

Pest & Crop newsletter

Purdue Cooperative Extension Service and USDA-NIFA Extension IPM Grant

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"I Miss Japanese Beetles," No One Ever Said

(John Obermeyer)

"The Japanese beetle (*Popillia japonica*) was taken in government bait traps in Indianapolis for the first time. Seventeen beetles were taken, all in an area of less than 45 acres; and it is not unlikely this insect is now established in Indiana and will gradually increase as it has done in most localities where it has become established. **The seriousness of this new introduction cannot be under-estimated.**" J. J. Davis, Purdue University Agricultural Experiment Station, 1934.



A lonely Japanese beetle. (Photo Credit: John Obermeyer)

Starting my college education at the University of Missouri, I took an introductory insect class that changed my life...for a couple reasons. Foremost, I met my future wife in that class, our first "date" was to go insect collecting. I had a vehicle to get us out into the country! As I continued further in my entomology pursuits, classes became more challenging. This included an extensive insect collection, requiring visits to many environments, but also included trading species with classmates. Trading was allowed, but you were required to include their

name and location on the label. The professor shared a story of how one student, probably urban legend, failed the course because they had a Japanese beetle in their collection but labeled it from Missouri. Of recent years, catching a Japanese beetle in many states West of Indiana is quite plausible.

My first introduction to Japanese beetle was on the Illinois, Indiana border. Very close to where previous government eradication efforts in 1954 were documented in "Silent Spring" by Rachel Carson. Needless to say, the program taught scientists that indiscriminate use of insecticides wasn't the answer, as it didn't eliminate this beetle and was devastating to some non-target organisms. Decades after the area-wide failure, I was consulting with a producer that "hated" Japanese beetle feeding on his soybeans. I attempted with my IPM training to explain the soybean plants ability to compensate for defoliation and that treating wasn't economic. He wasn't having any of that!

Finally, to the title of this article! I have noticed a lack of Japanese beetles, and their damage, around my home and local plots this season. Most don't notice something that isn't there, right? As you would expect, I haven't gotten a single call/email from farmers concerned about this pest's absence. Is it localized because of our droughty conditions that persistent longer than most areas of the state? Fortunately, to my aide are bug trappers for the Western Bean Cutworm Pheromone Trap Report who are scattered throughout the state. So, I asked them to give me their observations with this week's moth report.

Survey says...overall, most agree with my assessment that Japanese beetle numbers are lower this season. However, two reports from the southern portion of the state and one from the northeast indicate that numbers are higher than normal. What is normal? If one were to have a foot in boiling water, and the other foot on ice, would their overall body temperature be normal? If nothing else, this describes the unpredictability of insects and their damage to crops in any location and year. The insect outbreaks are the ones we notice and become ingrained in our mind for the future. But, when populations are at a low ebb, only entomologists take note, especially when it is the feared Japanese beetle!

Hoping you are experiencing a lower than "normal" insect pest season! Happy scouting!!!

2023 Western Bean Cutworm Pheromone Trap Report

(John Obermeyer)

County	Cooperator	WBC Trapped						
		Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7
		6/15/23-6/22/23	6/29/23	7/6/23-	7/13/23-	7/20/23	7/27/23	
		6/21/23 6/28/23	7/5/23	7/12/23	7/19/23	7/26/23	8/2/23	

