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Crop Conditions

(Peter M Hirst, hirst@purdue.edu, (765) 494-1323)



Blackberry - harvest under way.



Peach - harvest continuing



Grape - harvest approaching



Apple - early cultivars being harvested

Warm Temperatures and Rain Dominate early August with Cooler Weather Inbound

(Austin Pearson, pearsona@purdue.edu)

July temperatures averaged 1°F above normal but had a couple of periods of extreme heat. Twelve stations recorded maximum temperatures in excess of 100°F. Portions of the month were cooler than normal, which gave way to warmer temperatures again in the last week of July. The heat and humidity continued during the first week of August, as the entire state experienced temperatures ranging from 4-6°F above normal. Northern Indiana measured the warmest temperatures, ranging from 5-6°F above normal (Figure 1). Statewide, minimum temperatures were 3-6°F above normal to start the month. There were regional differences in maximum temperatures as southern Indiana was near normal and northern Indiana was nearly 6°F

above normal for the week. The Lafayette Purdue University Airport had an average maximum temperature of 90°F, with the highest temperature reaching 95°F on August 3rd. A cold front brought cooler weather to the northern part of the state on August 9th, with maximum temperatures in the mid to upper 70s. Since April 1, Modified Growing Degree Days (MGDDs) have tracked above normal for most of the state. Central and southern Indiana show the highest MGDD departures with some spots running 120-180 units above normal (Figure 2).

Through the first eight days of August, precipitation was above normal for most in the state. Indiana averaged 1.33 inches of rain, which was 0.25 inches above normal. Precipitation totals for northern and southern Indiana were over an inch (Figure 3). Southwestern Indiana averaged 1.89 inches of rain, which was 0.68 inches above normal for the week (Figure 4). There were areas with extreme precipitation, including Patoka Lake which measured 6.01 inches of rain (3.82 inches fell on August 6th). As a result, many of the stream gauges in southwestern Indiana averaged abovenormal stream flows. Conversely, central Indiana was 0.13 inches below normal, with many locations totaling just over a half inch. Due to the ongoing drought, many of the stream flows in central Indiana remained below normal. On the August 2nd US Drought Monitor, the area affected by Moderate Drought (D1) was reduced slightly but continued for west-central Indiana (Figure 5). Abnormally Dry (D0) conditions continued through central Indiana. Additional improvements are expected in the August 8th US Drought Monitor.

Turning focus to what's ahead, the 6-10 day Climate Prediction Center (CPC) Outlooks (August 15-19) have higher confidence in below-normal temperatures and near-normal precipitation is expected (Figure 6). The 8-14 day CPC Outlooks (August 17-23) continue this trend (Figure 7).

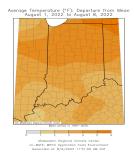


Figure 1: Average temperature in degrees
Fahrenheit for August 1-9, 2022, represented as
the departure from the 1991-2020 normal
temperature during that period.



Figure 2. Modified Growing Degree Day (MGDD) (50°F/86°F) accumulation from April 1-August 8, 2022, represented as the departure from the 1991-2020 climatological average.

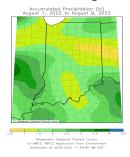


Figure 3. Accumulated precipitation (inches) from August 1-9, 2022.

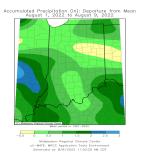


Figure 4. Accumulated precipitation from August 1-9, 2022, represented as the departure from the

1991-2020 normal precipitation that fell during that period.



Figure 5. Indiana US Drought Monitor from August 2, 2022.

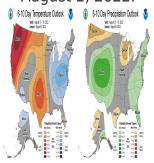


Figure 6. The CPC's 6-10 day temperature (left) and precipitation (right) outlooks for August 15-19, 2022.

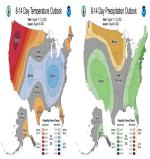


Figure 7. The CPC's 8-14 day temperature (left) and precipitation (right) outlooks for August 17-23, 2022.

