quality
* Effects of increased plant populations (row spacing, bed planting, impacts on fertility and water use)
* Seed Physiology
  + determination and manipulation of physiological age
  + agronomics of young versus old seed
  + agronomics of whole versus cut seed
  + managing larger tuber sets
  + Understanding and measuring the factors that contribute to potato seed vigour (other than physiological age) that may contribute positively or negatively to potato seed vigour
* Understanding the impacts of phosphorus acid on seed
* Characterization of yield and quality of Russet Burbank strains.
* Evaluation of fall ridging or bedding to maximize yield and quality
* Use of new technology (Veris, UAV, yield monitors) for improved productivity
* Prevention of physiological russeting on smooth skinned varieties

**VARIETY DEVELOPMENT:**

* Evaluation and adaptation of varieties for the processing and fresh market