



Cranberry Station Newsletter

NOVEMBER 2007

UMASS CRANBERRY STATION

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P.O. Box 569

EAST WAREHAM, MA 02538

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

Cranberry Research and Extension Meeting NACREW 2007

Cranberry research and extension workers from across North America (NACREW) meet every other year to share research information and participate in working groups. The 2007 meeting was hosted by Rutgers University and the meeting was held at the Tuscany House in Egg Harbor, NJ from October 1-3. Approximately 40 people registered for the meeting representing the growing regions of MA, WI, WA, NJ, OR, Quebec, British Columbia, and New Brunswick. Most of the attendees were from Universities, but others were affiliated with governmental research branches, industry support groups, grower companies, and handler organizations.

Various topics were covered during the presentation portion of the program. Brian Wick from the CCCGA presented information on using automated sprinkler systems. Beth Workmaster and Sarah Stackpoole (from Kevin Kosola's lab in Madison, WI) presented data relating to nitrates in irrigation water and its effect on vine growth and results from work on dissolved organic nitrogen pools in cranberry beds. Carolyn DeMoranville, Teryl Roper (University of Wisconsin), and Joan Davenport (Washington State) presented work relating to using appropriate levels of phosphorus and the impact of using reduced rates of phosphorus.

Joe DeVerna presented pesticide use data for the industry and Brad Majek (Rutgers University) reported on the use of several experimental herbicides on new plantings. Hilary Sandler reported on her work on the

patterns of dodder seed germination over a period of 10 years. Kim Patten (Washington State) covered a wide range of pest management projects for WA, including work on false lily-of-the-valley control, comparison of adulticides and larvicides for black vine weevil control, and a multi-year trial on fruit rot control.

Two presentations were made on cranberry tipworm. Canadian researcher Brian Mauza reported on varietal response to tipworm infestation. Dan Mahr and Jack Perry (Univ. Wisconsin) reported on their insecticide screening trial of materials for managing tipworm, with some new insecticides appearing to have some promise. A new dieback disorder is being documented in British Columbia. Tom Forge and Siva Sabaratnam were present to share data collected thus far in trying to identify the causal agent. Frank Caruso reported on an ongoing project examining disease pressure of native stands of cranberry vines on Cape Cod.

Tours were arranged to visit the laboratory facilities at the Paul Marucci Research Center and to see established plantings of the new varieties developed in New Jersey: Mullica Queen, Crimson Queen, and Demoranville. We visited White's Bog Preservation Trust, Integrity Propagation hosted by Abbott Lee, and Pine Island Cranberry Company hosted by Bill Haines. A poster session in conjunction with a wine and cheese reception rounded out the event.

Another function of the NACREW meeting is that scientists from each discipline meet with their colleagues for several hours in working groups. This is an opportunity for the scientists working on insects, weeds, diseases, and nutrition/physiology to identify issues, problems or projects that can be addressed on a national level. In the past, these working groups have generated extension items such as fact sheets on nitrogen use, set national standards for tissue analysis, identified chemicals for IR-4, and garnered grant money for researching reduced risk insecticides and bioherbicides.

We thank the staff at Rutgers University for their excellent hospitality and for organizing a well-run program. The next NACREW is planned for Fall 2009 and will be hosted by our Canadian colleagues in New Brunswick.

Summaries of Working Groups NACREW 2007

WEED WORKING GROUP

Brad Majek (NJ), Brian Mauza (BC), Kim Patten (WA), Jack Perry (WI), Hilary Sandler (MA), and Linda White (OR) in attendance.

Due to scheduling conflicts, the WWG was held for approximately 1 hour prior to the start of Tuesday's paper session instead of the usual 2-3 hour forum provided on Wednesday morning. We decided to focus on the registration of potential herbicides that would be of interest across all growing regions. Discussions revolved around several possibilities:

- Liquid formulation of Casoron. Uniroyal and now Chemtura have been manufacturing an emulsion formulation of dichlobenil. Chemtura is supporting a label for liquid Casoron, but cranberry is not presently on the label. Indications are that Chemtura will support fall trials for phytotoxicity and efficacy.

We are seeking data for a potential new herbicide, into IR-4 residue trials for possibly 2008 or (more likely) 2009. This new herbicide controls yellow loosestrife.

Cranberries show excellent tolerance to the herbicide. BASF is the primary manufacturer, but several companies produce generics.

Sulfonylureas. Representatives from each region agreed to field test one or two SU herbicides, with the possibility of getting the products into IR-4 if any look promising.

