Cranberry Station Newsletter

December 3, 2018

UMass Cranberry Station
1 State Bog Road
PO Box 569
East Wareham, MA 02538
508-295-2212
ag.umass.edu/cranberry

UMASS CRANBERRY MANAGEMENT UPDATE

Wednesday, January 30, 2019
7:30 AM – 4:00 PM
Hotel 1620 at Plymouth Harbor
Regency Ballroom
180 Water Street, Plymouth, MA

Early registration $30 per person

Registration form on page 2

Tentative Schedule of Events (*4 contact hours*)

7:30	Registration (with coffee)
8:00	What's New? – Hilary Sandler, Director
8:15	New Pathology Directions in MA – Sai Sree Uppala
9:00	Weed Management – Hilary Sandler
9:30	Herbicide Research Update – Katie Ghantous
10:00	**COFFEE BREAK**
10:30	Climate Change and Cranberry – Hilary Sandler/Katie Ghantous
10:45	Kettle Holes, Cranberry and Climate Change – Steve Smith, CCNS
11:15	New Visions in Plant Physiology – Giverson Mupambi
11:30	Setting the (Fertilizer) Record Straight – Casey Kennedy, USDA
11:45	New USDA Project, Weweantic Water Quality Project – Chris Neal, WHRC
12:00	**LUNCH BREAK (*on your own*)**
1:00	Using Drones to Infer Soil Moisture from Imagery (near surface temp) – Rebecca Brennan
1:20	TBD
1:40	Revisiting Adjuvants – Spreader, Stickers, or NIS – Hilary Sandler
2:10	The Latest in State and Federal Regs – Marty Sylvia
2:30	Scale Not Made Simple – Anne Averill
2:55	Weevil Lab and Field Trials – Marty Sylvia
3:30	Wrap-up and Paperwork

CRANBERRY STATION NEWS

REMINDER: The Station will be closed on the following dates:
Tuesday, December 25, 2018
Friday, December 28, 2018
Monday, December 31, 2018
Tuesday, January 1, 2019

The Station will be open Christmas Eve, December 24th: expect reduced staff due to holiday leave.

We wish you all a safe and happy holiday season!

Hilary Sandler, Station Director

Please welcome to the Cranberry Station our new Plant Pathologist, Sai Sree Uppala. We are very excited to have her join our team.

Sai Sree can be reached at 508-295-2212x18

Giverson Mupambi, our new General Ag Scientist, will be arriving January 6, 2019. We are looking forward to having Giverson join us here at the Cranberry Station as well.

MEETING REGISTRATION FORM

UMass Cranberry Management Update

Wednesday, January 30, 2019
7:30 AM – 4:00 PM
Hotel 1620 at Plymouth Harbor
Regency Ballroom
180 Water Street, Plymouth, MA

$30.00 per person**
Must be postmarked by 1/21/18

After 1/21/18 you are considered a "walk-in": cost will be **$45.00 per person.** Please contact the Station to be added to the "walk-in" list.

Please make checks payable to **UMass** and return payment to:

UMass Cranberry Station
PO Box 569
East Wareham, MA 02538

***Remember to bring your Photo ID and Pesticide Number**

PLEASE PRINT
ALL meeting attendees **MUST** register and pay (whether receiving credits or not)

Registration Fee is non-refundable after 1/21/18

NAME: _____
COMPANY: _____
EMAIL: _____
PHONE: _____
ADDITIONAL ATTENDEES:

_____ _____
_____ _____
_____ _____
_____ _____

**To keep our registration fee affordable, the Station will not be taking credit cards as a form of payment for this meeting.

Emergency Exemption Requested for Kerb for 2019

Dodder continues to be a significant issue for many growers and a promising tool, Kerb SC, while progressing towards registration, remains unavailable. We were informed in early Fall 2018 that the Section 3 registration (a full label) was unlikely to be available in time for the 2019 season. The prospect of another year without effective dodder control options galvanized an effort among the Cranberry Station, growers, and the cranberry industry to initiate a Section 18 Emergency Exemption request for the urgently needed Kerb SC. As a result, we prepared a comprehensive Section 18 packet. Our request was presented to the Sub-Committee of the MDAR Pesticide Board on November 16, 2018 and they approved our request. As a result, our package was sent to EPA, at the end of November, for their consideration.

EPA requires that we comprehensively explain why our situation has become an emergency and what makes it "non-routine". The argument that we developed is that the dodder has become a non-routine pest management emergency situation due to multiple factors, including (1) the prevalence of dodder infestations on young plantings of new 'super' and conventional hybrid varieties, (2) the increase in acres planted in the hybrid varieties, (3) the lack of crop safety demonstrated through the use of available herbicides, especially on super hybrids, (4) the extra expenses and yield loss incurred trying to manage dodder with suboptimal options (all varieties), and (5) the significant reduction of yield in dodder-infested plantings that increases the time for return on investment (ROI), which jeopardizes the financial sustainability for many growers.

I realize that many growers are anxious and anticipating being able to use this highly effective herbicide for dodder control as soon as possible. I would be happy to speak to anyone who would like more information or more details about our approach and our prospects. I will let you know the outcome regarding the EPA's decision as soon as I hear. In the meantime, we are working with Dow, IR-4, and EPA to obtain the full Section 3 label for Kerb SC as soon as possible.

