

Illinois Fruit and Vegetable News

Vol. 30, No. 2, February 21, 2024 Editors: Nathan Johanning & Bronwyn Aly

A newsletter to provide timely, research-based information that commercial fruit & vegetable growers can apply to benefit their farming operations.

Address any questions or comments regarding this newsletter to the individual authors listed after each article or to its editors, Nathan Johanning, 618-939-3434, <u>njohann@illinois.edu</u> or Bronwyn Aly 618-695-2441, <u>baly@illinois.edu</u>. The *Illinois Fruit and Vegetable News* is available on the web at: <u>https://extension.illinois.edu/specialty-crops/ifvn</u>. To receive or be removed from email notification of new postings of this newsletter, contact Nathan Johanning or Bronwyn Aly at the phone numbers or email addresses above.

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Upcoming programs

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See the University of Illinois Extension Local Food Systems and Small Farms Team's website at: 
https://extension.illinois.edu/lfssf
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- Legal Training for Illinois Small Farms Webinar Series | This is a quarterly webinar series for Illinois small farmers including new, beginning, and urban farmers brought to you by Illinois Extension's Local Food Systems and Small Farms team and presented by <u>Farm Commons</u>. Sessions will be held quarterly on Mondays from 7 – 8 pm CST, via Zoom. Please register at the links below for each session of the series:
 - Forming an LLC, March 18, 2024
- **2024 Summer Horticulture Field Day** | Thursday, June 6 at Jonamac Orchard Malta, IL Save the date! More details and registration information in future issues.

• 2025 From Food to Flowers: Everything Local Conference | January 29 through 31 at Bank of Springfield Center, Springfield, IL. Mark your calendars now and look for further details later this year!

News and announcements

Legal training for Illinois small farms webinar series

This is a quarterly webinar series for Illinois small farmers including new, beginning, and urban farmers brought to you by Illinois Extension's Local Food Systems and Small Farms team and presented by Farm Commons.

Date and Time: Sessions will be held quarterly on Mondays from 7 - 8 pm CST, via Zoom. Here are the links to live individual registration pages for each session of the series:

• Forming an LLC, March 18, 2024

Session Description

March 18, 2024: Forming an LLC presented by Rachel Armstrong, Executive Director Farm Commons. If you or your producers are curious about the details of an LLC, you're not alone! Most farmers choose the LLC as their preferred business structure. The good news is that forming one is quite simple. But at the same time, farmers and ranchers need to know a few keys to ensure they get the benefits they're expecting from this entity. We'll do a quick recap of why an LLC is a good risk management tool before going into how to form one, which best practices to implement after it's formed, and regular obligations to keep the LLC in top legal shape. Even farmers who have had an LLC for years will learn some things about how to preserve their resilience.

Wisconsin Farm Food Safety Cleaning and Sanitizing Workshop

This one-day workshop hosted by University of Wisconsin and Michigan State University will be held on Tuesday, March 1 from 8 am to 5 pm at Hunger Task Force 9000 S 68th St. Franklin, WI 53132. The deadline to register is one week before the event and on-site registrations will not be accepted. Cost for the workshop is \$45 per person and lunch is provided.

Discussion topics will include cleaning and sanitizing equipment, developing cleaning and sanitizing programs, and packinghouse food safety basics. A brief overview of the FSMA Produce Safety Rule will be provided with guidance to help participants understand current policies and requirements associated with cleaning and sanitizing for produce on farms.

