NEWSLETTER CONTINUES

Welcome to Volume X of the Wisconsin Cranberry Crop Management Newsletter. We are trying some new approaches to duplicating and mailing this newsletter that we hope will get it to you faster and in better shape.

Funding for the newsletter was once again generously provided by the Wisconsin Cranberry Board, Ocean Spray and Cliffstar. This allows the newsletter to be mailed at no direct cost to all known cranberry marshes in Wisconsin.

Our target audience is marsh managers; the people who make daily decisions about what will be done on individual marshes. We will send only one copy per marsh to keep our mailing and duplications costs within our budget. If more people in your operation need to see the newsletter, please make copies or circulate it.

Many people work hard to make this newsletter a success. We hope you find it informative and worthwhile reading. Please contact me or one of the contributors with ideas, questions or suggestions or to update our mailing list.

Teryl R. Roper,
UW-Madison, Dept. of Horticulture

ORBIT FOR COTTONBALL CONTROL

The EPA has granted a Section 18 Emergency Exemption for use of the fungicide ORBIT (Propiconazole) to control cottonball of cranberry, caused by the fungus *Monilinia oxycoci*. This exemption became effective April 15, 1996 and expires July 31, 1996. A copy of the emergency label is provided in this newsletter. Orbit is a product of Ciba-Geigy Corporation (now called Novartis as a result of a recent merger) and can be ordered through your agrichemical dealer. Funginex (triforine) is still labeled for control of cottonball, but supplies will be limited as this fungicide is phased out of production.

Orbit and Funginex are in the sterol demethylation inhibitor (DMI) group of fungicides. DMI fungicides act by blocking formation of sterols needed for fungal development. In limited tests, Orbit was as effective or slightly better than Funginex in controlling cottonball fruit rot. The use pattern for Orbit is similar to that for Funginex. The first application is made at bud break, and the second 10-14 days later. The third application is made at early bloom, and the fourth 10-14 days later. The rate for Orbit is 4-6 oz per acre. Do not apply at lower rates, as this will be less effective and could lead to a build up of strains resistant to DMI fungicides. Orbit may not be applied later than 45 days before harvest, nor may it be applied through and irrigation system. Read the label included with this newsletter for safety information and use directions. If you purchase Orbit, read the label again before using the product. Do not use Orbit on fruit that will be exported, as tolerances for propiconazole have not been established in some countries

After July 31 you will receive a questionnaire regarding your use of Orbit in 1996. It is critical that you

complete the survey. The EPA will consider future registration only if we have accurately documented the use

and efficacy of Orbit in controlling cottonball. Contact me if you have questions regarding the use of Orbit. (Phone 608-262-2047; e-mail psm@plantpath.wisc.edu).

Patty McManus,
Fruit Crop Pathologist, UW-Madison

Looking for Cottonball

As part of a research project aimed at optimizing fungicide use to control cottonball, I need to collect several strains of the pathogen, *Monilinia oxycocci*. Specifically, I am looking for a few sites that typically have enough cottonball that one can locate several infected uprights or berries, but where Funginex has never, or only very rarely, been applied. I am also interested in beds in which Funginex seems to have lost its punch against cottonball.

I would not be setting up plots or using fungicides at the sites---just collecting infected plant tissue once or twice during the summer. If you are aware of a suitable commercial or abandoned site, or a wild marsh with cottonball, I would really appreciate your help. I can be reached (or at least my machine can be reached) at (608) 265-2047.

Patty McManus,
Fruit Crop Pathologist, UW-Madison

FUSILADE RETAINS CRANBERRY LABEL

Some reports had been circulated this winter that Zeneca Ag Products, the manufacturer of Fusilade, was not going to support the non-bearing cranberry label. This apparently is not the case. Officials at Zeneca say they are supporting the existing Fusilade labels. Growers can continue to use Fusilade for grass control on non-bearing beds. Fusilade may be an even more important grass management tool (see next article).

Teryl R. Roper, UW-Madison, Dept. of Horticulture

POAST RESISTANT GRASS WEEDS

Recently Poast resistant grass weeds have been found in other crops. Just last year Poast was labeled for bearing cranberry. As a result, there will be increasing use of Poast against cranberry grass weeds, with greater potential for selection for Poast resistant grasses. Poast is still an effect grass management tool, but will need to be used prudently to maintain its effectiveness. Please consider the following points when using Poast.

