Northeastern IPM Center

Cranberry Fruit Rot Working Group

Ranking of needs and priorities

After discussing all research topics and needs in our first working group meeting held in August 26, 2015 in Bandon, OR; attendees classified each item as a high, medium, and low priority. A final list was generated based on majority votes assigning each topic into a major category (i.e., high, medium, or low). Percentages represent the total votes submitted by 19 attendees.

Fruit Quality	**HIGH**
Identify preharvest factors that affect fruit firmness Re-examine and test storage quality forecast models. Harvesting and storage technology for improving quality Preharvest parameters that affect quality Storage quality prior to freezing and impact on SDC quality Investigate physiological breakdown	72%
Biology of fruit rot fungi	**HIGH**
Understand life cycles of individual fruit rot fungi Develop tailored recommendations for each fruit rot sp. Timing of infection and biology of fungi Develop and apply improved identification methods Monitor for development of fungicide resistance Incorporate weather data into investigation of disease cycles Population biology and population shifts Fungal infection and fruit skin integrity	67%
Infrastructure	**HIGH**
Database to share regional research results Electronic communication and media for disease management recommendations, updates, and extension outputs MRL communication and updates shared across regions Coordinated regional registration of chemical products including Canada	41%

Improving chemical control efficacy	MEDIUM
Screen new fungicides and fungicide programs for efficacy	
Emphasize on testing novel modes of action	
Implementation of new controls in fruit rot spraying schedule	
Low risk fungicides and MRL compliance	
Research and discover novel biological control methods	
Investigate impact of fungicides on fruit quality parameters	
Application methods	
New application methods	61%
Improve methods for evaluating existing application systems	
Can UAS be used for fungicide applications?	
Fungicide alternatives	
Bio control	
Synergism of chemicals	
Delivery methods for fungicide applications	
Stickers and adjuvants	

Cultural control practices	MEDIUM
Canopy management. Can the canopy be optimized for reducing heat stress to fruit?	
Canopy cooling. Can irrigation for cooling be optimized for reducing or managing fruit rot?	
Cultural practices to reduce inoculum pressure	61%
Determine impact of trash flood, sanding, mowing, and pruning practices on fruit rot	
Reduced irrigation and sub-irrigation methods	
Innovative floods to enhance fruit rot control	

Plant resistance	MEDIUM
Develop methods for evaluating host resistance on individual plants to improve throughput of fruit rot resistance screening	
Genomic approaches for resistance breeding	50%
Changes in plant phenology and impact on disease expression	

Climate Change	LOW
Develop models to predict fruit rot in areas which typically don't have fruit rot losses	
Examine the need for berry cooling and best practices for reducing over heating	44%
Study extreme and isolated weather events (e.g., El Niño, tropical storms, drought, etc.).	