



Cranberry Station Newsletter

MAY 2004

UMASS CRANBERRY STATION

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SECTION 18 PERMIT GRANTED FOR USE OF KERB FOR DODDER CONTROL

EPA has granted Massachusetts and Rhode Island cranberry growers a permit to use Kerb (pronamide) under a Section 18 Emergency Exemption. Kerb is a restricted use pesticide (retail sale and use by Certified Applicators only or persons under their direct supervision). This exemption expires June 15, 2004. One or two applications are permitted, not to exceed a total of 2 lb product per acre per season. Kerb may be applied by chemigation or by boom sprayer equipment.

You must fill out a Pesticide Applicator Form for the MDAR and return a completed form to the office by September 30, 2004. It is very important that all growers who use Kerb return these forms. Failure to return these forms could jeopardize the issuance of future permits by the EPA. Contact Steven Kenyon at (617) 626-1784 if you have questions about the forms. Labels and pesticide applicator forms are available at the Cranberry Station or from local Ag suppliers.

Water Resource Concerns. Water should be retained in the bog system as long as possible (at least several days) following an application of Kerb. Do not apply Kerb to open water sources. Use half-heads if you think the spray might reach open water. Do not use Kerb on flow-through bogs.

Use Rate. One application of 1-2 lb/A product can be made or two applications up to 1 lb/A can be made. Previous research indicated very good efficacy at the rate of 1 lb product per acre. Some growers have treated acreage at 0.75 lb per acre with good results. We do not have any data on rates below 0.75 lb/A. If you have applied Kerb at rates lower than 0.75 lb/A, I would be very interested to hear how the compound worked (or didn't work) for you.

Kerb should be watered off the vine canopy and into the soil after application. Run your sprinklers long enough to deliver 0.1-0.2 inches of water after application, if no

rain is predicted. Alternatively, you can inject Kerb towards the end of a frost night and combine your watering efforts.

Special Conditions Language. Dow AgroSciences has added language to the label emphasizing the potential of crop injury and outlining specific liability issues. Upon use of Kerb, you accept the Special Conditions that state that you accept that any benefits derived from using Kerb outweigh any potential or real injury or crop loss. You are accepting all liability when you use the product and cannot seek damages or compensation from Dow AgroSciences.

In past years, all growers who used Kerb had to sign a liability waiver. With the language on the 2004 Section 18 permit, the responsibility is still yours (as it has always been), but no additional paperwork is needed. Based on research conducted by Drs. Tom Bewick and Robert Devlin, there is sufficient evidence to feel very comfortable that no or minimal injury or crop loss will occur when Kerb is applied within label specifications. **If you are not willing to accept liability for the use of Kerb for control of dodder on cranberry, return the unopened product to the point of sale for a refund.**

Use of Casoron. Kerb can be used in a dodder management plan along with Casoron. Most growers who use both herbicides apply Casoron early in the season (low rates in early May) and save the Kerb applications for later in the season. Kerb can be applied up to late roughneck-early jewel stage with no vine injury. To maximize efficacy of both herbicides, allow 2-3 weeks in between applications.

Please call if you have any questions about dodder control or using Kerb.

Hilary Sandler, IPM

CRANBERRY STATION IPM WORKSHOPS 9 AM - 10:30 AM

This season, we will be hosting mini-workshops in May and June at the Cranberry Station and a bogside workshop in July at a grower's farm. The workshops at the Station will focus on current pest and management issues. We will have specimens on hand and will be giving sweeping demonstrations and other how-to tips. We will also identify problems with materials you bring to us. The format will be informal - so come with your questions, bugs, and plants. The Station workshops will be similar to the old 'open labs' that were held back in the 90s. The final workshop will be held at a grower farm so that we can look at some in-the-field issues. All workshops will be held in the morning (9-10:30 am). We plan to apply for 1 pesticide credit for each. Mark your calendars with the dates - **no** pre-registration required.

| Date | Location |
|--------------------|---------------------------|
| May 18, Tuesday | Cranberry Station Library |
| June 2, Wednesday | Cranberry Station Library |
| June 15, Tuesday | Cranberry Station Library |
| June 30, Wednesday | Cranberry Station Library |
| July 13, Tuesday | Location TBA |