Topics Covered:

- Food Safety Basics
- Cleaning & Sanitizing
- Produce Safety Rule Overview
- Identification and Evaluation of Potential Hazards
- Establishing a Cleaning and Sanitizing Program

Target Audience:

- Farm personnel with cleaning and sanitizing responsibilities
- Supervisors and managers
- Extension employees and educators
- Industry association representatives
- Regulatory agency representatives

*Participation in a PSA Grower Training course prior to attending this workshop is recommended but not required Certificate of Course Completion Included! Register for your spot today:

https://wicleaning-sanitizingworkshop2024.eventbrite.com/

Program Questions: Kristin Krokowski | <u>krokowski@wisc.edu</u> **Registration Questions:** Heather Borden | <u>bordenhe@msu.edu</u>

Regional Reports

<u>From Northern Illinois (Rockford)</u>... Sarah Farley and I were privileged to host again the Stateline Fruit and Vegetable Growers Conference on Monday, February 19, in Rockford, Illinois. Over 100 attendees and Extension educators and specialists from 4 universities joined us this year for sessions in the fruit, vegetable, and new farmer tracks. For the 2024 program, the new farmer track covered introductory information on the topics of integrating livestock, pumpkins, blueberries, farm finances, and IPM. Each year, Drs. Kacie Athey and Mohammad Babadoost contribute valuable research updates on insect pests and plant diseases. Along with Sarah and myself presenting, we were joined by Zack Grant who discussed fertility management decision-making tools.



Dr. Leslie Holland presenting on small fruit diseases. Photo credit: G. McCarty Illinois Extension 2024.

As this conference includes attendees from Southern Wisconsin, we depend on specialists from the University of Wisconsin-Madison, and <u>Dr. Leslie Holland</u>, pictured presenting during the conference, added to our program by covering raspberry and blueberry diseases. Additionally, <u>Cheyenne Sloane</u>, a Blueberry and Small Fruit Educator, from Michigan State University provided both introductory and advanced blueberry production sessions, topics that have been requested for many years. For the

first time at this conference, the University of Minnesota was represented and provided exceptional contributions from <u>Marissa Schuh</u>, Extension Educator in Integrated Pest Management. To end the conference, <u>Kathryn Seebruck</u>, a University of Illinois Commercial Ag Educator, discussed herbicide resistance as it relates to specialty crops.

Plans are already underway for the 2025 conference!



Illinois Extension educators and specialists attending the Stateline Fruit and Vegetable Conference. From left: Renzo Ceme Vinces, Kathryn Seebruck, Emily Hansen, Grant McCarty, Zack Grant, Sarah Farley, & Dr. Kacie Athey. Photo credit: Grant McCarty Illinois Extension 2024.

Grant McCarty (815-235-4125; <u>gmccarty@illinois.edu</u>) Sarah Farley (815-338-3737; <u>sfarley@illinois.edu</u>)

<u>From Central Illinois</u>... The high tunnel at the Unity Community Center was very lightly surface tilled in early January and a cover crop of oats, forage pea and hairy vetch was planted throughout, and topdressed with compost, all in preparation for another year of ginger cultivation. We ordered 30lbs (!) of ginger seed and 5lbs of turmeric seed for what is shaping up to be an expanded version of a cross-Illinois fresh ginger rhizome project, involving several Extension personnel and 4-5 farmers. We will be testing best practices of fresh "baby" ginger rhizome production, from seed size, to spacing, planting furrow amendments, irrigation setup, fertility management, shade application vs. plastic application on tunnels, and other factors.

Last year, the left half of Unity Community Center's Food Production Garden was no-till cover-cropped for the summer with sorghum-Sudangrass, pearl millet and cowpea. The Dean of Extension and his crew were very impressed with the nodulation on the cowpea roots as well as the biomass generation of the warm season grasses. We got that mowed down enough to no-till in some oats, field pea, and tillage radish in early September. Thanks to a warm fall, the warm season grasses regrew, but not before the fall cover crop got a nice start to it. We probably have about 2 solid inches of dead, decomposing biomass on top of that ground that we will make spade cuts into this year when we plant tomato, pepper, eggplant, tomatillo, and other plants. We are excited to see how those plants do with nitrogen fixation and biomass breakdown from the past year.



