



EXTENSION PLANT PATHOLOGY

UMass Cranberry
Station

Oversight Meeting
November 2016

Fruit Rot Management

The search for Bravo alternatives continues. As a result of a new Maximum Residue Limit (MRL) imposed by the European Union in 2015, most fruit handlers in MA restricted the use of chlorothalonil for export-certified fruit.

Joint efforts from cranberry industry members, non-profit and grower organizations accomplished a revision of the MRL that enabled growers to use chlorothalonil in 2016.

Despite the good news of having Bravo back, the MRL restriction set in 2015 reaffirmed the need to seek Bravo alternatives, safeguard fungicide efficacy, and reduce fungicide reliance.

In 2016, field trials were designed to test new fungicide products and develop strategies that optimize the efficacy and timing of fruit rot management programs.

As a result, fruit management recommendations for 2017 will include:

- Efficacy ratings for 2 relatively new fungicide products in MA
- Fungicide programs excluding chlorothalonil
- Guidelines to optimize fungicide timing

Concurrently, efforts to assess the status and monitor the risk of fungicide resistant fruit rot pathogen populations continue. To date, in vitro screenings suggest that one major fruit rot pathogen and possibly three other fungal species display reduced sensitivity to a popular fungicide used by most cranberry growers.



Ocean Spray and UMass Dartmouth Center for Innovation Staff reviewing harvest and bog side cleaning practices.

Upgrading Diagnostic Resources

In 2014, two new cranberry virus diseases were confirmed in MA. Virus testing services can be costly and available to growers only by a third party. Hence, the UMass Cranberry Station and Cape Cod Cranberry Grower's Association partnered and successfully obtained funding to upgrade the diagnostic capability and services offered to cranberry growers.

The funds granted for this project will enable the purchase of equipment to test for emerging virus diseases using serological- and molecular- based methods. This will also allow the opportunity to validate and develop diagnostic assays applicable to a broad range of cranberry pathogens, including fruit rot fungi.

Purchase of equipment is intended for winter 2016-2017.

Fruit Rot Working Group

In response to the chlorothalonil restriction set in 2015, cranberry researchers and industry stakeholders across the country joined forces to revise industry needs and priorities at this time of crisis.

Since the creation of the group, several of these priorities have been addressed, mainly:

- **Fruit Quality:** ongoing collaboration with Ocean Spray to identify critical harvest processes that impact fruit quality (see photo at left), coordinated fungicide trials across regions, improving bog side cleaning practices and fungicide efficacy.
- **Biology of fruit rot fungi:** coordinated field trials to determine timing of infection of field and storage rot fungi, molecular characterization of fruit rot pathogen populations, validation of detection tools (2017).
- **Infrastructure:** increased communication and collaboration between researchers to secure federal funding.