

# 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

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## Pest&Crop 2024 Survey

(John Obermeyer)

Dear Pest&Crop Readers:

Hope you have enjoyed the Pest&Crop newsletter this year. The following is a link to a simple, short online survey. Please consider doing this right now, as we need your evaluation of this newsletter. Too, we need to show our funding agencies whether or not this information from Purdue specialists throughout the season is meaningful to you and the industry. Thanks in advance for your support!

[https://purdue.ca1.qualtrics.com/jfe/form/SV\\_aVSHsox5SftHt9I](https://purdue.ca1.qualtrics.com/jfe/form/SV_aVSHsox5SftHt9I)

## Reduce The Fear Of Prussic Acid Poisoning

(Keith Johnson)

Fall and cooler temperatures have arrived. Soon after that, a frost will occur. Members of the sorghum family have a compound called dhurrin that will release hydrogen cyanide, commonly known as prussic acid, when plants are stressed by drought or frost. Johnsongrass, a perennial sorghum, is commonly found in southern Indiana pastures. Historically, Johnsongrass was planted for forage purposes, but soon received the label of a prohibited noxious plant because of its ability to be where it wasn't desired because of seed shatter and rhizomes. Being a sorghum, Johnsongrass has the potential to produce hydrogen cyanide and cause livestock death when plants are stressed. Other desirable sorghums when stressed will produce hydrogen cyanide, too.



Johnsongrass, when damaged by severe drought or frost, has the potential to produce prussic acid (hydrogen cyanide). On the left is ungrazed forage in a paddock and on the right is a paddock that has been recently grazed. The tall plant on the left paddock is Johnsongrass. (Photo Credit: Keith Johnson)

Producers are encouraged to utilize sorghums before a frost occurs to reduce the possibility of prussic acid poisoning. Links below to a publication and video will discuss ways to reduce the fear of prussic acid poisoning.

In the near future, dhurrin-free sorghums will be available for seeding as a result of Purdue University work conducted by Dr. Mitch Tuinstra's research group, most notably Dr. Shelby Gruss. Unfortunately, Johnsongrass will remain to be concern even when dhurrin-free sorghums are available.

<https://www.extension.purdue.edu/extmedia/AY/AY-378-W.pdf>

<https://www.youtube.com/watch?v=orBARjKxGjg>

## Remnants Of Helene Helped To Improve Drought Conditions Across Indiana

(Beth Hall)

While our entire state did not receive the amount of rain from the remnants of Hurricane Helene compared to other states, most of Indiana did receive at least an inch of precipitation over the past few weeks with some southern counties receiving over five inches (Figure 1). General impacts have been greener lawns (don't put that mower away, yet!) and wetter soil moisture percentages. Shallow soils (within 20 inches from surface) were very dry prior to these rain events so they either soaked up much of the moisture or were initially struggling to absorb it. As a result, hydrological responses such as rising pond,

stream, and aquifer levels have been slower to respond, causing most of Indiana to still be in some state of dryness according to the U.S. Drought Monitor (Figure 2). Forecasts and climate outlooks are not favoring any more significant precipitation for quite some time so expect local conditions to dry out again. The rate of dryness may be slower than during peak summer due to daytime high temperatures gradually decreasing as our length of daylight hours shorten. However, winds tend to become more variable throughout the autumn season due to the battle between the colder air masses from the north and the warmer air masses from the south. Our weather systems currently seem to be coming more from the west, which also leads to less humid air in addition to less crop vegetation to transpire its own moisture. Therefore, due to the windier conditions and less humid air, the environment is more likely to dry out faster even though temperatures will be gradually cooling.

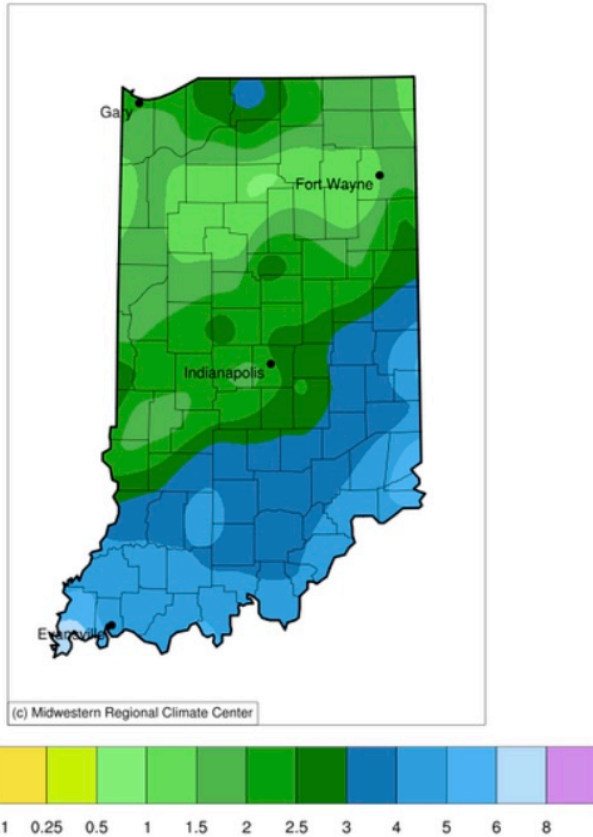
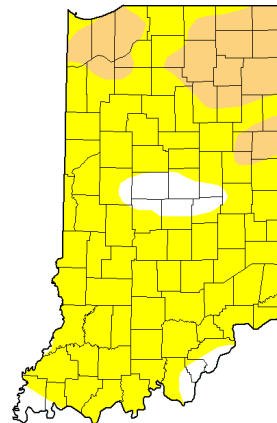


Figure 1. Total precipitation accumulated from September 19-October 2, 2024.

**U.S. Drought Monitor  
Indiana**



**October 1, 2024**  
(Released Thursday, Oct. 3, 2024)  
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	6.65	93.35	17.54	0.11	0.00	0.00
<b>Last Week</b> 09-24-2024	0.00	100.00	67.93	6.57	0.91	0.00
<b>3 Months Ago</b> 07-02-2024	28.36	71.64	17.52	0.00	0.00	0.00
<b>Start of Calendar Year</b> 01-02-2024	10.70	89.30	81.12	12.88	0.00	0.00
<b>Start of Water Year</b> 09-26-2023	1.38	98.62	85.30	0.00	0.00	0.00
<b>One Year Ago</b> 09-02-2023	0.05	99.95	92.50	0.00	0.00	0.00

**Intensity:**

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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:**  
Richard Tinker  
CPC/NOAA/NWS/NCEP

USDA NDMC NCEP NWS

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

Figure 2. U.S. Drought Monitor status for Indiana as of October 1, 2024.

Temperature outlooks are expected to be near normal with slight confidence of warmer-than-normal temperatures near mid-October. Updated climate outlooks for all of October (released on September 30<sup>th</sup>) provide no guidance regarding temperatures overall being either above or below normal with moderate confidence that precipitation is likely to be below normal.

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Editor: Tammy Luck | Department of Entomology, Purdue University, 901 Mitch Daniels Blvd, West Lafayette, IN 47907