

University of Massachusetts • Cooperative Extension

Cranberry Station Newsletter

March 1995

Cranberry Experiment Station  
Glen Charlie Road  
East Wareham, MA 02538



**Cranberry Station Workshops**

Every Other Thursday Morning, starting April 27

Information for beginning growers or consultation for experienced growers on difficult problems. Cranberry Station personnel will run 15 minute rotating sessions. Sessions will be held every other Thursday morning beginning at 9 AM. Current information will be presented, questions will be entertained, and live specimens will be available when possible. Coffee and donuts will be served at 10 AM when station personnel will be available to answer any additional questions. Meet in the station library to attend workshops promptly at 9 AM.

**April 27, 1995 (9-10 AM)**

Frost	Michelle Hogan + I. Demoranville
Weeds (including algae on late water bogs)	Mary Jane Else Bob Devlin
Fertilizer (new bogs, soil tests)	C. DeMoranville
Upright dieback + root rot	Frank Caruso

**June 8, 1995 (9-10 AM)**

Sweeping	Hilary Sandler
Insect Identification	Anne Averill
Post-emergence herbicides and Roundup wiping	Bob Devlin Mary Jane Else
Timing Fungicides	Frank Caruso

**May 11, 1995 (9-10 AM)**

Sweeping techniques + pheromone traps	Anne Averill Hilary Sandler
Frost	Michelle Hogan + I. Demoranville
Dodder	Mary Jane Else
Fertilizer (first N)	Carolyn DeMoranville

**June 22, 1995 (9-10 AM)**

Irrigation schedules + Fruit rot management	Hilary Sandler
Timing fruitworm sprays	Anne Averill
Weed ID + prioritizing problems	MJ Else
Fertilizer (bloom-set)	C. DeMoranville

**May 25, 1995 (9-10 AM)**

Sweeping + pheromone traps	Anne Averill
On-bog-demonstration	Hilary Sandler
Weed Identification	Mary Jane Else
Timing Fungicides	Frank Caruso

**July 6, 1995 (9-10 AM)**

Sampling for fruitworm eggs	Hilary Sandler
Timing <i>Sparganothis</i> control	Anne Averill
Roundup wiping	Mary Jane Else
Issues of the day	Frank Caruso

**BEGINNERS CRANBERRY SCHOOL**

**April 12, 1995**  
**8:30 AM to 12:00 PM**  
**Cranberry Station Library**

*Seating limited - Call the station to register.* Pesticide re-certification credits for the cranberry category will be offered.

The program for the Beginners Cranberry School will focus on basic concepts in cranberry culture. Slide presentations will concentrate on identification of insect, weed, and disease pests. Concepts of scouting and IPM will be presented. Planning fertilizer and weed programs will be discussed. This course is designed for beginners in the cranberry business.

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## Cranberry IPM

**Scouting:** It's time to make sure you have all the scouting equipment that you need to properly scout your bogs: a sweep net, a 10X hand lens, pheromone traps (lures + stakes), maps of your bogs, ID manuals, and record sheets. You should consider attending the Beginners Cranberry School particularly if you are scouting your own bogs or are new to cranberry growing. It is always a good idea to refresh your memory on sweeping techniques, basic insect ID and vine symptoms prior to the start of the season.

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### NEW START DATE FOR THE CODE-A-PHONE MESSAGES - MARCH 17, 1995.

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**Code-A-Phone:** For information and recommendations on current insect, disease, weed, and nutrition concerns, call 295-IPM-1 (295-4761). The Code-A-Phone can be accessed 24 hours a day, seven days a week. Weekly updates are available by noon on Fridays unless otherwise noted.

**A New Format For The IPM Newsletter:** Starting this year, the IPM Newsletter will be printed as the 'IPM Edition' with the same header as the Cranberry Station newsletter. The newsletter will still be printed on pink paper, 10-12 times per year. If you would like to be added to or deleted from the mailing list of the 'IPM Edition', please notify the station. The 'IPM Edition' is free to all in-state growers and all research/extension personnel. Subscriptions for out-of-state growers and industry personnel are \$15 per year. Please make checks payable to the 'University of Massachusetts'.

**The IPM notebook** is a valuable resource for any IPM practitioner, novice or experienced. It contains detailed information on cranberry insect, disease, and weed pests, as well as information on IPM equipment suppliers, various IPM techniques, nutrition, frost, etc. IPM notebooks are available at the station for \$25 + postage.

