

# Pest & Crop newsletter

**Purdue Cooperative Extension Service and USDA-NIFA Extension IPM Grant**

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## Fall Armyworm Flights Remain Low, Mostly Zeroes

(Christian Krupke)

- Fall armyworm pheromone trap catches low throughout Indiana
- Although time remains for an outbreak, the odds are against it
- Most corn/soybeans are not vulnerable at this point in the season

Many of you will recall the fall armyworm outbreak of last year - for some producers it was their first experience with the destructive power of this pest and it was particularly evident in alfalfa, double cropped soybeans and even turf.



Fall armyworm feeding on blades of grass. (Photo Credit: John Obermeyer)



Fall armyworm feeding on corn ear tip. (Photo Credit: John Obermeyer)

A year ago at this time, we had already sounded the alarm as we had reports of soybean and forage crops with heavy FAW feeding in Kentucky. There were some similar reports from Kentucky this year, but we also have the benefit of some very helpful volunteer pheromone trappers throughout Indiana who have reported their weekly catches over the last month or so, and they are almost uniformly zero.

This doesn't mean we are out of the woods quite yet, but every week that goes by lessens the likelihood of this sub-tropical species having a large effect on Indiana crops before the weather turns - both larvae and adults are not cold tolerant.

We will keep reporting what we hear, but so far there is not a lot to get excited or worried about. It is worth bearing in mind that the 2021 event was quite unprecedented and this insect cannot overwinter in Indiana. So there was little reason to expect a repeat, but worth the extra monitoring all the same.

For a blast from the recent past, here is a Lafayette news story about the 2021 outbreak:

[https://www.wlfi.com/archive/fall-armyworms-are-causing-damage-in-fields-throughout-the-midwest/article\\_ebfe1fd8-d8b2-5f92-acb4-3a15d6c77c8e.html](https://www.wlfi.com/archive/fall-armyworms-are-causing-damage-in-fields-throughout-the-midwest/article_ebfe1fd8-d8b2-5f92-acb4-3a15d6c77c8e.html)

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## When Hay Harvest Is Complete, Do The STAB

(Keith Johnson)

Hay harvest should be coming to a close for another year. It is important to now follow through and **Sample, Test, Allocate, and Balance** or **STAB** your hay. Doing the STAB is an important best

management practice to keep your livestock healthy.

**Sample** – Hay from each harvest from a field should be sampled with a hay probe. Many Purdue Extension offices have a hay probe to loan to sample hay. The website [foragetesting.org](http://foragetesting.org) has a list of hay probes that can be purchased for sampling hay. Twenty probings comprise a sample. Ten large bales are sampled twice on opposite sides of the curvature of a round bale and each butt end of a rectangular bale. One probing is taken from one butt end of each of twenty small rectangular bales to comprise a sample. Probings should be placed in a clean plastic bag that can be sealed to retain moisture. Mark the plastic bag with the forage type(s), location harvested, and cutting number.

**Test** – Certified laboratories can be found at [foragetesting.org](http://foragetesting.org). A basic test will suffice in most cases. A form from the laboratory should accompany the samples and it is likely available at the laboratory website. Minimally, request moisture, crude protein, adjusted crude protein, Neutral Detergent Fiber (predicts dry matter intake), and Acid Detergent Fiber (predicts digestibility). If the forage was harvested as baleage, request pH, too. Mineral analysis should be requested if a total mixed ration is fed to livestock. A test can be done by wet laboratory or Near Infrared Reflectance Spectroscopy (NIRS) methods. The advantage of NIRS analysis is it takes less time to process the sample and the test will cost less.

**Allocate** – Results received from the laboratory should be reviewed and each test allocated to the class of livestock that the analysis best meets nutritional needs. Growing livestock and females in early lactation will require the best quality hay harvested.

**Balance** – Utilize the service of a nutritionist, or acquire the knowledge and ability, to balance rations to meet needs that the hay cannot provide alone. Purdue Extension Educators will likely know individuals that have the skill to balance rations to keep livestock in excellent health.

You have worked hard to get the hay made this year. Follow through so it can be used to best advantage to keep your livestock in proper body condition so performance is not compromised.

