

Pest&Crop newsletter

Purdue Cooperative Extension Service and USDA-NIFA Extension IPM Grant

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Black Cutworm Moths Have Begun Their Arrival

(John Obermeyer)

Black cutworm trap cooperators have detected that moths are beginning their traverse to Indiana this past week. Though numbers are currently low, see Black Cutworm Pheromone Trap Report, we will expect more arrival with anticipated storms from the Southwest. Timing, and intensity, of moth captures allows us to begin tracking heat unit accumulations and anticipating larval development. A late-planting spring and numerous arriving moths, along with delayed weed/cover crop termination, could set the stage for significant field damage. Will it happen this year? I hope not. But, I sure am grateful to trappers from Posey to St. Joseph Counties that are watching and counting. Happy Scouting!



Bug Scout says "Look at all the pretty black cutworm moths!"

2021 Black Cutworm Pheromone Trap Report

(John Obermeyer)

		BCW Trapped						
		Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7
		4/1/21-4/8/21-	4/15/21-4/22/21-	4/29/21-5/6/21-	5/13/21-5/20/21-	5/27/21-6/3/21-	6/10/21-6/17/21-	6/24/21-7/1/21-
		4/7/21	4/14/21	4/21/21	4/28/21	5/5/21	5/12/21	5/19/21
County	Cooperator							
Adams	Roe/Mercer Landmark	5						
Allen	Anderson/NICK	0						
Allen	Gynn/Southwind Farms	0						
Allen	Kneubuhler/G&K	0						
	Concepts	0						
Bartholomew	Bush/Pioneer Hybrids	0						

		BCW Trapped						
		Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7
		4/1/21-4/8/21-4/7/21	4/15/21-4/22/21-4/14/21	4/22/21-4/29/21-4/28/21	4/29/21-5/6/21-5/5/21	5/6/21-5/12/21-5/19/21	5/12/21-5/19/21	5/13/21-5/19/21
County	Cooperator							
Boone	Emanuel/Boone Co. CES	1						
Clay	Mace/Ceres Solutions/Brazil	6						
Clay	Fitz/Ceres Solutions/Clay City	0						
Clinton	Emanuel/Boone Co. CES	1						
Dubois	Eck/Dubois Co. CES	0						
Elkhart	Kauffman/Crop Tech	2						
Fayette	Schelle/Falmouth Farm Supply Inc.	12						
Fountain	Mroczkiewicz/Syngenta	2						
Hamilton	Campbell/Beck's Hybrids	5						
Hendricks	Nicholson/Nicholson Consulting	0						
Hendricks	Tucker/Bayer	-						
Howard	Shanks/Clinton Co. CES	0						
Jasper	Overstreet/Jasper Co. CES	0						
Jasper	Ritter/Dairyland Seeds	0						
Jay	Boyer/Davis PAC	0						
Jay	Liechty/G&K Concepts	2						
Jay	Shrack/Ran-Del Agri Services	1						
Jennings	Bauerle/SEPAC	0						
Knox	Clinkenbeard/Ceres Solutions/Westphalia	0						
Knox	Gretencord/Ceres Solutions/Fritchton	0						
Knox	Butler/Ceres Solutions/Vincennes	0						
Kosciusko	Jenkins/Ceres Solutions/Mentone	0						
Lake	Kleine/Rose Acre Farms	3						
Lake	Moyer/Dekalb Hybrids/Shelby	0						
Lake	Moyer/Dekalb Hybrids/Scheider	1						
LaPorte	Deutscher/Helena	0						
LaPorte	Rocke/Agri-Mgmt. Solutions	1						
Marshall	Harrell/Harrell Ag Services	0						
Miami	Early/Pioneer Hybrids	0						
Montgomery	Delp/Nicholson Consulting	2						
Newton	Moyer/Dekalb Hybrids/Lake Village	1						
Porter	Tragesser/PPAC	0						
Posey	Schmitz/Posey Co. CES	-						
Pulaski	Capouch & Chaffins/M&R Ag Services							
Pulaski	Leman/Ceres Solutions/Francesville	3						
Putnam	Nicholson/Nicholson Consulting	0						
Randolph	Boyer/DPAC	0						
Rush	Schelle/Falmouth Farm Supply Inc.	0						
Shelby	Fisher/Shelby County Co-op							
Shelby	Simpson/Simpson Farms	0						
Stark	Capouch & Chaffins/M&R Ag Services, NW							
Stark	Capouch & Chaffins/M&R Ag Services, SE							
St. Joseph	Battles/Mishawaka							
St. Joseph	Carbiener, Breman	2						
St. Joseph	Deutscher/Helena Agri-Enterprises	0						
Sullivan	Baxley/Ceres Solutions/New Lebanon	0						
Sullivan	McCullough/Ceres Solutions/Farmersburg	0						
Tippecanoe	Bower/Ceres Solutions/Lafayette	2						
Tippecanoe	Nagel/Ceres Solutions/W. Lafayette	4						
Tippecanoe	Obermeyer/Purdue Entomology/ACRE	1						
Tippecanoe	Westerfeld/Bayer Research Farm/W. Lafayette	0						
Tipton	Campbell/Beck's Hybrids	4						
Vermillion	Lynch/Ceres Solutions/Clinton	0						
White	Foley/ConAgra/Brookston	3						
Whitley	Boyer/NEPAC/Schrader	0						
Whitley	Boyer/NEPAC/Kyler	-						

