

# Auglaize County ANR

## News from OSU Extension

### Soybean Progress and Pod Set Growth Stages

July 22, 2022

Author Laura Lindsey, Edited by Jamie Hampton

Currently, most soybean fields in Ohio are at the R3 growth stage, meaning there is a pod at least 3/16 inch long (but less than 3/4 inch long) at one of the four uppermost nodes on the main stem with a fully developed leaf. Some late planted fields may still be at the flowering growth stage while some early planted fields may be entering the R4 growth stage (pod 3/4 inch long at one of the four uppermost nodes on the main stem with a fully developed leaf).

**What does the soybean crop need to maximize yield during pod set?** The number of pods per acre sets the

maximum number of seeds per acre, which is the component most strongly related to final yield. Therefore, pod development becomes one of the most critical stages in the life of soybean. While stress at this time will result in aborted pods, seed number per pod and seed size may compensate for loss of pods. The R3-R4 growth stage is an important time to scout your fields for diseases, insects, and nutrient deficiencies and apply fungicide, insecticide, and foliar fertilizer *if* conditions warrant an application.

**Misconceptions at the R3-R4 growth stage:** There are several common misconceptions about soybean plants at the pod set stages. For full article click [HERE](#)

Misconception	Reality
The soybean plant needs to retain most of its pods to maximize yield.	Pod abortion occurs naturally and allows the soybean plant to adapt to current environmental conditions. Many pods will still abort under stress-free conditions.
Presence of 4 and 5 bean pods is required for high yields.	Pod number and seed size affect yield more than seeds per pod.
Light needs to penetrate the whole canopy.	Complete canopy closure by this stage is important to capture all available sunlight, retain soil moisture, and reduce weed competition.
Making a sprayer trip across the field will either be beneficial or neutral.	<a href="#">Tire traffic at this stage can lead to yield declines.</a>
Foliar fertilizers will be beneficial to provide nutrients to pods and will impact yield.	<a href="#">Data from across the U.S.</a> , shows no yield benefit to foliar fertilizer application at the R3 in the absence of a visual nutrient deficiency.
Late season nitrogen application will provide a positive return on investment.	<a href="#">Data from across the U.S.</a> , shows no consistent economic benefit to late-season nitrogen fertilizer application.

# To Spray or Not to Spray...Foliar Products at R3

Authors Laura Lindsey, Andy Michel, Horatio Lopez-Nicora Edited by Jamie Hampton

## When should I spray a foliar fungicide?

First, consider the disease triangle. For a disease to develop, there must be: 1) a susceptible host (Is your soybean variety resistant or susceptible?), 2) a virulent pathogen (Is there a history of a certain disease in your field? Do you see any visual symptoms of disease?), and 3) conducive environmental conditions. Most foliar diseases, such as brown leaf spot and frogeye leaf spot, are favored by wet conditions. In our trials, these tend to be the two most common soybean diseases (Figure 2). In said trials, we've measured a yield response to foliar fungicide applied at R3 in 9 out of 28 environments, ranging from 4 to 8 bu/acre.

At the responsive locations, which tended to be in central and southern Ohio, there were foliar disease present (brown spot and frogeye leaf spot). Additionally, these positive yield responses occurred in years with greater precipitation. Very little to no yield response occurred in dry years and in years when soybeans were flooded. If you have visual symptoms of disease, a conducive environment, and susceptible variety, R3 is a good time to spray a foliar fungicide.

Next, we must decide what fungicide to use and there are several products available for control of foliar diseases. Researchers across the U.S. constantly compare and evaluate fungicide efficacy for control of major soybean foliar diseases.