County	Cooperator	WBC Trapped						
		Wk 1 6/15/23-6/22/23- 6/21/23	Wk 2 6/22/23- 6/28/23	Wk 3 6/29/23- 7/5/23	Wk 4 7/6/23- 7/12/23	Wk 5 7/13/23- 7/19/23	Wk 6 7/20/23- 7/26/23	Wk 7 7/27/23- 8/2/23
Adams	Roe/Mercer Landmark, Decatur	0	0	1	0	0	0	
Allen	Anderson/Blue River Organics, Churubusco	2	1	0	0	25	4	
Allen	Gynn/Southwind Farms, Ft. Wayne	2	0	0	2	65	31	
Allen	Kneubuhler/G&K Concepts, Harlan	0	1	0	0	1	1	
Bartholomew	Bush/Pioneer Hybrids, Columbus	0	0	0	0	0	0	
Benton	Vickrey/Advanced Agrilytics, Trap 1	0	3	0	0	2	0	
Benton	Vickrey/Advanced Agrilytics, Trap 2	0	0	0	2	0	2	
Benton	Vickrey/Advanced Agrilytics, Trap 3	1	0	0	3	0	0	
Benton	Vickrey/Advanced Agrilytics, Trap 4	4	0	0	2	0	0	
Benton	Vickrey/Advanced Agrilytics, Trap 5	1	0	1	3	0	4	
Benton	Vickrey/Advanced Agrilytics, Trap 6	2	0	1	5	2	0	
Benton	Vickrey/Advanced Agrilytics, Trap 7	2	0	1	5	7	1	
Benton	Vickrey/Advanced Agrilytics, Trap 8	0	0	2	6	7	1	
Blackford	Thurman/Ceres Solutions, Warren	0	0	0	0	0		
Clay	Mace/Ceres Solutions, Brazil	0	0	0	0	0		
Clay	Fritz/Ceres Solutions, Clay City	0	0	0	0	0		
Daviess	Brackney/Purdue CES, Montgomery	0	0	0	0	0	0	
Dubois	Eck/Dubois Co. CES, Jasper	0	0	0	0	0	0	
Elkhart	Kauffman/Crop Tech Inc., Millersburg	0	0	0	4	10	0	
Fountain	Mroczkiewicz/Syngenta, Attica	4	5	13	23	4		
Hamilton	Campbell/Beck's Hybrids	0	0	0	0	4	0	
Hendricks	Nicholson/Nicholson Consulting, Danville	0	0	0	0	0	0	
Howard	Shanks/Clinton Co. CES, Kokomo	0	0	0	0	0	0	
Jasper	Overstreet/Jasper Co. CCSI, Wheatfield	1	8	16	42	118	56	
Jasper	Ritter/Dairyland Seeds, McCoysburg		0	1	40	15		
Jay	Boyer/Davis PAC, Powers	0	2	2	0	0		
Jay	Shrack/Ran-Del Co-Alliance, Parker City	0	0		2		3	
Jennings	Bauerle/SEPAC, Butlerville	0	0	0	0	0	0	
Knox	Clinkenbeard/Ceres Solutions, Edwardsport	0	3	0	0	0		
Knox	Edwards/Ceres Solutions, Fritchton	0	0	0	0	0		
Kosciusko	Jenkins/Ceres Solutions, Mentone	0	0		35	116	8	
Lake	Kleine/Rose Acre Farms, Cedar Lake	0	0	1	1	3		
Lake	Moyer/Dekalb Hybrids/Shelby	3	1	5	15	61	13	
Lake	Moyer/Dekalb Hybrids/Schneider	1	1	10	26	227	41	
LaPorte	Rocke/Agri-Mgmt. Solutions, Wanatah	1	0	14	75	118	46	
Miami	Early/Pioneer Hybrids, Macy	0	2	4	33	92	26	
Montgomery	Delp/Nicholson Consulting, Waynetown	0	0	0	0	1	0	
Newton	Moyer/Dekalb Hybrids, Lake Village	0	0	2	17	92	22	
Perry	Lorenz/Lorenz Farms, Rome 1	0	0	0	0	0		
Perry	Lorenz/Lorenz Farms, Rome 2	0	0	0	0	0		
Porter	Boyer/PPAC, Wanatah	0			6	5	4	
Posey	Schmitz/Purdue CCSI, Blairsville	0	0	0	0	0	0	
Posey	Schmitz/Purdue CCSI, Cynthia	0	0	0	0	0	0	
Pulaski	Capouch Chaffins/M&R Ag Services, Medaryville	0	0	3	21	11	31	
Pulaski	Leman/Ceres Solutions, Francesville	0	0	0	46	52	10	
Pulaski	Nagel/Ceres Solutions, Francesville	0	0	0	134	431	53	
Putnam	Nicholson/Nicholson Consulting, Greencastle	1	0	1	0			
Randolph	Boyer/DPAC, Farmland	0	2	1	0	0		
Rush	Schelle/Falmouth Farm Supply Inc., Carthage	0	0	0	0	0	0	
Scott	Tom Springstun/Scott Co. CES, Scottsburg	0	1	0	0	0	0	

