Washington State University • Long Beach
Cooperative Extension
2907 Pioneer Road
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CRANBERRY VINE

June 2001

MEETINGS

Field Day. August 8, 10:30 to 2:30. This year's Field Day will be significantly different than in prior years. We have moved it to August 8 to coordinate with the West Coast Advisory Board meetings. Field Day has been shortened and will follow a morning Ocean Spray grower meeting at which time the CEO, Rob Hawthorne will make his quarterly report. We will aim for two pesticide credits and hope, by following the Ocean Spray meeting, to increase our attendance.

The tentative agenda is: Kim Patten - New BMP research that works for water quality and weed control; Pete Bristow - Fruit keeping quality - Why aren't we getting it?; Kevin Talbot - BMP implementation results with perforated drain pipe; Steve Booth or TBA - BMP implementation results on ditch covering. Field Tour of weed control, BMP research, and alternative crops.

BOG MANAGEMENT

Fireworm and Insecticide Applications. This year, more than previous years, growers need to pay special attention to firewom control. First of all, hatch was spread out and you probably will have second generation larvae during bloom which must be controlled before the bees are removed. Second, if ever there was a time to utilize other BMPs to avoid surface water contamination, this is it.

We all know that using conventional chemical insecticides during bloom is not recommended due to hazards to pollinators actively foraging the cranberry blossoms. You have several alternatives from which to choose: 1) Bt products, 2) Pyrenone, 3) Confirm, 4) wait it out, and 5) spot treatment of hot spots.

Bt products (DiPel, Biobit, Agree, MVP, etc.) are specific for lepidopteran insects (caterpillars), such as fireworm, and offer low risk to beneficial insects. They should be applied when caterpillar larvae are young and small. Larvae generally stop feeding within a few hours of ingesting Bt treated foliage and die within a few days. Treatments may have to be repeated if there is a continuous insect hatch. Consult product labels for correct rates. Not all Bt's are labeled for use on cranberry. We have our best results with the endotoxin-enhanced Bt's and with first generation fireworm, not second. I wouldn't rate any of these products as extremely effective against fireworm, however.

Pyrenone is another good choice for bloom time insecticides. It contains a naturally occurring pyrethroid insecticide, pyrethrum, derived from pyrethrum flowers grown in Africa and piperonyl butoxide as a synergist. Evening applications of this contact poison control blackheaded fireworm. The product is broken down by sunlight and residue levels are low when applied in this manner. Use the 8 to12 oz/acre rate to knock down pest levels until the bees can be removed. More than one application may be needed.

Confirm has been our product of choice for this period and has become more cost effective. Efficacy is achieved only when used on small young larvae. Therefore, success is based on scouting your beds for young larvae and monitoring traps.

Waiting it out until the bees are removed should be considered if: your populations are very small and not very high, the weather is cool, the time to wait is less than a week, you don't care about losing some fruit or tips, or you have a very distinct peak flight of adult moths which indicate precise timing is still several days off. If you have a few hot spots where sprinklers don't hit, for example, consider just treating these areas by hand and waiting for your main spray until later.

Use of traditional insecticides during bloom applied at night and washed off in the morning is an off-label application and is not recommended. Wettable powder formulations may be particularly hazardous. Even after the bees are removed there are still foraging bumble bees that can be affected by insecticides applied during the day. When using any insecticide always apply late in the evening to minimize pollinator hazard. Before applying, run sprinkler systems 10 to 15 minutes to chase any foraging insects from the beds. Run sprinkler systems again in the morning to discourage bees from entering the beds until later in the day when residue levels are safe. Whatever pest management measures you employ, if bee hives are present be sure to keep the beekeepers informed.

Use of BMPs. George Orwell's book 1984 on big brother watching all our activities, definitely describes what is happening to the cranberry industry this spray season. To toss another literary master at you, Kierkegaard once said "You never know when a tiger will jump out of the woods." Sources tell me that the ditch will be monitored this year. If ever there was a time to be proactive and implement BMPs, this is the season. Here are several suggestions that everyone can do even if they haven't already installed ditch covers.

1) Hold water if you can, even if only for a few days. A few sand bags in your drainage ditch will help tremendously. Draw down your sump prior to an application to help the hold time.
2) Use insecticides that are environmentally friendly, such as Confirm.
3) Use insecticides that have the shortest half-life in water. We don't have definitive data on this, but Imidan and Orthene look fairly good in this regard; Diazinon, Lorsban and Guthion, much less so. Know your water pH. This affects insecticide half-life big time. For most of Grayland, the water is around 6.8. At this pH, Diazinon half life is many weeks and Imidan, only a few days; whereas the opposite is true at pH 5.
4) Use lower rates.
5) Hand spray near ditches.
6) Don't clean out your ditch weeds.
7) Double check to make sure your system has no leaks and all your drain caps are closed.

