



Cranberry Station Newsletter

APRIL 2005

UMASS CRANBERRY STATION

1 STATE BOG ROAD

P.O. Box 569

EAST WAREHAM, MA 02538

<http://www.umass.edu/cranberry>

ARE YOU INTERESTED IN HOLDING LATE WATER THIS YEAR?

The Physiology lab has been investigating how flooding effects the growth and yield of vines. Last year we closely studied a number of late water (LW) floods being held on MA bogs. To study a flood, we measure carbohydrates in the uprights both before and after the flood. Carbohydrates are the energy source that the vine uses for growth and fruit production, so if carbohydrates in the vine decrease during the flood, it probably reduces yield. We also measure water temperature, depth, dissolved oxygen concentration, and water clarity during the flood to determine which of these parameters has the strongest effect on the health of the vines.

Of the data we have analyzed so far, 4 of the bogs were Early Black and 1 was Stevens. Of those 5 bogs, 4 came through the flood very well, with either very little carbohydrate loss, or a gain in carbohydrates during the flood. The single bog that did poorly was an Early Black bog that did not hold water well. As a result, the water was shallow and quite warm ($>75^{\circ}\text{F}$). The warmer the water in a flood, the more quickly the vine uses its carbohydrates, and less energy is available for fruit growth.

If you are interested in holding LW, this *may* be a decent year to do it, as the vines have not been stressed by a difficult winter, and little sanding occurred this year. However, if the bog had a bumper crop last year, the vines will still be stressed and you should not hold a prolonged flood. If you held a long flood in the fall,

particularly before mid-October, it may not be a good year for you to hold late water.

If you do hold LW, apply the flood when the buds are still red and tight. Try to keep the water temperature as cool as possible during the flood – remember that deeper floods will be able to maintain a cooler temperature.

Justine Vanden Heuvel
Environmental Physiology

SITES NEEDED FOR WEED RESEARCH

Broadleaf weeds. I am looking to continue our investigations into the efficacy of Simple Green for weed control. Specifically, I would like to work on bogs that have infestations of narrow-leaved goldenrod, loosestrife, cinquefoil, bedstraw, or moss. It would be preferable to have patches that are only infested with **one** of these weeds, if possible. If you have portions of a bog that have any of these weeds and would allow me to do testing with Simple Green on your bog, please call me at the station. Applications would most likely go out in June and July. I would like to find patches about 20 x 40 feet, minimum.

Dodder. I am also looking for 1 site to test unregistered herbicides for their potential for dodder control. The plot size would be approximately 40 x 80 ft (~3200 sq ft); less than 0.1 acre. I need a site where dodder is not controlled. Typically, escapes from preemergence herbicide control should be apparent by June. These applications would be applied in June and July. Please note that since these compounds are unregistered, the fruit from this area would need to be removed prior to your harvest.

If you have any suitable sites, please give me a call. Thank you for your cooperation in advance.

Hilary Sandler
Cranberry IPM Specialist

Dr. Carolyn DeMoranville
Station Director

LOOKING FOR STEVENS BEDS FOR FRUIT ROT STUDY

I will be continuing to try to determine why certain Stevens beds have had a fruit quality problem during the past few growing seasons. I am looking for Stevens beds for a second year of this study so I can determine whether the berries have succumbed to fruit rot, scald or both. Starting in July and continuing into September, I plan on doing at least four samplings with subsequent isolations from trouble sites. This should provide me with additional information on the involvement of fungi in the eventual rotted fruit in these beds. I compiled meaningful data from last year, but one growing season is never adequate to make worthwhile conclusions. I have already lined up certain beds on my list, some which were used in 2004. If you have such a problem bed that you would like me to investigate, please call or email me. I will minimize traffic on the bed, sampling only from the edge.

Frank Caruso, Plant Pathology

DODDER MANAGEMENT SURVEY IS BEING DISTRIBUTED

When it arrives, please take a few minutes to fill it out.

In cooperation with National Agricultural Statistics Service, the UMass Cranberry Station is distributing a survey to determine what growers are doing to manage dodder infestations on commercial cranberry bogs. The UMass Cranberry Station will use this information to define opportunities to develop integrated management plans for dodder. We will be able to use the survey results when applying for additional research dollars to investigate new options for dodder control.

If your farm is selected and you receive a survey (printed on yellow paper), please take a few minutes to fill it out and return it to me. A self-addressed stamped envelope will be included for your convenience. Individual survey replies will be kept strictly confidential. Survey responses will be tabulated and a summary of the results will be made available at a future Cranberry Station workshop.

If you have any questions regarding the survey, please feel free to contact me.

Thank you so much for participating in the survey!