Shelby	Fisher/Shelby County Coop, Shelbyville	0	0	0	0	0		
St. Joseph	Carbiener, Bremen	0			32			
Starke	Capouch Chaffins/M&R Ag Services, Monterey	0	0		47	46	10	
Starke	Capouch Chaffins/M&R Ag Services, San Pierre	0	0			73	3	
Sullivan	McCullough/Ceres Solutions, Farmersburg	0	0	0	0	0		
Sullivan	McCullough/Ceres Solutions, Dugger	0	0	0	0	0		
Tippecanoe	Bower/Ceres Solutions, Lafayette	10	48	42	36	3		
Tippecanoe	Obermeyer/Purdue Entomology, ACRE	0	0	0	2	2	3	
Tippecanoe	Vickrey/Advanced Agrilytics, Trap 1	1	1	0	6	5	0	
Tippecanoe	Vickrey/Advanced Agrilytics, Trap 2	0	0	0	1	0	0	
Tippecanoe	Westerfeld/Bayer Research, W. Lafayette	0	0	0	2	1	0	
Tipton	Campbell/Beck's Hybrids	0	0	0	0	3	0	
Vigo	Lynch/Ceres Solutions, Clinton	0	1	0	0	0		
Whitley	Emley/NEPAC/Schrader	0	0	2	1	9	2	
Whitley	Emley/NEPAC/Kyler	0	0	1	0	3	5	

* = Intensive Capture...this occurs when 9 or more moths are caught over a 2-night period

Indiana Disease Update In Corn

(Darcy Telenko)

Corn

Tar Spot - We continue to confirm counties with active tar spot. Twelve counties have been confirmed as of July 26, 2023. These counties all had a previous history: Porter, LaPorte, Jasper, Pulaski, Marshall, Kosciusko, Benton, Tippecanoe, Carroll, Tipton, Jennings, and Knox (Figure 1). Gray colored counties on the map are those we have found tar spot in previous years. In most fields tar spot has been found in the lower canopy with low severity. Please keep a close eye on your fields to make an informed decision to spray fungicides. Our research has shown that a well-timed fungicide application from tassel to milk (VT to R3) will help reduced disease and protect yield. Check out the fungicide efficacy resource to help make a decision on product choice (<https://cropprotectionnetwork.org/publications/fungicide-efficacy-for-control-of-corn-diseases>).

