VOLUME IX

Welcome to volume IX of formerly what was the Wisconsin Cranberry IPM Newsletter. As you can see, we have a new masthead and a new name. The new name chosen was to more accurately represent the topics covered in the newsletter. We are also attempting to replicate the look of the Cranberry Crop Management computer software so growers get a consistent image from the University.

Funding for the newsletter was once again generously supplied by Ocean Spray, the Wisconsin Cranberry Board and Cliffstar so the newsletter can be mailed at no direct cost to all known marshes in Wisconsin. We will follow the same pattern of mailing we used in previous years.

Our target audience is the marsh managers; the people who make the daily marsh management decisions. We will send only one copy per marsh to keep our mailing and duplicating costs within our budget. If more people in your operation need to see this newsletter, please copy or circulate it. Many people work hard to make this newsletter a success. We hope you find it informative and useful. Please contact me or any of the contributors with ideas, questions or suggestions or to update our mailing list.

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

ROUNDUP LABEL CHANGED

In previous years Roundup (glyphosate) has been labeled for use only as a wipe treatment above cranberries after bloom.

The recently issued Roundup label removes the "after bloom" restriction, and therefore, Roundup may be used as a wipe in cranberry when weeds are present in cranberries up to 30 days before harvest.

This label change should be useful if you have an early stand of weeds in cranberry, as you will be able to control them with a wipe during a greater part of the growing season. This change in the label was also indicated in Extension Bulletin A3276 *Cranberry Pest Management in Wisconsin*.

Herbert J. Hopen UW-Madison, Dept. of Horticulture

WEATHER SEEM COLD?

Does this seem like a late, cold and wet spring? It certainly seems that way in Madison. However, when you look at the degree day accumulations and the pattern of bloom of various plants we aren't really that late. Apples and crabapples usually are in bloom over Mother's Day in Madison, and if we get any warm weather at all we should easily be in bloom then. Degree day accumulations are about a week behind. For cranberry specific information see the figures on page 5. The short dark lines to the left show thermal summations for 1995 and these lines sit right on top of the "normals".

Fleas can be taught nearly anything a congressman can Mark Twain

LADY BUG REGIONAL NEWS

The 1995 Compton's Science Annual featured an article entitled "Nature's Invisible Army". The author, James Snyder, stated that "Oily water, contaminated soils, toxic residues leaching from landfills, nuclear wastes are everywhere—these days we seem to be lost in a terrain littered with disagreeable and dangerous stuff. But something is quietly eating away at that problem even now; BUGS. Bacteria, to give these bugs their proper name--legions of them. Muscular microbes are hard at work, digesting the nastiest pollutants and producing mainly water and carbon dioxide in return."

Nature's invisible army really caught my eye. It is a wonderful feeling knowing that Good Ole Mother Nature is trying her hardest. Now it is up to us to assist her along the way. . . Let's talk about IPM. Practicing IPM means that we know our pest and target our "control" when the pest is the most vulnerable. Understand that there are always options, be it cultural, biological or chemical means of controlling pests. It is vital for you, as a manager, to know your environment when deciding which means of control is best.

NATURAL ENEMIES: Spring is a special time for me. It is most rewarding seeing things go from a dormant cast to a green, life-like look. Scouting, too, is refreshing because the sweep net is overflowing with a zillion different types of beneficials; spiders especially. I take a great deal of pride in showing the net full to my growers and then emphasize the fact that they are out here for a reason. Also they sure are a happy bunch, therefore, they must be getting plenty to eat.

Insecticides kill pests, but they also kill predatory insects and other beneficials. Luckily death caused by insecticides to the spider population seems to be temporary. Not that they come back to life, mind you. But it appears that we see new spiders already working the beds within a short period of time.

Let's allow Mother Nature to have the opportunity to prove herself to us. Please reflect on all the beneficials that are already working

for you on your marsh. Target you control of the PEST populations and know it's life cycle so the timing is perfect.

