

FANCY FRUIT

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A Newsletter for Commercial and Advanced Amateur fruit growers.

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Crop conditions

(Wil Brown-Grimm, wbrowngr@purdue.edu)

Hello! It's been a wet and cool couple of weeks. Sprays in both the orchard and vineyard have been pushed back because of this and our limited time frame for planting vegetable crops. Hopefully we can get back on schedule this week. It has been ideal weather conditions for some fungal pathogens, so we will make sure to account for that in future sprays. Otherwise, fruit crops have been developing well!



Blackberry: Petal fall/ Green fruit



Plum: Fruit maturation



Peach: Fruit maturation



Apple (Rosalee): Fruit maturation



Pear: Fruit maturation



Grapes: First bloom/ Full bloom



Apple (Pixie Crunch): Fruit maturation



Black Currant: Fruit maturation



Pawpaw: Fruit set

Will May's Mixed Precipitation and Temperatures Persist into June?

(Austin Pearson, pearsona@purdue.edu)

Precipitation in May has varied tremendously, but most of the state has generally been on the dry side. Areas from Vermillion and Parke Counties to

Lake Michigan have received between 25% and 75% of the normal precipitation through May 27 (Figure 1). Conditions were dry enough that thunderstorm winds on May 16 prompted the [National Weather Service Chicago Office](#) to issue rare dust storm warnings for Benton, Newton, Jasper, Lake, and Porter Counties. Farmers in these counties were further ahead due to the drier conditions, which exposed [emerged soybeans to severe damage](#) and led to widespread replanting decisions. Southern Indiana also faces challenges due to the limited planting windows. The [USDA National Agricultural Statistics Service Indiana Crop Weather Report on May 27](#) indicated that 76% of corn and 71% of soybeans have been planted, both nearly on schedule despite the challenges.

Abnormally dry (D0) and moderate drought (D1) conditions are once again expanding across northern Indiana due to both short and long-term precipitation deficits. According to the US Drought Monitor on April 29, 2025, over 14% of the state was under D0 conditions. By May 27, 2025, the map reported that just over 32% of the state was experiencing either D0 or D1 conditions (Figure 2).

Temperatures have been near or slightly below normal throughout the state, with the average for the state being 0.5°F below normal for the first 27 days of the month. In [last week's article](#), we discussed various GDD products and noted that these are purely temperature-driven. As a result, Modified Growing Degree Days since May 1 are between 20 and 40 units below normal (Figure 3).

What can we expect for June? The [Climate Prediction Center](#) outlook indicates near-normal precipitation and above-normal temperatures for the first week of June (Figure 4). This trend of increased chances for above-normal rainfall and temperatures is likely to persist into the second

week (Figure 5). Overall, CPC products indicate that the western half of the state is expected to experience above-normal temperatures, with equal chances for precipitation. In contrast, the eastern half is expected to see above-normal rainfall.

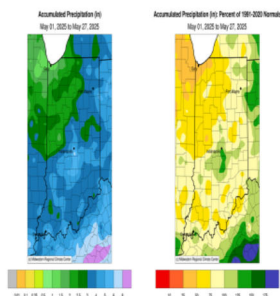


Figure 1: Left – May 1-27, 2025, accumulated precipitation represented as the departure from the 1991-2020 climatological normal. Right – May 1-27, 2025, accumulated precipitation represented as the percent of the 1991-2020 climatological normal.

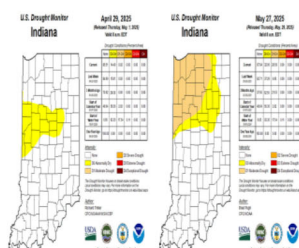


Figure 2: Left – April 29, 2025, US Drought Monitor Map. Right – May 27, 2025, US Drought Monitor Map.

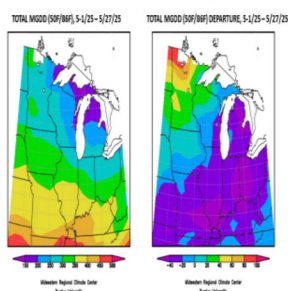


Figure 3: Left – Total MGDD (50°F/86°F) accumulation for May 1-27, 2025. Right – Total MGDD (50°F/86°F) accumulation displayed as the departure from the 1991-2020 climatological normal.

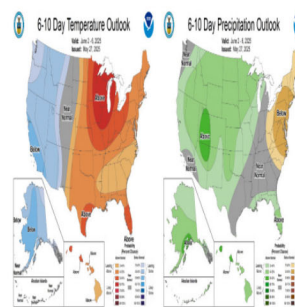


Figure 4: CPC 6-10 Day temperature and precipitation outlook maps, valid June 2-6, 2025.

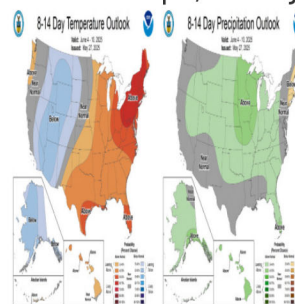


Figure 5: CPC 8-14 Day temperature and precipitation outlooks, valid June 4-10, 2025.

