



**UMass
Extension**

Cranberry Station Newsletter

MARCH 2010

UMASS CRANBERRY STATION

1 STATE BOG ROAD

P.O. BOX 569

EAST WAREHAM, MA 02538

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

**Pesticide Safety Training
Elk's Lodge, East Wareham
Wednesday - April 7, 2010
8 AM - 12 NOON**

This meeting gives a current update on cranberry pesticide issues and focuses on pesticide safety. The cost is \$50.00.

FOUR contact hours will be offered towards pesticide re-certification.

RETURN REGISTRATION FORM ON PAGE 7

- 8:00 – 8:30** Pesticide Safety Review – Martha Sylvia, UMass Cranberry Station
- 8:30 – 9:00** Groundwater, Zone II and Regs in Cranberry – Brian Wick, CCCGA
- 9:00 – 9:20** BMP Review – Carolyn DeMoranville, UMass Cranberry Station
- 9:20 – 9:40** Disease Predictions – Frank Caruso, UMass Cranberry Station
- 9:40 – 10:00** Acronym Review and More About Pesticides – Martha Sylvia
- 10:00 – 10:20** Coffee Break
- 10:20 – 11:00** Quinclorac/Callisto Update – Hilary Sandler, UMass Cranberry Station
- 11:00 – 11:30** Insecticides Update, Bee Toxicity and Management Decisions – Martha Sylvia
- 11:30 – 12:00** Chemigation Configurations - Jack Heywood, Stearns Irrigation

Weed Priority Survey

At the January 2010 Cranberry Management Update meeting, a survey was distributed to find out your thoughts about what weeds are of the most concern to you. We asked you to select the Top 5 most problematic weeds from a list of about 20 possibilities. The first table below shows how many people ranked each weed as being number 1, 2, 3, 4, or 5. Some folks just circled or checked off the weeds, so those responses are tallied under “not rated”. Approximately 60 people answered some or all aspects of this question.

Dodder and dewberries were ranked #1 by 25% of the respondents; next were yellow loosestrife (YLS) and poison ivy, which were noted as the most problematic weeds on the bog by about 10% of respondents. Many growers rated dodder and dewberry as #2 (~20%). Maples and YLS were noted as the second worst weed for about 10% of the respondents. Poison ivy (PI) and dodder were the top #3 ranks, chosen by about 15% of the growers. Sawbrier was noted as #3 or #4 by about 10% of the respondents. Rounding out the Top 5 were perennial grasses, wild bean, and narrow-leaved goldenrod (NLGR).

Weed	Number of people ranking a weed....					
	1	2	3	4	5	Not rated
Annual grass	1	0	2	2	2	3
Asters	1	0	4	0	2	2
Chokeberry	0	1	0	1	1	2
Cinquefoil	1	1	0	2	2	0
Dewberry	16	13	6	4	1	5
Dodder	17	12	9	4	3	8
Maple	3	6	6	5	6	8
Moss	0	1	0	1	0	1
NLGR	4	3	4	3	7	3
Nutsedge	0	0	1	1	1	1
Perennial grass	0	5	1	4	8	3
Pitchfork	0	2	1	1	2	3
Poison ivy	5	5	10	8	1	6
Rushes	0	2	1	0	2	1
Sawbrier	4	3	7	7	1	3
Sedges	1	0	1	1	2	0
Tree seedlings	0	0	3	1	4	0
Wild bean	3	0	2	5	8	4
Willows	0	1	1	4	2	0
YLS	6	7	5	7	6	3

We also asked you what percentage of your farm was infested with these weeds. Some respondents indicated that a weed was a problem but did not fill in the percentage; these are tallied as “not rated”.

Dodder, maples, asters, and YLS were the four species noted to be covering more than 75% of the farm (representing about 10% of the total respondents). Annual grasses, dewberry, and NLGR were noted as covering 50-75% of the farm by a few growers (in addition to the weeds just mentioned). Almost all weeds (except sedges) fell into the range of covering 10-25% of the farm, with dodder, dewberry, maples and YLS noted most often.

Weed	Percent of Acreage Infested (number responding) for weeds listed at least once as a Top 5 weed					
	>75	50-75	30-50	10-25	<5	Not rated
Annual grass	0	1	2	1	4	2
Asters	1	0	0	5	2	1
Chokeberry	0	0	0	3	0	2
Cinquefoil	0	0	0	5	0	1
Dewberry	0	2	6	17	8	12
Dodder	4	4	8	22	4	11
Maple	1	3	3	17	2	8
Moss	0	0	0	1	0	2
NLGR	0	4	5	10	2	3
Nutsedge	0	0	1	1	0	2
Perennial grass	0	0	1	10	4	6
Pitchfork	0	0	2	2	3	2
Poison ivy	0	0	4	12	11	8
Rushes	0	0	0	2	1	3
Sawbrier	0	0	3	11	5	6
Sedges	0	0	1	0	2	2
Tree seedlings	0	0	0	3	2	3
Wild bean	0	0	2	11	5	4
Willows	0	0	1	3	3	1
YLS	1	2	7	13	4	7

Dewberry and dodder were rated high (problematic) even though they do not cover a lot of the farm (though dodder was pretty variable). Nineteen growers noted that poison ivy (PI) was covering less than 10% of the farm (these data not shown) but PI was still rated as one of the Top 5 by more than half of the total respondents. YLS, maples, and sawbrier also generally fit this pattern (rated problematic even though not infesting a lot of the farm). *Phragmites* was on the list but was not selected by any respondent.

