

# Cranberry Crop Management Journal

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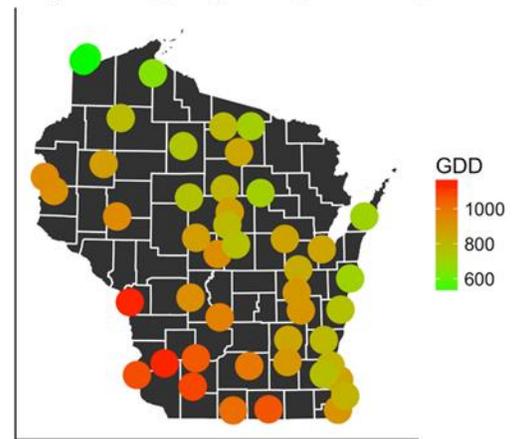
## CRANBERRY PLANT AND PEST DEGREE DAYS– JUNE 5, 2018

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

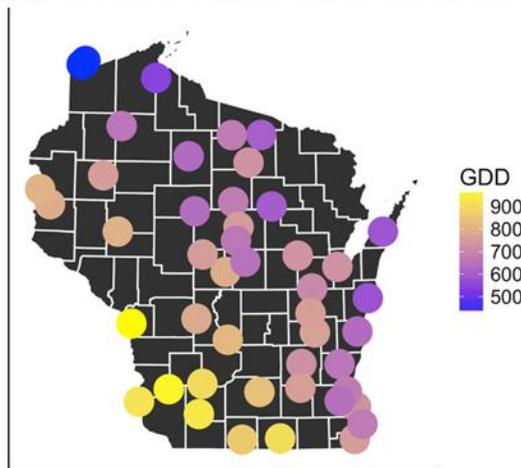
Well, we breezed through spring and went right on to summer.

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.

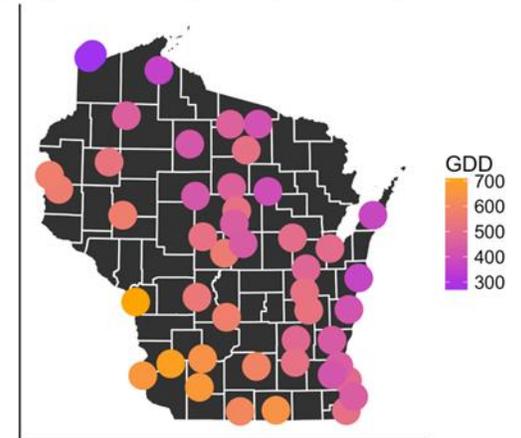
Cranberry Growing Degree Days: June 5, 2018



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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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](http://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](mailto:jane.larson@wisconsin.gov) or visit our website at [https://datcp.wi.gov/Pages/Programs\\_Services/WorkerProtection.aspx](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](mailto: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

The bees have come and gone and now we have fruit set! I am thankful for the almost perfect weather we had in June and July for our pollinators. I always feel this time of year can be an emotional roller coaster as we get very excited and emotional as the blossoms appear and then a brief moment of panic as the blossom transitions to pin heads and you wonder “Do I have a crop out there?!” But then almost overnight baby berries appear and the feeling of excitement appears for this years crop! We are winding down our fertilizer applications as well as our pest management. We are entering the time of year when we literally watch the fruits of our labor come to fruition.

I had the opportunity to volunteer and hand out product samples at Wisconsin Farm Technology Days cranberry exhibit. I'd like to applaud my sister, Heidi Slinkman and her all grower committee for their job on the exhibit. It was the talk of the show and unlike anything I had seen before. Farm Tech Days was an unreal event and I'm so proud to have cranberries be the star of the show.

In the next few weeks, I look forward to our crop size and color. I also look forward to start planning our harvest. I anticipate our hybrid varieties to be ready in late September. For me fall means two things...cranberry harvest and FOOTBALL!

Go Pack Go!

## JAMES POTTER CRANBERRY MARSH

Celebrating the 4<sup>th</sup> of July never felt so rewarding for our family. After a very long spring, with many setbacks, we finally got our renovation projects complete. We got the last of our vines planted and began watering them in on the afternoon of July 3<sup>rd</sup>. It felt great!

Of course, renovations aren't all we have been working on. The boom at our Spring Valley marsh crumbled, so we spent a couple weeks building them a new one. I'm thankful for the skilled welders in our family! We are now on the home stretch with our fertilizer program. We also have been working to keep the pests and weeds under control. Our buzzing little pollinators are now gone, so working out in the beds is a lot easier. As grateful as we are for the honey bees, we are sure happy when they leave.

**Sandy Nemitz**

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