HILARY SANDLER  
IPM COORDINATOR

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## REVISION IN THE LABELING OF THE EDBC FUNGICIDES

The EPA has issued an Administrative Order revising current labeling of products containing the active ingredient ethylenebisdithiocarbamate (EDBC). The EPA agreed to allow registrants to amend label language that prohibited the use of more than one EDBC active ingredient per crop per season. The labeling change will allow the use of more than one EDBC active ingredient per crop per season, as long as the total amount of EDBC applied does not exceed the amount of EDBC active ingredient allowed for the most restrictive amount specified on the label. EDBC labels are being corrected to include these modifications. EDBC existing stock inventories will be re-labeled to incorporate these changes. (From: Chemically Speaking, Oct. 1994).

This means that fungicides containing the active ingredient maneb and mancozeb can be used in the same bed for fruit rot control in 1995.

## ARE YOU INTERESTED IN HAVING SOME FUNGI KILL YOUR DODDER?

I will be testing two fungal pathogens of dodder for their ability to kill this pesky weed in the field during this growing season. I tested them in 1993 but there were problems in the formulation of the mycoherbicides and as a result of this, the materials arrived too late for them to be effective or to be easily evaluated. Formulation problems have been resolved and the company (Hacco, Inc.) will be providing me with pre-emergence and post-emergence formulations to evaluate. I would like to set up two pre- and two post-emergence plots on grower's beds. Please call me if you are interested.

FRANK CARUSO, EXTENSION PLANT PATHOLOGIST

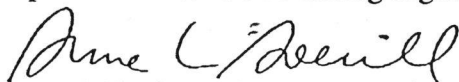
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March 1995 Issue

Martha M. Averill, Editor

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Cooperative Extension Mailing Signoff

  
Anne L. Averill, Small Fruit Specialist

## Late Water: Research progress

We have set up a research team (DeMoranville, Caruso, Averill, Else, Sandler) at the Cranberry Station to look at some of the questions surrounding late water (LW). This intensive study began in 1993 and will continue through 1997. Some of the questions and progress to date follow.

**What effect does LW have on yield and yield components?** In 1993 and 1994, LW bog yields were compared to yields on companion early water (EW) pieces and to their own yield histories. In 1993, we studied 11 LW bogs (7 with EW controls). In 1994, we studied 9 LW bogs (7 EW).

Bogs	Average yield (bbl/A)	
	1993	1994
LW	143	166
EW	118	128
LW	143	162
Prev. 2 years	132	158

As shown in the table, LW bogs had higher yields than EW companions in both 1993 and 1994. LW bogs also had higher yields in the year of LW than in the two years previous. We also studied the effect on yield components such as flower and fruit number. In a given area of vines (6 inch diameter sample circles) LW bogs had more fruit than EW bogs in both 1993 and 1994. However, LW bogs had fewer flowers than EW bogs in 1994. This was compensated for by greater fruit set on the LW pieces.

**How does fertilizer interact with LW?** In general, LW bogs do not require any N fertilizer until bloom. For this reason, fertilizer dose may be reduced by 30% or more on LW bogs (compared to their previous fertilizer history). In our studies, fertilizer N on LW was reduced by 40% (1993 study) to 60% (1994 study). As shown above, these fertilizer reductions did not lead to decreased yield. A follow-up of the 1993 LW bogs showed that the low fertilizer in 1993 did not lead to decreased yield in 1994.

**What is the impact of LW on insects and mites?** LW has a large effect on Southern Red Mite (SRM), eliminating this problem pest in the year of LW and continuing to suppress populations in the year following LW. LW suppresses early season cutworms but does not eliminate the possibility of these insects coming back onto the bog after the flood - good sweep scouting is required to monitor for any reentry. LW suppressed cranberry fruit worm (CFW) in the year of the flood. In our intensive scouting study of 1993, we found that growers could eliminate all CFW sprays on some LW pieces and use only one CFW spray at most of the others with acceptable (less than 3%) injury from this pest. Unfortunately, the

1994 follow-up showed that CFW pressure returned in the year following LW.

**What is the impact of LW on diseases?** LW reduces the impact of fruit rot disease. The effect may be due to shifting the timing of cranberry bloom or direct impacts on the fungal pathogens which cause fruit rot. Studies in 1994 provided evidence that the fungal populations on LW bogs differ from those on EW bogs.

**What is the impact of LW on weeds?** LW is known to suppress weeds (historical and grower accounts). Our LW studies will continue to look at the impact of LW on weeds, especially brambles and briars. To the best of our knowledge, LW does not reduce dodder.