- Don't use Poast on non-bearing beds. Use Fusilade or Prism. Both of these products have non-bearing cranberry labels
- Be sure the weed you are treating is a grass. Poast, Prism, and Fusilade are not effective against sedges or rushes.
- Spot treat where possible. Don't treat areas with few or no grass weeds.
- Keep grasses on dikes and adjacent areas mowed so it doesn't go to seed and spread into beds.
- Manage soil pH. Many grasses won't grow, or grow slowly at a low pH.

With proper use of Poast we can retain this product as an effective management tool for many years. If it is abused, its effectiveness may be gone quickly.

Teryl R. Roper, UW-Madison, Horticulture

GRASS CONTROL

As the new season unfolds, it is time to once again consider your choices for effective weed control. To some growers the most troublesome group of cranberry weeds to control are the grasses. This weed group tends to be the most often misidentified group on the marsh. Misidentification often leads to poor control. Identification of these problem weeds is crucial. Not all herbicides perform equally

on cranberry grasses. Grasses are often confused with similar weed groups such as sedges and rushes. Each plant group has several distinguishing characteristics that helps separate it from the other look alikes. Some of these distinguishing characteristics are listed below.

Grasses have nodes or places where leaves attach alternately (on opposite sides) to the stem. Most have round, hollow stems and seed heads that form on the terminal ends of the plant. They reproduce by seed and underground root systems. Sedges have edges, or in most cases have somewhat triangular stems and lack nodes. Seed heads tend to be small and delicate. They mainly reproduce from underground roots stems, but can grow from seed. Rushes are smooth, circular stemmed plants. Most have hollow stems and seed heads are formed on the mid to upper third of stems. Rushes also lack nodes. Most reproduce by underground root systems.

Most cranberry grasses can be broken into two groups, annuals and perennials. Annuals germinate from seed each year and complete their life cycle in one growing season. Common annual grasses found on Wisconsin cranberry marshes include: Barnyard grass, foxtails and with grass. Perennials may grow and produce seed in one year, but the vegetative crown will survive through the winter and grow in subsequent years. Perennials can reproduce from seed, but are most effective at reproducing by underground root systems. Common perennial grasses associated with cranberries may include: Rattlesnake grass, blue-joint and reed-canary grass.

Effective control of grasses can be accomplished through the use of two types of herbicides: post-emergent or pre-emergent. Each type of herbicide has merits relative to the other, and growers must decide which type of herbicide best fits their needs. Most cranberry growers use both types of herbicides when dealing with problem grasses.

Post-emergent herbicides are applied to actively growing weeds after they have reached treatable stages. Common post-emergent herbicides used for grass control in cranberries are: Poast, Fusilade, Prism and Roundup. This type of herbicide offer several advantages. The first major advantage is that growers are allowed to spot treat areas where grasses are problems as opposed to making general applications to entire beds. Spot treating fits well into IPM philosophies and can save money. In general, post-emergent herbicides pose minimal risk of leaching. Another advantage that post-emergent herbicides offer to the grower is to identify the specific weed and choose an herbicide that will best control it. Post-emergent grass herbicides are very specific and pose little risk of injury to cranberry vines. The exception is Roundup which is non-selective and will injure cranberries.

The first disadvantage of post-emergent grass herbicides is that all are not labeled for bearing crops. Prism and Fusilade are only labeled for non-bearing vines and have a 365 day pre-harvest interval. They may not control grasses if the grass has already reached maturity or passed treatable growth stages. Our grass post-emergents are very specific and will not control other problem weeds. Broadleaf weeds are not controlled by post-emergent grass herbicides except Roundup.

Common pre-emergent herbicides include: Casoron (Norosac), Devrinol and Evital. Pre-emergent herbicides have several advantages over post-emergents. First, most can be applied prior to the growing season. Growers often have more time in the spring to make their herbicide applications and the products can be applied prior to cranberry budbreak. The helps avoid some plant phytotoxicity concerns. Growers can also drive into beds and apply herbicides to specific areas. Many pre-emergents offer wide spectrum control. They may control or suppress rushes, sedges and broadleaves in addition to grasses.

