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# CRANBERRY VINE

WSU Long Beach Research and Extension Unit
2907 Pioneer Road • Long Beach, WA 98631 • 360-642-2031 • pattenk@wsu.edu

**June 2010**

## MEETINGS

**WSU Cranberry Summer Field Day. Friday, July 23 at Randy Rust's Farm in Grayland WA.** Registration at 8:30 am, program 9:00 am to 2:00 pm, lunch at noon.

This year's program will be our first off-site summer field day and will be held at Randy Rust's new farm in Grayland. The farm was designed to utilize the Wisconsin spray boom and is producing Grygleski vines exclusively. There will be some great demonstrations of a lot of new sprayer and irrigation equipment, bog tours, research talks and demonstrations. Pesticide credits will be provided.

Randy's farm is at the intersection of Cranberry Road and Grange Road (see map on last page). Grange Road is just south of the Grayland Hardware store. The address is 2068 Cranberry Road.

**Waste Pesticide Pickup.** With the cancellation of Maneb 75 and Maneb 80DF this summer, and other products previously (Diazinon 14G and. Guthion), it is important that growers dispose of unused product. The WSDA pesticide disposal program is offering another local opportunity to remove these products. The dates are July 22nd at WSU Long Beach 10 am to 1 pm. and July 23rd in Grayland (at a site immediately adjacent to the field day location). This will be for reasonably small amounts of chemicals. No advance paperwork will be required for collection. However, please notify me beforehand (360-642-2031) so we can make sure to have enough space set aside to process all the deliveries. Also, double-bag the sacks or containers you bring to protect against spills in transport or handling. If you have large amounts of waste pesticides (pallet loads or 50-gallon containers), arrangements can be made for a pickup at your farm. Call Rod Baker, WSDA Waste Pesticide Program Coordinator, at 360-902-2046 before July 7th to schedule that pickup.

As in previous years, this process is completely anonymous, no questions asked and no records kept. Take a look around your sheds, pump houses, and pesticide warehouse for old rusty containers or sacks of unknowns that are likely to be pesticides, or products no longer registered. With the regulatory eyes gawking at our industry, these items are a liability for all of us. If you know someone who has retired from farming, or has abandoned their farm, let them know about this pickup.

## PESTICIDE NEWS FOR 2010

**Bad news:**

**EPA has proposed revoking the tolerance for Maneb on cranberries.** *From the new Cranberry Institute newsletter.* "In an unexpected move, EPA recently issued a

proposed rule in the Federal Register to revoke all food tolerances, including cranberry, for the fungicide, Maneb. The reason appears to be due to the voluntary cancellation of all food use labels by the Maneb registrants. If left unchallenged, the cranberry tolerance for Maneb would be revoked in late July. The Cranberry Institute will submit comments to EPA requesting that the Maneb tolerance not be revoked for at least 1 year, perhaps longer, to allow growers to use up existing stocks that they may have in their possession by applying the fungicide. The extension would also allow berries treated with Maneb to clear channels of trade before the tolerance is revoked. Regardless, growers should not use Maneb in the remainder of 2010. Maneb has been sold under several brands with names such as Maneb 75 and Maneb 80DF. Growers should not purchase or use up stocks in their possession during the remainder of 2010 or until EPA approves the requested extension later this summer."

**Several new registrations occurred in 2010, but we can't use them.** This includes Evito fungicide, and Belay, Rimon and Oberon insecticides. Although their uses are perfectly legal, these chemistries are a concern because of export residue issues. The recommendation for non-use is temporary and will be changed once export residue concerns are addressed. While every new registration setback is a loss, none of these four chemistries is a deal breaker, as other substitute products are available.

**Good News:**

**Curio herbicide receives an SLN registration for buttercup control in cranberries grown in Washington.** As of June 7, 2010, after 10 years of effort and more setbacks than you can imagine, Nufarms's Curio (active ingredient chlorimuron) is now legal to use. The actual registrant is the Pacific Coast Cranberry Research Foundation. The PCCRF and Nufarm are requiring all users of this product to first sign and return a Waiver of Liabilities form. After the PCCRF receives your signed form, you will be issued a label with guidelines on use pattern. Use of this product without a viable label is illegal. The PCCRF has bulk ordered some of the product and has it available at cost (~$18/ac). Until the PCCRF gets a better procurement systems setup, please email the McPhails @ cranmac@willapabay.org for ordering information.