**STAB YOUR HAY FOR LIVESTOCK HEALTH**

- SAMPLE**  
Use a hay probe to take ~20 probings from different bales of the same field and harvest
- TEST**  
Send to a certified laboratory for analysis. Request: dry matter, crude protein, pH if baleage, insoluble crude protein, Neutral Detergent Fiber, Acid detergent Fiber and minerals
- ALLOCATE**  
Review test results and allocate the hay based on livestock needs
- BALANCE**  
Provide results to a trained nutritionist so cost-effective supplements can be recommended and fed along with the hay to meet livestock nutritional needs

**PURDUE UNIVERSITY** Extension

Probes on loan at many county Purdue Extension offices  
More information on Sampling and Testing: [www.foragetesting.org](http://www.foragetesting.org)

[www.foragetesting.org](http://www.foragetesting.org)

Hay Probes  
Sampling Procedure  
Certified Laboratories

Taking time to STAB hay is important to keep livestock in excellent health. (Photo Credit: eith Johnson)

## Indiana Forage Council Hosts Hoosier Hay Contest

(Keith Johnson) & (Abby Leeds)

The [Indiana Forage Council \(IFC\)](http://indianaforage.org/), with assistance from [Purdue Extension](http://www.purdue.edu/extension) and [SureTech Laboratories](http://www.suretechlabs.com), is hosting a contest for Indiana producers who will harvest forage for hay or baleage within the state for the 2022

hay season.

The Hoosier Hay Contest, sponsored by [Hutson, Inc](http://www.hutsoninc.com), seeks to promote forage production, inform hay producers on the nutritive value of their hay and encourage producers to sample and test their hay or baleage before feeding it to livestock. It also creates a friendly competition among Indiana producers on who produces higher quality hay.

[SureTech Laboratories](http://www.suretechlabs.com) in Indianapolis will analyze all samples and release only to the contest organizer, producer and producer's local Purdue Extension agriculture and natural resources educator. The Purdue Extension educator and producer can then work together to interpret the analysis and determine how best to use the forage in their operation.

The Hoosier Hay contest has two categories, hay or baleage. Prize money will go to first, second and third place entries in both categories. First place will receive \$250 and a one-year membership to IFC; second place \$150; and third place \$100.

Winners will be recognized at the annual IFC meeting and on the IFC website. The cost to participate is \$10 per sample with the contest being limited to 100 samples. Entries must be received by [Sure Tech Labs](http://www.suretechlabs.com) and the [Indiana Forage Council](http://indianaforage.org/) by Sept. 30, 2022.

Rules and entry forms can be found at <https://indianaforage.org/>. For more information, contact Nick Minton at 812-279-4330 or [nminton@purdue.edu](mailto:nminton@purdue.edu) and Jason Tower at 812-678-4427 or [towerj@purdue.edu](mailto:towerj@purdue.edu).

# 2022 HOOSIER HAY CONTEST

- 1<sup>st</sup>** First place: \$250 & one year IFC Membership
- 2<sup>nd</sup>** Second place: \$150
- 3<sup>rd</sup>** Third place: \$100

Overall Awards Given in Categories of Dry Hay and Baleage

Rules and Entry Form: <https://indianaforage.org/>

## Entry Deadline: September 30, 2022

Special thanks to [Hutson, Inc](http://www.hutsoninc.com) for major sponsorship of this contest

[www.hutsoninc.com](http://www.hutsoninc.com)

**Organized by:**  
**Indiana Forage Council**  
with support from

**SURETECH LABORATORIES**

# Drought Lingering But Not Intensifying

(Beth Hall)

As has been the story throughout much of this summer, dry conditions have persisted in Indiana. According to the U.S. Drought Monitor (USDM), the spatial coverage of drought has ranged from below 10% across Indiana (late May - early June) to more than 94% (early July). Throughout much of that time, the areas impacted were categorized at the lowest USDM level of "Abnormally Dry". However, from late June through early August, the second lowest USDM level ("Moderate Drought") impacted central and west-central Indiana, peaking in spatial coverage in mid-July. As we welcome September and start to see cooler temperatures, evapotranspiration rates should lower. However, forecasts are predicting below-normal precipitation over the next few weeks that may encourage at least "Abnormally Dry" conditions to persist and expand across the state. Figure 1 shows the most recent USDM map for Indiana, released 1 September 2022.