Unity high tunnel, cover-cropped and watered. Photo credit: Nick Frillman Feb 2024

It has been a couple months since the last Central IL report so my weather observations will start in December. This has been one of the most pleasant winters I can remember – which is troubling. December's daily average temperatures were mostly in the 40s, with a couple days in the 50s and even 60s. We had about 5 days in December when it got below freezing. Not normal. 4 days of the month, we got precipitation – 1-2" of rain, 1-2" of snow. Also, not normal. Same goes for January. Drier than average, and warmer than average. We had a hard cold snap from about January 12th to January 24th. February has been off to a warm start as well – on the 9th, we got as warm as 63F.

Although it is snowing today, on February 16th, all the warm winter weather is waking up the fruit trees at the Refuge Food Forest and the Unity Community Center in Normal, IL. Trees look to be about 2 weeks ahead of schedule. Some of the apples and some of the pears are in silver-tip stage! That should not be happening yet. I have instructed growers to get their pruning done by the first of March, instead of the 15th – my usual suggested cut-off date. It has been very humid, with days-long spells of fog and mist at the beginning of the month, and now snow and a little rain. Next nice stretch of weather is major pruning time at the Refuge Food Forest.

I'll be having two in-person pruning workshops, covering 101 level knowledge of fruit tree pruning of apple and pear, though with some applicability to sour cherry, plum, and others. Dates of programs are March 6th and 14th at the Refuge Food Forest – 701 E Lincoln St., Normal, IL 61761. Registration is requested but not required at <u>go.illinois.edu/Imw/events</u> – I'm taking up to 20 people per session. I have tools for those who come wanting to learn but don't have any – but those that have pruning tools are encouraged to bring them, including hand-pruners (sharpened), loppers, folding hand saws, and pole saws. Note: always bring and use isopropyl alcohol after cutting each tree before moving on to another, to prevent the spread of disease.

Nick Frillman (309-663-8306; frillma2@illinois.edu)

From St. Louis Metro East ...

Much like the rest of the state, the St. Louis Metro East has been on average experiencing warmer winters, yet the coming spring to date hasn't been following suite. I've noticed the bloom date of snowdrops (winter bloomer) seems to mirror this winter warming trend. For example, 2018-19 was a relatively cold winter and as such snowdrops didn't bloom until March 15 in 2019. Yet even with the

pre-Christmas cold snap in 2022, the 2022-23 winter was relatively warm...so warm, that those same snowbells were already in bloom on January 23...that's a full seven weeks earlier than 2019. Unfortunately, the bloom date of snowbells doesn't predict how warm spring will be. Case in point, St Clair County experienced a 2023 spring freeze relatively late on April 24, and temperatures stayed mild throughout spring to make it one of the best strawberry seasons in recent years...meaning it was on the cool side. This year, the snowbells were in bloom on February 8, so without looking I pretty much can guess that December and especially January were not as warm this year compared to last year, but definitely still a full month ahead of 2019.

The arrival of snowdrops varies depending on how warm the winter has been. Photo credit: E. Wahle



Soil temps are into the 40s at the 4" depth both bare ground and under sod, so strawberry growers are raking straw from matted row strawberries showing signs of growth. Row covers are coming off plasticulture strawberry sections that need to slow growth but kept on a bit longer on sections intended for earlier fruiting. High tunnels have already or are being prepped for early planting and/or transplant production. Horseradish harvest was delayed a bit due to frozen soil and rain on top but has since moved forward.

Save the date!

From Food to Flowers: Everything Local Conference is moving to a new venue and a later date in 2025. Mark your calendars now for January 29 – 31 at the Bank of Springfield Center in Springfield, IL and look for further details to come later this year.

Elizabeth Wahle (618-344-4230; wahle@illinois.edu)

<u>From Southwestern Illinois (Waterloo)</u>... We have gotten a break from the most intense cold with a fairly mild February overall. Precipitation has been fairly light so far with only 0.54" of rain in this month bringing our yearly total to 5.82". Half of our February precipitation came 2/16 in the form of a light layer of ice followed by 2" of snow. With that snow came a few "cold days" and some lows in the teens, but other than that we have generally been in the 40s and 50s for highs and mostly above freezing. The outlook from here is generally mild for the next few weeks.



