PURDUE UNIVERSITY
FACTS FOR FANCY FRUIT
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A Newsletter for Commercial and Advanced Amateur fruit growers.

In This Issue

Crop Conditions

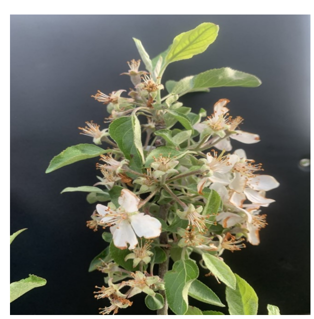
(Chloe Richard, richa267@purdue.edu)

At the Meigs Horticultural facility we are now seeing, more clearly, the damages from the April 24th freezing temperatures. All fruit crops are starting to grow out of that damage, which is good to see. I would still say that our loss on crops across the farm is 10-15% except for the Shiro Plums. The Shiro Plums lost roughly 90% of their post bloom fruit set. The growth stages on our Apple trees are all either full bloom, petal fall, past bloom, or fruit set.

High Tunnel Strawberries

Plums: Fruit Set

Peaches: This will be my last photo of the Peaches since there will not be any fruit this year



Apple: (Rosalee) Full bloom/ Petal Fall

Apple: (Pixie Crunch) Fruit Set

Grapes: 4-8 Inch Shoots

Gooseberries: Fruit Set

Black Currant: Fruit Set

Blackberry

Field Strawberries

Pleasant Conditions have Arrived, but Below-Normal Temperatures and Precipitation Expected

(Austin Pearson, pearsona@purdue.edu)

The weather has been absolutely beautiful over the past few days. Temperatures have finally rebounded, vegetation is green again, and agricultural crops are beginning to emerge from the freshly planted fields. Despite the warming temperatures, we still have not dug ourselves out of the below-normal start to May. Through the first ten days of the month, Indiana averaged 0.7˚F below normal (Figure 1). The largest departures occurred in climate divisions 6 and 9, which were 1.6˚F and 1.9˚F below normal, respectively. Angola, located in Steuben County, was the coldest location with an average temperature of 50.9˚F (4.0˚F below normal). Evansville was the warmest with an average temperature of 63.4˚F, which was 2.0˚F below normal. Accumulated Modified Growing Degree Days (April 1 – May 10) continued to run within 60 MGDDs of normal throughout the state (Figure 2). Statewide, MGDDs have accumulated between 160 and 420 units since April 1.

Four-inch soil temperature showed diurnal swings, but temperatures have trended upward since May 4. At 9:30 AM EDT on May 11, all Purdue Mesonet station four-inch temperatures were above 55°F (Figure 3, left). Time series for the Pinney and Davis Purdue Agricultural Centers show that the four-inch soil temperatures are fluctuating more than 10°F each day as low air temperatures drop into the low to mid 50s (Figure 3, right). Four-inch soil temperatures have not been below 50°F since May 4.

Through the first ten days of May, precipitation totals have been highly variable as a result of the recent convective storms. Statewide, though, precipitation ran slightly above normal (103 percent of normal). Climate divisions 2, 3, and 4 all received more than 120 percent of normal precipitation (Figure 1). Over the last 30 days (April 12-May 11), the heaviest precipitation was measured in southwestern, central and northeastern Indiana (Figure 4, left). Totals were 25-75 percent of normal across most of the state (Figure 4, right). The May 9 US Drought Monitor had abnormal dryness (D0) in a couple of locations in the state that include portions of Vermillion, Warren, Fountain counties and Lake, Porter, Jasper, LaPorte, and Starke counties (Figure 5).

For the forecast, temperatures look to remain warm through this weekend. Scattered, convective precipitation is also expected with clearing conditions by mid-week. The Weather Prediction Center's precipitation forecast indicates rain totals between 0.25-1.25 inches over the next seven days (Figure 6). Longer-range models are hinting at low temperatures in the upper 30s and low 40s next weekend, followed by a rebound to more seasonable temperatures. A light frost may not be out of the question. The Climate Prediction Center's temperature and precipitation outlooks expect higher chances for below-normal temperatures and below-normal precipitation over the next fourteen days (Figure 7 and Figure 8).