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

Armyworm Pheromone Trap Report - 2021

(John Obermeyer)

County/Cooperator	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11
Dubois/SIPAC Ag Center	0										
Jennings/SEPAC Ag Center	0										
Knox/SWPAC Ag Center	0										
LaPorte/Pinney Ag Center	27										
Lawrence/Feldun Ag Center	14										
Randolph/Davis Ag Center	0										
Tippecanoe/Meigs	1										
Whitley/NEPAC Ag Center	0										

Wk 1 = 4/1/21-4/7/21; Wk 2 = 4/8/21-4/14/21; Wk 3 = 4/15/21-4/21/21;
Wk 4 = 4/22/21-4/28/21; Wk 5 = 4/29/21-5/5/21; Wk 6 =
5/6/21-5/12/21; Wk 7 = 5/13/21-5/19/21; Wk 8 = 5/20/21 - 5/26/21; Wk
9 = 5/27/21-6/2/21; Wk 10 = 6/3/21-6/9/21; Wk 11 = 6/10/21-6/16/21

Check Out The New Purdue Weed Science Website!

(Bill Johnson) & (Marcelo Zimmer)

The Purdue Weed Science team has launched a new website (<https://ag.purdue.edu/btny/purdueweedsience/>) on March 30, 2021.

The purpose of this new website is to consolidate all information regarding our Integrated Weed Management research and extension efforts, as well as to highlight the work conducted by our graduate students. You can access our research reports dating back to 2002 by clicking on the "research" tab. We have posted most of the pertinent weed science extension publications onto the site under the "extension" tab. Learn more about our graduate students and their research projects under the "people" tab. Useful resources on herbicide injury, weed identification, Select A Herb, Take Action, the herbicide classification chart, and invasive/noxious weeds are under the "resources" tab. Finally, our weekly blog post will be located under the "weed science news" tab.

Check it out and learn more about sustainable strategies for managing weeds!

Graduate Student Videos

(Bill Johnson) & (Marcelo Zimmer)

Since our annual North Central Weed Science Society conference was virtual this past December, all graduate student presentations were pre-recorded to facilitate meeting logistics. With the launch of our new Purdue Weed Science Website, we have now made these video's available to our clientele. Click on the links below to view our latest research on each of the following topics.