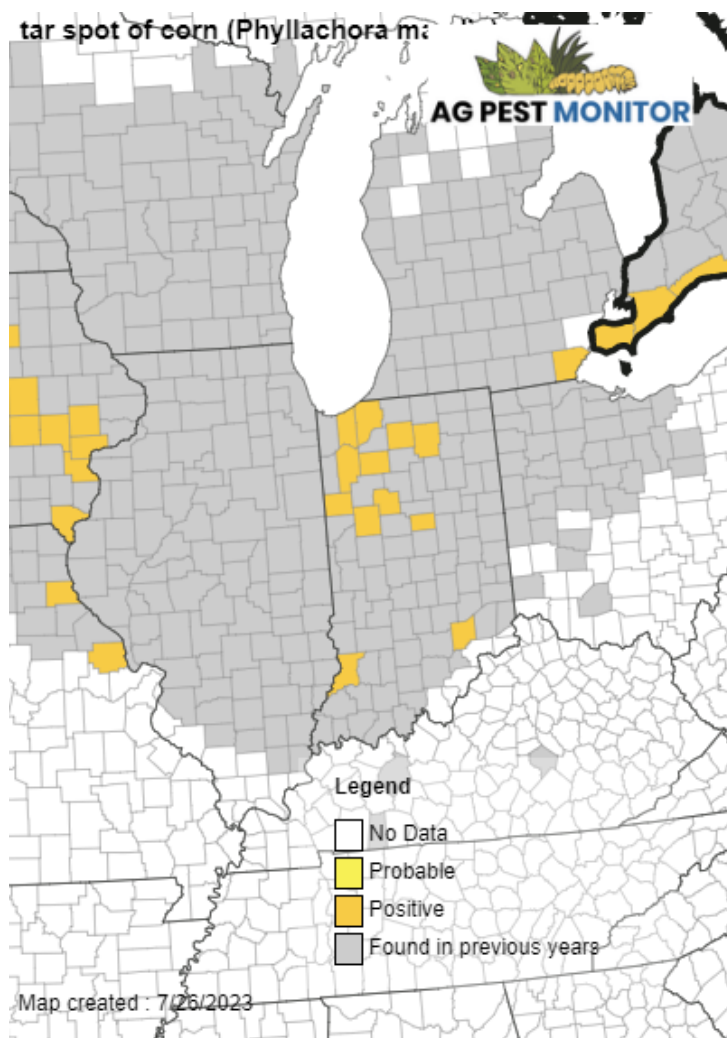


Figure 1. Tar spot map on July 26, 2023.

Southern Corn Rust. We have not had any reports of southern rust in Indiana. The disease is starting to move north in NE Arkansas. Keep scouting and if you suspect it, please send a sample to the Purdue Plant Pest Diagnostic Lab (PPDL). Southern rust can cause significant yield loss if it builds up to high levels during silking and corn fill. Therefore, it is very important to keep a close eye out for this disease this season to make timely management decisions.

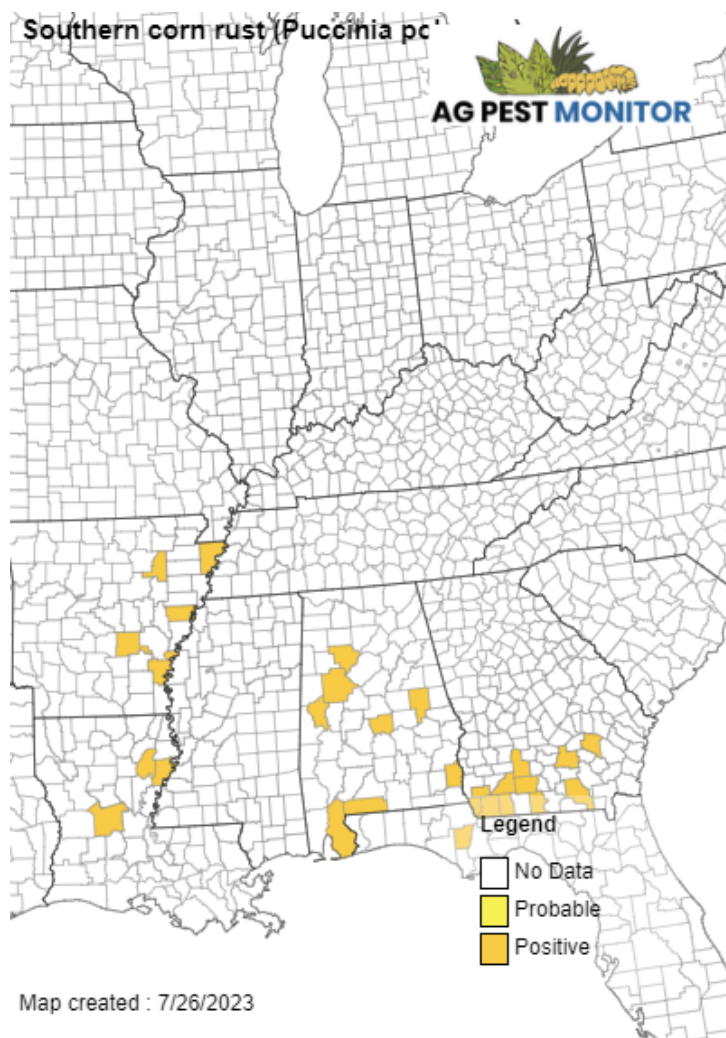


Figure 2. Southern corn rust map for July 26, 2023.