Hilary Sandler

Controlling Poverty Grass in the Fall vs Next Spring or Summer

Our research indicates that the only really effective (tested) control of Poverty Grass in the fall is hand-weeding. Some growers have expressed concerns that clumps will regrow from root fragments left behind by hand-weeding, but our research indicates that this does not occur. Evital or Poast in the fall can provide some reduction in vigor and/or growth but both of these treatments are much more effective when applied in the spring (Evital) or the summer (Poast). The use of flaming, flooding and mowing are NOT recommended in most situations at any time of year. Devrinol applications can be somewhat helpful when used in the spring, but definitely not when applied in the fall. Devrinol works by preventing seeds from germination and starting new plants, but will not control existing plants. It can help stop the problem from spreading but will not clean up the problem! The use of Poast or clethodim products (Intensity, Select) are the best options and are applied in the summer. A summer flood can retard poverty grass but comes at the price of a lost crop. Mowing in the summer can be helpful to remove seed heads if the mowed material is removed from the bog. Flaming is never recommended for control as it seems to stimulate the grass (the growing point is close to the ground). Some growers are trying flaming in the fall just to remove the bulk of the plant and will use another control option come spring and summer. We do not have data on the efficacy of Casoron or clethodim products (e.g., Select, Intensity) applied in the fall.

Spot-treating with Evital. Be careful if you do spot applications on clumps of poverty grass with Evital. Targeting a rate of 160 lb/A (max rate) would be equivalent to evenly applying 1 tablespoon to a square yard. This is not very much material, so it is easy to over-do it! Some growers place a localized dose in the clumpy base of the poverty grass. This season, I saw many areas of Evital damage to cranberry vines that were associated with these localized applications. Keep in mind, typical a coffee scoop holds TWO tablespoons. You should measure whatever tool you are using to dispense the herbicide so you can minimize the chance of injuring your cranberry vines. If you have any additional questions about figuring out a dose for your particular situation, give Hilary a call 508-295-2212 (x21).

As We Head into Fall and Winter, Thoughts about Hardiness and Chilling

Hardiness

Hardiness is the ability of the plant to withstand cold temperatures. In the fall, plants develop cold hardiness in response to cold temperatures (and maybe to day length changes). Because it was so warm this fall, there was concern that bud hardiness was not developing normally. In a previous study (2012), exposed cut uprights with flower buds were exposed to temperatures of 10°F and O°F for 5 hours on December 8-9. The uprights were then left in the lab at room temperature for 3 days to allow any damage symptoms to develop. Buds were then cut and examined under a dissecting scope for damage. For the cultivars Early Black, Howes, Stevens, Ben Lear, and Crimson Queen, we found no significant damage after exposure to either temperature. This indicates that by December 8, the buds had developed hardiness to at least 0°F (-18C).

Chilling requirement

Temperate fruit crops have a chilling requirement – the need for exposure to some number of hours of cold conditions – in order to properly develop flower buds and fruit. This chilling exposure also contributes to the development of winter hardiness (see above). Chilling requirement for cranberry appears to be ~1700-2000 hours below 45°F in MA field conditions. In average years, the requirement is med by about mid-February to early-March.

There is a body of research that indicates that chilling may be lost in warm temperatures (generally above 55-60°F). For this reason, it is prudent to guard against winter warm spells by having the bog under flood. The cold water then buffers against loss of chilling. Not having the bog under flood can also increase the risk of certain insect infestations, particularly yellow-headed fireworm.

Spring development and loss of hardiness

Once the chilling requirement is satisfied (late February- early March), the plant is capable of beginning growth once it is exposed to enough heat units. Generally, cranberry growers remove the winter flood by early to mid-March. With the water removed, the plants can accumulate heat units and begin to lose hardiness. Once again, keeping the flood in place longer can be a buffer against unseasonably warm temperatures. This may be desirable since the warmer it is, the faster dormancy and hardiness are lost.

Hilary Sandler and Carolyn DeMoranville, retired

CRANBERRY STATION NEWSLETTER

IT IS THAT TIME OF YEAR AGAIN!

SIGN UP TO STAY ON THE 2019 MAILING LIST!

≈Annual subscription is **FREE** when sent postal delivery for Massachusetts growers, cranberry researchers and IPM consultants.

≈Annual subscription sent postal delivery for out-of-state growers and industry personnel is $15.

≈Annual subscription sent via email is **FREE** including out-of-state and/or industry personnel.

NAME: _____

COMPANY: _____

ADDRESS: _____

TOWN: _____

STATE: _____ ZIP: _____

PHONE: _____

EMAIL: _____

CHECK ONE

- ☐ Owner
- ☐ Employee
- ☐ Researcher
- ☐ Consultant
- ☐ Industry
- ☐ Private Sector

POSTAL DELIVERY _____ OR EMAIL _____ (please choose one)

All out-of-state growers and industry personnel who choose to receive their annual subscription by postal delivery, please include a check payable to **UMass** and return to: UMass Cranberry Station, PO Box 569, East Wareham, MA 02358.

ADDITIONAL INFORMATION TO HELP THE CRANBERRY STATION SERVE YOU BETTER!
(please include with newsletter sign-up)

If you are an owner or manage a cranberry operation, how many acres do you own or manage? _____

What varieties of cranberries do you grow?

Please check all that apply:

Variety in acres	<5	5-9	10-19	20+
Stevens				
Howes				
Early Black				
Ben Lear				
Mullica Queen				
Crimson Queen				
Demoranville				
Grygleski (G1)				
Other:				
Other:				
Other:				

UMass Extension

CRANBERRY STATION NEWSLETTER

Inside this issue:

OFFICIAL BUSINESS

East Wareham, MA 02538
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UMass Cranberry Station