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Cranberry Crop Management Journal

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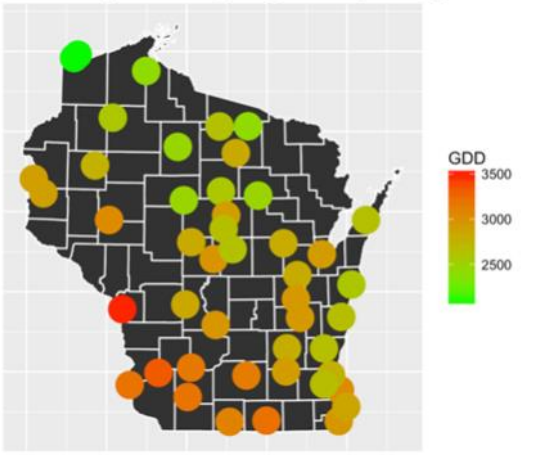
CRANBERRY PLANT AND PEST DEGREE DAYS– AUGUST 14, 2018

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

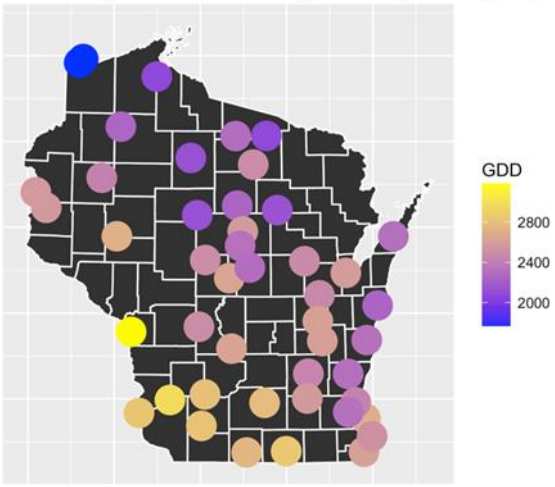
Check out the maps below for the degree-days of the cranberry plant and associated pests.

Recall that degree-days are calculated based on the daily high and low temperature accumulations and that they vary by species according to species specific temperature thresholds. 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.

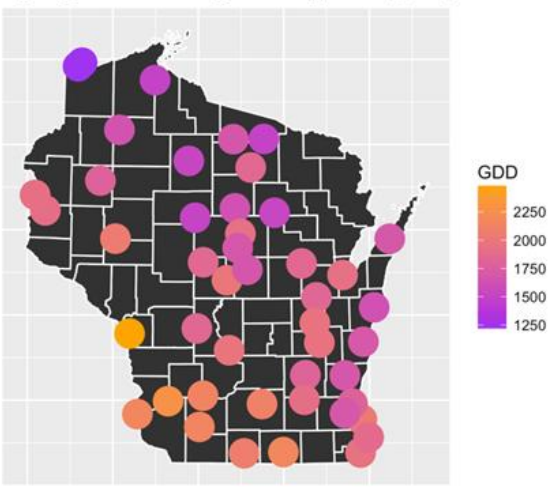
Cranberry Growing Degree Days: Aug 14, 2018



Cranbery Fruitworm Degree Days: Aug 14, 2018



Sparganothis Degree Days: Aug 14, 2018



Use the table below to compare degree-day accumulations for all three organisms across the last couple of years and between Northern and Central WI.

Aug 14	Cranberry DDs			Sparg DDs			CFW DDs		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Northern WI (Minocqua)	2549.7	2300	2672.9	1557.2	1323.6	1713.5	2198.9	1952.1	2342.7
Central WI (Wisconsin Rapids)	3080.3	2859.1	3044.6	1992	1781.6	2043.2	2694.1	2479.5	2699

Cranberry False Blossom: A New Old Disease

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

Cranberry false blossom was a prevalent and important disease throughout Wisconsin, New Jersey, and Massachusetts in the early 1900s. The name "false blossom" was given because strange looking, sterile flowers are the most striking symptom (see photos). False blossom is caused by a pathogen known as a "phytoplasma" which is somewhat like a bacterium without a cell wall. In the late 1990s, symptoms of false blossom were noticed in New Jersey, and the pathogen was confirmed there in the early 2000s. After decades of apparent absence in Wisconsin, this disease was confirmed at one site in Wisconsin this summer. The false blossom phytoplasma is spread by the blunt-nosed leafhopper, although the role of other leafhoppers has not been studied in Wisconsin since the early 1900s.

