

Cranberry Crop Management Journal

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CRANBERRY VIRUS BULLETINS AVAILABLE

by **Patty McManus**
UW-Madison and UW-Extension

Middle to late July is the best time to scout for tobacco streak virus (TSV) and blueberry shock virus (BIShV). These are distinct viruses but the scarring symptoms they cause and their general biology is similar. Because both viruses cause fruit to turn red prematurely, infected plants “stick out” this time of year, but tend to blend in later.

There are bulletins describing each virus and management recommendations available through the UW-Extension Learning Store:

<https://learningstore.uwex.edu/Tobacco-Streak-Virus-in-Cranberry-P1796.aspx>

<https://learningstore.uwex.edu/Blueberry-Shock-Virus-in-Cranberry-P1856.aspx>

Or, do a search for each virus and “cranberry” and that will take you there.

We are not running routine tests for either virus in my lab this year, and the Plant Disease Diagnostics Clinic at UW-Madison is not set up for this, although with enough grower interest, this might be possible in future years. There are commercial laboratories that conduct virus tests. The one we have worked with is Agdia in Indiana (agdia.com), but I am not endorsing it over others. If you want to have samples tested, the bulletins provide information on sample collection. You also might want to consult with the testing laboratory as well in case they have special instruction.

TSV and BIShV are associated with a wide range of berry scarring and unusual ringspot and “tie-dye” patterns. See UW-Extension bulletins for more photos and details on the biology and management of viruses.



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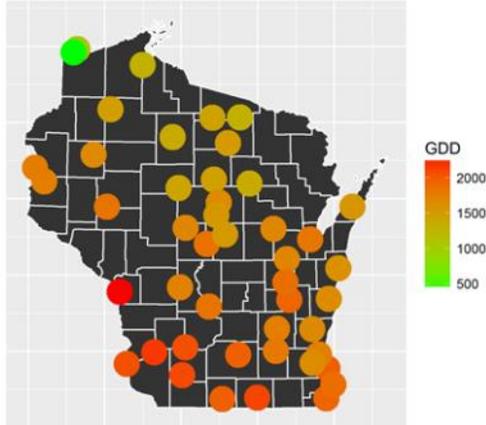
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CRANBERRY PLANT AND PEST DEGREE DAYS – JULY 10TH, 2017

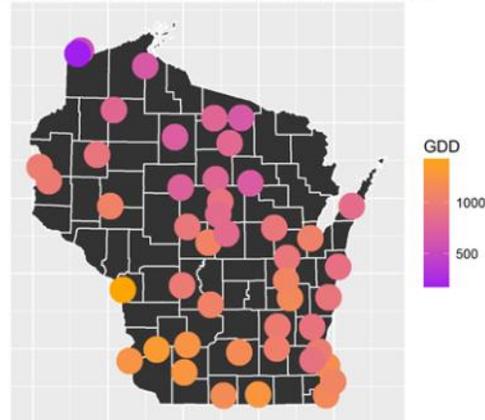
by Elissa Chasen and Shawn Steffan
USDA-ARS and UW Entomology

The maps below show how spring is progressing across Wisconsin (and rapidly becoming summer!). Developmental thresholds for each species are: cranberry plant - 41 and 85°F; sparganothis fruitworm - 50 and 86°F; and cranberry fruitworm - 44 and 87°F. Interactive maps are posted online. The interactive feature allows you to click on the map locations, prompting a pop-up that names the location and gives exact degree-days. These are available through the Steffan lab website (<http://labs.russell.wisc.edu/steffan/cranberry-growing-degree-days/>). Once on the website, follow the link to the interactive maps.

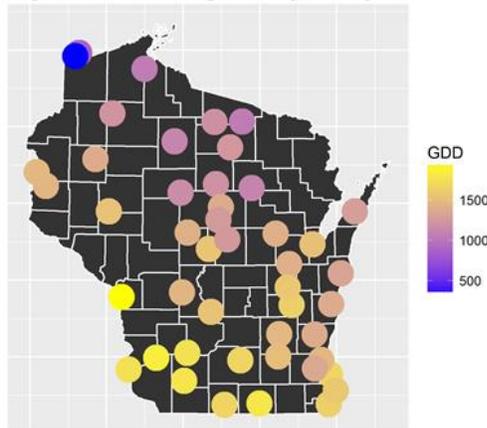
Cranberry Growing Degree Days: July 10, 2017



Sparganothis Degree Days: July 10, 2017



Cranberry Fruitworm Degree Days: July 10, 2017



The table to the right allows for comparison of degree-days over the last three years.

	July 10			Cranberry DDs			Sparg DDs			CFW DDs		
	2015	2016	2017	2015	2016	2017	2015	2016	2017	2015	2016	2017
Northern WI (Minocqua)	1496.1	1545.7	1447.5	809.1	867.8	783.8	1246.2	1299.9	1204.6			
Central WI (Wisconsin Rapids)	1918.3	1950.8	1854.1	1133.6	1177.5	1091.4	1639.1	1669.6	1579.5			

Event	DDs from March 1 (approximate)
 Flight initiation	595.7
 First eggs laid	681.0
 Peak flight	884.12
 First egg hatched*	895.4
 End of egg laying	1,634
 Last egg hatched*	1,890

* Egg hatch window: 895 – 1,890 DDs

FOLLOW UP ON THE ARTICLE ON THE REDUCED RISK INSECTICIDE INTREPID

by Christelle Guédot, UW-Madison Department of Entomology
and Otto Oemig, Wisconsin DATCP

Last year, I discussed the insecticide Intrepid as one of the reduced risk insecticides that can be used during cranberry bloom. Intrepid contains the active ingredient methoxyfenozide. Not mentioned in that article, and as you probably already know, there are some restrictions on where and how in the state this active ingredient can be applied due to the risk to the endangered species the [Karner Blue Butterfly](#). When EPA approves the registration of an active ingredient, it looks at the potential impact on the environment and can set forth geographically use limitations to limit negative impacts on federally listed endangered species and their habitat. Fortunately, this is the only active ingredient in Wisconsin with this kind of restriction and we will do our best to keep you posted should other active ingredient labels be affected by similar restrictions in the future.