- o Antagonism of ACCase Inhibitor Herbicides Used in Xtend Soybean Systems for Volunteer Corn Control - Marcelo Zimmer - <https://youtu.be/MBRBaHwyCXQ>
- o How Does Weed Density Impact Herbicide Efficacy - Tomas Delucchi - https://youtu.be/ca_440-wjKE
- o Patterns in the Inheritance of Resistance to ALS-Inhibiting Herbicides in Giant Ragweed - Ben Westrich - https://youtu.be/Pww_2LtpysE

- Evaluating Indiana Palmer Amaranth Populations for Resistance to Dicamba – Claudia Bland – <https://youtu.be/eZOmOvGVCgQ>
- Influence of cover crops on soil microbial activity and degradation of residual herbicides – Lucas Maia – https://youtu.be/zRHaMY_gJSQ

Volunteer Hemp Seedlings Are Here

(Marguerite Bolt, mbolt@purdue.edu)

It's that time of year again! Volunteer hemp is up in fields where the seed was dropped the previous season. This is typically seen in grain and fiber hemp, where there are a lot of male and female plants. However, volunteers can be found in a cannabinoid system (all female) if female plants were unintentionally pollinated by a rogue male, feral hemp, or a neighbor with male plants. Hemp growers are going to want to check their fields where hemp was previously planted.



Volunteer hemp at Meigs Farm, 4/7/2021 (Photo Credit: Marguerite Bolt)

When a grower applies for a license, field sites are registered using GPS coordinates. Even if a grower is going to plant hemp this year, if the field is not registered, the volunteers need to be removed to avoid any potential regulatory consequences.

Some growers opt to plant hemp on the same site for multiple years, so they may not mind seeing volunteers. Volunteers can present a couple of problems though.

- Volunteer plants may violate a seed purchasing agreement (if one was signed). Some agreements would consider volunteers a violation if the grower plans to just continue to let them grow to maturity.
- Volunteer plants may be a cultivar that the grower found to be a poor performer or was not THC compliant (THC > 0.3% on a dry weight basis). These are plants that may have been destroyed last year, but seed had already matured and dropped to the ground.
- Volunteer plants may harbor early-season pests or diseases. For example, Cannabis aphid (*Phorodon cannabis*), which is usually found later in the season, has been found on volunteers in April.

Fortunately, small hemp plants are easily destroyed using tillage or other forms of mechanical weed control. Volunteer hemp at Meigs farm are still small, so growers in northern Indiana may want to wait another week to go look for volunteers.

Broomsedge Bluestem- Indiana Farmer Introduced The Plant To Me As Poverty Weed Years Ago

(Keith Johnson)

Yesterday, I was asked to identify a grass that was invading a grass hayfield near West Lafayette. The 12-inch tall specimen was in a plastic sandwich bag. The old growth of 2020 was beige-bronze in color, narrow leaved, and had tufts of pubescence remaining. Most seed had been windblown during the fall and winter. My “hunch” as I approached the sample on the table was broomsedge bluestem (*Andropogon virginicus*). The warm-season perennial bunchgrass was just breaking winter dormancy and had very flat and narrow leaf sheaths. I reached for my cell phone and used a plant identification app. Whoever programmed the app thought the plant was broomsedge bluestem, too!



Broomsedge bluestem invasion is occurring in a grass hayfield. (Photo Credit: Keith Johnson)

One of my first Purdue Extension in-field education events in the early 1980's was my introduction to broomsedge bluestem. Areas of the southern Indiana grass pasture had more broomsedge bluestem than the desired forages that were seeded. I recall that a farmer leaned over and said “We call it poverty weed”. I once thought that broomsedge bluestem was a southern Indiana plant only, but as the years have gone by I see the plant all over Indiana. A few years ago, a group of farmers were doing sensory analyses of different hay samples and chemical analyses were available, too. One of the samples on display, was broomsedge bluestem. The chemical forage analysis verified why the grass has the nickname poverty weed. It would have made better bedding than a feed resource.