Economic Thresholds. I know I'll get flack for telling you this, but you may want to consider tossing the traditional spray recommendations for fireworm out the window. When cranberry prices were worth something it made sense to spray when we did. Now, however, spraying because we find a few worms in a sweep net or moths in a trap is about as economically significant as finding a penny on the sidewalk. There are many of you who in all likelihood could get by without any second generation fireworm. You will lose a few berries and populations will build up for next year, but it will save you some money and help reduce the environmental risk. If you lack good permanent BMPs and don't have a good way to reduce non-target pesticide movement, have low trap counts (less than 10/ week), and don't have a history of the problem, think about just not spraying at all or just hitting your hot spots. It always amazes me, when looking for fireworm damage on farms that have not been treated with insecticides for several years, that I just don't find much damage. You frequently just don't see it. The populations of predators reach levels high enough to keep things in check.

Weed Control. If you have not used Prism/Select for grass control, I would urge you to consider it. It does a great job on perennial species and has only a 30 day PHI. Remember, Select has twice the active ingredient concentration of Prism.

Weed Control - Product Rates for Spot Treatment. A common phone call goes like this: "How much of X do I add to a gallon of water for spot spraying?" Spot treatment is anything but precise. For the following calculations, spot spraying assumes you are spraying to wet (70 to 100 gallon/ acre). If you spray to runoff (400 gallons /acre) adjust the rate by using 1/4 of the product per gallon or if you use less water (20 to 40 gallons/ acre) adjust it upwards. Always consult the label for concise rate and use recommendations.

Product	Label Rate	Spot Spray Rate	Surfactant	Pests Control/Timing	PHI
Stinger	2/3 pt/ac	0.6 teaspoon/gal 1 tablespoon/ 3 gal 0.5 oz/3 gal	no	clovers, lotus, aster/ dormant season and post fruit set	60 days
Poast or Poast Plus	1.5 to 2.5 pt/ac	1.3 to 1.9 oz/gal	crop oil (1oz/gal)	most activity growing grasses*	60days
Prism	17 oz/ac per application or 68 oz/ac per yr	1 oz/gal	crop oil (1 oz/gal)	all actively growing grass*	30 days
Select	8 oz/ac per application or 32 oz/ac per yr	0.5 oz/gal	crop oil (1 oz/gal)	all actively growing grass*	30 days

* Perennial grass will require two applications 1 month apart

Fresh Fruit, Fireworm and Confirm: The feedback I hear is that Confirm is great, but not if your are going to sell fresh fruit. With zero tolerance for worms in fruit, why take the risk? I do agree that Confirm doesn't provide the level of protection that an OP does, but I I would question the true identifyof the worm we're finding in the fresh fruit. We have been tracking fireworm in fruit for years and fireworm damage always drops off earlier in the season. What I suspect is that the fireworm in the fruit you are concerned about at harvest isn't really a fireworm, but something else. If you see any worms in your fruit at harvest, please let us know so we can identify them.

Fruit Rot. The best timing for fungicide applications to prevent fungal infections leading to fruit rot is the period immediately following bloom. The fungicides, Bravo and Mancozeb have the greatest effect on cranberry fruit rot control. Ferbam and copper-containing compounds tend to be less effective. For fresh fruit keeping quality, use a Bravo-Bravo or Bravo-Mancozeb application at early green fruit and 2-3 weeks later. If you have twig blight use a Bravo-Bravo mix as above, followed by Mancozeb no later than August 10th. To save money use a Bravo-Mancozeb-Mancozeb mix as an alternative. If you are spot treating for twig blight, spray a 30 to 50 ft. radius out from the infested area.

Having problems with excessive vine growth and/or poor fruit keeping quality on peat soil? Consider holding back on irrigation. On several of the peat beds I've seen, unless they have Casoron, weevil or girdler damage they are likely to be over irrigated and outside of frost control or a real dry summer could make do with no irrigation or only a few watering a month.

MISCELLANEOUS

Website of Interest. One of the only ways to make money farming is to be able to add value to your crop. If you are looking for a valued added niche market this fall for your excess fresh fruit cranberries, go to: www.pugetsoundfresh.org. They list all the farmers' markets in the area. There are many listed within a 2 hour drive of Grayland

Unused Pesticide Pickup. Some of you still have unused or unusable pesticides which represent a potential liability and source of environmental contamination. The WSDA annual Waste Pesticide Identification and Disposal Program will collect unusable pesticides from a single farm or business location due to special hazards or transportation concerns. You never know how long this program will be sponsored and you can't afford to do it on your own. You must sign up for a pickup by July 12. Contact the Washington State Department of Agriculture via one of these options to sign up.

By mail: Waste Pesticide Program, P.O. Box 42589, Olympia, WA 98504-2589.

By phone: Call (360) 902-2056 or toll free 1-877-301-4555.

By e-mail: WastePesticide@agr.wa.gov.

Collection Site	Collec-tion Date	Customer Sign-up by:	Send Inventory to WSDA by:
Long Beach	Aug. 20	July 12	July 24
Grays Harbor	Aug. 21	July 12	July 24

Grower input welcome: WSU is going through a strategic planning process and WSU Long Beach would welcome input on how to improve and better serve the natural resource communities of our area. It is going to be more and more difficult for us to serve only the cranberry industry. If you see an opportunity or a need that is not being addressed, or you have input on how to improve the job we are doing, please let me know by phone or email. Thank you.

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