**MPIC Research Priorities**

August 8, 2019

1. Development of alternative management and detection methods for emerging issues, currently:
   * *Dickeya dianthicola*
   * Potato virus Y (PVY)
   * Mop Top Virus vectored by Powdery Scab
2. Improving soil quality and health in potato management systems with emphasis on beneficial soil microbial activity, fertility, cover crops and organic amendments
3. Genetic improvement through variety development and trials for traits to improve
   * Storage management
   * Commercialization
   * Resistance to Colorado Potato Beetle, other insects, and diseases
   * Reduced invertase levels to address acrylamide
   * Consumer taste preference
   * Size profile
4. Integrated management of soil, seed and foliar borne diseases to reduce vine and tuber rotting in potatoes, in particular addressing late blight and emerging new diseases
5. Improved resource use efficiency and sustainability in modern potato production (water, phosphorus, nitrogen and calcium)
6. Development of new weed control management strategies in potato to address resistance, volunteers, variety herbicide sensitivity and invasive species
7. Monitoring and managing insecticide resistance of Colorado Potato Beetle and other emerging pests
   * Developing alternative managing strategies for current controls
8. Post-harvest handling of potatoes (controlling storage pathogens and storage issues including new sprout inhibitor development)
9. Improve the use of technology to better understand abiotic and biotic stress to increase resilience in potato production systems
10. Investigate the factors that influence stem number and tuber set in potato. These factors include, but are not limited to: ethylene exposure, application of growth hormones, any factors influencing physiological age, thermal time and storage practices that may alter seed age