Some disadvantages of these herbicides are: possible cranberry plant phytotoxicity which can reduce yields or kill vines. Many also have to be incorporated into the soil

through irrigation. If not incorporated in the soil the herbicides can be lost to volatilization and photodecomposition. Carryover and leaching are also concerns. Herbicide studies have shown that herbicide carryover can reduce yield, injure cranberry vines and can affect cuttings used for new plantings.

Herbicides are a valuable tool in cranberry crop management. Accurately identifying problem weeds and being aware of the advantages and drawbacks of various herbicides can help make management decisions easier. Growers should consult Cranberry Pest Management in Wisconsin (A3276) for herbicide recommendations on specific weed pests. Discuss with your IPM or crop consultant or UW faculty any questions you have on the use of any pesticides.

There are several good sources of literature available to growers to help them identify weeds that may be a problem on your marsh. Some are:

Courtenay, B. and J. Zimmerman 1972. Wildflowers and weeds. D. Van Nostrand, New York, NY. 144 pp.

Dana, M. 1987. Cranberry weeds in Wisconsin. UW-Madison. 33 pp. Mimeo.

Eggers, S. and D. Reed. Wetland plants and plant communities of Minnesota and Wisconsin. US Army Corps of Engineers, St. Paul, MN 210 pp.

Gleason, H. and A. Cronquist. 1963. Manual of vascular plants of Northeastern United States and adjacent Canada. D. Van Nostrand Co. New York, NY 810 pp.

Kummer, L., T. Dittl and T. Planer. 1993. Wisconsin cranberry weeds. Wisconsin Cranberry Board. Wisconsin Rapids, WI 32 pp.

Planer, T. 1988. Cranberry pest control—Weed identification series. UW-Extension. Madison, WI 10 pp.

University of Ill. 1981. Weeds of the North Central States. Bulletin NCR772. 330 pp.

Leroy Kummer, Ocean Spray Cranberries, Inc.

The liberally educated person is one who is able to resist the easy and preferred answers, not because he is obstinate but because he knows others worthy of consideration.

Allan Bloom

IPM AND THE 'V' FORMATION

Have you ever looked at the sky with amazement when a large V formation of geese were flying by? Who do they fly that way? Science has discovered that as each bird flaps its wings it creates an uplift for the bird immediately following. When geese fly in a V formation the whole flock adds at least 71% greater flying range than if each bird flew on its own. When a goose falls out of formation it suddenly feels the drag and resistance of trying to go it alone and quickly gets back into formation. When the lead goose gets tired, it rotates back in the wind and another goose flies point. Also, geese honk from behind to encourage those in the front to keep up the good work of leading.

Let's take advantage of this experience from our feathered friends and remember that together we can work the Crimson Cranberry Country and raise the BEST crop ever. Crop advisors are here to assist you. One of our goals is to allow you to be in the uplift of our wings, if you will, giving you the freedom to concentrate on the many other facets of growing this specialty crop. IPM is knowing just when threshold levels have been reached and then timing the control practice. We share what works, and then remind you of the safety precautions and any new legislation. We are here to keep you abreast of any changes in labels, PHI (preharvest interval), and REI (re-entry interval).

Don't be the goose that tries to fly alone. Join use in the V formation, get caught up in the IPM way.

Jayne Sojka,
Lady Bug IPM

Far and away the best prize that life offers is the chance to work hard at work worth doing.

Theodore Roosevelt

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CRANBERRY MINI-CLINICS PLANNED

Two mini-clinics are planned for Wisconsin cranberry growers in June. Mini-clinics are informal gatherings where growers and University faculty can gather at a farm to discuss areas of current interest. Each session will last about 2 hours. Dan Mahr, Patty McManus and Teryl Roper will be at each session and will give short presentations followed by time to ask questions, examine samples and perhaps tour part of the marsh. The dates and times are:

Tuesday June 18
10:00 am Rocky Run Cranberry Marsh
Host: Jerry Laux

Wednesday June 19
2:00 pm Warrens area
Host: To be determined

Please put these dates on your calendar and plan to attend the session in your area. No registration is required. We'll get more information about the clinics to you as the date approaches.

Education costs money, but then so does ignorance.

Sir Claus Moser

In statesmanship get the formalities right, never mind about the moralities.

Mark Twain