We again are requesting if you have any suspect locations to please update us and send a sample for both tar spot and southern corn rust. I am especially interested in those counties we have yet to scout or receive a sample. Even if your county is yellow, I am also interested in learning if you have tar spot or southern rust on your farm and what you might be seeing. Please feel free to contact me (dtelenko@purdue.edu) or the PPDL (ppdl-samples@purdue.edu) with any major disease issues you may have this season.

Resources:

- Fungicide efficacy table for corn diseases: <https://cropprotectionnetwork.org/publications/fungicide-efficacy-for-control-of-corn-diseases>
- Fungicide efficacy table for soybean foliar diseases: <https://cropprotectionnetwork.org/publications/fungicide-efficacy-for-control-of-soybean-foliar-diseases>
- Purdue Plant Pest Diagnostic Lab <https://ag.purdue.edu/departments/btny/ppdl/>
- Purdue Field Crop Pathology Website with current maps <https://indianafieldcroppathology.com/>

Don't Get In A Rush – Evaluate Forage Species And Varieties Before Purchase

(Keith Johnson)

To reach full potential of the forage part of the business, Mother Nature must comply with provision of excellent growing conditions, but the manager (you) must be part of a successful team with Mother Nature and professionals, too. Employing a proper soil fertility program, seeding at a proper time, using a correct seeding rate, and harvesting/grazing at the right growth stage are part of the decisions that need to be made. Crop scouting and following through with management decisions during the growing season are critical to success. But before all of the above can be done, deliberating what forage species and varieties within a forage species will be used to renovate an existing stand or establish a new hay or pasture field need to be done, too. The things I ultimately consider when seeding perennial forages are yield, quality and persistence. Summer-annual forages can't survive winter temperatures, but potential yield and quality are critical to most success.

Regarding proper forage species selection, it is important to determine what the intended use of the forage will be and whether is best adapted to the soil type and soil drainage where the forage is to be sown. After the forage species are selected, it is time to select the varieties within the species. *The most important thing I can convey today about forage species/variety selection is to seek the help and advice of a seed company employee, consultant, or educator that has a passion for forages and has an understanding of forage agriculture.* I would be uncomfortable selecting a “VNS” variety. “VNS” stands for “Variety Not Stated”. With these words there is no understanding of the genetic potential of the seed in the bag. Cost of seed purchased is an important decision, but don't let that drive the final decision without full consideration of potential yield, crop quality, and persistence of stand.

The importance of variety selection is very evident with the orchardgrass photographs that accompany this article. One orchardgrass variety had as much brown tissue as it did green. Leaf disease was abundant. Another variety was greener and more photosynthetically active. Yield and quality were obviously superior in the greener variety. Both were orchardgrass, but the difference in response to disease pressure was huge. Which would you rather be growing? Taking the time to learn about the differences in yield, quality and persistence among varieties is worth the effort! Some of you will be seeding perennial forages in August and early September. Other producers may be seeding cover crops that will be used by livestock as pasture, hay, or silage after corn is harvested as silage or corn and soybean grains are trucked off to storage. Start making forage species/variety selection and purchase decisions now; not on the day that seeding occurs!



Forage variety selection is an important consideration. The orchardgrass variety on the top photo has better leaf health than the variety on the bottom. Yield and quality is less with the more leaf diseased variety. (Photo Credit: Keith Johnson)