While I would have preferred to have it available in the earlier spring, Curio is still very effective and safe this time of year. It has a 60-day PHI. Curio does not have export residue issues and Ocean Spray has approved its use for growers in Washington. Buttercup is a very tenacious weed and detrimental to crop production. If you have this weed along your bed edges or throughout your bed, I highly recommend giving it a try. Curio is not a dramatic herbicide that provides the satisfaction of next day burn-down results. Instead, after a month or so, buttercup just sort of melts away.

**Callisto new SLN pending.** Syngenta has submitted a request to both the Oregon and Washington Departments of Agriculture to add chemigation on the cranberry label for Callisto. I am not sure when it will get approved, but this method of application has shown excellent efficacy in the field and is a very cost-effective method of application. I especially like it for weed control on new plantings. We will notify growers as soon as the SLN is available.

## PEST MANAGEMENT

**Twig Blight.** I've noticed a significant amount of twig blight on a few beds this spring. Growers should make sure that Bravo

or a genetic equivalent goes out at fruit set and again in two weeks.

Dithane, Indar or Abound are also effective and should be considered for the second and/or third fungicide timing. It is important to have a protective coverage during July while this fungus is sporulating. These treatments only protect this year's growth. Symptoms on uprights that have been are infested are not expressed until the following year.

**Red Leaf Spot and Black Spot.** These two diseases are not normally a concern on producing beds. They are only manifested in beds with luxuriant vigor, such as new or young plantings. Red spots on leaves of tender growth or the entire shoots quickly spread unless treated. The main problem with red leaf spot is that it results in a secondary infestation known as black spot. This latter disease quickly kills the infested part of the shoot, and can devastate most of the new growth on a bed. Use multiple applications of copper fungicides, such as Koicide, to protect new growth once you begin to see significant red leaf spotting.

**Cottonball**. If you noticed white or yellow berries at harvest that had white puffy mycelium inside them, you had Cottonball. It is rarely serious, but if bad it will reduce yields and continue to spread. Treat early and mid-bloom with Indar or Abound.

**Cranberry girdler.** With the loss of Diazinon 14G, growers should plan on using nematodes. I understand that ample product should be available, if ordered in time. Pre-wet leaves and ground before applications, apply in the evening (they are UV sensitive) and incorporate with 3-4 hours of irrigation on day one and then maintain a similar irrigation scheme for several days post-treatment. This treatment is too expensive to not put out correctly.

**Blackvine Weevil**: Start with an aggressive night sweeping program to monitor for first adult emergence and feeding, then treat at night or evenings with Avaunt at first emergence. Repeat this treatment in 10 days. Use weekly night sweeping to validate if treatment is working. Sweeping numbers should drop dramatically following treatment. If sweeping numbers remain high after the second Avaunt, switch to Assail to avoid insecticide resistances. If weevil larvae are observed in the duff, consider nematodes and/or Admire. For details on use see **the 2010 Cranberry Pest Management Guide EB0845** at http://cru.cahe.wsu.edu/CEPublications/eb0845e/eb0845e.pdf

**Fireworm.** High early trap counts (>60 to 70/week) suggest a problem site that will need to be treated prior to the bees being removed. To avoid damage, use Intrepid 10 to 14 days after you recorded high early trap data or look for early instar larvae in your hotspots. Assail is also bee-safe and provides some reasonable control of early instar larvae. If you miss your timing and now have large larvae, consider using a spot treatment of Delegate. It is more bee-safe than the OPs and works on the 4$^{th}$ and 5$^{th}$ instar larvae. Apply in the evening to minimize the bee hazard.

