



# Cranberry Station Newsletter

**MARCH 2014**

UMASS CRANBERRY STATION  
1 STATE BOG ROAD  
P.O. BOX 569  
EAST WAREHAM, MA 02538  
<http://www.umass.edu/cranberry>



**UMass  
Extension**

## **Pesticide Safety Training, Elk's Lodge, East Wareham Tuesday - April 15, 2014 8 AM - 12 NOON**

- 8:00 – 8:30 Pesticide Safety Review, Marty Sylvia, UMass Cranberry Station
- 8:30 – 9:00 MRL review, frost, and cost management, Carolyn DeMoranville, UMass Cranberry Station
- 9:00 – 9:30 Getting the most out of your herbicides, Hilary Sandler, UMass Cranberry Station
- 9:30 – 9:45 Fruit Rot Management ala Oudemanns, Marty Sylvia, UMass Cranberry Station
- 9:45 – 10:00 Review of Generic Pesticides available in Cranberry! Hilary Sandler and Marty Sylvia, UMass Cranberry Station
- 10:00 – 10:20 Coffee Break
- 10:20 – 10:40 Winning against the Weeds, Katie Ghantous, UMass Cranberry Station
- 10:40 – 11:00 Pollination Practices Survey Revisited, Aaron Hoshide, School of Economics, UMaine and Sam Hanes, Anthropology, UMaine
- 11:00 – 11:20 State of the Bees, Bee Toxicity and Management Decisions, Marty Sylvia, UMass Cranberry Station
- 11:20– 11:45 Chemigation Configurations and Questions - Jack Heywood, Stearns Irrigation

### **2014 PESTICIDE APPLICATOR LICENSE TRAINING WORKSHOPS**

Held at the UMass Cranberry Station Library  
Sponsored by Pesticide Education, Agriculture and  
Landscape Program - April 17 & 18, 2014  
For more information and to register contact:  
Natalia Clifton at 413-545-1044

### **WORKER PROTECTION TRAININGS CRANBERRY STATION LIBRARY 2-4 PM**

Worker Protection Trainings for cranberry workers in the handler category will be offered in 2014: March 26, April 30, May 28, and June 25. There is a \$5 fee to cover the cost of the WPS training manual. If you have a pesticide license, you do not need this training.

**Contact Martha Sylvia: 508-295-2212, ext. 20** to sign up or for additional information.

*Carolyn DeMoranville*  
**Carolyn DeMoranville, Director**

**CANDIDATES FOR PLANT PATHOLOGY POSITION AT THE CRANBERRY STATION**

We are currently interviewing three candidates for the Extension Assistant Professor position at the Station. We are filling the vacancy created when Dr. Frank Caruso retired in June 2013. We hope the successful candidate will be an innovative scientist who provides research and extension support to the Massachusetts cranberry industry in the area of plant pathology and diagnostics. We interviewed Dr. Anissa Poleatewich in late January and will be interviewing Dr. Julia Crane March 6-7 and Dr. Erika Saalau-Rojas March 13-14. Below are brief biographies of the candidates. We hope the successful candidate will be able to start during the 2014 season. If you have any questions about the candidates, please contact Hilary at 508.295.2212 x21.

**Dr. Anissa Poleatewich**

Dr. Poleatewich is currently employed as a Research Scientist at the Vineland Research and Innovation Center in Ontario, Canada. She is currently working on rose black spot and disease resistance management, evaluation of okra and eggplant breeding selections for resistance and control of Verticillium wilt as well as several biocontrol projects. Dr. Poleatewich has demonstrated success in Extension work and teaching. She has international experience training and building research capacity of researchers as part of a USAID project. She received her Masters' (2005) and Ph.D. (2010) from Penn State University and received her Bachelor degree from Wheaton College, Norton, MA (2002).

**Dr. Julia Crane**

Dr. Crane received Bachelor degrees in Environmental Science and Policy as well as Anthropology from the University of Maryland-College Park (2006). She recently completed her PhD at Cornell University (2013). Her doctoral project focused on the ecology of a bacterial biocontrol agent against a wheat fungal disease in greenhouse, field and laboratory conditions. Her work is significant in that it made major strides in identifying some of the ecological barriers to successful biocontrol on leaf surfaces. She worked collaboratively with industry personnel to successfully complete this project. Dr. Crane is currently working at the Plant Diagnostic Clinic at Cornell, gaining additional hands-on experience.

**Dr. Erika Saalau-Rojas**

Dr. Saalau-Rojas graduated with her PhD in 2013 from Iowa State University after receiving her Bachelor degree in Agronomy from the University of Costa Rica (2006). She currently works as an Extension Specialist in the Department of Plant Pathology at ISU. Her PhD program focused on a bacterial pathogen of cucurbits. She used field and greenhouse experiments to improve the knowledge base for the management, ecology, and biology of this disease complex. Dr. Saalau-Rojas' experience at ISU has included disease diagnostics, classroom teaching, and interaction with growers. Her tenacity and dedication in research has given her mastery in both field and molecular plant pathology techniques.

