Pest & Crop Newsletter

Purdue Cooperative Extension Service and USDA-NIFA Extension IPM Grant

This work is supported in part by Extension Implementation Grant 2021-70006-35390 / IND90001518G-1027053 from the USDA National Institute of Food and Agriculture and NCR SARE Award GNC20-311

In This Issue

- Rootworm Beetles Are Pollen Feeders...More Than Just Corn!
- Staying Calm, But Drier Conditions Creep In

Rootworm Beetles Are Pollen Feeders...More Than Just Corn!

(Christian Krupke) & (John Obermeyer)

The vast majority of corn has long ago completed pollination. There are the late-planted fields that have yet to do so. Those are the fields that potentially act as a "trap crop" for various insect pests as they look for their main protein source...pollen. One particular insect, known by some producers as silk beetles, is the western corn rootworm beetle. In previous years, this was the time for the peak number of beetles present in the state. In fact, for research trials we deliberately plant corn late the year before in an attempt to lure pollen-feeding female beetles into the crop so there will be plenty of eggs in second year corn. However, beetle numbers are much lower than they once were in general. Still, it is worth a look to see whether rootworm protection (typically a Bt corn hybrid) is a worthwhile option for your operation.



Western corn rootworm beetles feeding on lambsquarters pollen within a soybean field. (*Photo Credit: John Obermeyer*)



Western corn rootworm beetle engorging on corn pollen. (Photo Credit: John Obermeyer)

It goes without saying, fewer beetles will lay fewer eggs. Of course, the only way to know risk for next year, is to assess rootworm beetle populations NOW, on a field-by-field basis. Unlike some other pest insects, rootworm beetles do a lot of feeding as adults. Rootworm beetles, are pollen feeders, and while corn pollen may be a staple, it's far from the only food source. So, whether in weedy soybean or wheat stubble fields, pollen from a multitude of weeds (e.g., foxtail, volunteer corn, ragweed, lambs-quarters, pigweed, mustards, etc.) will draw them in to feed. These too are "trap crops" and will likely encourage significant egg laying for next year's corn roots leading to unexpected lodging. In other words, another reason to keep weed control in mind. Especially if one wants to plant corn *without* Bt-rootworm traits.

Happy scouting!

Staying Calm, But Drier Conditions Creep In

(Jacob Dolinger)

August is in full swing, and schools are back in session, but let's remember that it's still summer, meteorologically-speaking! It's typically still quite warm in August—the normal high temperature for Indianapolis in July is 85.2°F, and only drops to 84.3°F in August. In fact, temperatures have been right around normal, with an average high temperature of 84.7°F for Indianapolis for the period August 1-14. It looks like the National Weather Service's CPC keeps this pattern of near normal temperatures through most of the rest of August for the entire

Hoosier state (Figure 1). While temperatures on some days may rise into the upper 80s, and other days may only be around 80°F, they will generally equate to near normal.

×

Figure 1: National Weather Service's Climate Prediction Center displays near normal temperatures for Indiana for the end of August.

Even though there may be some low-pressure systems passing nearby, there is not much precipitation forecast. The 8-14 day outlook through the end of August has slight chances of below normal precipitation for Indiana, and this seems to continue through at least September 6. The pattern is trending drier, as does happen in August. Indianapolis typically observes 4.42 inches of precipitation in July, which drops to 3.20 inches for August, even less than that of October or November.

There's already been some drying of soils noted, which is evident by the less than 50 percent of normal precipitation that much of northern and western Indiana received during August's first two weeks (Figure 2). The drought monitor as of August 15 did not expand any dry conditions or drought, but it did not remove any more of the abnormally dry conditions in eastern and southern Indiana (Figure 3). Precipitation is closer to normal heading south and east through the state, but with below normal rain amounts in the forecast, conditions should be monitored for drought development yet again. While areas along and just north of the Ohio River seem to be on track for at least another 1 inch through August 22, areas from Indianapolis northward should expect no more than 0.5-0.75 inches of rain through the same period (Figure 4).

Accumulated Precipitation: Percent of Mean August 1, 2024 to August 14, 2024



Generated at: 8/15/2024 8:51:29 AM EDT

Figure 2: Accumulated Precipitation Percent of Mean for Indiana displays less than 50 percent of normal rainfall for northern and western portions of the state, increasing to closer to normal, albeit still below normal, for the rest of the state of August 1-14.



Figure 3: Drought Monitor for August 13 for Indiana.

Figure 4: The National Weather Service's Weather Prediction Center is forecasting up to 1.5 inches of rain for parts of southern Indiana, but not more than 1 inch for areas north.

While the growing season is in its latter half, growing degree days are still accumulating. With ample sunshine and seasonable temperatures, they will continue to accumulate, and likely remain above average where they have been for much of the state all season (Figure 5).

Growing Degree Day (50 F / 86 F) Departure From Average



Figure 5: GDD unit accumulations are up to 200 units above normal for parts of the state, particularly central Indiana.

It is the policy of the Purdue University that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue is an Affirmative Action Institution. This material may be available in alternative formats. 1-888-EXT-INFO Disclaimer: Reference to products in this publication is not intended to be an endorsement to the exclusion of others which may have similar uses. Any person using products listed in this publication assumes full responsibility for their use in accordance with current directions of the manufacturer.

Pest&Crop newsletter © Purdue University - extension.entm.purdue.edu/newsletters/pestandcrop Editor: Tammy Luck | Department of Entomology, Purdue University, 901 Mitch Daniels Blvd, West Lafayette, IN 47907