I would also assess why you are having a problem with fireworm. They are reasonably easy to control with OPs. A well-timed spray when the bulk of the larvae are in the middle instar for the first and second generations should pretty much minimize the populations. A couple of years of good timing of insecticides and I've seen farms have virtually nonexistent fireworm trap counts even if they skip treatments. I would suggest looking at all three of these possibilities: your timings are off, your irrigation system is not very uniform or your chemigation wash-off times are way off.

## Cranberry Management

*Pollinator management:* Spend a few minutes sitting in your vehicle watching the bees entering and exiting their colonies. There should be lots of activity on a warm sunny day. Note if there are weak or dud colonies. Require that your beekeeper supplement or replace weak colonies. Note what color of pollen they are bringing in, if any, and how it changes over time. The light cream color is cranberry and is usually not the dominant pollen.

Note if there are piles of dead bees in front of the entrances. This suggests a pesticide poisoning. Don't use insecticides during bloom that are not bee-friendly. We have several insecticides to choose from that are bee-friendly. For more information, see *How to Reduce Bee Poisoning from Pesticides* in. extension.oregonstate.edu/catalog/pdf/pnw/pnw591.pdf. Being overly zealous with an OP to kill a few early fireworms doesn't make a lot of sense if it results in a major reduction in your foraging honeybees.

**Must-have "occasionally used" pesticides.** Washington growers normally have ample amounts of commonly used pesticides (Casoron, Bravo etc.). However, I often find some pest management situations require immediate attention, but the grower won't have the required product on hand.

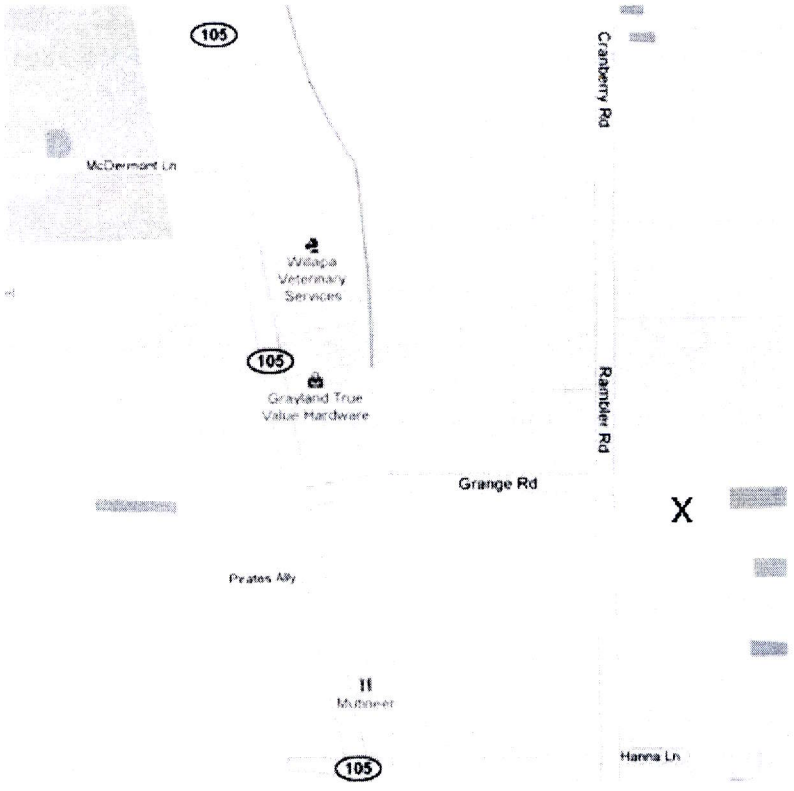
Here is a list of my top 6 "occasionally-used" products that every grower should have immediately on hand. 1) Intrepid – for fireworm control while bees are actively pollinating; 2) Koicide – for rose bloom control on established beds and red leaf spot on new plantings, 3) Select Max (or its generic equivalent) for post-emergent grass control; 4) Callisto – general weed control, especially in new plantings; 5) Curio - spot treatment of buttercup; 6) Stinger – dormant season treatment of legumes and sour dock.