Cereal rye cover crop enjoying a sunny February day! Photo: N. Johanning.

Still not a lot going on out in the field, but pruning and clean-up of fruit crops continues. High tunnel crops are starting to push more growth and have appreciated more mild temperatures and some sunshine. I just seeded some transplants for some spring cole crops and soon it will be time to be thinking about seeding warm-season transplants. The general rule of thumb taught to me was to allow about 6 weeks for tomato transplants and 8 weeks for peppers. This can vary based on how large of a transplant you want but has always been a good baseline.

Cover crops are also starting to perk up. I have some cereal rye at home in my garden that is starting to green up. Fun fact I learned at the recent Midwest Cover Crop Council Conference is cereal rye at maturity has about the amount of above-ground biomass as it does root biomass. With most of our cover crops what you see above the ground literally is only half of the story.

Nathan Johanning (618-939-3434; njohann@illinois.edu)

<u>From Southeastern Illinois (Olney)</u>... Here in Olney, we have been on the same weather roller coaster as the rest of the state. At my house, we received around 2 1/2" of snow along with sleet and drifting on February 16. In a week we have gone from 70-degree days to 19-degree lows back now to 53 degrees. Like everyone else, I am itching to get my transplants started for the spring growing season and my family is excited for me to move my collection of plants outside. My inventory of seed starting supplies includes all the treasure that I saved from last year including my 72 cell trays that I never cleaned and a bag of paper towel tubes.



Seed starting supplies. Photo credit: K. Bell Illinois Extension 2024.

Seed starting can be an expensive and sometimes wasteful process that can leave us looking for ways to save time and money. There are several options for cutting costs and reducing waste when it comes to seed starting. These options can include reusing plastic trays and pots from the previous year, soil blocking, and making your own seed containers.

Reusing Containers

The most common way I have seen growers save a little money is by reusing trays from the previous year. The most important thing to remember is to thoroughly clean and then disinfect the trays. Cleaning and sanitizing are equally crucial to successfully reusing pots and trays, and it is important to know the difference. You can use water or compressed air to remove visible dirt and plant debris or soak them in soapy water and rinse to remove any stuck-on materials. Pots can't be properly sanitized unless they are thoroughly cleaned. There are several commercially available sanitizers for greenhouse use, but you can also use a 10% bleach solution for at least 10 minutes and then rinse. A spray of undiluted 70% rubbing alcohol can also be used to disinfect pots and tools. If you had a disease issue in your transplants, it would be best to discard the affected trays to be on the safe side.

Soil Blocking

Blocking can save a lot of plastic waste and potentially save money... maybe? Soil blocking can be a fun and creative way to make sturdy transplants with good root systems. The main costs of soil blocking will be the block shaper, soil mix, and trays to hold the blocks. The key to good blocks is getting the ratio of your potting mix correct so the blocks don't fall apart. There are several commercially available blocking mixes, and the internet is full of recipes. It takes some experimenting to get the process right the first time, and this may be a drawback for large-scale transplant production.

DIY Pots

If you are just starting a few transplants, you might be able to make your pots using paper, cardboard, or egg cartons. The main drawback to making paper or cardboard pots is that they will break down as you water them and might be difficult to transport.

Below are several resources for sanitizing, soil blocking, and DIY pots.