**What is the impact of LW on chemical inputs to the cranberry bog?** LW has the potential to reduce the requirements for chemical inputs in the year of the LW flood and the following year. This reduction can help to defray any costs associated with the practice such as maintaining the flood or minor crop reduction. As mentioned above, fertilizer use on LW bogs can be reduced from 30-60% depending on the year (above average temperature after the flood - use even less N). Use of miticide to control SRM may be eliminated in the year of LW and the following year. Use of insecticides for cutworms can usually be eliminated (but do scout carefully) in the year of LW. Use of insecticides for CFW can be reduced - begin scouting for eggs after the *first* CFW spray and only apply further sprays if the scouting warrants. Use of fungicides for fruit rot can be reduced to one (or two in bad forecast years) applications. As one grower in the study puts it: LW allows us to grow crops on marginal acres with much lower costs.

### Late Water: Recommended for 1995

Chet Cross formulated a LW recommendation based on his study of weather patterns in Massachusetts. He recommended that LW could be used successfully (no crop problems) in years following a sunny summer and an open winter. If this recommendation is accurate, 1995 should be a great year for LW following a sunny and hot summer in 1994 and a mild (open) winter in 1994-1995. *We highly recommend that you try LW in 1995 if you have any interest in working with this practice.* Remember, you should only use LW one year out of three for a given bog. The Cranberry Station Research team is continuing to study LW. If you will be holding LW in 1995 and would like to participate in the study, call one of the team members. Participation can be as major as having plots on your LW bog to as minor as simply providing pesticide-fertilizer-yield records for the information gathering part of the project.

## Compendium of Blueberry and Cranberry Diseases

*Edited by Frank L. Caruso and Donald C. Ramsdell*

This long-awaited reference book will be available in June 1995. It will be a thorough examination of the diseases and disorders which affect cranberry and highbush, lowbush, and rabbiteye blueberry plants. Each individual writeup will include an introduction, a description of symptoms, a description of the causal organism or factors which are involved, information on the disease cycle and epidemiology, control strategies, and a brief bibliography.

The book (8 1/2" x 11" in softcover format) will be approximately 120 pages and will include 190 color photographs and 25 black and white illustrations. It will be an invaluable addition to your library. The introductory discount price before June 30, 1995 is U.S. \$25; Elsewhere \$29. After June 30, the price will be U.S. \$30; Elsewhere \$37. The book can be purchased through APS Press, the American Phytopathological Society, 3340 Pilot Knob Road, St. Paul, MN 55121-2097; Phone: 612-454-7250; FAX: 612-454-0766; Telex: 6502439657 (MCI UW).

## Farmers and Social Security

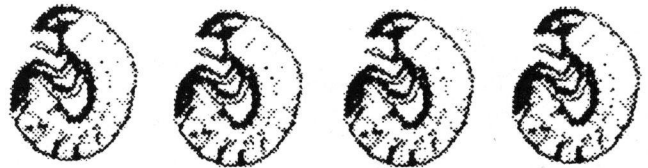
*The information which was sent out to dairy farmers may be useful to cranberry growers, especially those with small acreage:* To receive maximum Social Security (SS) benefits upon retirement, a person must have had a certain level of earnings in 40 quarters. A farmer's self-employed income or earnings is based on Schedule F profit or loss. In order to qualify for SS credit, a farmer must have reported \$610 of earnings per quarter in 1994, \$630 in 1995. In general, if you report less than \$610 net farm profit on the 1994 Schedule F, you will earn no quarters for that year. Even if you report enough to earn a quarter of SS, low reported incomes can lead to partial benefits upon retirement, including a higher cost for medicare benefits. The best way for a farmer to determine if he/she is fully insured for SS and to obtain an accurate estimate of retirement benefits is to fill out Form SS-7004-PC and send it to the SS Administration. You can obtain this form from your local SS office or call 1-800-722-1213 to request it.

## Grub Research Moving Forward

The Entomology lab is continuing to do extensive grub research. We are looking for new sites for our grub survey. The survey is important in many ways. It checks levels of infestation so that we can focus our research on the most problematic soil insects. The survey also aids in the discovery of new grub pests. For instance, this past season Oriental beetle, previously unreported in the Southeastern Massachusetts area, was found in high numbers in bogs we surveyed on the Cape. Growers on the Cape are especially urged to reply to this request. The grub survey documents the severity of the grub problem which will help us with pesticide registration in the future. All grubs that are collected are used in lab research.

Last summer, the pheromone of the white grub was identified, synthesized, and successfully field tested. One of the two components in the cranberry root grub pheromone was also identified and work on this front continues. We plan to continue with the pheromone trapping of Oriental beetle, white grub, and cranberry root grub at bogs with known infestations.

Grub damage usually begins as a small spot of dead vine which gets bigger over time. The areas are eventually overtaken by weeds. If you suspect grub damage on your bog please call Marty or Jessica at the Cranberry Station (508-295-2212). Be assured we keep all information confidential.



ANNE L. AVERILL, CRANBERRY ENTOMOLOGIST