Climate Division Data by State between Two Dates
From Midwestern Regional Climate Center

Indiana
5/ 1/2023 to 5/10/2023

	Temperature			Precipitation			
cd	temp	norm	dev	prcp	norm	dev	percent
1	56.6	56.6	0.0	1.22	1.12	0.10	109
2	55.4	56.0	-0.6	1.30	1.04	0.26	125
3	54.3	55.6	-1.3	1.37	0.97	0.40	141
4	58.1	58.2	-0.2	1.55	1.21	0.33	127
5	56.5	57.5	-1.0	1.31	1.25	0.06	105
6	54.9	56.5	-1.6	1.30	1.24	0.07	105
7	60.5	60.7	-0.2	1.39	1.57	-0.18	88
8	59.4	60.0	-0.6	1.21	1.61	-0.40	75
9	57.1	59.1	-1.9	1.30	1.55	-0.25	84
State	57.2	57.9	-0.7	1.33	1.29	0.04	103

Midwestern Regional Climate Center
MRCC Applied Climate System
Generated at:
Thu May 11 08:18:24 CDT 2023

Figure 1: Indiana climate division and state temperature, normal temperature, temperature departure from normal, precipitation, normal precipitation, precipitation departure from normal, and percent of mean precipitation for May 1-10, 2023.

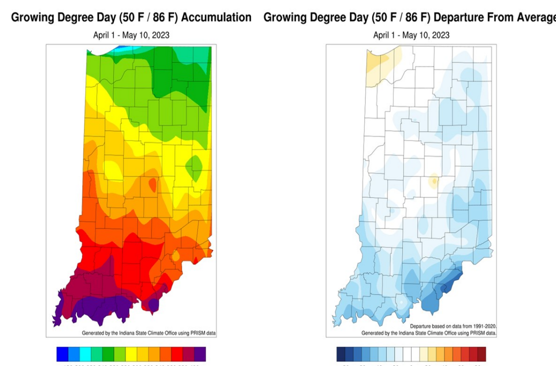


Figure 2: Total Accumulated Indiana Modified Growing Degree Days (MGDDs) April 1-May 10, 2023 (left) and Total Accumulated MGDDs represented as the departure from the 1991-2020 climatological normal (right).

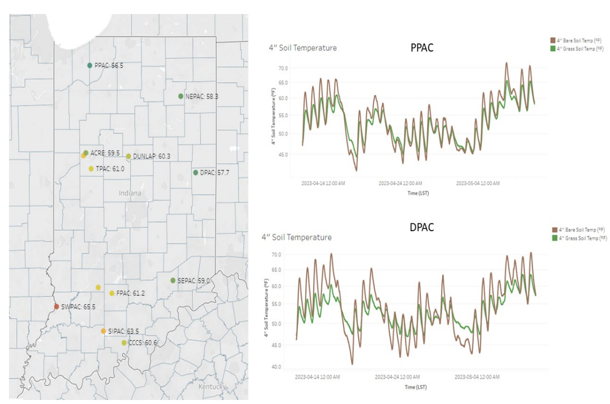


Figure 3: Four-inch soil temperatures at 9:30 AM EDT, May 11, 2023 (left) and four-inch (right) soil temperature graphs for Pinney Purdue Agricultural Center (PPAC) and Davis Purdue Agricultural Center (DPAC), which can be found on the Purdue Mesonet Data Hub.

Purdue Mesonet Data Hub.

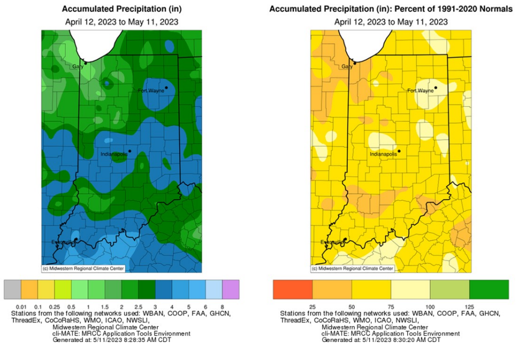
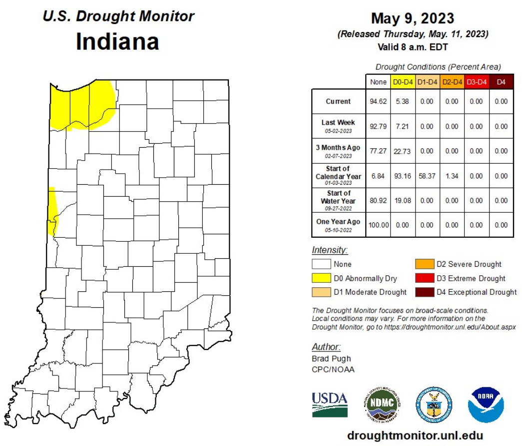


Figure 4: Interpolated map displaying accumulated precipitation for April 12-May 11, 2023 (left). Interpolated map displaying accumulated precipitation as a percent of the 1991-2020 climatological normal (right).