TOXICITY LEVELS: Know your environment when choosing an insecticide. If you live by a trout stream do not use an extremely toxic insecticide.

| FISH | | |
|----------|------------------|--|
| Lorsban | Extremely toxic | |
| Guthion | Extremely toxic | |
| Diazinon | Moderately toxic | |
| Pyrenone | Moderately toxic | |
| BEES | | |
| Lorsban | Extremely toxic | |
| Sevin | Extremely toxic | |
| Guthion | Extremely toxic | |
| Orthene | Extremely toxic | |
| Diazinon | Moderately toxic | |
| HUMANS | | |
| Guthion | Extremely toxic | |
| Lorsban | Moderately toxic | |
| Diazinon | Moderately toxic | |
| BIRDS | | |
| Diazinon | Extremely toxic | |

Have a wonderful season!

Jayne Sojka Lady Bug IPM

CIBA PHYTOPHTHORA DETECTION SERVICE

Ciba Crop Protection will offer a *Phytophthora* root rot sampling service to cranberry growers in Wisconsin. Growers who suspect that *Phytophthora* root rot or *Pythium* is a problem in established or new cranberry beds can contact their ag-chemical dealer or consultant to perform the sampling. In 1994 over 40 samples were analyzed for *Phytophthora* root rot and results were returned with two weeks. The charge for this service is \$3.00 per bed sampled.

Plants infected with *Phytophthora* may be off color, lack vigor and may eventually decline and die over several growing seasons. Plants may pull easily from the soil and reveal a poorly developed root system. Diseased roots and adjacent runner tissues usually appear dark (olive green to dark brown), compared to healthy roots and runner tissue that are typically light (white to yellow). *Phytophthora* root rot is most destructive in poorly drained areas.

Growers who receive positive identification of *Phytophthora* should first consider cultural practices before turning to chemical control. These practices include removing excess water, improving drainage, and regularly sanding beds. If plants still do not show signs of recovery after these cultural practices, a fungicide application **MAY** be warranted.

New for 1995

Specific tests for *Phytophthora megasperma* and *Phytophthora cryptogea*

In 1995 the Phytophthora root rot test will be able to indicate the presence of Phytophthora megasperma and Phytophthora cryptogea in the cranberry roots and runners. These two species of phytophthora have been isolated from necrotic roots and runners, cranberry bed soil and irrigation and drainage There are several species water. Phytophthora in Wisconsin, many of which are weakly pathogenic to cranberry. The tests for P. megasperma and P. cryptogea are being performed because they are capable of causing root rot only in poorly drained soils.

Free Federal Express Shipping

Ciba will offer free Federal Express shipping and a sampling kit to dealers, consultants or growers who use the Phytophthora Root Rot Sampling service. Please contact Chuck Broughton at (608) 849-6562 for details.

Chuck Broughton
Ciba Crop Protection

Editor's Note: The number of samples being submitted for Phytophthora detection is far exceeding the capacity of the Ocean Spray lab and the UW lab. Ciba Plant Protection is making a generous offer to detect *Phytophthora* at their Vero Beach lab. In 1995 their *Phytophthora* test is more specific so individual species can be identified. Growers should note that only *P. cinnamomi* has been shown to be strongly pathogenic and thus far this species has NEVER been found in Wisconsin. It is thought our winters are too cold.

Phytophthora fungi are widespread so detecting phytophthora is not sufficient evidence alone to confirm the need for Ridomil application. The general consensus is that P. megasperma and *P. cryptogea*, although common, are only weakly pathogenic to cranberry and only if accompanied by poor drainage. If only these species are present, it is unlikely that applications of Ridomil will result in significantly improved growth. A good review of Phytophthora root rot research for Wisconsin is found in the 1992 Wisconsin **Proceedings** Cranberry School 3:23-29 (particularly Figure 3).

In Wisconsin, unthrifty vine growth is best improved by sanding and otherwise improving drainage. *Phytophthora* and other similar fungi such as *Pythium* usually only attack vines that are compromised by poor management. Once the management is improved (i.e. drainage) vine growth also improves.

