Two New Supplemental Labels permitting additional use patterns of RoundUp Ultra.

After working closely with Steve Wratten of Monsanto Company for the past two years, the cranberry industry now has two additional uses of RoundUp Ultra. These supplemental labels refer to RoundUp Ultra ONLY. Subsequent mention of the herbicide, RoundUp, in this article refers to RoundUp Ultra. For both of these new labels, it is recommended to use nozzles that emit medium to large-sized droplets to minimize drift onto cranberry vines. Avoid application during times that favor drift. RoundUp cannot be applied by air or through the irrigation system.

Copies of the two new labels are available through your local ag suppliers. Copies can be faxed to you from the Station by calling Deb at ext. 10.

- **Shorter water-holding time for dry ditch spray applications.**

Last year, we announced the use of RoundUp sprays in dry ditches. The change in labeling for 2000 requires only 2 days of holding water after application. The 1999 label required 7 days to elapse before the re-introduction of water into the ditches.

Directed sprays may be used to control weeds growing in the interior and perimeter ditch areas on commercial cranberry bogs. Water levels should be dropped to remove standing water prior to application. In hand-held sprayers, use 1-2% solution on a volume-to-volume basis with water. Spray to WET LEAVES, not to run-off!

- **Post-harvest sprays permitted on bog.**

Spray applications of RoundUp may be made after the harvest of cranberries to control weeds. Best results will be obtained if applications are made to vines that “appear dormant”. But, exactly how early could you spray and still minimize vine injury? We do not have baseline data on post-harvest timings with regards to potential for vine injury. Use the first year of this supplemental label to gain some field data. In locations where both weeds and a decent vine canopy are present, only treat a small area and see how the vines respond. Spray applications can be made “with reduced risk” in areas where the weeds have crowded out the vines.

Use a 0.5-1% solution on a volume-to-volume basis with water. Spray to wet leaves, not to run-off. If using hand held boom sprayers, apply 2-4 quarts product per acre. No more than 10% of your total acreage can be spot-sprayed. A minimum of 6 months must elapse between the last spray application and the next harvest of cranberries.

I would be grateful to hear your input as to the usefulness of these applications. Comments towards improvement of label language also is welcome.

Hilary A. Sandler, IPM Specialist
SOUTHERN RED MITE MANAGEMENT
EPA grants full label for Pyramite on Cranberry

A new pesticide is available through regular channels for southern red mite control.

Pyramite 60WP can be used to manage southern red mite in Massachusetts cranberry crop. Pyramite has been approved for a regular Section 3 label for use on cranberry by the State Department of Food and Agriculture and the U.S. EPA. Product is available at Ag Chemical dealers. The only paperwork you need is the supplemental label for cranberry. Pyramite works rapidly and is highly effective. High rates are not necessary and excellent control can be achieved at the low-end rates in most chemigation systems. Keep in mind that Pyramite does have aquatic toxicity and be sure to observe the restrictions on the supplemental label for cranberry.

USE: Southern red mite. An infestation should be positively confirmed before treatment. Treatment should target populations that are beginning to build.

APPLICATION: Chemigation and ground only, not aerial. 4.4 - 8.8 oz. of product/application/acre.

RE-ENTRY INTERVAL: 12 hours.

MAXIMUM NUMBER OF APPLICATIONS PER YEAR: 2. There is a 30-day interval required between applications.

PREHARVEST INTERVAL: 21 days must be observed.

REQUIRED PAPERWORK: You must obtain a supplemental label for cranberry when you purchase the product.

GENERAL: Pyramite is a wettable powder that comes in soluble pouches. It may be applied through the chemigation system with 100-600 gallons of water per acre. It may be applied by ground rig, but do not use less than 100 gallons per acre. Pyramite cannot be applied by air.

Care in handling is important as this miticide is toxic to fish and aquatic invertebrates. Ditch water must be dropped prior to application and water must be held for 3 days following an application. Do not apply during a temperature inversion.

Do not apply within 5 hours of rainfall or irrigation.

Martha M. Sylvia, Anne L. Averill

FALL FLOOD REMINDER

A reminder for growers with dewberry problems: growers who are harvesting early varieties or those who have crop destructed acres are encouraged to try a fall flood. Research evidence supports the efficacy of fall floods for control of dewberry and cranberry fruitworm. Best results have been obtained when the flood was applied between September 20 and early October and held for 4 weeks. Starting by the third week of September is recommended for maximum efficacy against dewberry. If harvesting, hold the harvest flood deep enough to cover the vines and maintain for a total of four weeks. If you crop destructed, apply the flood as recommended and hold for the four weeks.