	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	94.62	5.38	0.00	0.00	0.00	0.00
Last Week 05-02-2023	92.79	7.21	0.00	0.00	0.00	0.00
3 Months Ago 02-07-2023	77.27	22.73	0.00	0.00	0.00	0.00
Start of Calendar Year 01-03-2023	6.84	93.16	58.37	1.34	0.00	0.00
Start of Water Year 09-27-2022	80.92	19.08	0.00	0.00	0.00	0.00
One Year Ago 05-10-2022	100.00	0.00	0.00	0.00	0.00	0.00

Figure 5: May 9, 2023, US Drought Monitor. The US Drought Monitor is released every Thursday morning by 8:30 AM.

US Drought Monitor

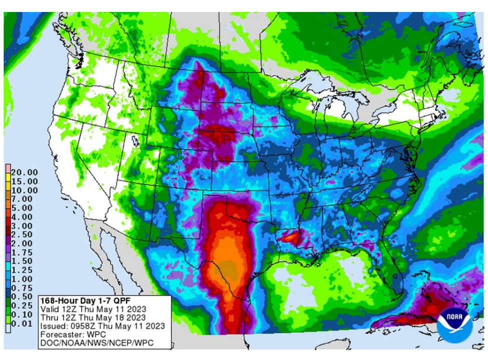


Figure 6: NWS Weather Prediction Center 7-day quantitative precipitation forecast for the continental United States, valid May 11-May 18, 2023.

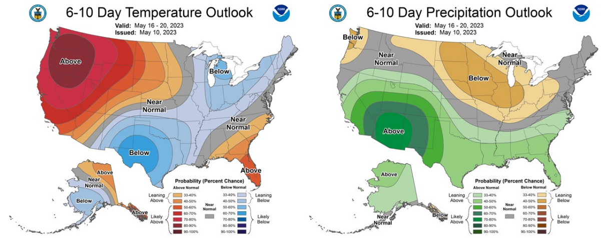


Figure 7: The CPC's 6–10-day temperature and precipitation outlooks, valid for May 16-20, 2023.

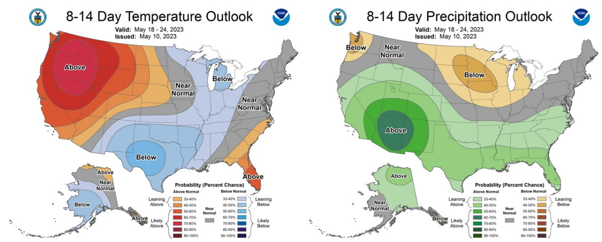


Figure 8: The CPC's 8-14-day temperature and precipitation outlooks, valid for May 18-24, 2023.

Scab Update

(Janna L Beckerman, jbeckerm@purdue.edu, (765) 494-4628)

Recent wet weather has created numerous scab events across the state. This is an issue regardless of whether you have a crop or not! Scab events occur when ascospores are shot from pustules (pseudothecia) that develop in last year's fallen leaves. Ascospores are discharged every time there is sufficient rain to thoroughly wet the leaves, and the temperatures are between 40-63 degrees F. Two to three times more ascospores are discharged when temperatures are above 50 F AND there is more than 0.1 inches of rain than when temperatures are below 50 F and less than 0.1 inches of rain (Table 1). Whether or not the ascospores are discharged during a rain event will infect and cause scab lesions depends upon the temperature, along with leaf and fruit wetness.

This relationship is summarized in the Mills' Table (Table 1). This table describes how scab lesions develop in 9 to 17 days depending upon weather conditions, the degree of fungicide coverage or apple scab resistance of the target tree.