A NEW KEY PROBLEM TO LOOK OUT FOR THIS SPRING: KEEP AN EYE ON BLACKHEADED FIREWORM

Over the past few years, blackheaded fireworm has taken some by surprise. The small caterpillars are difficult to detect and the infestations move rapidly. The caterpillars of the first generation feed from about the middle of May (sometimes earlier) through the middle of June. Because this fireworm goes through two, occasionally three generations, if a problem is not managed, great damage to the bed may result by season's end. The bed may suddenly get a 'burnt' appearance in the summer following an explosion of larval activity during bloom. Fireworm may be more of a problem where inputs have been minimized, nearby

to abandoned beds, or where infested vines were brought in for new plantings.

May is the best time to detect and manage this insect (but keep in mind that there's another hatch during bloom). A recommended approach is two-pronged: (1) sweep and (2) inspect vines for webbed leaves. The very small larvae may be on the rim of the net. The eggs overwinter and hatch begins just as the vines are coming out of dormancy. Hatch may occur over many weeks. If a few caterpillars are detected, it is a good idea to scout to see if there are greater numbers at least twice a week because the infestation moves so fast. Unfortunately, there is a very poor relationship between the infestation level of young caterpillars on a bed and the number picked up in a sweep net. This is why we recommend doing visual inspections when the caterpillars are small - it's a good idea to look for webbed leaves/caterpillar in a 2x2 ft grid at 4 sites on a bed. Early in May, begin searching the edges of bogs where populations were seen in previous years or near warm ditches and on south facing edges. This should pick up the earliest caterpillar activity—allowing you to be prepared to begin more thorough sampling in the main sections of the bog. When the caterpillars are half-grown or larger, they are more readily picked up in a sweep net and the numbers reflect the actual infestation level—but at this point, sprays are not as effective. Remember that the larvae never get very large—at full grown they are only about 1/3 of an inch or less.

The newly registered compound, Intrepid 2F, is effective against fireworm. It has many great attributes, which are enumerated on page 3 in this newsletter. Several other options are available including Diazinon, SpinTor, and Confirm (same mode of action as Intrepid; but, Intrepid is known to have improved activity over Confirm) along with flash-spring reflooding. Late water flooding is not effective.

ANNE AVERILL & MARTY SYLVIA, ENTOMOLOGY

WORKER PROTECTION TRAININGS

Worker Protection Trainings for cranberry workers in the Handler category will be offered on May 26 and June 30 from 2-4 at the Cranberry Station Library. There is a \$5.00 charge that includes training book and EPA verification card. Contact Marty at 508-295-2212, ext. 20 for additional information and to register.

Carolyn DeMoranville,
Cranberry Station Director

INTREPID 2F CHEMIGATION LABEL APPROVED BY EPA GOOD CHOICE FOR CATERPILLAR PEST SPECIES

Intrepid is an insect growth regulator effective against many pest caterpillars (black/yellow headed fireworm, spanworms, cutworms, Sparganothis) insects. It does not disrupt beneficial insects, making it a particularly good choice for Sparganothis caterpillar management. It is not toxic to bees, so it could be used during bloom when second generation blackheaded fireworm appears. Its unique mode of action also makes Intrepid a good rotational choice for resistance management.

Confirm 2F, which has been available for a number of years, and Intrepid 2F have the same mode of action. However, Intrepid 2F generally provides superior efficacy compared to Confirm 2F, often at lower rates than Confirm 2F.

A supplemental label has been issued by Dow AgroSciences and approved by US-EPA *allowing Intrepid to be applied on cranberry via chemigation*. Efficacy will still depend on having good chemigation systems, probably 6 minutes or better for optimal results. We have little experience chemigating this product, but we expect it to substantially outperform Confirm. Coverage is important, a spreader/binder is recommended, and drying time should be 6 hours.