Communicate Seeding Date Carefully – Someone Is Listening

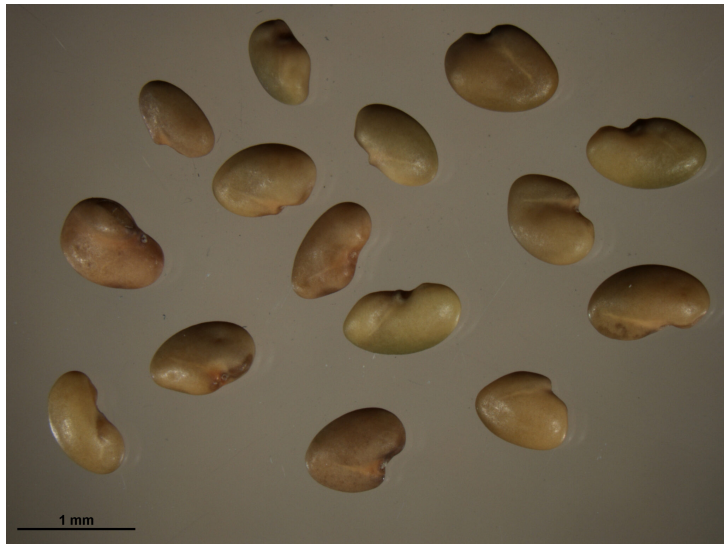
(Keith Johnson)

I was asked to come to a field in early April many years ago by a young producer. The producer and the seedsman that sold the alfalfa to the producer met me at the field. The cause of concern was that there was an expectation of green alfalfa growing after breaking winter dormancy in Mid-March. Instead, what was seen at my height of 5' 10" was light brown soil; not a trace of green from anything was seen. I dropped to my knees and got my eyes within 12 inches of the soil surface. What I saw was what had been an outstanding stand of alfalfa seedlings, at least 24 dead alfalfa seedlings per square foot, no more than 1-inch in height that were the same color of the soil. I asked the producer when he seeded the field. He replied, “October 7”. The “Best Management Practice” would have been to have the alfalfa seeded by late August. Timely alfalfa seeding is always important to getting an excellent stand, and when seeded so late does not have time to develop into a winter hardy plant. This caused me to reflect on how many times I had heard discussions about fall seeding alfalfa. If this novice alfalfa producer was part of one of these discussions, he did exactly what he was told or heard; he seeded on a beautiful fall day. This in-field experience

resulted in me correcting anyone that talks about seeding alfalfa in the fall. The right time is to have the seeding task accomplished by mid-August in northern Indiana and very early September along the Ohio River Valley. The fall season doesn't officially begin until September 21. Seedling development continues in the fall, but seeding and germination should happen in August and very early September.

The lesson from this event – Be specific when giving recommendations. Someone is listening!

P.S. for my beef cattle, sheep and goat friends – Spring calving, lambing and kidding is after March 21, not in February or early March!



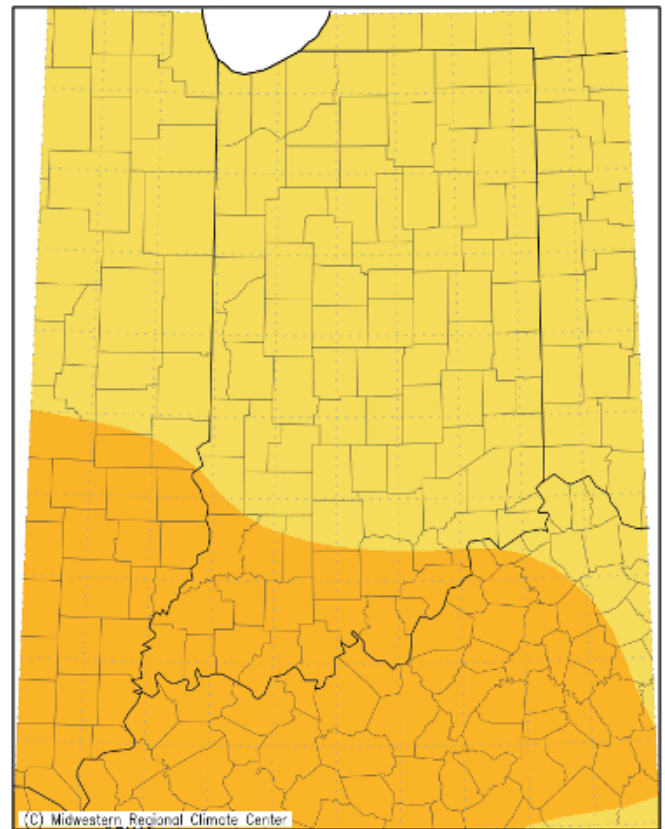
For a successful stand, alfalfa is best sown in the early spring or August. (Photo Credit: Purdue University Crop Diagnostic Training and Research Center)

Heat Continues Through The Near Future

(Hans Schmitz)

As the dog days of summer continue in folklore through August 11, the temperatures and humidity have increased to heat advisory status throughout the weekly outlook. Figure 1 shows the average temperatures over the last week, reaching into uncomfortable territory.

