Cranberry Station Newsletter

APRIL 2004

UMass Cranberry Station
1 State Bog Road
P.O. Box 569
East Wareham, MA 02538
http://www.umass.edu/cranberry

Winterkill Damage

As we drive around the cranberry area this spring, we have been seeing winterkill damage on many bogs. Certainly, with the winter we just had, winterkill is a given if the bog didn't have a winter flood. But what about the majority of cases - winter floods were held and yet we see winterkill. How can this be?

There was no real mid-winter thaw this year. So any vines that become exposed after floods were pulled to prevent oxygen deficiency were at risk. The root zone was frozen from early in the winter until very recently. Couple that with a dry, cold, windy winter and you have the perfect conditions for winterkill.

Winterkill injury is classified as a 'physiological drought' when moisture lost from the vines due to wind and evaporation cannot be replaced due to freezing in the root zone. The symptoms are leaf discoloration and eventual leaf drop. Such injury can occur within 3 days if the root zone is frozen to a depth of 4 inches, air temperature is below freezing, and strong drying winds (10 mph or greater) occur. These were common conditions this past winter.

What are the implications of winterkill damage? Damaged leaves will eventually drop and in any case are nonfunctional. The plant depends on recycling minerals from old leaves and stems into new growth as the bud begins to grow. When leaves are lost to winterkill, the amount of minerals available for recycling is reduced. This means that that plants will depend more on minerals harvested from the soil (fertilizer and native soil minerals). As new growth begins, the plant also depends on the old leaves to provide some carbon compounds (products of photosynthesis) for the formation of the new leaf and stem structures. While some of these demands may be met from carbon compounds stored in roots and stems, again there will be a deficit of that which would normally come from the leaves.

How can we overcome the detrimental effects of winterkill? There is nothing we can do to 'rescue' the damaged leaves. Instead, we need to focus on supporting the plants in their production of new leaves once bud break occurs (mid-May). Since some minerals were lost, early fertilizer applications should be helpful in replacing the lost nutrients and in encouraging the rapid production of new leaves. Once these form, they can begin to photosynthesize and replenish carbon stores to prepare the plants for flowering and fruit formation. Consider applying spring nitrogen at or soon after bud break rather than waiting for roughneck stage.

Tips for treating winterkill areas:

- Apply 100 lb/a SulPoMag or KMag when soil temperatures reach 50-55ºF, especially if vines are 'crunchy'.
- Avoid preemergence herbicides, especially Casoron, if vines are stressed.
- Apply spring fertilizer (~5 lb/a N) at or soon after bud break.

Carolyn DeMoranville

Carolyn DeMoranville,
Cranberry Station Director

CRANBERRY STATION IPM WORKSHOPS
9 AM - 10:30 AM

This season, we will be hosting mini-workshops in May and June at the Cranberry Station and a bogside workshop in July at a grower's farm. The workshops at the Station will focus on current pest and management issues. We will have specimens on hand and will be giving sweeping demonstrations and other how-to tips. We will also identify problems with materials you bring to us. The format will be informal - so come with your questions, bugs, and plants. The Station workshops will be similar to the old 'open labs' that were held back in the 90s. The final workshop will be held at a grower farm so that we can look at some in-the-field issues. All workshops will be held in the morning (9-10:30 am). We plan to apply for ½ pesticide credit for each. Mark your calendars with the dates - **no** pre-registration required.

Date	Location
May 18, Tuesday	Cranberry Station Library
June 2, Wednesday	Cranberry Station Library
June 15, Tuesday	Cranberry Station Library
June 30, Wednesday	Cranberry Station Library
July 13, Tuesday	Location TBA

CANADA GOOSE AND OTHER WILDLIFE DAMAGE MANAGEMENT

The U.S. Department of Agriculture's Wildlife Services Program is available to assist cranberry growers with Canada goose and other wildlife damage management. Wildlife Services may provide assistance with obtaining permits and the development of a management plan specific to most growers' needs. For additional information, please contact Don Wilda: at (413)253-2403, or Donald.J.Wilda@aphis.usda.gov

WORKER PROTECTION TRAININGS
CRANBERRY STATION LIBRARY
2-4 PM

Worker Protection Trainings for cranberry workers in the Handler category will be offered in the spring of 2004, at the Cranberry Station: April 28, May 26 and June 30. Anyone working on the bog must be trained unless they are a family member or already have a pesticide license. There will be a $5.00 charge that includes training book and EPA verification card. Contact Martha Sylvia: 508-295-2212, ext. 20 for additional information and to register.