Multiple applications may be necessary for best efficacy results. Four applications are allowed per season. The rate is 10-16 oz./acre. Cost is \$20/A at the 10 oz. rate and \$30/acre at the 16 oz. rate. We recommend using the higher rate until we have more experience with the product in chemigation systems.

Intrepid will only manage caterpillars: Sparganothis fruitworm, fireworms, green and brown spanworms, false armyworms, blossomworm, humped green fruitworm, and gypsy moth. Intrepid mimics an insect molting hormone. Insects must eat it to die. The timing of the spray is critical — hit eggs as they are hatching. Thus, we recommend spraying earlier than conventional insecticides. For second generation Sparganothis and black-headed fireworm, target the spray for 3 weeks after first flight (unlike 3 weeks after peak flight for conventional insecticides). This coincides with about 30% egg hatch, which is optimal timing according to Sridhar Polavarapu of New Jersey. A second application

may be necessary 10-14 days later to manage high populations. Intrepid has a comparatively long residual and may give control over 2 weeks. This is much longer than our usual short-lived insecticides.

Our data on cranberry fruitworm, collected over two seasons, show that Intrepid 2F is a pretty good choice as a fruitworm spray, BUT only when applied by low gallonage ground sprayers (20 GPA).

Intrepid will not hit non-target insects and is pollinator safe. Further, it has low toxicity to mammals, birds, and fish, but is toxic to aquatic invertebrates. Thus, there are ZONE II restrictions. If you fall within a Zone II area, you can NOT use Intrepid.

ANNE AVERILL & MARTY SYLVIA, ENTOMOLOGY

SURVEY OF BUG PROBLEMS? please give us a call!

1) Do you have a problem with cranberry white grub or oriental beetle? We've been approached by a company that hopes to develop sales of pheromone traps for survey, mass trapping, and/or mating disruption for these two grub species. For example, with the availability of Admire drenches, which target newly hatching grubs, timing of this expensive spray may be optimized via use of a pheromone trap to monitor adult activity. Would you be interested? Let us know.

2) Also, would you consider using mating disruption for Sparganothis fruitworm or blackheaded fireworm? 3M has dropped its mating disruption products for these insects, so we need a new vendor if growers are interested. We've been approached on this issue as well. The same company as above is considering commercial development of these products.

We recognize that price is an issue, but that's not in our picture yet. AT this point we are concerned about availability. If we cannot provide evidence that cranberry problems constitute a profitable venture, this pheromone entrepreneur is likely to turn his attention elsewhere. Give us a call at the Cranberry Station to give us your thoughts. (Marty Sylvia 508-295-2212 ext. 20)

CRANBERRY WEEVIL: SPRING MANAGEMENT OF RESISTANT POPULATIONS

Avaunt Section 18 Approved by EPA

Spring treatments: Our emergency request for Avaunt has again been granted. Avaunt is available for management of spring cranberry weevil. The labeling dictates that it can only be applied in the spring prior to bloom; it has been shown to provide superb control of the overwintering population of weevils when applied in May and June.

Avaunt may be applied in May and June via air or chemigation with a maximum of three applications of 6 oz. each. The minimum treatment interval is 7 days and REI is 12 hours. Although use of this compound is designated 'reduced risk,' Avaunt does have aquatic toxicity (of invertebrates, but not fish) and water should be held, if possible, for 2-3 days following application. Remember, during mixing, to add Avaunt to water in the spray tank, not vice-versa.

Make sure you have the 2004 Section 18 label allowing cranberry applications and that you complete and submit a 2004 grower reporting form to MDAR in Boston by September 30. This paperwork is available at all suppliers and at the Cranberry Station (Marty 508-295-2212 ext. 20). Compliance helps to keep our future requests for emergency compounds in the fast lane.

Summer treatments: For many growers, Avaunt provides only marginal control in the summer when the new generation of weevils emerges; thus, ***Avaunt cannot be used after bloom to target this population.*** We have submitted a request for a second (new) compound that is effective against the summer population. We are waiting to see if this petition will be granted by US-EPA. Keep up to date with the Cranberry Station for news.

ANNE AVERILL & MARTY SYLVIA, ENTOMOLOGY

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