Each scab lesion is capable of producing hundreds, if not thousands, of conidia for four to six weeks. To reiterate: One successful ascospore can produce thousands of secondary conidia, each capable of creating new lesions, and multiplying the process (Fig. 1). Thus, the key to managing scab is **to prevent primary infections**, because the fewer primary lesions that develop translate into a reduction in the number of secondary scab lesions. Which leads us to this critical question: When do we know that the ascospores have stopped shooting, and stopped creating primary lesions?

There are a variety of ways to assess the maturity of ascospores, but these approaches require the use of a microscope or other specialized equipment. On May 2, I still was not finding mature ascospores, but asci were developing. I expect they may have been fully mature by the May 3 rain event, and certainly by the expected rain May 7.

One approach that doesn't require specialized equipment is the Ascospore Maturity Model, which uses weather data to predict maturity[1](Fig. 2). This can be found on the NEWA website: https://newa.cornell.edu/apple-scab My microscopy observations don't quite jibe with the model, but 1. We both agree that May 7 will be a significant scab event! Why the difference? Well, we've had more dry days then wet, and it has been extremely cold, all of which would delay perithecia development and ascospore maturity. Work done in 2005 by Stensvand et al., found that if seven consecutive days without rain occurred, the model requires modification. The dry, and often but not always hot weather that occurred in late March drove tree development but created a lag in pseudothecia development of the scab pathogen. This dry weather apparently arrested spore development before spores were at "shooting" levels, but the cool conditions that followed delayed bloom (for those of us that still had a crop), meaning the scab is catching up and protection now through petal fall is critical!

[1] A degree-day is simply the average temperature for any given day. Degree-days are calculated by adding the high temperature (HT) and the low temperature (LT) and dividing the result by two. This value is added to subsequent degree days. For more information on degree day models,
see: https://newa.zendesk.com/hc/en-us/articles/1500003853241

In most years, mature ascospores of *V. inaequalis* are "ready to rip" soon after apple trees reach the green tip bud stage. However, in some years, ascospore maturity is delayed compared to apple bud phenology. This is apparently one of those years–Which is why I am convinced we are not "out of the woods," nor are we out of ascospores like we often are in 'normal years'. In other words, much of the state still needs to be worried about scab, even though you might be going into bloom, petal fall or cover sprays. This is still true if you lost your crop—be sure to protect trees at this critical stage to reduce later applications of fungicides. For more information on protecting trees after crop loss, see:

https://www.extension.purdue.edu/extmedia/BP/BP-179-W.pdf

Other factors that affect scab severity in any given year include the timing of the first rains that produce an infection period, the weather during bloom and petal fall, and the weather during the early part of summer. In years such as this, when no infection periods occur prior to tight cluster or pink, scab is often easy to control, even in high-inoculum orchards, because the earliest primary infections occur too late in the season to allow multiple cycles of secondary inoculum before fruit begin to lose susceptibility to scab. Although we are currently having a week of wet weather, should we revert back to dry conditions by early summer by tree phenology standards, leaves will have hardened off along with terminal bud set, thereby reducing tree susceptibility to scab. Increasing temperatures (predictions in the 80s for May 8 and beyond reduces the viability of conidia, further reducing the spread of scab. All of this will hopefully translate into less scab this year. Weather permitting.

References:

Stensvand, A., Eikemo, H., Gadoury, D. M., and Seem, R. C. 2005. Use of a rainfall frequency threshold to adjust a degree-day model of ascospore maturity of *Venturia inaequalis*. Plant Dis. 89:198-202.

Gadoury, D. M., and MacHardy, W. E. 1982. A model to estimate the maturity of ascospores of *Venturia inaequalis*. Phytopathology 72:901-904.

MacHardy, W.E. 1996. Apple Scab: Biology, Epidemiology, and Management, APS Press, St. Paul, Minnesota, pp. 545.

Average Temperature in F	Wetting Period (hr)[1]	Incubation Period (days)[2]
79	11.3	—
77	8	—
75	6.1	—
73-63	6	9-10
61	6.1	9-10
59-57	7	12-13
55	8	14
54	8.3	14
52	9	15
50	11	16
48	12.2	17
46	13.4	17
44	15.4	17
43	18	17
40	21.2	—
39	27.8	—
37	29.6	—
35	34.7	—
34	40.5	—

[1] Minimum wetting period needed to achieve infection
[2] Time in days until visible symptoms appear

Table 1. The Mills table describes the relationship between temperature, wetting period and apple scab ascospore release. Modified from table of W. D. Mills, revised by W. E. MacHardy.