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While You Were Sanding…

This winter was a hard one. The January temperatures will go down in the record books as one of our coldest to date. Not only was January cold, but it was incredibly dry. We looked through the weather records here at the Cranberry Station and found that this was the fifth driest winter since 1927 with precipitation of just over 9 inches. A pattern of dry winters seems to be emerging with every 18 to 20 years being below average for precipitation. Yield did not seem to be affected following these dry winters.

Seven of the last nine months have been below average in rainfall, with only October 2003, and December 2003 coming in at above average. As of the end of March, we are at a deficit of six inches for average precipitation in 2004. No one can predict exact weather conditions but the pattern is developing for a dry summer. Going into the season with such a deficit in precipitation could have an affect on our supply of water in the summer for irrigation or in the fall for harvest. Many new neighbors have popped up around bogs and ponds in the last few years increasing the demand for water resources and increasing the demand of efficient water use by cranberry growers.

There are a few things we can do to help conserve our water resources:

- Only protect plants from frost when the temperature nears the tolerance of buds or fruit.
- Consider installing Water Level Floats (fact sheet available at Cranberry Station). They are an inexpensive and effective way of monitoring water needs on the bog. This will help in determining irrigation needs on bogs with a water table present.
- When possible, piggy-back "watering in" of fertilizer and herbicides with irrigation.
- Make sure flumes are tight and efficient.
- Use Tailwater recovery canals as an effective way of capturing water and reusing it throughout the growing season.

Written by
Jennifer Friedrich
Data provided by Deb Cannon

University of Massachusetts Dartmouth Executive Director of the Southeastern Massachusetts Agricultural Partnership

The University of Massachusetts Dartmouth seeks an Executive Director of the Southeastern Massachusetts Agricultural Partnership who will be responsible for implementation of the grant for SEMAP, a coalition of public and private agricultural enterprises whose mission is to ensure agricultural viability and economic development in Southeastern Massachusetts. The SEMAP Executive Director will maintain and develop SEMAP's signature programs and services, coordinate fundraising and activities to broaden the organization's resource base, and oversee operations and administration of the SEMAP organization.

Minimum qualifications include a Bachelor's Degree in a related field such as agricultural science, economics, biology, horticulture, natural resource or land planning, or business; significant management experience including fundraising, grant writing, program development, strategic planning, organizational capacity building and entrepreneurship; excellent written and oral communications skills; excellent customer relations skills; knowledge and understanding of computer and Internet technology; excellent organizational skills involving the ability to identify and solve complex problems and manage multiple tasks simultaneously; technical understanding of Website development, maintenance and editing; database development and maintenance skills; knowledge of the SEMAP mission and role in the region; and an ability to work with diverse constituencies and maintain collaborative partnerships. Some evening and weekend hours and travel will be necessary. Preferred qualifications include a Master's Degree and a working knowledge of agricultural issues.

To apply, send letter of application, current resume, and the names, titles, addresses and telephone numbers of three references to: Search for Executive Director of SEMAP, Office of Human Resources, University of Massachusetts Dartmouth, 285 Old Westport Road, No. Dartmouth, MA 02747. The review of applications will begin April 16, 2004 and continue until the position is filled. UMD is an AA/EEO Employer.

PRELIMINARY KEEPING QUALITY FORECAST 2004

As of April 1, there are 5 points out of a possible 10 that favor keeping quality in the 2004 Massachusetts cranberry crop. Four points were awarded for favorable sunshine hours for the previous year and one point was awarded for favorable March precipitation. The forecast is for **GOOD** keeping quality. The final keeping quality forecast (issued after June 1) could be upgraded if we have a cool and dry April (it certainly has not started out being dry!) and May. Based on the present forecast, fungicide applications and the rate of fungicides applied could be reduced except in those beds with a history of above-average fruit rot. Due to the miserable condition of the vines coming out of the winter, this is not a good year to hold late water. If you have any questions, please contact me at 508-295-2212 ext.18.

Frank Caruso,
Plant Pathology