Broomsedge bluestem is a biological indicator plant. Where it becomes invasive it is common that the soil pH and/or phosphorus level are very low. The method of reducing broomsedge bluestem is to not invest in an herbicide application, but to apply the recommended amount of limestone or fertilizer as determined by a soil test. Slow but sure, the desired forages will become more dominant.

As hay is harvested, nutrients are being removed. In time, deficiencies will occur if nutrients are not wisely replaced by commercial fertilizer or livestock manure applications. Don't let your field go into poverty status!

Resource information:

Matching Pasture Owners With Livestock Owners – Midwest Grazing Exchange

(Keith Johnson)

Spring is almost here! Cool-season forages will be breaking winter dormancy soon and pasture growth can likely begin to be grazed in the latter half of April. Do you have pasture and don't have livestock or made arrangements yet to lease the pasture to a livestock owner?

A new program, the "Midwest Grazing Exchange", was developed to match landowners and livestock owners. I have agreed to be an Indiana contact for landowners and livestock owners with questions posed about the matchmaking program. The following is a news release prepared by Meghan Filbert, Livestock Program Manager, with the organization "Practical Farmers of Iowa" that provides detail about the "Midwest Grazing Exchange".



New Midwest Grazing Exchange website aims to connect livestock farmers with landowners in six states across the region

AMES, Iowa — Finding ways to integrate livestock back on the landscape has the potential to significantly benefit farmers, the environment and rural communities. From creating opportunities for beginning farmers, to improving the soil, to helping make cover crops profitable, livestock are often a missing piece in Midwestern agricultural systems, where the grazing of vast herds of bison and elk were vital parts of the historical ecosystem.

But accessing land to graze, or finding livestock farmers to partner with, can be a barrier to expanding integrated crop-livestock systems. A new website by the Midwest Perennial Forage Working Group – a network of grazing educators in the Upper Midwest that includes Practical Farmers of Iowa – seeks to address this challenge.

The Midwest Grazing Exchange (midwestgrazingexchange.com) is a free matchmaking service that aims to connect graziers and landowners who live in Illinois, Indiana, Iowa, Minnesota, Missouri and Wisconsin. Graziers can search for forage to graze and landowners can search for livestock to graze their land.

The website lets users:

- search listings, including through an interactive map with filters for criteria like season, land or livestock type
- create listings of what land or livestock they have to offer
- create a free account to save listings of interest, add new listings, see contact details and message other users
- browse a curated list of grazing resources, including examples of grazing lease agreements and contracts
- explore the benefits regenerative grazing for both landowners and livestock owners

The website also lists grazing specialists and organizations offering

grazing support for each state participating in the exchange.

"Integrating livestock on the landscape is a win-win-win for soil, animals and profitability," says Meghan Filbert, livestock program manager at PFI who helped lead development of the new website.

"The Midwest Grazing Exchange is unique because it serves multiple states in the Upper Midwest and expands beyond cover crop grazing. All grazing scenarios, including woodland and urban grazing, are represented. We want to unlock the plethora of benefits that come with well-managed grazing, and created a space to do so."

Farmers and landowners are encouraged to explore the site, and create an account to add livestock or land they have to offer. For questions about the website, contact Meghan at (515) 232-5661 or meghan@practicalfarmers.org.

The Midwest Perennial Forage Working Group's mission is to increase land used for pasture and perennial forage production in the Upper Midwest, and to improve the environmental performance of farming systems while maintaining agricultural production and profitability. The MPFWG is a branch of Green Lands Blue Waters, an organization that champions integrating perennial plants and continuous living cover in the agricultural landscape.

The Midwest Grazing Exchange is funded by the Cedar Tree Foundation, Regenerative Agriculture Foundation, and the Walton Family Foundation.