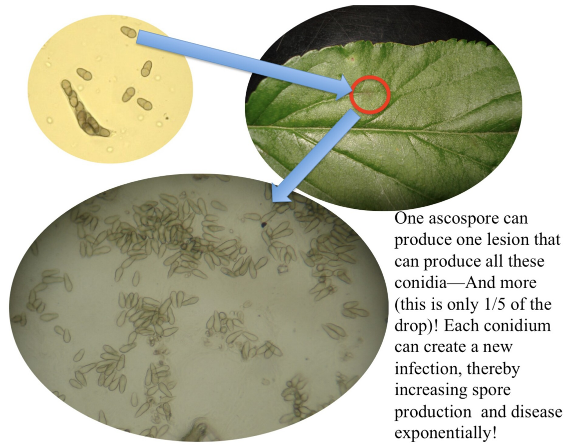
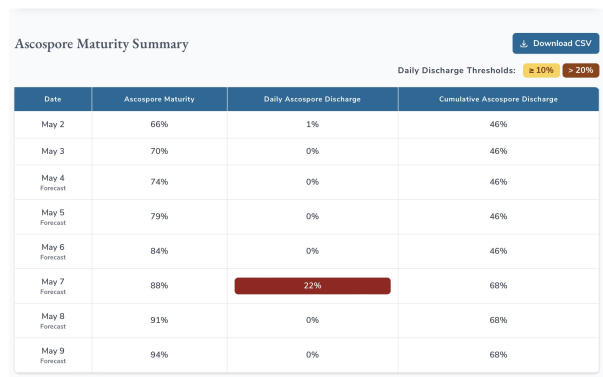


Figure 1. The exponential nature of plant pathogens: One ascospore can produce a single lesion that develops and releases over 95,000 spores.


Ascospore Maturity Summary

Download CSV

Daily Discharge Thresholds: ≥ 10% > 20%

Date	Ascospore Maturity	Daily Ascospore Discharge	Cumulative Ascospore Discharge
May 2	66%	1%	46%
May 3	70%	0%	46%
May 4 Forecast	74%	0%	46%
May 5 Forecast	79%	0%	46%
May 6 Forecast	84%	0%	46%
May 7 Forecast	88%	22%	68%
May 8 Forecast	91%	0%	68%
May 9 Forecast	94%	0%	68%

Figure 2. Ascospore Maturity Summary

Early season pest & disease control in grapevines

(Miranda Purcell, mrpurcel@purdue.edu)

Grapevines are in early stages of growth across the state. Significant shoot growth is expected with the warm weather predicted for this week.

Disease Control

This is a very important time to maintain preventative control over major grape diseases including Phomopsis, black rot, powdery mildew and downy mildew. Fungicide application should begin at 1-3 in shoot growth and should be repeated at 7-10 day intervals according to label instructions and environmental conditions through bloom, especially prior to a predicted rain event.

Pre-bloom applications should begin when shoots reach 10-12 inches. The critical period for disease control of black rot, powdery mildew and downy mildew is from immediate pre-bloom through 4-5 weeks after bloom. Fruit of the most commonly grown varieties become resistant to powdery and downy mildews as they mature, but the rachises and leaves remain susceptible. Therefore, fungicide protection against powdery and downy mildews is required throughout the growing season. Please note that downy and powdery pathogens are especially prone to fungicide resistance. To avoid this, do not apply back-to-back applications of any one systemic fungicide class. See Table 1 for Foundation Fungicide Program for Early Season Control of Grapevine Diseases.