There are different products registered in Wisconsin with this active ingredient including Intrepid 2F which growers are the most familiar with but also Intrepid Edge, WithStand, Troubadour 2F, and Turnstyle. The EPA restrictions apply to all products containing the active ingredient and these pesticide labels have specific language in them regarding endangered species protection:

“Endangered Species

The following applies to use of this product in Michigan (Allegan, Monroe, Montcalm, Muskegon, Newaygo, or Oceana counties) or Wisconsin (Adams, Burnett, Chippewa, Clark, Door, Eau Claire, Green Lake, Jackson, Juneau, Marquette, Monroe, Polk, Portage, Waupaca, Waushara, or

Wood counties). This product may have effects on endangered species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call 1-800-447-3813. You must use the Bulletin valid for the month in which you will apply the product.”

The map on the EPA website shows in red highlights the areas of Wisconsin where methoxyfenozide pesticide use restrictions for endangered species protection are in place.

Selecting one of the pesticide use limitation areas will bring up a table with restrictions for the various methoxyfenozide containing products. In Wisconsin, all uses of methoxyfenozide containing pesticides within these red highlighted areas are prohibited except for limited use in cranberries.

The use of methoxyfenozide on cranberries is allowed in some of the pesticide use limitation areas and carries added restrictions such as allowable droplet size and application wind speed. The Bulletin states in part that for cranberry applications, “Ground applications must be made using a drift retardant and nozzles that produce an American Society of Agricultural Engineers (ASAE) coarse droplet size distribution (median droplet size of 450-500 microns), and when the wind speed is between 2-10 mph. Chemigation must be conducted consistent with the instructions on the current chemigation label AND must be made using a solid-set sprinkler system producing a minimum median droplet size of 500 microns (median droplet size of 450-550 microns) or larger, and when the wind speed is between 2-10 mph.”

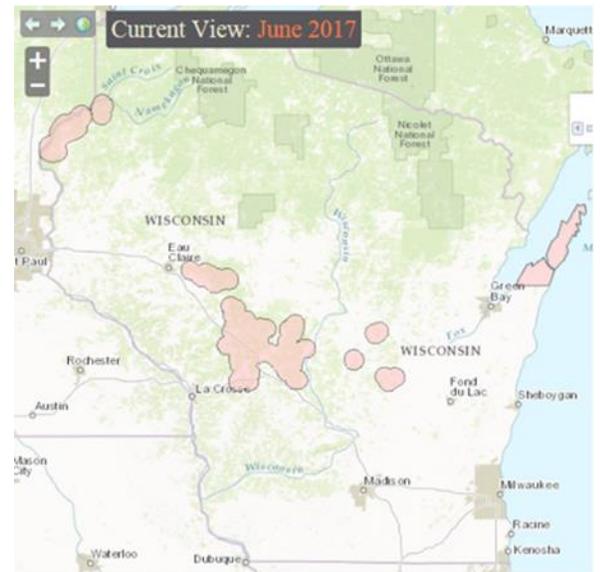
Any other use of methoxyfenozide containing products within these pesticide use limitation areas is prohibited.

Because the Endangered Species Protection bulletins are referenced on the pesticide label, the restrictions are mandatory and enforceable just as any other label statement is.

These restrictions were put in place to remove previously confusing restrictions on the label.

New endangered species bulletins may be added to pesticide labels by the EPA as older chemistries are reevaluated, new active ingredients enter the market, and new species are listed as endangered. Be sure to check the label for endangered species restrictions.

Happy growing season!



GROWER UPDATES

DUBAY CRANBERRY

Hope everyone had a chance to enjoy the Fourth of July. We have been fortunate enough so far to dodge all the nasty storms so far and I hope everyone else has to too. Bloom is progressing nicely and our pollinators seem to be hard at work. We had a visitor, a black bear, came to inspect of few hives a couple nights last week. Luckily the bear only did some minor damage to a couple hives and flipped the lids off several more. The bear must have moved on to better eats since we haven't seen any evidence of his presence in over a week. If we can get some consistent weather, warmth and not any heavy rains, there is a potential for a nice crop. Our new plantings of Sundance are starting to take off and grow finally with some warmth and fertilizer. Just finished applying the first fruit worm application this week. The airflow is going to get a workout the next two weeks with maybe a second fruitworm spray and fertilizer applications. Have a safe and pleasant week.

Dave Hansen
DuBay Cranberry

SARATOGA CRANBERRY COMPANY

Its mid-summer and we are sitting pretty well at Saratoga Cranberry. The bloom is trailing off and there looks to be great fruit set. We are expecting to remove the bees from the property within the next few days and then planning on a Diazinon application. The herbicide applications and pulling of weeds was spot on this year! This is definitely the cleanest the marsh has ever looked! As for the new plantings, they look excellent also! I did a Select Max application two weeks ago and planning on a low dosage of Callisto coming up later this week. Our growing degree days counter reads 1,946 as of 7/17/17.

Russell Sawyer

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References to products in this publication are for your convenience and are not an endorsement of one product over similar products. You are responsible for using pesticides according to the manufacturer's current label directions. Follow directions exactly to protect the environment and people from pesticide exposure. Failure to do so violates the law.