Managing Grapevine Phylloxera

(Miranda Purcell, mrpurcel@purdue.edu)

Phylloxera is an aphid-like insect that is native to the Eastern US. It has two distinct life forms: the root form, which feeds on the roots, can stunt growth and eventually lead to vine death. The foliar form of the insect causes galls on vine leaves (Figure 1) and is overall less concerning. The root form of the insect is not a concern to most growers in Indiana because the roots of French-American hybrid grape varieties are resistant to the harmful effects. In fact, it is rootstock from American varieties that is used in Europe and other parts of the country to combat the harmful effects of this insect in *Vitis vinifera* plantings, which are extremely susceptible. The remainder of this article will focus on the foliar form of phylloxera.



Figure 1. Galls on underside of grapevine leaf, photo from North Dakota State University

Lifecycle

Phylloxera survives the winter as an egg commonly found under grapevine bark. In the spring, asexual, wingless forms of the insect hatch and crawl onto new leaves and shoot growth. These young crawlers settle on newly developed leaves and form galls on the under surface of the leaves. A mature female will lay eggs within a gall, and newly hatched nymphs will crawl to new growth, settle on leaves and form new galls (Figure 2). They can generate 40-50 galls per leaf. Several generations may occur each season, commonly along the same shoot. Some varieties are more susceptible than others.



Figure 2. Mature grape phylloxera female and eggs (indicated by red arrow) and crawler nymph stage (blue arrow) on a grape leaf, photo from Hannah Burrack, NC State

Signs & Symptoms

The telltale sign of a phylloxera infestation is the formation of galls on leaves (Figure 1). If leaves become heavily infested, premature defoliation may occur resulting in retarded shoot growth.

Scouting & Management

It is important to monitor the crawlers that hatch from the eggs as this is critical for timing the first insecticide application in early summer. Danitol (pyrethroid) and Movento (systemic) are two of the most common options used to control phylloxera. Only one spray may be required, but if additional gall formation is present, alternate modes of action to prevent fungicide resistance. More information and options can be found in the [Midwest Fruit Pest Management Guide](#).

Resources:

[Practical Tips for Managing Grapevine Phylloxera](#)
[Grape Phylloxera | Buckeye Appellation Blog](#)
[Grape Phylloxera on Cold-Hardy Wine Grapes: A Review of Pest Biology, Damage, and Management Practices](#)

Tips for Avoiding Herbicide Injury

(Miranda Purcell, mrpurcel@purdue.edu)

This is the time of year where we receive numerous reports of off-target herbicide exposure. Grapevines and fruit trees sensitive to growth regulator herbicides, including phenoxy, benzoic, and pyridine classes of compounds. 2,4-D and dicamba are the most common products, and they are used widely in corn and soybean production. Damage can range from minimal leaf distortion (Figure 1) to severe damage, crop loss and vine/tree death. Injury can be especially damaging this time of year when plants are rapidly growing.



Figure 1. Dicamba and 2,4D damage to grapevine leaves, photo credit: Pierre Helwi
What can you do to avoid injury?

1. Leave a buffer zone between potentially treated fields and sensitive crops
2. Inform County and State Departments of Transportation about the location of sensitive crops as they may be spraying along roads, railroads, etc.
3. Create a Driftwatch account and indicate the location of your sensitive crops. [Driftwatch](#) is a voluntary communication tool that enables crop producers, beekeepers, and pesticide applicators to work together to protect specialty crops

and apiaries through the use of mapping programs. Driftwatch communicates the presence of your vineyards, orchards and/or other herbicide sensitive crops to commercial applicators and adjacent farms. There is no fee to register your site. Note: you must be a commercial grower or have at least 1/2 acre to register your site. Sign-up as a specialty crop producer [here](#). Sign-up as an applicator [here](#).

4. Communicate with your neighbors and encourage the following:
 - Avoid highly volatile formulations of herbicides
 - Do not apply herbicides when the wind is blowing towards sensitive plants, ideally when a light breeze is blowing away
 - Minimize vaporization by spraying when temperatures remain below label temperature restrictions
 - The use of sprayer application techniques that minimize drift, such as high-volume nozzles that produce coarse droplets and/or shielded sprayers

For more information:

[Watch Out for: Grapes](#)

[Avoiding Injury to Grapes from Off-Target Herbicide Exposure](#)

[Herbicide Injury and the Problem of Spray Drift](#)

A handsome, but damaging boring beetle

(Elizabeth Yim Long, elong@purdue.edu)



Figure 1. An adult round-headed apple tree borer.
Copyright 2005: Tom Murray (Bugguide.net)

Dear readers, I hope your spring and summer seasons are off to a great start! I haven't heard much in the last couple of weeks about common fruit insect pests, so I thought I would highlight an interesting, but probably uncommon insect issue for most readers of Facts for Fancy Fruit: the round-headed apple tree borer!