Take a moment to explore the "Midwest Grazing Exchange" website and share the opportunity of the matching program with your neighbors, friends, and members of livestock organizations, and clientele.



Dairy cows grazing a diverse mixture of cool-season grasses and legumes. (Photo Credit: Keith Johnson)

17-Year Cicadas Are Coming: Are You Ready?

(Elizabeth Barnes) & (Cliff Sadof)

When the irises begin to bloom, expect up to 1.5 million cicadas per acre to begin boiling out of the ground. This spring Indiana will see the emergence of the 17-year cicadas (Brood X). These insects feed underground for most of their lives drinking sap from tree roots. Once every 17 years they emerge *en masse*, climb up trees, sing (though it

sounds more like screaming), mate, and lay their eggs on the tips of tree branches. This cycle is completely natural and has a long history in written and oral records. Cicadas are not harmful to humans, provide a feast for wildlife, and *mostly* only cause cosmetic injury to trees. However, there are **some trees that will need protection to survive**.

Cicada Emergence Timing and Locations

Where can you find cicadas?

17-year cicadas can be found throughout Indiana but the biggest populations will be in southern Indiana. [According to Cicada Mania](#), these cicadas were reported to be more abundant in the following areas during their last emergence in 2004: “Bloomington, Brookville, Clinton Falls, Dillsboro, Fishers, French Lick, Indianapolis, Lawrenceburg, Lexington, Martinsville, McCormick’s Creek State Park, Nashville, North Vernon, Skiles Test Park, Spencer”

Cicadas need to feed on trees nearly constantly for most of their lives. They are therefore typically only found in areas that had trees 17 years ago and have continued to have trees since then. For example, an area that was forest 17 years ago but was cleared for farmland 10 years ago will not have a cicada emergence because the cicadas had no tree roots to feed on for the past 7 years. An area that was farmland 17 years ago and was recently planted with trees will also not have a cicada emergence because there were no trees on which the cicadas laid their eggs. However, a forested area or a city park that has had trees constantly for the last 17 years has a high chance of having a cicada emergence this spring.

When will 17-year cicadas emerge?

Timing of the 17-year cicada emergence depends on temperature. We can therefore expect them to emerge from the southern part of the state several weeks before they emerge in the north. The weather can also have an impact on emergence. For example, a warm spring might make them emerge sooner while a cold spring will delay the emergence. However, in most places the major emergences are expected to start in mid-April and continue through mid-May. A good rule of thumb is to expect the cicadas to emerge around the same time as irises start to bloom. You can also use the [emergence calculator](#) to estimate when they will come out in your area.

Cicada Visual ID

What do cicadas look like?

Cicadas tend to have sturdy, thick bodies with mostly clear wings that are longer than their bodies. 17-year cicadas are distinctive from the annual cicadas in that their bodies are a dark, nearly black brown with amber highlights on their wing veins, and red eyes (figure 1). [Check out this video](#) to see the full life cycle and hear what a chorus of cicadas sounds like!



17-year cicadas have much brighter colors than their annual cousins. They can be recognized by their bright red eyes, black bodies, and orange wing veins. (Photo Credit: John Obermeyer, Purdue Entomology, Purdue University)

How many species of cicadas are there in Indiana?

There are more than you’d think! There are three main species of 17-year cicada in Indiana and about 16 species of annual and 13-year cicadas. [You can find a full list here](#).

Cicada Damage and Control

What do cicadas prefer to eat?

17-year cicadas aren’t picky! They’ll feed on more than 270 species of woody plants. They show a slight preference for deciduous trees like maple, fruit trees, oak, and dogwood, but will generally feed on any deciduous tree or bush available to them.



An example of a heavily damaged full grown tree. The brown, dead leaves are twigs that were killed by cicada egg laying. The damage may look severe, but this tree should recover from the cicada damage by the following year. (Photo Credit: John Obermeyer, Purdue Entomology, Purdue University)

How do cicadas injure plants?