Brown Rot

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

Another warning for severe **brown rot** of stone fruits (apricot, cherry, nectarine, peach, plum) (Fig. 1). Warm, wet, humid weather at harvest is particularly favorable for this fungal disease. Also, as fruit softens during the ripening process,

it becomes much more susceptible to brown rot. Carefully picking and handling fruit to avoid injuries prevents infection courts that brown rot is more than happy to exploit. If infection is severe, picking fruit a few days early and ripening off the tree may be required. Finally, when all is said and done, remove any remaining fruit from the tree after the final picking to prevent the possibility of overwintered mummies within the tree infecting susceptible blossoms next spring. This also gives you one less thing to do during your spring pruning and provides you with more latitude to selectively prune (in case of severe winter, hail, or animal damage) without increased risk of blossom infection. Pretty smart, eh?



Figure 1. Early brown rot infection on early Shiro plum.

Photo by Janna Beckerman.

More on Stone Fruit: Now is a good time to scout for **Cytospora canker** (Fig. 2). Key symptoms include dark, sunken areas with gum oozing through the bark on branches and limbs. Pruning thin, willowy water sprouts in the center of the tree right now prevents canker establishment within the main stem of the tree. This is key, as nothing can be done when the cankers get into the trunk. Do not use commercial wound paints on pruning cuts—I know, it makes you feel better, but it really messes up the tree—Just Don't!



Figure 2. Cytospora canker often occurs around branch stubs of all stone fruit. Photo by Janna Beckerman.

When pruning side branches from larger limbs, the cut should be made just beyond the branch bark ridge, that ridge of thickened bark where the smaller branch joins the larger limb—But, as you cut carefully, do not cut flush to the main stem, and do not leave stubs! The branch bark ridge should not be removed because it is in this region where the most rapid wound healing occurs. Prune to open the center of trees to light penetration because shaded branches are weakened and more susceptible to winter injury and Cytospora infection. I know, that is a lot of "Do Not's" but improper pruning can cause a lot problems in the future. Remove all dead and weakened wood and burn it immediately. Limb damage that occurs during the growing season should be repaired immediately; never wait for the dormant season.

Finally, while scouting plums, look for symptoms of **black knot** disease at the time of pruning (Fig. 3). These are rough, black tumors or overgrowths that develop on shoots and limbs and should be pruned out completely and destroyed. Keep in mind that 1st and 2nd year galls are easily overlooked so care should be taken while scouting to remove the obvious and

not so obvious galls.

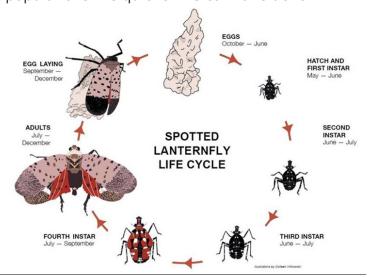


Figure 3. Black knot of plum on green gage. Photo by Janna Beckerman.

Spotted Lanternfly detected in Northern Indiana

(Miranda Purcell, mrpurcel@purdue.edu)

A Spotted Lanternfly (SLF) population was found in Huntington, Indiana. This is the second population in the state in addition to what was found in Vevay, Indiana in July 2021. It is possible for SLF to be anywhere in Indiana. At this time of year, the insects are at their most recognizable stage as colorful winged adults ~1 inch long. It is important to educate yourself and others on what the various life stages (see figure below) look like because the earlier we can detect new populations the quicker we can take action.



Anyone that spots signs of the spotted lanternfly should contact DEPP by calling 866-NO EXOTIC (866-663-9684) or send an email to DEPP@dnr.IN.gov. For more information on this or other invasive pests see the following

link https://www.in.gov/dnr/entomology/pests-of-concern/spotted-lanternfly/ For further information on the Spotted Lanternfly: Penn State Extension | Spotted Lanternfly, Spotted Lanternfly Management in Vineyards, Spotted Lanternfly Now in Northern & Southern Indiana

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