



## CRANBERRY STATION NEWSLETTER

October 5, 2019

UMass Cranberry Station

1 State Bog Road

PO Box 569

East Wareham, MA 02538

508-295-2212

[ag.umass.edu/cranberry](http://ag.umass.edu/cranberry)

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### *Fall Frost Tolerances for Fruit*

In the late summer and into the fall, cranberry frost tolerance is estimated based on the developmental stage of the plants and the color of the fruit. Earlier this year, Carolyn DeMoranville and Peter Jeranyama produced an updated fact sheet on Fruit Frost Tolerances. The excellent and helpful photos in the fact sheet show the stages and fruit color associated with various degrees of cold tolerance.

Tolerance is based on color development, which is used as a visual guide to ripening, a chemical and physiological process. It is not the color that confers increased tolerance to freezing, but rather the internal chemical and physiological changes in the berries that accompany the increase in color. Observations should be made by looking into the vine canopy; do not separate the vines or remove the fruit or uprights, since the lowest fruit buried in the canopy often remain white late into the season. Those berries are likely somewhat protected by the vine canopy and the internal chemical or physiological changes that occur even in the absence of color development.

Copies are available here at the Station or you can download a copy of the fact sheet at: <http://ag.umass.edu/cranberry/fact-sheets>. If you have additional questions about frost tolerance of fruit or vines, please call Peter at 508-295-2212 x29.

### *Phytophthora Root Rot Management Update*

I have diagnosed several Phytophthora root rot samples in the past couple of months. Up to three applications of Phosphonate (eg. Rampart, Phostrol, Alude, Fosphite) or Phenylamide fungicides (eg. Ridomil Gold, Ultra Flourish) are currently recommended for this disease. Phosphonate fungicides are recommended for foliar applications; and phenylamide fungicides for ground application or chemigation. The first application is recommended between April 15<sup>th</sup> and May 15<sup>th</sup>, followed by a second application 60-90 days (around June 15<sup>th</sup> to August 15<sup>th</sup>) after the first. If you have any Phytophthora root rot infested beds, the next application should be done after harvest, preferably prior to November 15<sup>th</sup>. It is very important to improve the drainage before applying fungicides to affected beds.

At the time of harvest, precautions should be taken to avoid the spread of the pathogen from infested beds to uninfested beds. Machinery, equipment, footwear, etc. should be cleaned thoroughly

using steam or 10% bleach or 70% alcohol. The sequence of flooding the beds during water harvest should be adjusted to flood heavily infected beds last.

If you need assistance with diagnosis, please contact me at [suppala@umass.edu](mailto:suppala@umass.edu) or 508-295-2212 x18 or drop of a sample at the Station. Samples should be collected from the margin of the affected area. Collect around 40 stressed vines adjacent to the dead vines with roots attached (roots are the most important part for diagnosing this disease). When you bring the sample to the diagnostic lab, please fill in the sample intake form with a brief description of issue/symptoms, this year's fungicide usage, and your contact information.

## *Using Fall Herbicides in 2019*

**Controlling Poverty Grass (PG) in the fall.** The best option at this time of year is to hand-pull or otherwise physically remove PG. Seeds have already been produced and disseminated, so you cannot do anything about those until next year. Fall Evital (80 lb/A) does suppress existing plants but has not been observed to control plants in the spring. You will get some reduction in growth or vigor by spraying Roundup (0.5-1% solution) into the center of the plant if the PG is still green. Be very careful; the Roundup sprays will injure cranberry vines! Poast is very safe on cranberries and will also cause some reduction in PG growth and vigor when applied in the fall (but not nearly the effectiveness of summer applications). It is unknown if Casoron in the fall will have any effectiveness against PG, so if you try it, please let me know.

### **General Herbicide Notes:**

**Evital** is good against sedges and rushes and works well when applied in the fall. Evital must be applied with a ground applicator. The fall rate can be as high as 160 lb/A on an established bog and up to 80 lb/A on new plantings; only one application can be made per year. People tend to use higher rates in the fall than the spring. Use higher rates for switchgrass and woolgrass. Lower rates can be used to control barnyardgrass, rice cutgrass, needlegrass, and smokegrass. Evital can injure vines on bogs that drain poorly, so be careful. Varieties such as Stevens and McFarlin are sensitive to Evital injury, so use lower rates. **Please let me know if you use(d) Evital on the new varieties** and how it worked for you and if it caused any injury. Apply before a predicted rain to encourage soil incorporation.

**Roundup** sprays can be used as spot applications on the bog (and in the ditches) in the fall. Rates as low as 1-2% solutions can injure or kill cranberry vines, even into November. So BE CAREFUL! I would use this herbicide in situations where the weed(s) have gotten so bad, there are few vines to worry about. Good candidates might include dewberry and poison ivy infestations.

Some growers are re-experimenting with fall applications of **Casoron** for perennial weed control (especially PG). If you are doing fall applications vs PG, please let me know! Asters, loosestrife, nut sedge, woolgrass, narrow leaf goldenrod (follow by late water in spring), and spike rush are among the weeds that may respond to fall applications. Remember you can only

apply 100 lb/A in a 12-month period. Casoron is labeled for use in the fall prior to ice sanding but you should not sand on top of a Casoron application. Single doses of high rates are needed to control many established perennial weeds.