<u>Containers for Starting Seeds</u> by Iowa State Extension <u>Cleaning & Sanitizing Pots</u> by Iowa State Extension <u>Greenhouse Sanitation</u> by Utah State Extension <u>Sanitation for Disease and Pest Management</u> by Purdue Extension <u>Making Soil Blocks</u> by Penn State Extension <u>Impacts of Soil Blocking on Yield</u> by MSU Extension

Katie Bell (618-395-2191; klbell@illinois.edu)

<u>From Dixon Springs Ag Center</u>...The latest addition to the demonstration tunnels at the Dixon Springs Ag Center is a caterpillar tunnel. The site was selected late last summer and the grass was sprayed with a burndown herbicide. Compost has been added and incorporated into the native soil. Crops planned to be grown in this tunnel include early, cool-season crops like cauliflower, kale, swiss chard, broccoli, etc. followed by lettuce. Instead of covering this tunnel with plastic, we plan to utilize row cover as needed

over the early transplants and then cover the tunnel in a 30% shade cloth for summertime lettuce production. This particular tunnel is 14 feet wide, 50 feet long and 10 feet tall at the peak. Most caterpillar tunnels don't have baseboards but we decided to add them to provide another point of attachment for the cover and add a bit more stability. The ability to modify tunnels, whether high tunnels or caterpillar tunnels, to meet individual



production needs or personal preferences makes them a versatile tool in specialty crop production.



Seeds have germinated and been potted up into transplant trays for the early, cool-season crops. Pepper seeds were placed in the germinating trays on heat mats on February 14 and have emerged this first part of this week. Tomatoes won't be seeded until the end of next week, as they generally take about 6 weeks to grow out and be ready for planting.



The cold blast that was experienced in January did in fact winter kill the spring oat cover crop. A photo from last month didn't indicate as much damage as expected, but as with many things in life, a lesson of patience was learned. The crimson clover has really started growing in the last week or so and the spring oats are creating a nice mulch of dead biomass on the tops of the raised beds in the high tunnel.

Photo credits: B. Aly, Illinois Extension 2023

Bronwyn Aly (618-695-2441; baly@illinois.edu)

Fruit and Vegetable Production and Pest Management

Sweet corn sensitivity to tolpyralate

Severe sensitivity to a relatively new postemergence herbicide, tolpyralate (trade name Shieldex), has been documented in certain inbred lines of field corn and sweet corn. Tolpyralate sensitivity is a new genetic vulnerability in corn; hybrid response to other HPPD-inhibiting herbicides (e.g. mesotrione) applied postemergence has no bearing on response to tolpyralate. The issue was brought to the attention of my lab in late 2021 based on the response of a single sweet corn inbred. We have since documented severe sensitivity in 49 inbred lines of corn. The source of the sugary enhancer (se) trait in sweet corn, IL677A is highly sensitive to tolpyralate. Symptoms include leaf bleaching 7-10 days after herbicide application. Preliminary results indicate the sensitivity trait is recessive and I have heard anecdotal reports of injury in corn hybrids. If you plan to use tolpyralate for weed control, I encourage you to contact the herbicide manufacturer (SummitAgro USA) and the seed company of your corn hybrid(s) to confirm the combination is safe.

Watch this video for a brief interview on the topic with Stu Ellis, AgricultureReporting.com: <u>Some new</u> <u>corn hybrids and corn herbicides won't mix. (youtube.com)</u>.

For the detailed journal article: <u>First report of severe tolpyralate sensitivity in corn (Zea mays) discovers a</u> <u>novel genetic factor conferring crop response to a herbicide - Williams - 2024 - Pest Management</u> <u>Science - Wiley Online Library</u>.





Corn sensitivity to tolpyralate applied postemergence is characterized by bleaching of new leaves, and in more severe cases, leaf necrosis. Corn line tolerance to other HPPD-inhibiting herbicides (e.g. mesotrione) does not confer tolerance to tolpyralate. Photo credits: M. Williams, USDA-ARS.

Marty Williams, USDA-ARS (217-244-5476; martin.williams@usda.gov)

Considering eating a periodical cicada?

Illinois will experience the co-emergence of two broods of periodical cicadas in 2024, the 13-year Great Southern Brood (XIX) and the 17-year Northern Illinois Brood (XIII). For the most part, the two brood ranges are not expected to overlap but together much of the state's inhabitants will be hearing their song sometime in May. So, get ready for some noise.