HILARY SANDLER
IPM WEED SPECIALIST

PLANT PATHOLOGY WORKING GROUP

The main topic of discussion was increasing levels of disease primarily *Phyllosticta* causing leaf spotting and fruit rot in newly planted renovated beds. Disease incidence has particularly been noted in NJ and WI, but will certainly also be of concern in other regions where renovations occur. The group will plan on submitting a grant proposal to several agencies/associations to develop a proper management plan for these renovated beds. Attention will be focused on fungicide schedules, watering regimens and nutrition programs. Different fungicides will also be evaluated for their efficacy against *Phyllosticta*. The group also was interested in submitting a Pesticide Clearance Form to IR-4 for a fungicide in the sterol-inhibitor class that has been very effective in controlling fruit rot in MA and NJ trials. Finally, there was discussion on whether there needs to be a set of criteria established for interstate movement of vines, to prevent the spread of diseases and avoid epidemics as was true for false blossom in the early 20th century.

FRANK CARUSO
PLANT PATHOLOGIST

PLANT NUTRITION/PHYSIOLOGY WORKING GROUP

Representatives from Massachusetts (Carolyn DeMoranville, Revel Gilmore, Peter Jeranyama), Oregon (John Hart, Linda White), Washington (Joan Davenport), Wisconsin (Matt Lippert, Teryl Roper, Sarah Stackpoole, Beth Workmaster), and Canada

(John Lewis, Sebastien Marchand, Lucie Tremblay, Roger Tremblay) met to discuss issues and plan projects in the areas of plant nutrition and plant physiology.

The primary discussion items in regards to plant nutrition were phosphorus use and nutrient management plans. The group discussed other nutrition issues but agreed that top priority was to complete phosphorus research and revise the publication "Phosphorus for bearing cranberries in North America" to include more data and a list of BMP recommendations. The group members who work in nutrition will begin this process in 2008, meeting again to work on the publication during the International Vaccinium Conference in July. Since nutrient management plans in both MA and WI are primarily focused on phosphorus, this element is a top priority.

The discussion then turned to plant physiology. The top issue there was water use. The plant nutritionists noted that the next research horizon for nutrition research was likely to be the interface of soil moisture and water management with nutrition management. The physiologists are planning to take on research regarding irrigation scheduling tools/models, including monitoring soil moisture and integrating those measurements with models of ET (evapotranspiration) developed in WA and WI. The research focus would be on testing and calibrating soil moisture instrumentation, calibrating models for the cranberry system, and taking on the challenge of working with the layered soil that develops through years of sanding cycles.

The other primary area for physiology research will be to determine bud tolerance for new cultivars and to examine potential regional differences. Using methods developed in WI, the OR and WA research groups plan to study bud tolerance from January through July for several cultivars.

The WG then joined the rest of the meeting participants for a brief discussion of the potential impacts of global climate change on cranberry production. One of the important points to come out of that discussion was

the fact that we only poorly understand cranberry chilling requirements and dormancy. This is an area that will likely be on our research horizon in the future.

CAROLYN DEMORANVILLE
PLANT NUTRITION

ENTOMOLOGY WORKING GROUP

More than 10 people, including Anne Averill, attended the Entomology Working Group. The first topic was examination of how insecticide testing and reporting across the US and Canada could be coordinated. It was suggested that each researcher could provide data regarding insects tested, compounds, rates, efficacy, and planned tests, which could then be assembled into an annual matrix. This would help avoid overlap of effort. Such a matrix could also be exceedingly useful in coordinating both the IR-4 effort and the new registration project for small fruit. A second area of discussion was commentary by all attending on which new compounds showed efficacy in the previous year's field trials. Several unregistered compounds were reportedly effective against tipworm, blackheaded fireworm, black vine weevil, blunt-nosed leafhopper, and cranberry fruitworm. Finally, routes to obtaining competitive funding of research were addressed. The consensus felt that a large multi-regional grant proposal focusing on cranberry tipworm would be an excellent target, as this is a very serious problem for all of the more Northern growing areas. Treatment timing, yield impacts, monitoring tools, biological control, cultivar variation, genetic comparisons across regions and between cranberry and blueberry were some of the areas that could be covered.

ANNE AVERILL
ENTOMOLOGIST

DR. CAROLYN DEMORANVILLE,
STATION DIRECTOR

**CRANBERRY MANAGEMENT UPDATE
RADISSON HOTEL PLYMOUTH HARBOR
Thursday - Jan. 24, 2008
7:30 AM - 4:00 PM**

This educational program is a streamlined session with "how-to" information for growing cranberries effectively and economically by implementing the latest research.

Justine Vanden Heuvel will be a guest speaker. She will present an update on her flooding research. This meeting will offer an opportunity for the Cranberry Station faculty and staff to present areas of research that have reached the grower-implementation stage. \$20.00 charge includes a morning coffee, a mid-morning coffee break and handouts.

4 contact hours are being requested for Pesticide recertification credits for the cranberry category.

**SCHEDULE TO BE ANNOUNCED
SIGN-UP PAGE 5**

MARK YOUR CALENDARS!!!