**WEED CONTROL in APRIL**

Once the bogs have dried out from the winter flood, it's time for preemergence herbicides. Casoron and Devrinol are the most common spring preemergence herbicides. Please see the article about the new Devrinol formulations in this newsletter. You can split your Devrinol applications if you want, but do not exceed 18 pounds or 18 quarts per acre (depending on which product you use). You can only do 18 total UNITS of Devrinol. You can't apply 18 pounds of the DF and 18 quarts of the 2-XT. If you are using Casoron for broadleaf control, rates of at least 60 lb/A are needed, otherwise you are wasting your money and time. Do not exceed 100 lb/A total for Casoron in a 12-month period.

If you want to do sphagnum moss control, applications of iron sulfate are made in the spring once the bog is dry. Ammonium sulfate works on haircap moss. Casoron can be effective against both mosses, but you must use high

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rates (90-100 lb/A). Casoron is better against Sphagnum when applied in the fall. As always, be careful applying Casoron to vines that look stressed! Evaluate the state of your vines before making any herbicide application.

Make sure that the weeds you have out on the bog will be controlled by the herbicides you are applying. If you are in doubt, take pictures and email them or bring in samples for us to ID. This is the best way to manage your money and your weeds!!

### **USING DEVRINOL in 2014**

We now have two formulations of Devrinol XT: DF (dry flowable) and 2 (liquid). We just received approval for the 2-XT in Massachusetts earlier this month. The 2-XT product will be available in limited supply in 2014; supplies should improve for 2015. The rates for the two products are very similar. The DF-XT is in pounds per acre and the 2-XT is labeled in quarts per acre.

*Devrinol 50-DF is still legal to use, but is being phased out!*

**Established beds:** Devrinol works best when applied to a weed-free surface before spring growth begins or in the fall after harvest.

#### **In Peat Beds:**

Apply 12-18 pounds DEVRINOL DF-XT /A  
or

Apply 12-18 quarts DEVRINOL 2-XT/A  
through ground application equipment or the  
sprinkler system.

#### **In Beds with Sandy Soils:**

Apply 8-12 pounds DEVRINOL DF-XT /A  
or

Apply 8-12 quarts DEVRINOL 2-XT/A  
through ground application equipment or the  
sprinkler system.

**New plantings:** Apply 6-9 pounds DEVRINOL DF-XT (or 6-9 quarts DEVRINOL 2-XT) per acre to a weed-free soil surface approximately 3 weeks after planting using ground spray equipment or through the sprinkler system. Max product per acres is 18 qt or lb.

### **Additional Points to Remember:**

- Remove existing weed growth before application.
- Meter the DEVRINOL product into the irrigation water during the entire period.
- Apply with sufficient water to wet the soil to a depth of 2-4 inches.
- Good agitation should be maintained during the entire application period.
- Avoid run-off.

### **WEED RESEARCH HIGHLIGHTS from 2013**

In 2013, we established experiments to evaluate control of moss (*Sphagnum* spp. and *Polytrichum commune*), and poison ivy (*Toxicodendron radicans*). These are emerging pest issues. Here are brief results from 2013 two projects.

**Moss.** We evaluated five products: acetic acid (20% horticultural strength), herbicidal soap, Product M, hydrogen peroxide (commercial product at 5.3%), and iron sulfate (17.5%). Applications were made May 15, 2013. The acetic acid and hydrogen peroxide were applied at full strength. The herbicidal soap was diluted to label rate. Product M was applied in a 1:9 dilution. All applications were followed by a light water rinse 15 min after treatment. Iron sulfate was applied at the recommended rate for cranberry (3 oz/sq. ft) and the bag label rate (much less!). All products seem to work well on both types of moss. Acetic acid, herbicidal soap, and hydrogen peroxide killed the moss but also injured cranberry vines. Application was made after the vines began active growth; phytotoxicity may be reduced with earlier (dormant) applications but the impact on efficacy is unknown. Vines treated with acetic acid recovered within a few weeks. The most promising controls were the low rate of ferrous sulfate and Product M.

**Poison Ivy.** Poison ivy has been a low priority weed for many years but is becoming quite a serious issue on many farms. We evaluated two spot (backpack) applications of a mixture of Poast and Callisto with a crop oil concentrate at two different timings (first application: May 30 or June 19 plus a follow-up application approximately 2 wk later) on four cranberry farms in Massachusetts. The mixture provided moderate to very good control in the year of application. Plots will be evaluated for re-growth in 2014.

Hilary Sandler and Katie Ghantous

**Registration Form for Pesticide Safety Training**

**Pesticide Safety Training  
Elk's Lodge, East Wareham  
Tuesday - April 15, 2014, 8:00 AM - 12:00 PM**

Please register for the meeting using this form.

**Return with payment by:  
April 8, 2014**

CONTACT PERSON \_\_\_\_\_

Include check made out to: **UMASS**  
In the amount of: **\$50 per person.**

PHONE \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

**Late registration fee:  
(postmarked after April 8th)  
\$60 per person**

NAMES OF ATTENDEES \_\_\_\_\_

Return to:  
**UMass Cranberry Station  
P.O. Box 569  
East Wareham, MA 02538**

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Attach additional sheets as necessary.

UMASS EXTENSION  
UNIVERSITY OF MASSACHUSETTS  
P.O. BOX 569  
EAST WAREHAM, MA 02538  
OFFICIAL BUSINESS