For commercial specialty crop production, we tend to focus on the potential damage a large population of female periodical cicadas could inflict during the egg-laying process, especially to young apple trees with smooth branches about 3/16" to 7/16" in diameter. But let's switch gears and consider their nutritive food value (high-protein, low fat). Several animal species are known to have changed their foraging habits to benefit from the superabundance of a periodical cicada emergence...including culinarily adventurous humans.



For culinary use, harvest periodical cicada adults just emerged from their nymphal skin. Photo used with permission: Bob Rabaglia, Maryland Department of Agriculture, Bugwood.org

When cicada nymphs come up out of the ground, they climb up the nearest tree or other tall structure and shed their skin. This is when you want to harvest them, fresh out of their nymphal skin, and still soft and milky-white. There are several published cookbooks, as well as a ton of information on the web related to harvest, storage, and cooking with periodical cicadas; but the upshot is you will need to freeze them overnight to humanely kill them before next removing their head, wings, and sometimes legs ahead of culinary use or re-freezing. By all accounts, the female periodical cicadas are meatier compared to the males, so are the preferred choice when harvesting if possible. The tip of the female's abdomen is more sharply pointed compared to the male's more dome-shaped abdominal tip but making that distinction at the time of harvest may be easier said than done. If you do harvest males, just expect them to shrivel significantly more in the cooking process.

Personally, I have never been so happy to have a shellfish allergy! It seems the majority of people allergic to shellfish are allergic to tropomyosin, a protein which is also found in many insects. So, to be on the safe side, you should not sample recipes that include periodical cicadas if you have a shellfish allergy. As such, cicadas should also be treated as you would any other potential allergen when preparing food for the public.

Elizabeth Wahle (618-344-4230; wahle@illinois.edu)

Time to uncover strawberries

In the southern region, it is time to get prepared for uncovering strawberries in both annual plasticulture and matted row systems. When you start checking strawberry growth under covers, what you find underneath is quite different between the two systems.

Straw, the primary cover in the matted row system, blocks light to the plant, which results in little growth over winter (dormancy) and an almost complete decay of the previous canopy of leaves. We usually recommend two events to help target when to rake off straw (including dead leaf material). First, check for new strawberry leaf growth every couple of days, especially early fruiting varieties. This usually coincides with soil temperature in the upper two- to four-inches reaching the 40°F mark. New leaves will develop from the crowns and usually are green to greenish yellow. Remove straw as soon as possible upon seeing new growth, with the suggested caveat of delaying for a few days if the short-range forecast predicts a string of very cold days. Otherwise, don't delay. Remember, it is the first runners developing in cool temperatures that tend to be most productive...you want to get growth going as soon as possible, without setting yourself up for freeze injury to the plant.



Floating row covers pulled to side for potential frost protection of strawberries. Photo credit: Bronwyn Aly

Floating row covers, depending on thickness, allow a certain portion of light to pass through, and are the primary winter cover for plasticulture strawberries. With the combined soil heat from the black plastic mulch, the plants never really go dormant and continue to grow to some extent over winter. When uncovered, it is not uncommon to find plants still retaining a significant number of green leaves, though there are still ragged leaves that need to be cleaned up for disease management; but the point is these plants are further along in their development and some actually need to be slowed down by pulling row covers so as to not flower too soon and be more susceptible to freeze injury. This is where grower skill and experience come in, based on the plant and when they are targeting harvest. Row covers at this point can be used for speeding up vegetative growth or slowing it down...if you need to slow the plants down, pull the covers. If you need to promote growth, you might keep those covers on a week longer than others. The main limiting factor is flowering, the plants need to be pollinated for good berry shape and size, so the management of covers for growth is all happening now. You do not want plants flowering under the covers. Covers can be gathered into an aisle (weighed down), should they be needed for frost protection with or without irrigation at flowering and fruiting.

