



# CRANBERRY CROP MANAGEMENT JOURNAL

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## Cranberry Back to Basics Course Available Online

*By Jed Colquhoun*

We're very excited to announce that the first edition of the Cranberry Back to Basics course is [now available online](#). This project is a new and innovative way of offering outreach publications. We describe it as a “digital magazine” - each topic includes a short, written description and a link to professionally produced videos featuring cranberry experts and growers. In the printed version, the video is accessed via a QR code. In the online version, the video can be accessed by simply clicking on the picture for each topic.

Nine modules are included in the digital magazine:

- In-season production
- Insect management
- Weed management
- Disease management
- Harvest management
- Pesticides and resistance management
- Overwinter management
- New directions in cranberry production
- The importance of genetics in cranberry production

The first edition includes 34 videos. The original intended audience included those new to the cranberry industry, such as new employees and summer help, that often come from non-agricultural backgrounds and want a short primer on the “how and why” of cranberry production. Interestingly, in early distribution we've also noted a significant additional audience - those not associated with agriculture but want to know more about how cranberries are grown. This audience includes the general public, those living around cranberry production, public agency personnel, K-12 and higher education students, and buyers and customers of cranberry products. The videos help emphasize the complex, unique and progressive nature of cranberry production.

One of the benefits of the digital magazine approach is that we can change out and add videos or topic modules as desired. As such, we'd appreciate your feedback on this first edition as well as your input on additional topics and videos that would be useful to the industry!

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# Bee Productivity Observations

By Allison Jonjak, with assistance from growers statewide as well as specialists with Ocean Spray, Lady Bug, and University of Wisconsin



*This is not a scientific article, and is instead observational. When I say “showing” or “observed” here, I do not mean a statistically valid scientific comparison—these are observations made in real-world conditions and should not be taken as research results.*

Many growers this year are observing reduced bee activity in the beds. This has been observed across regions, in marshes with typically high wild pollinator support and in marshes that typically bring in a majority of bees, and in marshes regardless of spring chemistry applications or first-round fungicide applications.

My current hypothesis is that this is likely a stress response of bees, both wild and domestic, to the drought conditions we’ve been experiencing throughout the state. This is my leading hypothesis because bees are showing reduced activity on clovers and buckthorns as well as on cranberries. As you know (because it’s the same with cranberries), each additional stress factor an organism experiences can stack and result in poorer productivity. With the reminder that this is observational and not rooted in research, I think growers are facing two pressures: first the drought that might be hindering bee activity, and second high temperatures that may push bloom. While 2023’s bloom is progressing at a more regular pace (compared with 2021 which progressed with breakneck speed), the longer our blossoms remain open, the more time the bees will have to complete

pollination. So we can hope for moderate temperatures and a return of rain.

For some quick hit items that you can actually act on:

1. Take in bloom and out of bloom counts, and as you are counting out of bloom, also note “fruits that have definitely set.” Berries that have begun to swell can reassure you that you have had successful pollination on those fruits.
2. Based on your % in bloom and % out of bloom, and especially if you have more later varieties, you can consider bringing in an overnight shipment of bumblebee quads. Extension cannot recommend particular brands but there are two providers of bumblebees who are Affiliate Members of WSCGA, and you have probably met them at Cranberry School or the Summer Field Days. When I checked yesterday, both of these providers have quads in stock and are able to make overnight deliveries.
3. Review Dr. Sandra Gillespie’s talk in the November 2021 Cranberry Virtual Brown Bag. (she is the first speaker [here](#)) Gillespie reviews Pollination Deficit, and shows useful images that help identify fruit which has been incompletely pollinated.



Some growers have been concerned that a product they used in the early spring has “caused” their poor bee response—so far from what many people have observed across the state, it seems to be a rough year for bees and is not likely related to any particular application that you may have made.

Dave Jones of Ocean Spray conducted a study which was published in CCMJ 35.1 ([on page 3 here](#)) showing no difference in bee activity between beds treated with Orthene and beds not treated with Orthene. Growers with questions about their applied chemistries in association with pollinator activity are conducting small tests and I will keep you posted on those results as well—after 24 hours into the test we are seeing no differences between an unsprayed patch and a sprayed patch.



For right now, it’s looking like pollinator activity is depressed throughout the state and it is most likely attributable to the drought. Feel free to contact Allison ([allison.jonjak@wisc.edu](mailto:allison.jonjak@wisc.edu)) with any additional questions or to report what you’re seeing.

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## Weed Management Research Update

*By Jed Colquhoun*

While cranberry growers have a decently sized herbicide toolbox, the spectrum of weed species is very broad and includes many perennials not found in other cropping systems. These unique species, as well as those that escape current control options (such as Northern St. Johnswort), justify the need for additional tools. Our current work is focused on identifying new herbicides to control troublesome weeds without injuring cranberries, shepherding those tools through the registration process, and supporting growers with practical and affordable use patterns.

In 2023 we have several studies at various application timings to explore more holistic, season-long weed management options:

- New plantings. In previous work we’ve found that there’s a difference in cranberry herbicide tolerance and the weed species spectrum in new plantings compared to established, bearing beds. Oftentimes, new plantings are plagued by annual weeds until the vines establish a competitive ground cover. In this



study, we're investigating four herbicides, three of which are registration-ready, at several potential use rates in a bed planted this June.