Carolyn DeMoranville
UPRIGHT DIEBACK

PEST PROFILE

The vine damage associated with upright dieback (URD) is caused by at least two different fungi, *Phomopsis vaccinii* and *Synchronoblastia crypta*. *Phomopsis* is the organism most frequently isolated from diseased tissues. Koch’s Postulates (the verification that a specific organism is associated with a specific expression of symptoms) has not been successfully demonstrated for *P. vaccinii*. *Phomopsis* has been found in all cranberry growing regions in the US; *S. crypta* has been reported in MA and NJ only.

**Symptoms.** Symptoms may appear in established or new plantings. The disease is favored in areas of rank growth. Cranberry plants affected by this disease typically have individual uprights that die back from the growing point toward the runner. Every upright may be infected on some runners, while other runners may only have one or a few uprights showing the dieback. Dead uprights may be scattered in the bed or whole patches of dieback may occur. Patchy dieback is particularly common in young beds.

Infection probably occurs at, or shortly after, bud break. Infections may also occur throughout the season. Symptoms will not become apparent until weather-related stresses occur. Sometimes, symptoms may not even show until the following season. During times of high stress, uprights will be killed from the growing point downward. Roots of infected uprights are not affected. Attached berries may become dried and shrivelled as the upright dies.

**Damage.** Damage caused by this disease appears to be worse during growing seasons that have prolonged periods of drought or heat stress. These conditions weaken the vines making them more susceptible to fungal infection. Vines may also be more susceptible if they have been subjected to winter injury or oxygen deficiency. Disease incidence is variable from year to year. Typically, URD does not cause significant economic loss. However, losses can range up to 20% if the infection is severe.

**Causal Agents.** As mentioned above, *P. vaccinii* is commonly isolated from affected uprights. This is the same organism that causes viscid fruit rot. While *P. vaccinii* has not been successfully inoculated into cranberry vines, inoculations of *S. crypta* have given symptoms in greenhouse tests. It is suspected that two or three other pathogens may also be involved.

**Management.** The first recommendation for control of this disease is to avoid undue plant stress. Proper use of irrigation during the summer months of July and August can minimize or reduce heat and drought stress. You may want to install a water float device, as developed by Bruce Lampinen, to help you manage the water table depth. Appropriate watering favors the development of longer root systems. Deeper root systems are more adept at tolerating stressful conditions.

Fungicide applications at bud break and/or at early upright expansion give excellent control. Bravo or Champ can be applied from April 25 to May 15. The exact timing of the application will depend on the cultivar as the fungicide should be applied at bud swell.

Little is known about the relative resistance of cultivars. In WI, Searles appears very susceptible. In MA, Howes and Early Blacks are susceptible and Franklin may have some resistance to the disease.

**Collecting a sample for the Plant Pathology Lab.** Even though dieback symptoms can occur anytime of year, now is the time when symptoms usually start to show. If you think your bog may have upright dieback, bring in AT LEAST 50 uprights that are showing symptoms. Keep samples from different cultivars separate. The Pathology lab will culture the uprights to identify the pathogens, if present. If associated fungi are not isolated, it may be that fairy ring or drought stress may be causing the dieback.

**Excerpted from the NEW fact sheet on Upright Dieback Disease by Frank L. Caruso.**

This fact sheet contains color photographs of symptomatic vines. Copies are available for $2 mailed (less if picked up at the Station). Call ext. 12.

FAREWELL BRUCE - WE APPRECIATE YOUR CONTRIBUTIONS
AND WILL MISS YOUR GREAT IDEAS.

On August 1, Bruce Lampinen, environmental physiologist at the Station since early 1998, will become the Extension Specialist for Walnuts and Almonds at the University of California at Davis. Family ties in California and a chance to work with tree fruit crops again were the factors that led Bruce to leave the Station. I know that Bruce enjoyed his stay here and working with the Massachusetts cranberry growers. We certainly will miss his enthusiasm and creative ideas.

In the short time that Bruce was with us, he made major strides in the understanding of cranberry water use and irrigation scheduling. His major projects included the study of the use of tensiometers, examining the relationship between water table levels and cranberry growth, and examining the relationship between leaf area and cropping. Bruce’s work on tensiometers and water level floats (affectionately known as Lampinometers) is published in the most recent issues of Cranberries Magazine. Bruce has produced a fact sheet outlining how to construct and use water level floats for irrigation scheduling (available at the Station) and has developed an Irrigation section for the Chart Book.

Bruce and I have been studying the interplay of sanding, nitrogen applications, and irrigation methods for the past two seasons. With the help of Bruce’s summer technician and with long-distance input from Bruce, I will continue this project through next season. I will also oversee the completion of Bruce’s other grower-funded projects. Bruce plans to continue to analyze the results and put together the information for publication and grower use. He will be with us for one of our winter workshops to share those results with you.

Until we can bring a new physiologist on board, I will be happy to help growers with irrigation/physiology questions as best I can. Finally, I hope that you all will join me in wishing Bruce and his family well in their new endeavor.

Carolyn DeMoranville