Cicadas lay eggs by stabbing their ovipositor into tree bark. This can create scars in the bark. If enough cicadas lay eggs on a small branch, it can kill the twig. As a result, large trees sometimes have minor dieback at the ends of branches but overall tree health isn't affected (figure 2). Small or young trees and shrubs, however, **may be more seriously harmed**.

What kind of plants should be protected from cicadas?

Cicada females prefer to lay their eggs in branches that are about 3/16 to 1/2 inch in diameter. Therefore, young deciduous trees or bushes that have major branches less than 1/2 inches in diameter should be protected in areas with high numbers of cicadas emerging. Mature trees do not require protection.

How should I protect my trees from cicadas?

Homeowners:

Homeowners only need to worry if they have newly planted trees (3-4 years old). The best way to protect these young trees is to cover them in a mesh fabric for the ~1 month period when the cicadas are active in the area. The mesh bags can be made from a variety of materials as long as the holes are smaller than 1 cm (~3/8 inch). Drape the fabric over all the twigs and branches that are smaller than 3/8 inches and

secure it at the bottom so that cicadas cannot climb up from underneath (figure 3). The goal is to prevent the cicadas from having access to the branches so that they will lay their eggs elsewhere.

Larger trees do not need to be protected from cicadas. They may experience minor dieback at the tips of branches, but this will not harm the overall health of the tree. If you find these dead twigs unsightly, you can either trim them off or hire an arborist to remove them.



All vulnerable parts of trees should be completely covered. Note how the branches are fully covered by the fine netting and the fabric is tied tightly at the trunk of the tree. (Photo Credit: James B Hanson USDA Forest Service)

Fruit Growers and Nurseries:

We recommend netting over insecticides. Netting reduces injury by over 95%, while insecticides only reduce injury by 75%. Also, the insecticides that work best against cicadas are likely to kill helpful insects and cause problems with spider mites later in the season. Netting will keep the cicadas off of the trees without running the chance of the negative side effects of insecticides. However, we recognize that for large plantings netting isn't practical. In these cases, pyrethroid insecticides will need to be applied repeatedly to trees during the ~1 month period when cicadas are active. Make sure to carefully read the labels before using them.

Learn more

The best way to keep up to date about this spring's cicada emergence is to either sign up for our [Cicada Newsletter](#) or follow Purdue Entomology on [Twitter](#) or [Facebook](#). We will share updates about the emergence timeline, any updates to management recommendations, community science programs, crafts for kids, and more. If you have any questions, please feel free to reach out to the authors!

2021 Popcorn Agri-Chemical Handbook

(Genny Bertalmio)

The [2021 Popcorn Agri-Chemical Handbook](#) is available to ensure everyone in the popcorn industry is informed about products registered for use on popcorn or in popcorn storage facilities. The handbook lists agri-chemicals registered and regulatory status or special use restrictions.

The handbook provides appendix information on residue tolerances as found in the [BCGlobal Pesticide MRL Database](#), which includes popcorn (corn, pop) and denotes established levels by the U.S., Codex and over 140 markets.

The handbook notes the Mode or Mechanism of Action (MOA) numerical classification of each listed chemical when used on a product label. The classification schemes are published by the Insecticide Resistance Action Committee, the Herbicide Resistance Action Committee and the Fungicide Resistance Action Committee. The handbook also highlights the Signal Word “Danger” when used on a product label as required by the EPA’s Label Review Manual.

The Popcorn Board urges you to provide the above links or print and distribute the updated version of this critical information to growers. Contact Genny Bertalmio, +1.312.673.4883 or gbertalmio@popcorn.org, for further information.

The Popcorn Board accepts voluntary contributions to ensure continued funding of its efforts to provide this important information to the popcorn industry. Checks should be mailed to The Popcorn Board, 8333 Solutions Center, Chicago, IL 60677-8003.

April Showers Or Lingerin Drought?