The last table shows the number of growers who reported percent values for infestations of any or all weeds that occur on their farm, regardless of whether it was a Top 5 weed or not. Note the inclusion of clover, broad-leaved panicgrass, pinweed (aka orangegrass or mare's tail), and *Phragmites* in this list. Note also higher numbers for weeds such as annual grasses, asters, cinquefoil, moss, NLGR, nutsedge, perennial grasses, poison ivy, tree seedlings, wild bean, and yellow loosestrife. This indicated the wide array of weed species that are present on cranberry farms, even if all did not make the Top 5 list.

Weed	Percent of Acreage Infested (# responding) for weeds listed at least once by any grower				
	>75	50-75	30-50	10-25	<5
Annual grass	0	1	3	10	13
Asters	1	0	1	11	8
BdLv Panicgrass	0	0	1	0	0
Chokeberry	1	0	0	5	5
Cinquefoil	0	0	0	8	7
Clover	0	0	1	0	0
Dewberry	0	2	6	20	9
Dodder	5	4	9	22	5
Maple	2	6	2	21	5
Moss	0	0	1	6	11
NLGR	0	4	6	15	6
Nutsedge	0	0	3	7	5
Perennial grass	0	1	1	15	14
Phragmites	0	0	0	0	3
Pineweed	0	0	0	4	0
Pitchfork	1	0	2	6	12
Poison ivy	0	0	3	17	17
Rushes	0	0	0	4	9
Sawbrier	0	0	3	13	12
Sedges	0	0	1	4	10
Tree seedlings	0	0	0	13	4
Wild bean	0	0	2	13	12
Willows	0	1	1	4	7
YLS	2	2	6	16	8

Again, thanks to everyone who filled out the survey. Thanks to Natalie Guerin who helped compiled the data. If you have any further comments or questions, please contact me at ext. 21.

HILARY SANDLER

Pesticide License Exam Schedule

**Location: Upper Cape Regional
Technical School, Bourne MA**

**DATE: April 20, 2009
(register by April 13, 2009)**

**More exam dates available at Waltham,
visit the web site for more info at:
www.mass.gov/agr/pesticides**

**2010 Pesticide Applicator License
Training Workshops**

**Held at the UMass Cranberry Station Library
Sponsored by Pesticide Education, Agriculture
and Landscape Program**

**April 8 & 9, 2010
May 6 & 7, 2010**

**For more information and to register contact:
Natalia Clifton at 413-545-1044**

Dodder Control in 2010

We have requested a Section 18 permit to use quinclorac (sold as QuinStar 4L) for dodder control. MDAR is supporting our request and has sent the paperwork to EPA. We have asked for a May 1 effective date. We have requested use of two formulations, a DF and a liquid (this was used last year). As with some insecticides, many formulations may be available but you are limited to the total amount of active ingredient that can be applied per acre per season. In this case, it is 0.5 lb/A active ingredient.

You should NOT bank on the granting of the Section 18 for dodder control. You should make contingency plans in case EPA does not grant the Section 18 or does not grant it in time for proper application. If it is granted, you should be very selective about which bogs you treat as we have NO efficacy data for Massachusetts.

Scout for early emerging seedlings; this is important whether you are applying Casoron or QuinStar or using floods. If you have had success with Casoron, plan to use it for dodder control. Consider using short (24-48 hr) floods (ca. mid-May). Better control seems to be correlated with floods made 4 weeks after first seedling emergence. If dodder is bad enough on your farm, consider saving at least one Callisto application for postemergence control. Control early season dodder hosts (other broadleaf weeds) with preemergence herbicides. Remove dodder by hand as soon as it appears.

Data from both WI and NJ indicated that early applications of quinclorac (before dodder attaches to a host) are much more effective than later applications. For MA conditions, the application window would be a bit later than was used with Kerb; dodder should be just or newly emerged. Data from NJ also suggests that the second application, made at least 30 days after the first, improves control (and limits seed production).

Look for updates on our website and this newsletter on the status of the Section 18.

HILARY SANDLER

Revised Nutrient Management BMP

The Nutrient Management BMP has been revised and is posted to the Cranberry Station website at

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

This revision replaces the previous BMPs for nutrient management, nitrogen management, and phosphorus management. For reference purposes, those documents are archived at:

<http://scholarworks.umass.edu/cranberrybmp/>

Over the next several months, we will be revising the BMP Guide into a single, web-based document that will be searchable and will include hot links within the document taking growers to additional information.