Product and formulation / Active ingredient	FRAC code[2]	anthracnose foliar	black rot	downy mildew	Phomopsis blight	powdery mildew	REI[3] / PHI[4]	Max amt[5] / Max app[6]
Aliette WDG	33	x	x	3-5 lb	x	x	12h	NA
aluminum tris		x	x	E	x	x	15d	3
Captan 80 WDG	M	1.25-2.5 lb	1.25-2.5 lb	1.25-2.5 lb	1.2-2.5 lb	1.2-2.5 lb	48h	15 lb
captan		s(G)	s(F)	G	E	i	0d	NA
Cuprofix Ultra 40D	M	x	1.25-3 lb	1.2-3 lb	1.2-3 lb	1.2-3 lb	48 h	50 lb
copper sulfate		x	F	F	F	F-i	NA	NA
Microthiol Disperss	M	x	x	x	3-10 lb	3-10 lb	24h	NA
sulfur		x	x	x	F	E	0d	NA
ProPhyt	33	x	x	2-4 pt	2-4 pt	x	4h	NA
potassium phosphite		x	x	G-E	G-E	x	0d	NA
Ridomil Gold Copper	4+M	x	x	5 lb (1 pack)	x	x	48h	8 lb
mefenoxam + copper hydroxide		x	x	E	x	x	42d	4
Ridomil Gold MZ WG	4+M	x	x	2.5 lb	x	x	48h	10 lb
mefenoxam + mancozeb		x	x	E	x	x	66d	4
Roper DF	M	x	1.5-4	1.5-4	1.5-4	x	24h	24 lb
mancozeb		x	E	E	E	x	66d	6
Sulforix	M	x	x	x	1-2 gal, 1 pt	1-2 gal, 1 pt	48h	NA
calcium polysulfide		x	x	x	G-E	i	NA	8
Ziram 76DF	M3	x	3-4 lb	3-4 lb	3-4 lb	x	48h	28 lb
ziram		x	E	G	G	x	21d	NA

E = excellent control G = good control F = fair control [r] = fungicide/insecticide resistance possible s = suppression only i = ineffective u = unknown efficacy x = pest not on the label

Table 1. Foundation fungicide program for early season control of grape diseases. Source: Midwest Fruit Pest Management Guide

Insect Pest Control

Insect pests are active during different stages of grapevine growth. See Table 2 for the crop stages at which common pests in the Midwest are active. See the Midwest Fruit Pest Management Guide for information on the effectiveness of insecticides for controlling grape insects at different stages of grapevine growth (beginning on page 154).

<table>
<tr><th colspan="9">Grape Growth Stage</th></tr>
<tr><th>Delayed Dormant through Bud Swell</th><th>Bud Break</th><th>4- to 10-inch Shoots</th><th>Pre-bloom through Bloom</th><th>Bloom</th><th>Shatter</th><th>Shatter to Veraison</th><th>Veraison to Harvest</th><th>Post-harvest</th></tr>
<tr><td colspan="2">grape flea beetle</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td colspan="3">grape phylloxera</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td colspan="2">rose chafer</td><td></td><td>rose chafer</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td colspan="3">grape berry moth</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td colspan="3">Japanese beetle</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>spotted-wing Drosophila</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>multi-colored Asian lady beetle</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>green June beetle</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td colspan="2">grape root borer</td></tr>
<tr><td colspan="2">climbing cutworm</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>spider mites</td><td></td><td>spider mites</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>grape scale</td><td></td><td></td><td>grape scale</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>grape mealybug</td><td></td><td></td><td></td><td></td><td colspan="2">grape mealybug</td><td></td><td></td></tr>
<tr><td></td><td></td><td colspan="2">redbanded leafroller</td><td></td><td colspan="3">red-banded leafroller</td><td></td></tr>
<tr><td></td><td></td><td></td><td>eight-spotted forester</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>grape cane girdler</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td>grape cane gallmaker</td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td colspan="3">grape rootworm</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>stink bug</td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td colspan="4">spotted lanternfly</td></tr>
<tr><td colspan="9"></td></tr>
<tr><td>Major</td><td colspan="8">Present in most vineyards in most years and usually causing economic damage if not managed.</td></tr>
<tr><td>Minor</td><td colspan="8">Often present but usually not causing economic damage and not requiring management.</td></tr>
<tr><td>Impending</td><td colspan="8">Pest is not known to occur in Midwestern states but is likely to appear in the future.</td></tr>
</table>

Table 2. Grape Insect Pests- The shaded boxes represent the crop stages where common pests in the Midwest are active. Scouting and/or preventative sprays may be necessary or recommended. Source: Midwest Fruit Pest Management Guide

Why do the East Side of My Strawberry Rows Have Way More Ripe Ones than the West Side?

(Wenjing Guan, guan40@purdue.edu)

Plasticulture strawberry harvest has kicked off in southern Indiana. These plants went through a winter of temperatures, ups and downs, and survived the unexpected frosts in April. Finally, it is harvest time!