Although Botrytis (*B. cinerea*) or gray mold is a serious disease in all strawberry production systems, floating row covers only further promote its overwinter development on plants. The first line of defense

after pulling covers is "cleaning up' the plants or sanitation. Remove all dead and dying leaves from the plants and drop them to the row middles where they can quickly decay and not become a source of sporulation. For the amount of labor that goes into "cleaning up" plants, some may ask whether the cost is justified compared to just a few well-targeted sprays starting at first bloom. Well, that analysis hasn't been done, but if you consider the crew is also pulling weeds emerging from holes, adjusting plants not growing above the plastic, and generally scouting for other issues in addition to disease management, then yes, most likely. If you aren't applying fungicides (organic), absolutely. Probably one caveat to this whole discussion is anthracnose. If you have anthracnose, the pulling of dead and dying leaves for gray mold management may actually spread anthracnose, so is not recommended.

Elizabeth Wahle (618-344-4230; wahle@illinois.edu)

Plum Curculio updates: Insights from the orchard

Plum curculio has been a growing problem in most peach and apple orchards in Illinois. A small weevil, laying eggs inside the fruit, is quite destructive to the peaches and apples. Traditionally, we have diagnosed this problem through the crescent-shaped scar that appears on fruit as a result of egg laying. Our observations suggest that this is common in apples but does not seem to occur in peaches.



Plum curculio larva feeding on inside of a peach. Photo credit: Kacie Athey Illinois Extension 2024.

Plum curculio emerge from their overwintering sites and move to the orchard in early spring. Border rows/perimeter trees are where you see the first sign of plum curculio damage. You want to monitor for adult plum curculio activity and time sprays for when the adults are active. Once the adults lay the eggs in the fruit, it is too late to spray. We have traditionally recommended sprays only in the spring for this pest as we had one generation in most of Illinois. It should be noted that our research in 2023 suggests that there is a second generation of plum curculio in the major peach growing regions of Illinois.

For the first generation on peaches, you want to time the insecticides during petal fall through shuck split. There are several insecticides from different classes that are recommended for plum curculio. There are several Pyrethroids (Asana, Baythroid, Danitol, Mustang Maxx, Permethrin, ProAxis, Warrior II), and a few neonicotinoids (Actara, Belay, Assail) recommended for its control. You can also use Apta, Avaunt, and Exirel. Avaunt has excellent control of plum curculio while the others have reasonable control as recommended by the <u>Midwest Fruit Pest</u> <u>Management Guide</u>.

However, it is important to rotate insecticides across different classes to minimize the risk of resistance. Pay close attention to the bee label on insecticides, indicating toxicity to bees, and adhere to the pre-harvest intervals (PHI) specified for each insecticide. This is especially true for the second generation.

Orchard sanitation plays a vital role in plum curculio control. Removing fallen fruit from the orchard helps reduce the larval population that pupates in the soil. You can also shake trees in the orchard to check whether the fruit falls. If the fruits fall quickly, they are likely infested with plum curculio.



Plum curculio larva inside of fruit. Photo credit: Karuna Kafle University of Illinois 2024.

In our efforts to develop an IPM strategy for plum curculio on peaches, monitoring adult activity using various traps and lures is our first step for the 2024 season. We are testing two trap types – trunk and pyramid traps – with a lure combination of Methyl salicylate and Grandiosic acid to enhance monitoring accuracy. By implementing better monitoring practices and reducing the use of insecticides, we aim to manage the population of plum curculio in growers' commercial orchards. Stay tuned to our updates on plum curculio monitoring and management!

This update was submitted by Kacie Athey and Karuna Kafle, graduate student in the Crop Sciences department at University of Illinois.

Kacie Athey (217-244-9916; kathey@illinois.edu)

Less Seriously



What to do when you can't remember the shade percentage of the shade cloth you ordered?

Estimate how much of Julie is visible when you look through it – I can still see about 70% of her, so this must be 30% shade cloth.

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