The effectiveness of Fall applications of the new formulations of **Devrinol 2-XT** has not been documented by our lab, but maybe some of YOU have tried it; let us know!! The 10G was recommended at the high label rate for control of barnyard grass, corn grass, cutgrass, nut sedge, poverty grass and spike rush. Crop safety is very good with Devrinol on newly planted vines. Lower rates (6-9 qt/A) are recommended via a Special Local Needs (SLN), available on our web site: <http://ag.umass.edu/cranberry/services/special-pesticide-labels>.

**Allow at least 3 weeks between the time of application of any herbicide and the winter flood.** Flooding within **3 weeks** of application moves the herbicide into the water and away from the target. Flooding too soon will reduce efficacy, increase environmental risk, and waste money. Although temperatures will be lower and the risk of volatilization is lower (especially important for Casoron), it is important to plan your application just prior a rain event to favor soil incorporation. This is critical if you still have conventional sprinkler heads, which have been removed for harvest. If your bog has pop-ups, you have the option to water the herbicide in if no rain is forecast.

*Hilary Sandler, x21 and Katie Ghantous x47*

### CRANBERRY STATION FACT SHEETS

There are 2 new fact sheets now available for Dodder and Moss. To download a copy please use the links below:

**Dodder: Biology and Management (2019)**

[http://ag.umass.edu/sites/ag.umass.edu/files/fact-sheets/pdf/dodder\\_fact\\_sheet\\_2019.pdf](http://ag.umass.edu/sites/ag.umass.edu/files/fact-sheets/pdf/dodder_fact_sheet_2019.pdf)

**Moss: Biology, Diversity and Yield Impacts on Cranberry**

[http://ag.umass.edu/sites/ag.umass.edu/files/fact-sheets/pdf/moss\\_fact\\_sheet\\_2019.pdf](http://ag.umass.edu/sites/ag.umass.edu/files/fact-sheets/pdf/moss_fact_sheet_2019.pdf)

### CRANBERRY STATION NEWS

**SAVE THE DATE:** The Management Update Meeting has been scheduled for **Thursday, January 30, 2020, 8:00 AM – 4:00 PM, Rosebrook Event Center, Wareham, MA.** Registration forms will be in the December Newsletter.



*Hilary Sandler, Station Director*

## *North American Cranberry Researchers and Extension Workers (NACREW) Conference*

From August 19-21, 2019, approximately 55 people gathered in Vancouver, BC for our NACREW Conference. This meeting provides a great forum for sharing and planning research and extension projects and activities that help to support cranberry growers and production practices. In addition to Cranberry Station personnel, Sai Sree Uppala, Giverson Mupambi and Hilary Sandler, attendees included representatives from universities, industry, governmental agencies, and grower companies. The first morning featured talks on a wide range of topics including estimating optimal water table depths, scale insects, fruit chemical profiles, flea beetle biology, fungicide resistance, biological control of black-headed fireworm, pollinator services, and Carolina redroot. The afternoon included a tour of several nearby farms in Burnaby and Pitt Meadows. Day 2 included a stop at the British Columbia Cranberry Research Farm in Delta. We met jointly with the BC Growers Association and participated in talks and trade shows with local growers. The afternoon had working groups and a poster session. The meeting wrapped up on Day 3 with talks on various subjects including spring frost damage, microbe biodiversity, impact of soil pH on weeds, and cranberry field decline. The 2021 NACREW Conference is slated to be hosted by researchers and extension workers in New Jersey.



## *Extension Assistance and Hemp*

We are aware that some cranberry growers may be engaged in growing hemp and/or considering cultivation of the plant. The bottom line is that we, as Extension, are very limited at this time, in the support that we can provide to you. The situation is likely to change in the future but I wanted to provide details on what we currently can and cannot do.

A bit of background: The 2018 Farm Bill allows, enables and supports the production of hemp through its federal Industrial Hemp Program. The regulations that set the rules for how that program is carried out have not been completed. The issue of the final rule on the regulations implementing the hemp program is expected in late 2019. Until the final regulations are released, provisions in the existing regulation stand. In those existing regulations, hemp is not distinguished from marijuana. The final rule will separate industrial hemp from marijuana.

The Drug Free Workplace Act prohibits the use, possession, and/or cultivation of marijuana at educational institutions. In the federal regulations currently in effect, hemp is not classified differently from marijuana. Therefore, the presence of hemp in any UMass facility violates the Drug Free Workplace Act.

Some specifics on what UMass Extension can or cannot do:

- The Plant Diagnostic Lab (on campus or the UMass Cranberry Station) may not accept, handle or diagnose any hemp plant specimens.
- We cannot make recommendations about culture, management or pest problems on hemp, whether we are on UMass property or visiting an operation for other reasons (e.g. while making a site visit to an operation that may be growing hemp along with other crops).
- UMass Extension websites will not be linked to other land grant universities' hemp programs.
- Please direct any queries about use of pesticides on hemp to MDAR or EPA.
- Please make any inquiries regarding soil testing for the production of hemp directly to the UMass Soil Lab (413-545-2311). Testing of soil that will be or is being used for hemp production is allowed but testing of plant tissue is not.

The situation remains very much in flux and changes are likely. If you have additional questions, please call us at the station and we will do our best to assist you.

***Hilary Sandler, x21***

*The above was distributed via email following a briefing from Jody Jellison, Director of UMass Extension.*



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NEWSLETTER**

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