Pesticide Safety Training Agenda
Elk’s Lodge, East Wareham
Tuesday - April 9, 2013, 8:00 AM - 12:00 PM

4 pesticide recertification credits will be offered for this program.

Registration Form on Page 5

8:00 - 8:20 Pesticide Safety Review, Marty Sylvia, UMass Cranberry Station
8:20 - 8:40 MRL review and Frost, Carolyn DeMoranville
8:40 - 9:00 Zone II, New Website, and NPDES in Cranberry, Brian Wick, CCCGA
9:00 - 9:20 Label Review and Resistance Management, Marty Sylvia
9:20 - 9:40 Disease Predictions, Frank Caruso, UMass Cranberry Station
9:40 - 10:00 Sprinkler Irrigation, Uniformity and Travel Time, Steve Spear, NRCS, USDA
10:00 - 10:20 Coffee Break
10:20 - 10:40 Latest in Herbicides, Hilary Sandler, UMass Cranberry Station
10:40 - 11:00 Pollination Practices Survey, Aaron Hoshide and Sam Hanes, Economics, University of Maine
11:00 - 11:30 Insect Review, Bee Toxicity and Management Decisions, Anne Averill, UMass
11:30 - 12:00 Chemigation Review, Gary Randall, Grower

Carolyn DeMoranville, Director
2013 Dodder Management Survey

At the 2013 Cranberry Management Update meeting, we handed out a dodder management survey, which was the first activity of a grant sponsored by EPA Regional Agricultural Grants Program to assess the needs and promote IPM for dodder management in cranberry. We handed out 269 surveys and 171 were given back to us (64% return rate). One hundred and thirty-six (136) people were the decision-makers on their farms. The objectives of the survey were to identify how problematic dodder is for the industry, what people felt managed it best, and define some obstacles to control. We also hoped to identify some of you who might be willing to participate in future dodder brainstorming sessions.

**Age of Bog Affected.** When asked what age bogs were affected by dodder, you responded by saying that bogs less than 1 yr old had about a 52% infestation, bog acres 1-3 yrs old had a 62% infestation, bogs 3-5 years had about a 30% infestation while bog acres that were older than 5 years had a 67% infestation (N=125).

**Influences on Management.** You were asked about the top 3 factors that influence your dodder management decisions (the choices were listed on the survey). The graph below shows the percentage of growers that give weight to each factor in their decision making on dodder management (297 answers from 118 growers). The most frequent answer was dodder pressure with 30% of the responses. Next was signs of early dodder germination with 19% and then overall herbicide effectiveness with 17% of the responses.

![Factors that Influence Dodder Management Decisions](image-url)
Obstacles to Management. Then we asked you about the top 3 obstacles you encountered when trying to achieve adequate dodder control. The graph below describes the control methods that are the largest obstacles in dodder control for growers (263 answers from 115 growers). The most highly noted was inconsistent or poor control with Callisto with 20% of the vote. 18% noted inconsistent or poor control with Casoron as one of their top 3 obstacles to good management and 16% said that their biggest obstacle was a small application window.

![Biggest Obstacles for Dodder Control Graph]

Frequency and Rating of Control Methods. We wanted to know how people were managing their dodder infestations and what they thought of the result. Below are two tables; the first one shows how often people used a particular control method, and the second table discusses how people rated the effectiveness of the treatments.

<table>
<thead>
<tr>
<th>Control Method</th>
<th>Every Year</th>
<th>Most Years</th>
<th>Some Years</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casoron Only</td>
<td>11</td>
<td>22</td>
<td>52</td>
<td>20</td>
</tr>
<tr>
<td>Callisto Only</td>
<td>34</td>
<td>21</td>
<td>38</td>
<td>11</td>
</tr>
<tr>
<td>QuinStar Only</td>
<td>2</td>
<td>1</td>
<td>31</td>
<td>44</td>
</tr>
<tr>
<td>Casoron and Callisto</td>
<td>4</td>
<td>17</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Casoron and QuinStar</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>55</td>
</tr>
<tr>
<td>Casoron, QuinStar and Callisto</td>
<td>1</td>
<td>0</td>
<td>11</td>
<td>56</td>
</tr>
<tr>
<td>QuinStar and Callisto</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Flood</td>
<td>5</td>
<td>2</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Raking</td>
<td>10</td>
<td>4</td>
<td>42</td>
<td>30</td>
</tr>
<tr>
<td>Hand/Clipping</td>
<td>16</td>
<td>3</td>
<td>39</td>
<td>30</td>
</tr>
</tbody>
</table>
Callisto Only was selected most often with 93 growers using it from every year to only some years (see table on pg. 3). Casoron Only was selected by 85 growers who used it every year to some years. Hand weeding and clipping were then selected 3rd most commonly by 61 growers. Using combinations of Casoron/QuinStar and the triple-combination of herbicides were not popular; flooding was the least used non-chemical control (126 responded to this question).