Upcoming Meetings

**January 24, 2008 Cranberry Update Meeting
Radisson Hotel - Plymouth**

**March 19, 2008 Cranberry Beginner School
Cranberry Station Library**

**April 09, 2008 Pesticide Safety
Elk's Hall - E. Wareham**

**2008 GREEN DIRECTORY
NOW AVAILABLE!**

The 2008 UMass Extension Green Directory is a comprehensive guide to educational resources for Massachusetts Agriculture industry professionals. This 40 page guide is used as a reference all year long!

For your 2008 copy call (413) 545-0895, fax request to (413) 577-1620, online at www.umass.edu/agland or email greeninfo@umext.umass.edu.

SPINTOR REPLACEMENT LOOKS GREAT!

Dow AgroScience is replacing SpinTor with a new insecticide, Delegate, for 2008. The active ingredient is slightly different but it is much more active against more insects. Delegate has much greater residual than Spintor giving longer management control. The label has already cleared EPA and we are expecting MDAR to okay it by spring. Until we use it through chemigation this spring, we won't know how well it does, but it will certainly be as good as SpinTor!

MARTY SYLVIA, ENTOMOLOGY

THE 2008 SIGN UP FORM

You will see that this year we are asking for your help. We would like to update our information on varieties and number of acres in production at this time. Over the past five years there have been many changes and to help with research sites and data it is always helpful to have up-to-date information. Please take the time to fill out the back of the **2008 sign up form** for the Cranberry Station mailing list. We are required by University policy to update this mailing list yearly.

**Training Workshops to Prepare for
Pesticide Applicator License Exams**

This workshop, which is sponsored by Pesticide Education, UMass Extension, is designed to help individuals **prepare** for the pesticide applicator license exam. This workshop provides a review of the study manuals and is not intended to replace a thorough reading of the study manuals on your own. Dates for this training here at the Cranberry Station Library are set for January 31 - February 1; March 6-7; and May 8-9. To register for these workshops: contact Natalia Clifton at 413-545-1044.

**2008 UMASS GARDEN CALENDAR
NOW AVAILABLE !**

Single copies of the **2008 UMASS GARDEN CALENDAR** are \$12.00 each. This price includes shipping & handling. To order your calendar today go to www.umassgardencalendar.org or call 413-545-1445.

CRANBERRY STATION NEWSLETTER & REVISED 2008 CHART BOOK RENEWAL

YOU MUST RETURN THIS FORM EACH YEAR TO STAY ON OUR MAILING LIST!!

The Cranberry Station Newsletter is provided **FREE to all MA growers, cranberry researchers and IPM consultants nationwide**. Annual subscription fee of \$15 is required for out-of-state growers and industry personnel. All persons wishing to receive this newsletter (whether paying or not) must complete and return this renewal form to maintain a subscription. Include a check (made out to UMass) with the renewal form if you are out-of-state or are industry personnel. **All subscriptions sent by email, including out-of-state and or industry personnel are FREE .**

**Everyone must respond to this notice by Dec. 31, 2007
or your name will be taken off of our mailing list for 2008!**

NAME _____
 COMPANY _____
 ADDRESS _____
 TOWN _____
 ZIP _____
 PHONE _____
 EMAIL _____

Please check one:
 Owner _____
 Employee _____
 Researcher _____
 Consultant _____
 Industry _____
 Private sector _____

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

Please fill out back side also!!!!!!!

Total number of acres _____

Please Choose One!!! Postal delivery _____ or Email _____

Registration Form for Cranberry Management Update

Thursday, January 24, 2008 7:30 AM - 4 PM

Radisson Hotel Plymouth Harbor

Please register for the meeting using this form.

COMPANY _____

CONTACT _____

PHONE _____

NAMES OF ATTENDEES _____

**Return with payment by:
January 17th, 2008**

Include check made out to:
UMASS
 In the amount of:
\$20 per person.

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

Attach additional sheets as necessary.

WHAT VARIETIES DO YOU GROW?

NUMBER OF ACRES?

please list other varieties and acres:

<u>EARLY BLACKS</u>	_____	_____	_____
<u>HOWES</u>	_____	_____	_____
<u>STEVENS</u>	_____	_____	_____
<u>BEN LEAR</u>	_____	_____	_____
<u>PILGRIM</u>	_____	_____	_____
<u>FRANKLIN</u>	_____	_____	_____
<u>BERGMAN</u>	_____	_____	_____
<u>GRYGLESKI</u>	_____	_____	_____
<u>CRIMSON QUEEN</u>	_____	_____	_____

NUMBER OF ACRES RENOVATED IN THE PAST FIVE YEARS _____

NUMBER OF ACRES UNDER POP-UP SPRINKLER SYSTEMS _____

TOTAL ACRES OF FRESH FRUIT HARVEST _____ TOTAL ACRES OF WATER HARVEST _____