

Cranberry Crop Management Journal

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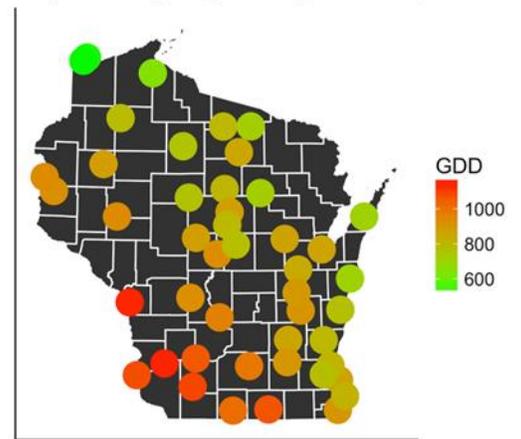
CRANBERRY PLANT AND PEST DEGREE DAYS– JUNE 5, 2018

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

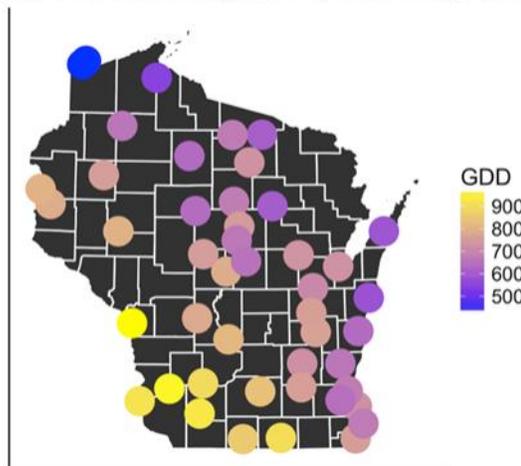
Well, we breezed through spring and went right on to summer.

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.

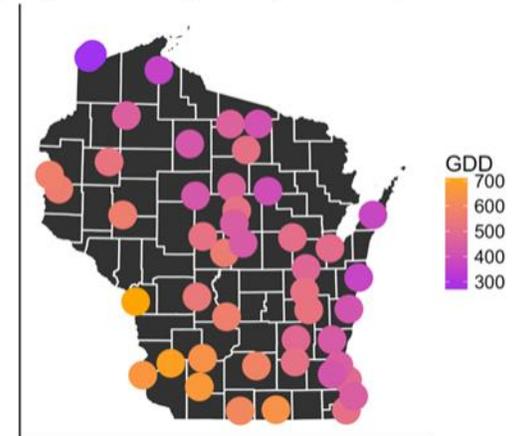
Cranberry Growing Degree Days: June 5, 2018



Cranberry Fruitworm Degree Days: June 5, 2018



Sparganothis Degree Days: June 5, 2018



While two weeks ago, we were still behind last years' DD accumulations, we have now surpassed them. You can see that in the table below.

	June 5			Cranberry DDs			Sparg DDs			CFW DDs		
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
Northern WI (Minocqua)	774.8	658	800.4	386.4	296.1	468.2	627.1	517.1	680.2			
Central WI (Wisconsin Rapids)	992.8	926.6	928.1	532.8	467.6	555.4	816.5	754	792.5			

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Editor:

MATTHEW LIPPERT

Agriculture Agent
Wood County UW-Extension
400 Market Street
Wisconsin Rapids, WI
54494
(715) 421-8440
mlippert@co.wood.wi.us

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

Moth flights will be starting shortly. Our models predict that Sparganothis flight begins around 600 Sparg DDs.

WORKER PROTECTION UPDATE AND ANOTHER RULE REVISION ON THE HORIZON

by Jane Larson, Worker Protection Specialist
Wisconsin DATCP

As you have been working through the requirements for the federal worker protection standard, you will have another chance to share your thoughts on the rule. Later this year, the Environmental Protection Agency will request public comment on additional proposed changes to WPS. The EPA will not look at the entire regulation but will only focus on three specific issues: minimum age for pesticide handlers; the designated representative and the application exclusion zone. At one time EPA stated they hoped to make the rule proposal available by September. When it does happen, the Wisconsin Department of Agriculture, Trade and Consumer Protection will share this information widely so interested parties can review and make comments on the proposed revisions. Any rule changes would take effect in 2019 or 2020.

What's New for Worker Protection in 2018

If you recall, the revisions to worker protection were phased in. The majority of the rule changes took effect in 2017 with just a few revisions required for 2018. However, of the three new requirements for this year, one was postponed. Let's review the three requirements for 2018.