The first day of September marks the first day of meteorological autumn. While temperatures are still likely to feel hot at times, we should start to see cooler periods nudge their way into our state from time to time. Before we start to fantasize too much about these cooler temperatures, let us reflect on our meteorological summer from a climatological perspective. Remarkably, temperatures throughout the summer were within 1-2 degrees from normal - most often on the warmer side. Precipitation is a slightly different story. The seasonal (June-July-August) precipitation ranged from above normal in the southwestern (SW) and northeastern (NE) parts of Indiana with the central part of the state drier than normal (Figure 2). However, this is mostly due to June 2022 (particularly the latter half of the month) being significantly drier than normal, causing the rest of the summer to try and catch up from this deficit. July storm events across the SW and NE corners of the state helped eliminate most drought concerns for those regions, and August brought some much-needed rain to southern and western Indiana. When these three months are combined, we see those faint reminders of the rain activity (or lack, therefore) that occurred throughout the season.

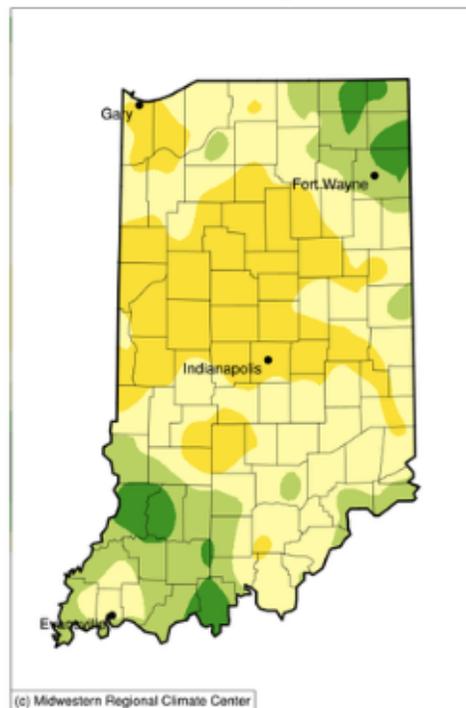


Figure 2. Precipitation represented as the percent of the 1991-2020 normal period for the June-July-August 3-month period.

This time of year, the Indiana State Climate Office starts to get questions about the predicted timing of the first hard freeze in Indiana. We are still a few weeks away from being able to offer any guidance with confidence. If this were to be a normal fall season, climatologically that first hard freeze has occurred between October 20<sup>th</sup> and November 10<sup>th</sup>. This range is likely not too helpful, so stay tuned for future articles that may provide better insight about these dates and how this year may be different.

Accumulated modified growing degree days (MGDDs) now span from slightly above 2200 units in the north to over 3100 units in the south (Figure 3). These accumulations are greater than the average compared to the 1991-2020 period for most of the central and southern counties (Figure 4).

## U.S. Drought Monitor Indiana



**August 30, 2022**  
(Released Thursday, Sep. 1, 2022)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D1	D1-D4	D2-D4	D3-D4	D4
Current	54.85	45.15	0.00	0.00	0.00	0.00
Last Week 06-23-2022	66.43	33.57	0.00	0.00	0.00	0.00
3 Months Ago 05-31-2022	95.21	4.79	0.00	0.00	0.00	0.00
Start of Calendar Year 01-04-2022	100.00	0.00	0.00	0.00	0.00	0.00
Start of Water Year 09-28-2021	78.00	24.00	0.00	0.00	0.00	0.00
One Year Ago 08-31-2021	55.36	44.64	1.29	0.00	0.00	0.00

**Intensity:**  
 None (white)      D2 Severe Drought (orange)  
 D0 Abnormally Dry (yellow)      D3 Extreme Drought (red)  
 D1 Moderate Drought (light orange)      D4 Exceptional Drought (dark red)