When asked "How would you RATE the methods that you have tried for dodder control?" (number of growers who responded)

<table>
<thead>
<tr>
<th>Method</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Not Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casoron Only</td>
<td>11</td>
<td>27</td>
<td>35</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Callisto Only</td>
<td>5</td>
<td>32</td>
<td>39</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>QuinStar Only</td>
<td>2</td>
<td>9</td>
<td>11</td>
<td>12</td>
<td>45</td>
</tr>
<tr>
<td>Casoron and Callisto</td>
<td>3</td>
<td>23</td>
<td>19</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Casoron and QuinStar</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>Casoron, QuinStar and Callisto</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>63</td>
</tr>
<tr>
<td>QuinStar and Callisto</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Flood</td>
<td>1</td>
<td>7</td>
<td>9</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>Raking</td>
<td>1</td>
<td>3</td>
<td>23</td>
<td>26</td>
<td>29</td>
</tr>
<tr>
<td>Hand/Clipping</td>
<td>5</td>
<td>21</td>
<td>16</td>
<td>16</td>
<td>29</td>
</tr>
</tbody>
</table>

The top rated “Excellent” was Casoron Only (12% of those who responded that they used that selection), followed by Callisto Only (5%). The top three (numbers-wise) for “Good” was Callisto Only, Casoron Only, and Casoron and Callisto together (35%, 29%, and 44%, respectively). Hand-clipping was rated “Good” by 36% of the responders to this method. The most popular (in absolute numbers) rated at “Fair” was Callisto Only, reported by 42% of growers, Casoron only was “Fair” by 38% of growers, and raking was “Fair” by 43% of growers. (123 growers answered this question).

**Extent of Infestations.** To assess your perspective of how extensive dodder infestations are, 30% said dodder was a minor problem, 52% said that they have a moderate dodder problem while 7% of growers reported a severe dodder problem (N=135). Those of you who said that dodder was not a problem made up 12%. One-third of you reported that dodder has become less manageable in the past 5 years, 35% reported management has stayed the same and 26% reported that dodder has become more manageable (N=133).

**Where does Dodder Occur?** As a fill-in-the-blank question, we asked where you found dodder on your property and the top 5 answers, in order were: loading/pumping areas (18), random/spotty areas (17 responses), on edges (16), along ditches (13), and on high spots (13) (125 answers given by 106 growers).

Thank you again for taking the time to answer this survey. Your input helps to guide our research, extension, and grant-writing efforts.

Hilary Sandler and Chelsea Hedderig
UMass Cranberry Station
March 2013
2013 UMass Garden Calendar Now Available!

Single copies of the 2013 UMass Garden Calendar are $12.00 each. This price DOES NOT include shipping & handling. Order at: www.umassgardencalendar.org

2013 Pesticide Applicator License Training Workshops

Held at the UMass Cranberry Station Library
Sponsored by Pesticide Education, Agriculture and Landscape Program
April 9 & 10, 2013
For more information and to register contact: Natalia Clifton at 413-545-1044

Worker Protection Trainings
Cranberry Station Library
2-4 PM

Worker Protection Trainings for cranberry workers in the handler category will be offered in 2013: March 27, April 24, May 29, and June 26. 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.

Registration Form for Pesticide Safety Training

Pesticide Safety Training
Elk’s Lodge, East Wareham
Tuesday - April 9, 2013, 8:00 AM - 12:00 PM

Please register for the meeting using this form.

CONTACT PERSON________________________________
PHONE___________________________________________
EMAIL ADDRESS___________________________________
NAMES OF ATTENDEES_____________________________
__________________________________________________
__________________________________________________
Attach additional sheets as necessary.

Return with payment by:
April 2, 2013

Include check made out to: UMass
In the amount of: $50 per person.

Late registration fee:
(postmarked after April 2nd)
$60 per person

Return to:
UMass Cranberry Station
P.O. Box 569
East Wareham, MA 02538
I STILL HAVE FOUR MONTHS LEFT!

On January 16, I announced my pending retirement at the conclusion of my talk at the Plymouth Radisson Hotel. My last day at the Cranberry Station will be June 30. I’ll be available for bog visits, will put out the Preliminary Keeping Quality Forecast in April and the Final Keeping Quality Forecast in June, and will be able to answer questions on diseases and their control through the next four months. Shortly thereafter in July (should our house in Forestdale sell in short order), my wife Barb and I will be moving to Edmonds, Washington where we have found a house. Both of my children, Emily (Gig Harbor) and Nick (Edmonds), their spouses and my grandson Logan (2 years + 3 months) now live in the Seattle area and it’s time to move so we can be near them. Words cannot express how much I’ve enjoyed serving the cranberry industry and especially Massachusetts cranberry growers. The industry has changed immensely since I started on June 1, 1985, and I’m still learning something new every month. I’ll still be involved with cranberries after I relocate, as there are plenty of acres in the ground in the Pacific Northwest. I hope I can continue to stay in touch with many of you who I consider friends as well as clients.

FRANK L. CARUSO, PLANT PATHOLOGY