Worker Protection Safety Poster

The worker protection safety poster was redesigned to include additional safety information for agricultural workers and pesticide handlers. There are a few options to get copies of the poster.

(a) Pesticide Educational Resources Collaborative or PERC (<http://pesticideresources.org/wps/cp.html>): You can print your own copies or purchase laminated posters. Posters come in two sizes and are available in English, English/Spanish, Spanish or English/Spanish/Karen.

(b) Gempler's (gemplers.com) has created their own WPS safety poster which is approved by EPA and is available for purchase.

Pesticide Handlers Suspend Applications

Handlers must suspend pesticide applications if a worker or another person is in the application exclusion zone or AEZ. An AEZ is an area up to 100 feet around the application equipment. Other persons can include family members, the public or people on adjoining property. For more information on the application exclusion zone, check pages 37-38 in the How to Comply manual or check the information on PERC at <http://pesticideresources.org/wps/guide/aez/index.html>.

Expanded Training Content Delayed

The EPA intended to increase the number of pesticide safety topics to be covered in worker and handler WPS pesticide safety training. The expanded training has been delayed. Keep in mind that owners and managers of farms, forests, nurseries, greenhouses and other enclosed space production areas are still required to *annually* train their agricultural workers and pesticide handlers unless those workers or handlers are currently certified as applicators of restricted-use pesticides. Although the expanded training content has been delayed, I encourage you to use the new training videos and training material that is available.

Speaking of training videos, the Pennsylvania State University recently released a WPS pesticide training video specifically for orchards called "Safety in the Orchard: Understanding and Applying the Worker Protection Standard." The EPA-approved video for training agricultural workers is available in English and Spanish. The video can be downloaded or viewed on YouTube and it can be accessed through PERC at <http://pesticideresources.org/wps/training/workers.html>.

And finally, a reminder about the qualifications to train workers and handlers. Currently certified pesticide applicators are



considered qualified to train workers and handlers. If you're not a certified applicator, you have two other options. To become a qualified trainer of *workers* you may take an on-line course offered by the Iowa State University at <https://www.extension.iastate.edu/workerprotection/>. There is no charge and it takes 1-2 hours to complete. To become a qualified trainer for workers, the EPA offers a PowerPoint slide presentation. If you deliver the presentation to handlers, you are considered a trained handler training. For more information check <http://pesticideresources.org/wps/ttt/pres/index.html>.

If you have questions about worker protection, please contact Jane Larson, 608-224-4545, jane.larson@wisconsin.gov or visit our website at https://datcp.wi.gov/Pages/Programs_Services/WorkerProtection.aspx.

CRANBERRY WEED MANAGEMENT IN WET EARLY-SEASON CONDITIONS: WHAT'S NEXT?

by **Jed Colqohoun**
Professor and Extension Specialist
UW-Madison & UW-Extension

Most of the Wisconsin cranberry production area has had record precipitation so far in May following late snow in April. Unfortunately, dilution isn't the solution when it comes to the effectiveness of our pre-emergent herbicides such as Casoron and we might expect more weeds emerging than in more moderate precipitation years. And, this comes at a time when we've been emphasizing the importance of using both pre- and post-emergent herbicides to reduce the risk of selecting resistant weeds.

With these challenges in mind and considering the economics of our pest management inputs, one might ask: what are my options and what are my neighbors doing?

Thanks to grower participation in our recent "big data" pilot study and grabbing a few results from recent Cranberry School "clicker surveys", we can give you a better and more objective picture of what the community does to manage weeds than we could previously from our marsh-side conversations. That's certainly not to slight the value of those conversations - they're the best part of my day!

It's the growing season and you're busy, so let's get to the highlights with data from the 2016 production year. Keep in mind this is primarily a snapshot from the roughly 500 beds that were included in the "big data" pilot, but it's a starting point at least.

- 89% of growers use both pre- and post-emergent herbicides (great!)
- Casoron was applied to 77% of beds
- Mesotrione (Callisto and other labeled generic products) was applied to 59% of beds. The average product use rate for the *total season* was 7.5 oz/A, well below the allowable season maximum but in line with what we're hearing from growers. Where mesotrione was used, 73% of those beds received a single application and the remaining received two applications
- We're still stuck with labor-intensive weed-wiping and spot-spraying to get those pesky escapes like clover and maple trees. For example, glyphosate was wick-wiped on 59% of the beds and Stinger was used on parts of 42% of beds.