I would also consider adding four more products to that list. 1) Delegate – a non-OP insecticide that is active against late-instar fireworm (unlike Intrepid). It is very effective via chemigation, and more bee-friendly than Diazinon; 2) Avaunt – you should have enough for at least two applications if you have weevil; 3) Indar and/or Abound fungicides – critical for early/midbloom treatment of cottonball infestations. They have been shown to increase yield of some beds and control twig blight; 4) Assail – A bee-friendly insecticide that is moderately effective against early-instar fireworm, blackvine weevil, and tipworm. None of these pests are blown away by Assail, but it is an important tool to have available.

**Irrigation system uniformity.** If you missed the all-day training sessions we had in June and would like a CD of the presentation, let me know. A couple of highlights: 1) Use the new version of Goggle earth to assess your irrigation systems for poor uniformity. The latest version lets you look back at your farm in history over the past 20 years. Narrow in on your farm and play with the time feature. Some farms show great donut patterns on their beds from poor sprinkler uniformity. How well it shows may depend on the year of the photo. The 2005 satellite shots looked good on some farms, while the September 2009 photos looked better on other farms. 2) NRCS provided an extremely useful handout called the "Washington Irrigators' Pocket guide – equipment maintenance and water management." This is a must-have for everyone who has irrigation crops in Washington. 3) Systems are all very different, not just in their uniformity but in their chemigation calibrations. Poor uniformity and improper chemigation timing is commonplace and has a very strong influence on the overall performance of our farms. Testing both of these on your farm is a "must-do" if you want to improve your yields.

4) There are some not unreasonably expensive chemigation systems that would work for cranberry growers. We will have some of these displayed during field day. 5) Because of cranberries' shallow root systems and because they are grown on sand with low water-holding capacity, there is a very low margin of error for irrigation scheduling. Two systems of choice for irrigation scheduling are low tension tensiometers and/or using Agweathernet systems.

## Map to Randy Rust's farm for 2010 Field Day.




**WEATHER HISTORY**

| | Precipitation (*through 2009) | | | | | Growing Degree Days (*through 2009) | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Month** | **2007** | **2008** | **2009** | **2010** | **20 year average*** | **2007** | **2008** | **2009** | **2010** | **20 year average** |
| January | 6.9 | 10.5 | 10.8 | 13.2 | 12.0 | 9 | 4 | 23 | 83 | 48 |
| February | 10.4 | 5.4 | 3.7 | 8.2 | 7.5 | 33 | 16 | 20 | 56 | 46 |
| March | 11.0 | 9.7 | 7.7 | 9.5 | 8.4 | 66 | 12 | 10 | 72 | 68 |
| April | 4.1 | 5.3 | 4.2 | 7.9 | 6.5 | 104 | 43 | 61 | 92 | 117 |
| May | 2.1 | 2.5 | 4.8 | 3.9 | 3.6 | 205 | 230 | 214 | 180 | 246 |
| June | 2.8 | 2.4 | 0.7 | | 2.8* | 294 | 244 | 361 | | 340* |
| July | 3.6 | 0.5 | 0.8 | | 1.2* | 495 | 364 | 427 | | 448* |
| August | 1.8 | 4.0 | 1.6 | | 1.9* | 464 | 425 | 463 | | 458* |
| September | 1.2 | 0.9 | 3.3 | | 2.0* | 323 | 326 | 401 | | 379* |
| October | 11.1 | 4.9 | 8.2 | | 7.2* | 152 | 166 | 184 | | 215* |
| November | 6.3 | 11.1 | 20.3 | | 12.2* | 53 | 138 | 71 | | 87* |
| December | 11.4 | 11.3 | 6.2 | | 12.1* | 20 | 16 | 27 | | 33* |
| **Totals** | **74.5** | **68.5** | **71.0** | | | **2017** | **1984** | **2263** | | |

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COOPERATIVE EXTENSION
Washington State University
Long Beach Research and Extension Unit

Dr. Kim Patten, Associate Horticulturist
Email: pattenk@ wsu.edu
Phone and fax; 360-642-2031
Mobile phone; 360-355-7864

WSU - Long Beach Research & Extension Unit
2907 Pioneer Road
Long Beach, WA 98631

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