The round-headed apple tree borer is a $\frac{3}{4}$ -inch long-horned beetle (Figure 1) that attacks mainly apple trees, but other wild and cultivated fruit trees can also host this beetle. The adults are active from June to September outside the tree, while the larvae (called grubs) and pupae (pre-adult stage) remain protected inside the tree. This long-horned beetle isn't a frequent pest of active, managed orchards; rather it's seen most often in backyard trees or old, neglected orchard trees. *The adult beetle is quite eye-catching, you have to admit!* I had never heard of this insect, or seen it myself until an email request came through with pictures of injury to a backyard apple tree, along with pictures of the pupa.



Figure 2. Larva (grub) of the round-headed apple tree borer. Photo credit:

<https://bugwoodcloud.org/images/768x512/3066002.jpg>

<https://bugwoodcloud.org/images/768x512/3066002.jpg>

As with many beetles, especially the borers, it is the larval stage that is most damaging to the tree (Figure 2). The young larvae tunnel and feed beneath the tree bark during the first year, remaining inside the trunk to overwinter. The following year, the larvae bore into the wood and continue to develop and feed for a second (and sometimes third or fourth!) summer before emerging as adults. You can imagine the injury the tree sustains while the larvae spend all that time inside the trunk, feeding and continuing to develop.

Infested trees are compromised in their ability to transport water and nutrients, so as time passes, trees grow more slowly, may have little foliage, and young trees may break off in the wind. Signs of boring by the larvae include reddish-brown, sawdust-like frass (insect solid waste) that is pushed out of the tunnels onto the surface of the trunk, dark-colored bark that may be sunken, and even oozing sap.

Thankfully, this beetle can be managed by 1) removing wild host trees in the vicinity, including mountain ash, crabapple, hawthorn, and

cotoneaster (especially if you suspect any are infested), 2) removing weedy vegetation or guards from the base of trees (these can make the habitat more attractive for the beetle), 3) applying insecticides or a non-chemical whitewash (50:50 mixture of white latex (not acrylic) paint and water) to the lower trunk to kill adults and deter egg-laying, respectively, and 4) using wire mosquito screen or ¼-inch mesh hardware cloth around the lower 2 feet of the trunk to exclude female beetles as they try to lay eggs. If you are really hard core, you can pull back the bark and physically remove shallow larvae from decaying tissue with a knife, or use a stiff wire inserted into suspected tunnels to pierce the larvae, which are soft bodied. Eep, this feels like an early Halloween article suddenly, sorry!

If you are curious about insects you see in your orchard or backyard, please reach out to me at long132@purdue.edu! I'm happy to write a newsletter about insects and insect topics you're interested in learning more about.

Strawberry Chat Podcast: Neopestalotiopsis and Resistant Strawberry Varieties

(Wenjing Guan, guan40@purdue.edu)

A new StrawberryChat podcast episode was posted:

[Farmer Interview with McNitt Growers: Neopestalotiopsis and Resistant Varieties | Episode 20, May 16, 2025](#)

In this episode, we talk with Bill McNitt, owner of [McNitt Growers](#)—a nursery specializing in spring bedding plants and fall strawberry plug production. Bill shares his firsthand insights into

how Neopestalotiopsis disease has affected the strawberry industry and discusses the promising opportunities presented by newly released resistant varieties now available to fruit growers.

We want your ideas! 2026 Indiana Horticulture and Small Farm Conference

(Laura Ingwell, lingwell@purdue.edu)

Submit your content ideas for the 2026 Indiana Horticulture and Small Farm Conference.

Do you want to hear from someone in particular or about a specific topic at this year's newly combined conference? If so, please scan the QR code or follow the link below to submit your suggestions. The survey will be open until July 15, 2025.

https://purdue.ca1.qualtrics.com/jfe/form/SV_23Mes7vXu2xqtcG

Save the Date: March 3-5, 2026, Hendricks Co. Fairgrounds



Upcoming Events

(Miranda Purcell, mrpurcel@purdue.edu)

Veterans Grape Planting Workshop

Tuesday, June 3rd
The Rejoicing Vine Winery Indianapolis, IN
<https://vetsinfarming.wildapricot.org/event-6136107>

Southwest Purdue Ag Center Field Day

Thursday, July 26th
Southwest Purdue Ag Center Vincennes, IN
<https://vegcropshotline.org/article/southwest-purdue-agriculture-center-field-day-june-26-2025/#:~:text=Southwest%20Purdue%20Agriculture%20Center%20Field,Purdue%20University%20Vegetable%20Crops%20Hotline>

Indiana Horticulture Society Field Day

Wednesday, July 9th

Chandler's Orchard & Country Market Fillmore, Indiana

Purdue Small Farm Education Field Day

Thursday, July 24th
Purdue Student Farm West Lafayette, IN
<https://ag.purdue.edu/events/departments/hla/2025/07/purdue-small-farm-education-field-day.html>

Indiana Horticulture Conference & Indiana Small Farms Conference

March 3-5, 2026
Hendricks County Fairgrounds Danville, IN
<https://indianahortconference.org/>
https://extension.purdue.edu/anr/_teams/dffs/small_farm_conference/index.html

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