WORKER PROTECTION TRAININGS Cranberry Station Library 2-4 PM

Worker Protection Trainings for cranberry workers in the handler category will be offered in 2010: April 28, May 26, and June 30. 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, Station Director

Chemigating with Callisto

At the January 2010 Cranberry Management Update meeting, a survey was distributed to find out your experiences with chemigating Callisto in 2009. Approximately 210 growers were in attendance and 84 people returned their surveys (40% response rate). Fifty-three people said they had chemigated Callisto in 2009 and 22 said they had not. Of those who chemigated, 84% used a nonionic surfactant (NIS), 5% used crop oil concentrate (COC), and 11% tried both (N=44). Most people used Activator 90, though a few used Induce or Plyac and one used X77. Most people used the 8 oz/A rate of Callisto (68-72%); 18-24% used 6 oz/A and 8-10% used 4 oz/A of the herbicide.

How much adjuvant was used? We then asked you to write down how much adjuvant you used and how good you thought the weed control was when you chemigated Callisto with the adjuvant. For the first application, almost 50% of the respondents reported good or great control (percentages are rounded) when 2 qt/A or less adjuvant was used (Note: a 0.25% v:v rate would have needed 1 qt NIS for every 100 GPA water delivered in the chemigation event or at least 1 gal/A adjuvant if chemigation delivered 400 GPA water). Twenty percent who used 2 qt or less reported control was OK and about 7% said it was marginal.

First Application	Percentage of responses (N=46)				
Amount used/A	Great	Good	OK	Marginal	Did not work
None	0	6.5	4	0	0
1 qt	9	15	9	6.5	0
1-2 qt	4	15	6.5	0	0
2-3 qt	0	0	0	2	2
4 qt	2	9	6.5	2	0

Although the total number of respondents decreased to 36, very similar results were reported for the second application; 50% of the respondents reported good to great control when using 2 qt/A or less adjuvant.

What were the target weeds and how was the control? Next, we asked you to tell us what weeds you were trying to control with the first and second applications and what level of control you got. Many people listed more than one target weed (but generally less than 3). When multiple weeds were listed, only 1 rating score was given. So, when the responses were tallied, if someone wrote “dewberry and NLGR” as the target weeds and listed “Good control”, each weed was noted separately and each given a tally for “good control”. This was then considered “one report for NLGR and one report for dewberry”. Although this scoring system was not perfect, it still gives a good general sense of how the herbicide performed when chemigated.

Results were fairly similar for both applications. Narrowleaf goldenrod (NLGR) was commonly targeted (31 reports) and most reported good to great control with chemigation. There were 21 reports on dewberry with the majority reporting OK to good control; results were inconsistent for dodder (16 reports). “All weeds” was another category that was commonly listed (21 reports) with most reporting good control, but a large proportion also reported minimal control. No one reported that the herbicide did not work, so the last category is not listed. Due to the limitations with the scoring procedure, we could not tell if there was a difference in performance between the first and second application.

Target weed	Number of responses							
	Great		Good		OK		Marginal	
	1 st	2 nd	1 st	2 nd	1 st	2 nd	1 st	2 nd
Cinquefoil	1	1	2	2	0	0	0	0
Dewberry	2	2	5	4	4	2	1	1
Dodder	1	2	3	2	2	2	3	1
Grasses	2	1	4	4	1	0	0	0
Maples	0	0	1	0	0	1	0	0
NLGR	3	3	12	8	2	1	1	1
Nutsedge	1	1	2	1	0	0	0	0
Pitchforks	1	1	0	0	0	0	0	0
Rushes	0	0	1	1	0	0	0	0
Sawbrier	0	0	0	0	2	1	0	0
Wild bean	0	0	2	2	0	0	0	0
YLS	1	0	1	2	1	1	0	0
All weeds	2	1	7	5	1	0	2	3

I am grateful to the people who took the time to answer the survey. Thanks to N. Guerin for compiling the data. This information is important in helping us generate useful recommendations. If you have any further comments or questions, please contact me at ext. 21.

HILARY SANDLER

**Registration Form for Pesticide Safety Training
Elk's Lodge, East Wareham
Wednesday April 7th, 2010
8:00 AM - 12:00 PM**

Please register for the meeting using this form.

COMPANY _____

PHONE _____

NAMES OF ATTENDEES _____

Attach additional sheets as necessary.

**Return with payment by:
March 30, 2010**

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

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

**Pesticide Safety
Training
April 7 – Elk's Lodge
Sign Up Page 7**

See Inside!!!!!!

- * **Pesticide Safety Training Agenda**
 - * **Weed Priority Survey**
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- * **2010 Pesticide Applicator License Training Workshops**
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OFFICIAL BUSINESS

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UMASS EXTENSION
P.O. BOX 569
EAST WARHAM, MA 02538