This article’s title is a message from a grower. The straightforward explanation is that plants received more sunlight and warmed up faster on the east side, so the berries ripen earlier.

This question reminds me to review the considerations for row orientations. Although row orientation is not something we can change now, it helps us develop careful thought in planning for the next season.

The first consideration in row orientation is slop. If the field has a slop, orient the rows across the slop, not along the slop. The main reason is to reduce erosion. If it is a level ground, rows in a north-to-south orientation receive sunlight more evenly than east-to-west rows. More even sunlight means the fruit ripen more evenly. Another consideration for the row orientation is the prevailing wind. From a disease management standpoint, the rows that run with the wind dry faster, reducing disease pressure than rows that block the wind. In reality, there is hardly a perfect solution. But understanding these considerations could help us make the best possible decision.

I hope the weather will cooperate in the next few weeks. Happy Harvesting!

A commercial plasticulture strawberry field in southern Indiana. Harvest started about a week ago.

Diagnosing fruit insect pests using signs and symptoms

(Elizabeth Yim Long, long132@purdue.edu)

We *all* know that growing and protecting delicious fruit is a challenge! Whether you're producing tree fruits, stone fruits, berries, or drupes, all kinds of insect pests are out to exploit the fruits of your labor. Despite our best efforts, sometimes a few insect pests slip under the radar and all you can do is learn what to look for and how to improve your protective efforts next season. A key part of this is being confident that you know what the *signs and symptoms* of insects and their damage look like!

When you hear educators and specialists talk about *signs* of insects, they are referring to the insect itself, or the physical evidence it left behind on the plant or fruit. Signs of insect activity include the presence of eggs, or insect waste, like the solid waste left behind by feeding caterpillars (called frass), or the liquid waste left behind by aphids (called honeydew). Another common sign of insect activity is the presence of shed exoskeletons or "caste off skins," which are left behind when insects molt from one immature life stage to the next. Insects must excrete waste and molt to grow and survive, so there's no way for them to avoid leaving this evidence behind – and we can captilize on that! Look for insect signs on both the inside and outside of plants and the fruit. Sometimes you may have to cut open fruit, twigs, or branches to spot signs of insect pests, because they may not be obvious from the outside. Insect signs can help you diagnose the kind of insect that is causing problems and from there you can narrow down management options that will be effective.

When educators and specialists talk about *symptoms* of insects, they are referring to visible indicators from the plant that something is wrong. I often think of this as the plant "calling out for help." Symptoms of insect activity include yellowing or curled leaves, wilting, oozing wounds (on branches or fruit), and leaves or fruit with chewing or sucking damage. Premature fruit drop is another example of a symptom that you should investigate for insect activity if it is occurring unexpectedly. It is critical to know the symptoms of insect damage, because you may never actually spot the insect that was responsible. In fact, in nearly all perennial fruit systems, there is an insect pest whose damage appears long after the insect is already gone. Symptoms on the plant or fruit can help you diagnose the kind of insect, sometimes even a specific insect, that is causing problems so you can respond accordingly. With all that being said, I want to mention here that symptoms of nutritional deficiency, plant stress, or even plant pathogens can be mistaken for symptoms of insect damage, so keep that in mind and investigate thoroughly before deciding to take action. If you're ever unsure, we're happy to help you do the detective work at the Purdue Plant & Pest Diagnostic Lab!

I have included some images below of insect signs and symptoms! Are these signs or symptoms? Can you guess who is responsible? Stay tuned for the answers in the next issue of Facts for Fancy Fruit! And just a reminder, if your orchard is still in bloom, please remember to protect our pollinators by not spraying during this time.

Figure 1. Sign or symptom? Hint: these are peaches

Figure 2. Sign or symptom? Hint: this is crabapple

Figure 3. Sign or symptom? Hint: this is apple

Figure 4. Sign or symptom? Hint: this is grapevine

2023 Purdue Fruit Veg Field day- Registration now open!

(Lori K Jolly-Brown, ljollybr@purdue.edu)

Register here

Purdue Extension presented its first Fruit, Vegetable and Hemp Field Day post-pandemic at the Meigs Ag Center in July 2022. Extension Specialists and Graduate Students presented specialty crop research to 45 attendees. Attendees had only good things to say about the event. " Great information and research." "Great variety of experiences and knowledge." "I felt welcomed and it was in an educational environment with like-minded people." "It was such a great informative event to learn about Purdue's current research." "Quality and variety of information." "The speakers seemed to give good context to their subjects." Below are some of the production topics presented at the field day and we expect to have a similar lineup for the 2023 field day.