While Ridomil is a very effective fungicide against *Phytophthora*, it is not a magic bullet that will substitute for management. Our fear is that growers will apply Ridomil and get little or no results and subsequently believe Ridomil is a poor material.

What can you do to decide if Ridomil is indeed necessary? Consider submitting samples from both unthrifty and thrifty areas. If both samples come back *Phytophthora* positive then Ridomil is probably not warranted. Look at drainage first and fungicides second. If you have questions, please call me or your crop consultant.

AG CLEAN SWEEP SITES ANNOUNCED

The Wisconsin Department of Agriculture, Trade and Consumer Protection is again offering agricultural clean sweep sites. Accepted wastes include pesticides, lead-based paints, and farm solvents. The herbicides 2,4,5-T and silvex and the wood preservative pentachlorophenol also will be accepted. Also continuing this year is the glove exchange program. Farmers who bring in a pair of dirty gloves that were used for mixing and loading pesticides will receive a replacement pair of chemical-resistant gloves. Growers interested in participating in an agricultural clean sweep must first pre-register with their county clean sweep coordinator. For your information, Wood County will be sponsoring a clean sweep in May 1996. The remaining clean sweet sites for 1995 and their coordinators are listed below.

| Host County | Date | Coordinator | Phone |
|-----------------------|-------------|----------------|----------------|
| Taylor County | May 20 | Larry Peterson | (715) 748-1485 |
| Jackson County | June 9 | Dwight Swenson | (715) 284-0227 |
| Dunn County | June 12-17 | Chad Haas | (715) 232-4017 |
| Pepin County | June 12-17 | Terry Mesch | (715) 672-5709 |
| Langlade County | June 16 | Norm Sonderman | (715)627-6236 |
| Jefferson County | Aug. 5 | Carl Jaeger | (414) 261-4917 |
| Racine County | Aug. 16 | Jim Stute | (414) 886-8460 |
| Lincoln County | Sept. 11-16 | Diane Hanson | (715) 536-0363 |
| Marathon County | Sept. 11-15 | Dean Kaatz | (715) 847-5213 |
| Polk County | Sept. 13 | Robert Wilson | (715) 485-3161 |
| St. Croix | Sept. 15 | James Janke | (715) 684-3301 |
| Grant County | Sept. 26 | Andy Lewis | (608) 723-2125 |
| Crawford County | Sept. 28 | Vance Haugen | (608) 326-0223 |
| Vernon County | Sept. 30 | Gail Frie | (608) 634-2900 |
| Dane County | Oct. 13 | Mindy Habecker | (608) 266-4106 |

YELLOW UPRIGHTS

I have seen yellow uprights on one marsh in the Wisconsin Rapids area this spring. The yellowing occurred in streaks in the bed and there was no easy explanation for the yellowing. Massachusetts is also reporting some yellow vines this spring. It is not known if the cause (whatever it is) is the same for both states.

For your own information you may wish to tag some of the uprights with bright tape or flagging material so you can follow these uprights through the season. No special treatment for such small areas is warranted at this time.

Teryl Roper UW-Madison, Dept. of Horticulture

COOPERATOR NEEDED

Tentative funding is expected for a study of pre-plant soil amendments for upland cranberries in mineral soils. We are looking for a cooperator who will be forming mineral soil (sand) beds this year for planting in 1996. If you are interested and willing to cooperate please contact Teryl Roper, Dept. of Horticulture, 1575 Linden Drive, Madison WI 53706; 608-262-9751 or Tod Planer at the Wood County Extension Office 715-421-8440.

COMPENDIUM OF BLUEBERRY AND CRANBERRY DISEASES

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 write-up will include an introduction, a description of symptoms, a description of the causal organism or factors which are involved, information on the disease cycle epidemiology, control strategies, and a brief bibliography. The book (8½ x 11" in softcover format) will

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. \$25.00; elsewhere \$29.00. After June 30, the price will be U.S. \$30.00; elsewhere \$37.00. 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. Credit card orders are accepted at 800-328-7560. The book was edited by Don Ramsdell of Michigan State University and Frank Caruso of the University of Massachusetts.