- Dormant herbicide applications in established bearing beds. Casoron continues to be a valuable tool for early-season control, but a broader suite of herbicides would allow growers to control more diverse weed species and reduce the risk for resistant weed selection. In this study we have three herbicides that are registration ready at various potential use rates. One herbicide in particular is looking quite promising, controlling a broad spectrum of weeds ranging from sheep sorrel to perennial grasses (see photo). We'll take this study to yield to determine any impacts on berry production and quality.
- Post-bloom late season weed control study. In this work we're looking at an herbicide that would be exempt from the residue establishment process, which would save years of lab studies before registration. Our focus is on late-season weeds that escape current tools, such as dewberry.
- Wiper studies. When all else fails, we need more options to control the really troublesome escapes that grow above the canopy and are difficult to remove by hand, such as maples. This research project includes four potential herbicides that could be used alone or in combination in a wiper treatment.
- "Weed zoo". While it's obviously critical to find new herbicides that don't injure cranberries or impact berry yield and quality, we also need to have a good idea of what these options offer for weed control compared to existing tools. With that in mind, we conduct a "weed zoo" study each year in an abandoned, weedy cranberry bed to get an idea of the control spectrum for each of the active ingredients described above.

We look forward to sharing some of this work with the cranberry community at the summer field day!

## Cranberry Crop Management Journal Time Machine

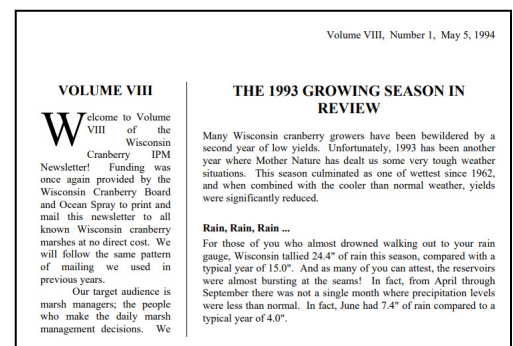
*By Mackenzie Ryan, Josie Russo, and Allison Jonjak*

Articles published to the journal under Teryl Roper's management are now easy to access, and growers and new hires can track research progress through time, or look back at the information presented when new chemistries were first introduced. Our current catalogue of CCMJ volumes from [2010-2023](#) is now joined by the back catalogue from [1993 to 2006](#).

Attempting to check an article cited in later research, Allison found that Cranberry Crop Management Journals prior to 2010 were no longer available in a publicly hosted location. Mackenzie Ryan, Assistant University Records Officer of the University Archives and Records Management department at Steenbock Library, was able to source 13 years of these publications—1993 through 2006 have been saved and catalogued for future growers to refer to. Josie Russo, Communications Specialist in the Dept of Horticulture, has added these issues to the [fruit.wisc.edu](http://fruit.wisc.edu) website.

You may notice that our search has not yet turned up copies from 2007 and 2008, or anything before 1993. If any grower has paper copies of these issues, Mackenzie would be willing to scan them to include in the archives, and then return them to you. If you have these in your collection, please contact [alison.jonjak@wisc.edu](mailto:alison.jonjak@wisc.edu) or [mackenzie.ryan@wisc.edu](mailto:mackenzie.ryan@wisc.edu) to arrange shipping details and timeframes.

Thank you, and enjoy the archives!





# Grower Updates

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## Flying Dollar Cranberry

*By Seth Rice*

This time of year the Stevens variety is for the most part at peak bloom and the early varieties are seeing pinheads starting to form. Most growers have already put on a second shot of fungicide on this year's crop. The weather has a lot to do with the decision making when it comes time to apply our fungicide. Some growers feel that it can be too "hot" to apply anything and are forced to either do a night application or early morning. Also, now that we are seeing some fruit appear we need to get a game plan for our fertilizer. Soil samples are one of our tools that we have to help us determine how we are doing overall and what is actually available in the soil.

How much nitrogen and when to apply it is different for every marsh. You can easily get lost and overthink things but keep in mind that cranberries grow on their own and we are only here to help it along where we can. The bees are going to be here for just a little bit longer. The days of high heat have really pushed the flowers along fast. We just need to be patient with mother nature and realize we can only control what we can control. Stay safe everybody!

## Vilas 51

*By Jeremiah Mabie*

Hope everyone is doing well and enjoying the much-needed rainfall we received this past weekend. We sure did get slammed with enough nights of frost watch and then turned right into having to irrigate so the sprinkler motors have been awful busy this year. Bug problems were eliminated with the first round of pesticides and seems to be holding off well everywhere.

Bees have arrived on all the marshes up north and bloom is really popping now, last week was great working weather for them, hopefully this smoke moves out of here and things warm up for the rest of this week. Fungicide shots have either been applied or are being applied and even some fertilizing starting to happen.



As I like to say we are off to the races as by next time we talk we will be talking about the berries out there! Hope everyone has a wonderful 4th of July and that everyone's bees are happy hard workers this year to help create them wonderful little berries! and I hope you all have a smooth and uneventful start to the growing season!

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# Update from the Wisconsin Cranberry Research Station

*By Beth Ann Workmaster and Wade Brockman*

Hi there, Beth here, work at the station progresses with 4 fungicide trials, 2 herbicide trials, 1 insecticide trials, and several physiology experiments ongoing this summer. We have received and are currently setting up a new weather station that will be connected to an agricultural weather network that will be visible online soon. The bees are working hard and are expected to be on-farm for about another two weeks. The new pollinator garden area is developing and is providing good supplemental habitat for them. As well, the establishment of a new bed for the genetics and breeding program is making good progress.