- Cold Hardy Grape Varieties for Indiana
- Apple Disease Management and IR4 Trial
- Management of Dwarf Apple Trees
- Managing Caterpillars with Homeowner Products on Swiss Chard and Collard Green Varieties
- Planting Vegetables into Cover Crops
- Vegetable Weed Management Research
- Row Covers for Insect Management on Leafy Greens
- Sweetcorn Insect Management
- Mite Management in High Tunnel Cucumbers
- Two-system Approach to Vegetable Farming
- Cannabinoid Hemp Variety Trial / Hemp Propagation Study

We are happy to announce that Purdue Extension is presenting its annual Fruit and Vegetable Field Day on July 20, 2023, at the Throckmorton/Meigs Horticulture Farm, Lafayette, IN.

Contact Lori Jolly-Brown or Petrus Langenhoven if you have any questions.

2023 Purdue Small Farm Education Field Day- Registration now open!

(Lori K Jolly-Brown, ljollybr@purdue.edu)

Register here

The 2022 Purdue Small Farm Education Field Day was a big success. Nearly 72% of attendees reported that they learned something new. Nearly half indicated they plan to adopt recommended practices for diversified farming systems, and over a third (36.0%) plan to adopt recommended practices for creating, improving, or strengthening their business. Half (52.0%) indicated they plan to adopt practices for horticulture and the environment or practices that reduce negative environmental impact due to horticultural operations. Nearly half plan to adopt practices/technologies for the conservation of resources (48.0%) or increased efficiencies (44.0%).

Attendees commented ……

- 'Diversity of information presented.
- Great field day. Jam-packed with information and experts. Lots of opportunities to question the experts.
- Great people and resources!
- I believe the diversity accurately represented many aspects of Indiana agriculture for large and small-scale operations.
- I recently got into the urban farming

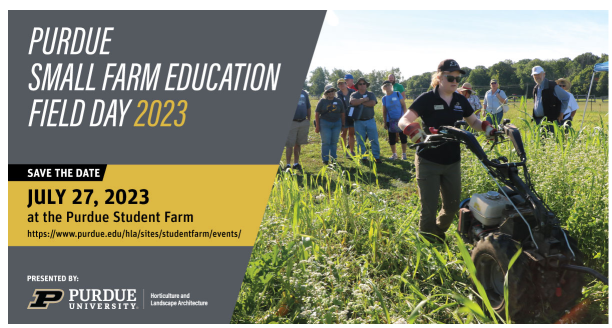
industry in Fort Wayne, Indiana, and this program has helped me get the wheels in my head turning.
  - I think it was a great event to learn about small farms and different practices or crops. It was also a great networking event.
  - I think it was a very informative event. Lots of good resources and networking as well as practices. Very educational.
  - I thought the field day was well organized.
  - New information presented in an understandable format by very competent professionals.
  - The event was educational, local, had very knowledgeable presenters, helpful exhibitors, good handouts, and I got a free frozen treat.
  - Up-to-date practices, evidence-based knowledge, concrete
  - Very informative to see a high-volume production set up, including plant training systems and watering/fertigation systems, applied to a wide variety of crops.'

The event was held at the Purdue Student Farm located in West Lafayette, Indiana. The field day featured an array of "demonstration stations" on the farm where participants learned about a variety of topics:

  - Student farm packhouse tour and overview of good agriculture practices (GAPs)
  - Weed identification and understanding of thresholds
  - Summer cover crops for weed suppression
  - Infield soil diagnostics and soil health
  - Vegetable disease, prevention, identification, and management
  - Scouting for mites in high tunnel crops
  - Black soldier fly composting
  - Caterpillar tunnels
  - Beans, onion, sweet pepper, eggplant, and tomato varieties in various production

Save the date for the next field day – July 27, 2023

Educational topics for the 2023 field day will be available in May. To learn more about the field day, visit our webpage at www.purdue.edu/hla/sites/studentfarm/events/ or contact Lori Jolly-Brown or Petrus Langenhoven.



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