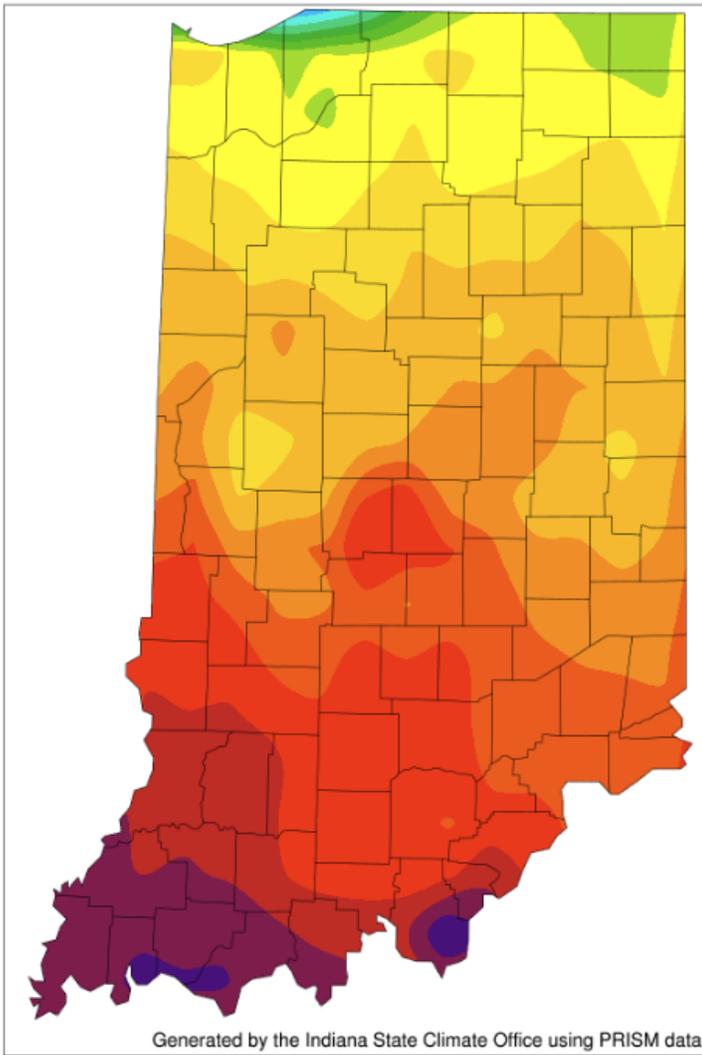
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/about.aspx>

**Author:**  
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National Drought Mitigation Center



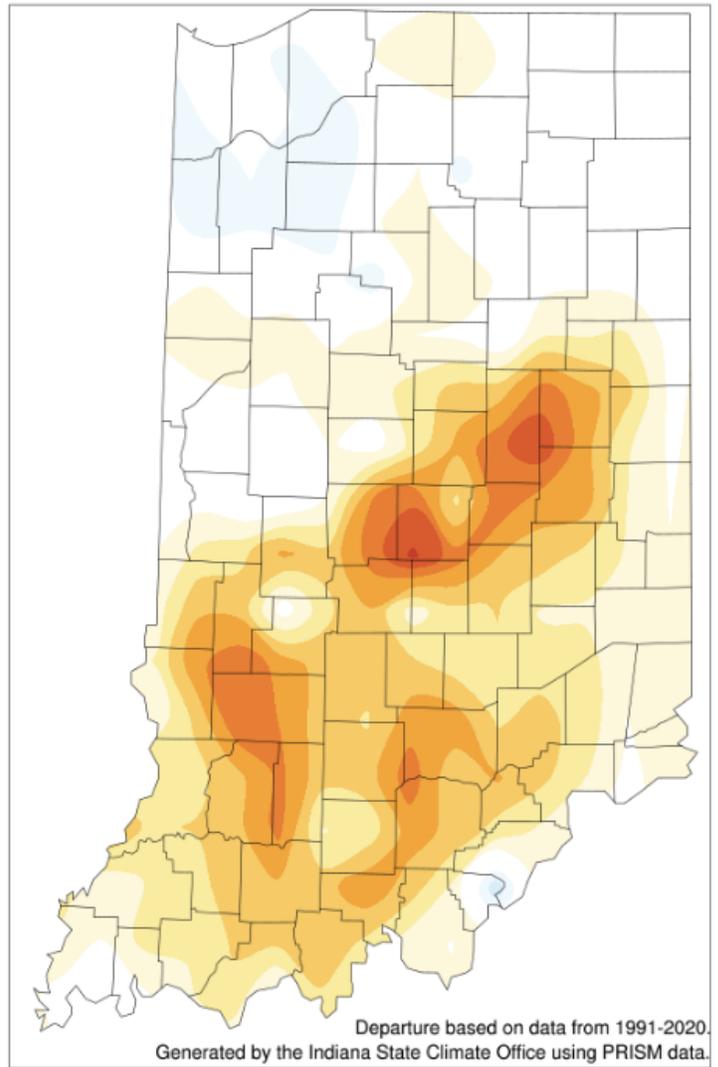
[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

Figure 1. U.S. Drought Monitor for data through August 30, 2022.



1600 1800 2000 2200 2400 2600 2800 3000

Figure 3. Modified growing degree day (50°F / 86°F) accumulation from April 15-August 30, 2022.



-260 -200 -140 -80 -20 40 100 160 220 260

Figure 4. Modified growing degree day (50°F / 86°F) accumulation from April 15-August 30, 2022, represented as the departure from the 1991-2020 climatological average.

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