(Beth Hall)

March wrapped up as one of Indiana’s wettest (44th wettest out of 126 years) and warmest (16th warmest). It was marked by unusually warm days and then cool days. Was it ever just average? Certainly, most days fell within the climatological range of temperatures. Precipitation seemed to be partial to the southern part of the state with only teasing amounts up north. This kept the northern counties in an *Abnormally Dry or Moderate Drought* status throughout the month while the southern counties were hoping to avoid any serious flooding.

Which brings us to April.

The national Climate Prediction Center is indicating enhanced probabilities for a warmer than average April, but unfortunately the predictive models were all over the place with respect to precipitation. As plants start to come out of dormancy and thoughts of early planting are crossing farmers’ minds, the question folks are wondering is if 2021 will be more like 2019 (wetter) or 2012 (drier). Shorter-termed outlooks are predicting enhanced probability for drier-than-normal conditions through the middle part of the month (April 12-20) and then after that, there is too much uncertainty. During this same period, temperatures are predicted to be favored toward cooler-than-normal conditions, so this should discourage evaporative demand from drying out soils too much. Additionally, the April-May-June outlook is still favoring wetter-than-normal conditions so the dry periods in April should not last long enough for us to start worrying at this point. With climate outlooks favoring warmer-than-normal temperatures over the next few months, a repeat of 2019 is highly unlikely. We’ll have to keep monitoring for potential drought development or enhancement.

The cooler-than-normal temperatures later this month could pose a risk for near freezing or freezing conditions, so keep an eye on those forecasts and don’t get too hasty to plant those flowers. In the meantime, sit back and enjoy the longer days and the nice evenings before Mother Nature starts testing our patience with the emergence of the Brood X cicadas, heat waves, and wind storms!

Finally, growing degree day accumulations have just started (Figure 1),

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but things are ahead of average in the northern half of the state and slightly behind average for this time of year along the Ohio River (Figure 2). Recent warm temperatures have helped get things started across the state, but look for these accumulations to slow down over the next few weeks.

Growing Degree Day (50 F / 86 F) Accumulation

April 1 - April 6

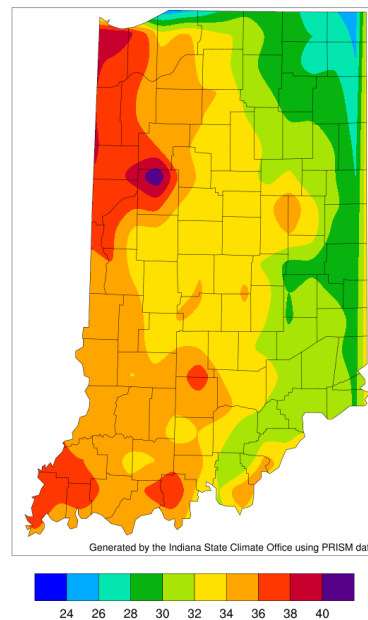


Figure 1. Growing degree day accumulations since April 1, 2021

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

April 1 - April 6

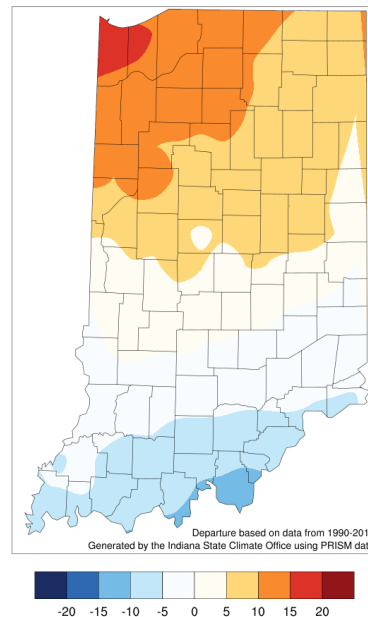


Figure 2. The growing degree day departure from average from April 1 through April 6.