Hilary Sandler
Cranberry IPM Specialist

PLANNING TO GET YOUR PESTICIDE LICENSE?

UMass Amherst offers a two day workshop at the Cranberry Station to prepare you to take the exam. This is a campus sponsored program and you must register with them using the form available on the internet. The workshops at the Station are on May 17-18. For more information about the Pesticide Exam and Training Workshops go to the Department of Agricultural Resources website (www.mass.gov/agr/). In the 'Quick Links' box, click on 'Pesticide Exams'. Then click on 'Applicator Training Workshops' for a printable sign-up form. The fee for the workshop is \$115. This does NOT include the fee for taking the exam — this is paid separately to the State when you sign up to take the test. You will need to separately order the exam study guides and will want to have them with you. They can be ordered using a form found on the 'Pesticide Exams' page under the 'Study Manual Order Form' link.

IPM WORKSHOP — BLACKHEADED FIREWORM MANAGEMENT

This Cranberry Station free workshop will be held during the second or third week of May. Watch your mail and our web page for an announcement of the date. We will set the date based on insect activity in the field.

WORKER PROTECTION TRAININGS

Worker Protection Trainings for cranberry workers in the handler category will be offered in the spring of 2005: April 27, May 25, and June 29. 2PM in the station library.

Contact Martha Sylvia: 508-295-2212, ext. 20 for additional information.

IPM TRAINING UMASS CRANBERRY STATION, WEDNESDAY, APRIL 27TH, 2005 9:00 - 12:00 NOON

This IPM training will review the new cranberry pesticides focusing on reduced risk compounds and blackheaded fireworm management. There will be a chemigation review and a dye test demonstration. **TWO** contact hours will be offered towards pesticide re-certification. The cost is \$20.00 per person.

Please return attached sign up form (page 3) by April 20th to attend.

CAN SANDING REPLACE PRUNING? WHAT ABOUT THOSE WATER LEVEL FLOATS? CRANBERRY STATION AND GROWERS BEGIN NEW PROJECT

This season, the faculty of the Station and a team of growers will begin a three year project to study how common management practices can best be combined to achieve the 'ideal' plant canopy on a bog. The ideal canopy is one where upright density is adequate to support high yields yet open enough to allow light and air penetration to minimize disease, maximize fruit color, and allow good penetration of ag chemicals.

Grower participants will implement different regimens of sanding, pruning, fertilizers, drainage, and irrigation scheduling. Station staff will help the growers to evaluate outcomes and determine which combinations of practices give the best result. A major portion of the project will focus on the integration of sanding and pruning or the potential to substitute pruning for sanding or to at least use pruning to extend the intervals between sanding. The pruning and sanding questions will be researched on both water-harvested and fresh fruit bogs.

We will also look at the use of water level floats to schedule irrigation and plan to conduct workshops where growers can gain hands-on experience in making and installing the floats. Another practice that will be investigated will be the potential to limit interior ditches in order to reduce the cost of ditch maintenance.

This is a project where grower participation is mandated by the funding agency (SARE - Sustainable Agriculture Research and Education) and in which we are looking to develop information that will be widely adopted. In order to assure that outcome, we will be looking at the costs of the practices and comparing to the benefits achieved.

If these are questions that you have been tossing around and you are interested in being a part of this project, please give me a call or e-mail me to learn more about how you can participate.

Carolyn DeMoranville
508-295-2212 x 25
carolynd@umext.umass.edu

Registration Form for IPM/CHEMIGATION Workshop Wednesday, April 27, 2005 Raindate: Thursday, April 28, 2005 9:00 AM - 12:00 PM Cranberry Station Library

Please register for the meeting using this form

COMPANY_____

CONTACT_____

PHONE_____

NAME OF ATTENDEES_____

Return completed form with payment by
April 20, 2005
Check payable to: UMASS
\$20.00 per person.

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

attach additional sheets as necessary

PRELIMINARY KEEPING QUALITY FORECAST 2005

As of April 1, there are 4 points out of a possible 10 that favor keeping quality in the 2005 Massachusetts cranberry crop. Two points were awarded for favorable sunshine hours for the month of March and two points were awarded for a favorable March mean temperature. The forecast is for **FAIR TO GOOD** keeping quality. The final keeping quality forecast (issued after June 1) could be upgraded if we have a cool and dry April and May. Based on the present forecast, fungicide applications and the rate of fungicides applied could possibly be reduced except in those beds with a history of above-average fruit rot. Due to the decent condition of the vines coming out of the winter and the ample quantity of available water, this would be a good year to consider holding late water. If you have any questions, please contact me at 508-295-2212 ext. 18

Frank Caruso
Plant Pathology

UMASS EXTENSION
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