Given the heavy moisture this spring I suspect we'll see a fair number of weed escapes. This will put the pressure on our post-emergent herbicides for this year. Options include:

- Mesotrione (Callisto and other labeled generic products)
- Post-emergent grass herbicides, including clethodim (Select and other labeled generics) and sethoxydim (Poast)
- Clopyralid (Stinger; available on a time-limited Special Local Needs (24c) label in Wisconsin only) primarily for spot-spray of clover (it will damage cranberry plants!)
- Wick-wiping tall weeds with glyphosate (many trade names - check the label for cranberry) or Weedar 64.



FARM TECHNOLOGY DAYS

Wood County is hosting Farm Technology Days and we are excited to announce cranberries will make its debut at the show. Our goal is to expand the knowledge of our amazing red berry through demonstrations, a machinery display and many activities. We will include a miniature cranberry bed that can be walked through as well as a harvest experience with floating cranberries. We have activities planned throughout the day for kids as well as many guest appearances. To make this event a success, we are looking for volunteers to help answer questions about but limited to the process of growing cranberries, the equipment used as well as the benefits of cranberries. This is a great opportunity to spread the word about our industry and we couldn't be more excited to take part. Mark your calendars for July 10-12th. Help us spread the word about Wisconsin's official fruit!

If you would like to volunteer or help in any way with the Cranberry Exhibit at Farm Tech. Days, please reach out to Heidi Slinkman (gaynorcranberry@gmail.com) or (715-213-4828), Mary Smedbron (715-213-2821), or Stephanie Bennett (715-323-0199).

Thank you, The Cranberry Exhibit Planning Committee: Heidi Slinkman, Mary Smedbron, Stephanie Bennett, Nicki Ryner, Ben Rezin, & Ben Tilberg.

GROWER UPDATES

GAYNOR CRANBERRY COMPANY

It seems as though we've skipped right from winter to summer! We are working furiously to get our small renovation project wrapped up. We have drain tile and irrigation to finish this week and vine planting slated for 6/11. With the hot temperatures in May we have also made our first application to treat for insects. We are starting to see the first blossoms show up on our Hybrids, we anticipate the arrival of our honey bees in the next week or so as well. We have made an outline for our fertilizer program and will have product on hand and ready for the fruit set. Along with the renovation project and nutrient management plans, we have the ongoing maintenance of the property, endless mowing and equipment fabrication, maintenance, and repairs. The team at Gaynor does a great job of fitting it all in and getting it done! Team work makes the dream work!

Jenna Dempze

JAMES POTTER CRANBERRY MARSH

Can you believe that a little over a month ago, we had 12+ inches of snow covering our marshes! Now, with growing season in full swing, we have seen a tremendous amount of growth in our vines. Mid-May, we applied Casoron and Orthene for grass and pest control. End of May, we began our fertilizer applications. When we aren't operating the boom, we have been hauling sand, irrigating and mowing. Never a dull moment on the marsh during growing season!

Sandy Nemitz

UW-Extension Cranberry Specialists

Jed Colquhoun

UWEX Fruit Crops Weed Scientist
1575 Linden Drive
Madison, WI 53706
(608) 852-4513
jed.colquhoun@ces.uwex.edu

Amaya Atucha

Extension Fruit Crop Specialist
UW-Madison
297 Horticulture Building
1575 Linden Drive
Madison, WI 53706
(608) 262-6452
atucha@wisc.edu

Patty McManus

UWEX Fruit Crops Specialist & Plant Pathologist
319B Russell Labs
1630 Linden Drive
Madison WI 53706
(608) 265-2047
pmcmanus@wisc.edu

Shawn Steffan

Research Entomologist
USDA-ARS
UW Madison, Department of Entomology
1630 Linden Drive
Madison, WI 53706-1598
(608) 262-1598
steffan2@wisc.edu

Christelle Guédot

Fruit Crops Entomologist/ Pollination Ecologist
Department of Entomology
546 Russell Laboratories
1630 Linden Drive
Madison WI 53706
(608) 262-0899
guedot@wisc.edu

Juan E. Zalapa

Research Geneticist
299 Horticulture
1575 Linden Drive
USDA-ARS Vegetable Crops Research
Madison, WI 53706
(608) 890-3997
jezalapa@wisc.edu



Photo courtesy of Lady Bug IPM

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