



**UMass**  
**Extension**  
CENTER FOR AGRICULTURE

## Cranberry Station Newsletter

JULY 2010

UMASS CRANBERRY STATION  
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P.O. BOX 569  
EAST WAREHAM, MA 02538  
<http://www.umass.edu/cranberry>

### **BELAY, NEW INSECTICIDE REGISTERED, FOR POST BLOOM WEEVIL**

Belay (clothianidin) is registered for two post-bloom use patterns: foliar or soil application. It is in the neonicotinoid class (same group as Actara, Assail, Admire) of insecticides and is systemic, taken up by the plant.

**Super high bee toxicity:** Although Belay has low mammalian toxicity, it is *exceedingly* (far more than Lorsban or Diazinon or Sevin) toxic to bees and is labeled for use only post-bloom.

**Foliar application:** Belay has very high activity against summer populations of *cranberry weevil*. Weevil was early this season, and we have already received reports of high numbers for the summer population, usually not seen until later in July. Sweeping should be done, even though berries have set, to check beds for this pest. Belay has no **Zone II** restrictions, so if a bed is in Zone II, Belay must be used and Actara can no longer be used. In addition to having fewer water issues than Actara, Belay is less expensive and is broader spectrum, reducing other pest populations present in July.

Other labeled uses for Belay include blackheaded fireworm, Sparganothis fruitworm, and cranberry fruitworm, but we are not recommending it as an option for these pests. For cranberry fruitworm and under high pressure, it gave moderate control at the 4 oz. rate in one of our screening trials. Of the new compounds available, under high pressure Delegate and Assail are significantly better choices against cranberry fruitworm. We do not have efficacy data for the other labeled uses, including fireworm and Sparganothis.

**Soil application:** Belay is also labeled for 'white grubs,' which may include grubs of cranberry root grub, cranberry white grub, *Hoplia equina*, and oriental beetle. Trials in Wisconsin show activity against cranberry white grub (*Phyllophaga anxia* = June bug), but only when grubs are small. Thus, they recommend the Belay drench as soon after bloom as possible when eggs have just hatched. We assume that the other grub species will also be hit, but again, only when they are small, which is in July-August depending on species. Grubs of some species take multiple years to develop, so multiple years of treatment may be required to reach acceptable levels.

**Rates and restrictions for applications:** No more than 12 oz of Belay can be applied per acre. For foliar applications, 4 oz/acre with no more than 12 oz/acre/year. Treatments must be 7 days apart. For soil applications, it is one application and the rate is 12 oz/acre; it is applied by ground or chemigation followed by a drench – a minimum of 0.2" of water within 2 hr. ***If Belay is used as a soil application, foliar sprays cannot be made (and vice versa).*** Regardless of use pattern, the preharvest interval is 21 days. Adjuvants should not be used.

### **BLACKHEADED FIREWORM at BLOOM IN ZONE II — INTREPID 2F OPTION**

Largely relevant to next year: working with MDAR (Massachusetts Department of Agricultural Resources), we have justified new guidelines for growers with an outbreak of 2<sup>nd</sup> generation blackheaded fireworm **during bloom**.

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**Carolyn DeMoranville, Director**

Intrepid (methoxyfenozide), normally disallowed in Zone II, can be applied (*but only during bloom*) in Zone II because it is the only viable alternative that is both safe for bees and also very effective against blackheaded fireworm (after bloom, other compounds must be used). Reporting forms must be submitted to MDAR in short order after the application—contact the Cranberry Station for information and forms.

### **SOIL PEST FROM OLD DAYS REAPPEARS AT ONE SITE**

A larval infestation of cranberry rootworm (*Rhabdopterus picipes*) was responsible for significant areas of vine die-off in a Middleboro cranberry bed. We have not previously seen this insect, although it is a problem in NJ, and was occasionally seen in the old days in Massachusetts. Rootworm is very similar to another soil pest in cranberry, striped colaspis. The larval stage (small—about 5/16") feeds on roots and bark and causes dead areas that look similar to other soil insect infestations. Adults are small, about 1/5" and are shiny bronze/brown and oval beetles and feed on the foliage/flowers. On infested bogs in NJ, beetles are found in night sweeps. In NJ, Admire drenches in July are recommended for management of the larvae.

**ANNE AVERILL, ENTOMOLOGY**

### **Pathological musings**

Without question, Phytophthora root rot has reemerged as a concern in many beds this growing season. Last year, we had significant rainfall in June and July. This year, March had record rainfall and beds remained very wet through a very active frost season from April into June. The low spots in the bed where *Phytophthora* resides have allowed the fungus to proliferate and attack nearby vines that have been under water stress. Newly-developed low spots have the disease as well. If water is shared by an uninfested bed with an infested bed, the fungus will easily be introduced to the uninfested bed. If you suspect the disease is present, it is always a good idea to get the vines tested for presence of the pathogen. If no *Phytophthora* is present, drainage improvement will probably clean up the stressed areas and you can save money on fungicides. If the fungus is present, I recommend drainage improvement before you apply any fungicides. The Chart Book has a detailed section on Phytophthora root rot that gives you all of the information you'll need.

We're in the third year of a project on upright dieback. I'll be going back to visit and sample beds that had the disease during 2008-9 to see if the disease is once again present in 2010. If you see uprights dying, typically individual uprights dying in the midst of healthy uprights, let me know. I'd like to add new sites to my project, and culture them to see which fungi are causal agents.

**FRANK L. CARUSO, PLANT PATHOLOGY**

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