Flowers are abnormal, with erect rather than arching pedicels (flower stem). Petals can be dark pink or streaked with pink and stunted. Photo by Lindsay Wells-Hansen.

Abnormally dark pink flower that lacks anthers (structures from which pollen is shed). Photo by Lindsay Wells-Hansen

Where did the disease go early in the last century, and why is it back? False blossom subsided in the 1940s and 1950s with the introduction of insecticides that were highly effective on the leafhopper vector and because beds were renovated and planted to newer varieties that might have been less susceptible to disease. The appearance this year in Wisconsin could be because the phytoplasma was introduced on vines in recent years and built up to the point where disease was detectable. Alternatively, the pathogen might have persisted for decades at low levels that have gone undetected in managed and/or wild vines, and the use of more specific insecticides has allowed reemergence of the blunt-nosed leafhopper, which in turn has resulted in the disease rising to the level of detection. In New Jersey, false blossom is managed primarily by controlling the blunt-nosed leafhopper.

I will be working with industry scientists and crop consultants over the winter to gather more information on cranberry false blossom and to develop a fact sheet. The disease is manageable, but if we can halt or strictly limit its spread, that is even better. In the meantime, if you have questions don't hesitate to contact me (608-265-2047 or

Early Rot

Early rot is an important cranberry fruit rot disease that is prevalent in late July through September. Early rot symptoms on leaves can be confused with other leaf maladies this time of year. See the attached scouting guide to learn more about early rot and how to distinguish it from other leaf spots.

https://counties.uwex.edu/wood/files/2018/08/EarlyRot-scoutguide-2018.pdf

Observations from the Field

by *Pam Verhulst*
Lady Bug IPM, LLC

Pre harvest intervals (PHIs) are fast approaching and we are wrapping up our flea beetle checks. Last year we saw flea beetle coming in with the harvested berries. So our advice from this point on is to pick your battles and watch your PHIs.

Harvest October 2017. A close look and you can see over 10 flea beetle.

Flea Beetle August 2018 with chewing on the berries.

Sparg have been hanging out in the tips of the cranberries (in webs) during fruit set but have started to move down. We are seeing them chew on the now large berries and enter them. Inside we can find Sparg pupae. During our last week of scouting we saw flight in the traps. The adults will lay eggs and the first instar larvae will overwinter.

Sparg leaving their webs to chew on, enter and pupate in the large berries.

August 15th also marks the beginning of fall soil and tissue sampling. The recommended sampling dates are August 15th to September 15th. To fulfill your nutrient management plan requirements:

Tissue Sampling

1 tissue sample per management unit
1 tissue sample per every 5 acres over 4 years

Soil Sampling

Not required on established plantings (but a good idea to check pH and nutritional trends)
1 sample per management unit if adjusting pH with fertilizer
1 sample per 5 acres on new plantings (pre plant)

GROWER UPDATES

GAYNOR CRANBERRY COMPANY

Harvest time is fast approaching. We have completed our applications for the year and wrapped up our IPM. We've had an exceptional growing season thus far but with the extra warm temps we saw an unusually early appearance of flea beetle.

We have also begun to make our harvest preparations. Getting out our equipment and checking it over, preparing our preharvest pesticide use reports, thinking ahead about assembling our crew, and the list goes on! I anticipate some of our hybrids to be ready by the end of September.

I look forward to seeing our beautiful harvest!

Jenna Dempze

JAMES POTTER CRANBERRY MARSH

Now that the majority of our spring and summer projects are complete, we have been able to spend a lot of time dealing with weed control. Whether it's pulling by hand a few hours a day or wiping, we are working diligently at removing as much as we can. Thankful for many rainy nights, our reservoirs are finally filling back up again. It's amazing how quickly the levels lower when we have to irrigate daily during the summer months.

We also enjoyed summer field day, next door at Russell Rezin & Son. It's always nice to see our fellow cranberry families and visit the many friendly faces in the exhibit building. We brought our children this year and they were pretty excited to learn that there is candy or some kind of goodie available at all of the vendor booths. We of course, couldn't leave without having a refreshing cranberry milk shake and cream puff!

Sandy Nemitz

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