Average Temperature (°F)
July 19, 2023 to July 25, 2023



65 70 75 80 85

Indiana State Climate Office
Purdue University, West Lafayette, Indiana
email: in-sco@purdue.edu

Figure 1. Average temperatures in the 70s correlate to high temperatures in the 80s and 90s across the state, with minimums in the 60s and 70s.

Outlooks for temperatures in the 6-10 day and 8-14 day show a probability for above normal temperatures persisting.

Meanwhile, much of the state received below normal precipitation in the past week (Figure 2).

Accumulated Precipitation: Percent of Mean July 19, 2023 to July 25, 2023

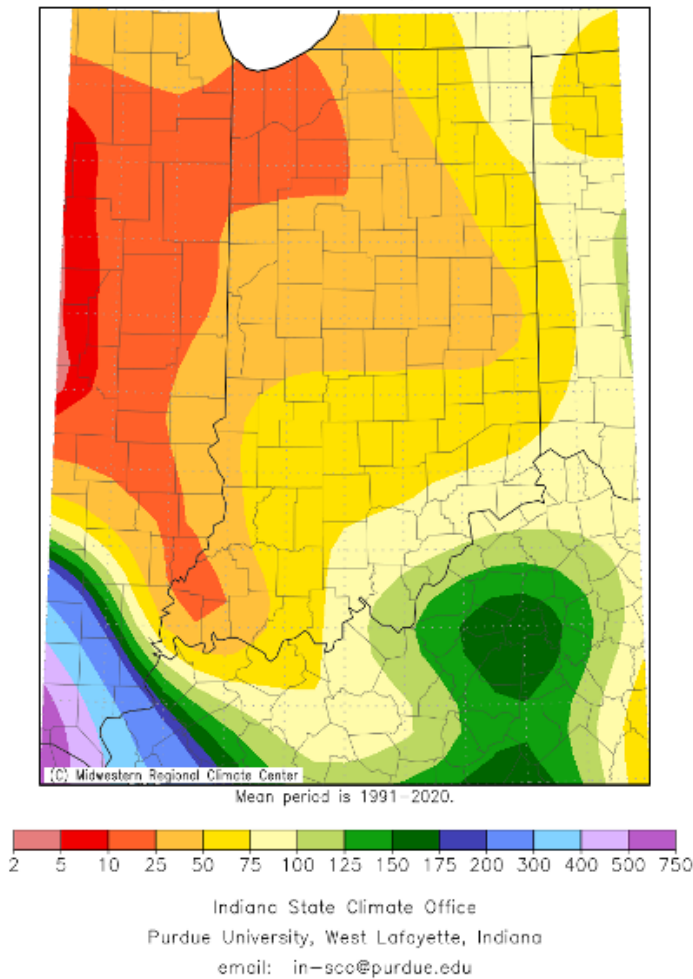


Figure 2 shows most of the state with below normal precipitation over the last week.

Although rainfall a couple of weeks ago allowed for improvement in the Indiana portion of the drought monitor, evapotranspiration has increased along with the recent relative lack of rainfall. Supplemental irrigation should be at the ready, keeping in mind that early morning irrigation allows any moisture that might have accumulated on leaf surfaces to dry quickly before diseases can establish.

The seasonal outlook released on July 20 from the Climate Prediction Center show any drought that currently exists in Indiana to be removed by the end of the forecast period on October 31. In the meantime, it is summer and will continue to act as such. The National Weather Service has no anticipated risks of heavy snowfall anywhere in the United States through August 9.

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