The North Central Regional Committee on Soybean Diseases (NCERA-137) annually updates

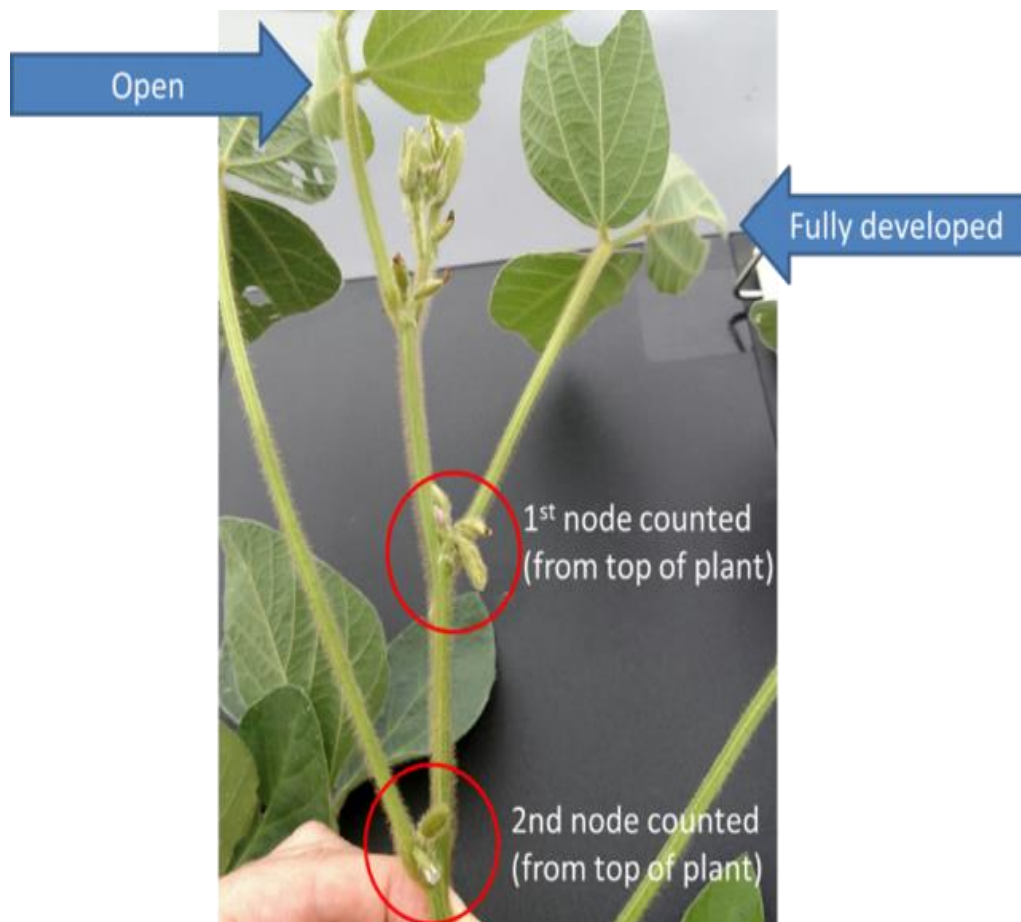


Figure 1. Soybean plant at the R3 growth stage.

this information, which can be found here: [Fungicide efficacy for control of soybean foliar diseases](#).

Finally, if you decide to spray, we recommend using fungicide products that contain active ingredients from different fungicide mode of action groups. This will minimize the risk of developing fungicide resistance by the pathogen. For example, resistance to the strobilurin (QoI – FRAC Group 11) fungicides has been reported in the fungus that causes frogeye leaf spot in Ohio; therefore, strobilurin fungicides alone should be avoided when managing this disease. Please contact your extension educator if you suspect that fungicide resistance is an issue in your field. To learn more about fungicide resistance, visit [Fungicide resistance in field crops FAQs](#). Read the rest of this article [HERE](#)

# Rural Wisdom “Barking up the Wrong Tree”

Author Jamie Hampton



To bark up the wrong tree comes from the early 1800's. It was common to use a pack of dogs to hunt. Growing up we hunted with dogs also. I have always had a clear understanding of the meaning, there is nothing like walking

across the woods in the dark to a dog that is “barking up the wrong tree”. Today this phrase is used to describe someone that has the wrong idea or information.

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## Ohio's New Statutory Termination Date for Farm Crop Leases

Author Peggy Kirk Hall Edited by Jamie Hampton

### Law Bulletin

A new Ohio law effective on July 21, 2022, impacts some landlords who want to terminate their farm crop leases. If the farm lease does not establish a date or method for terminating the lease, the law requires a landlord who wants to terminate the lease to do so in

writing by September 1. The law's goal is to prevent “late” terminations that can harm tenant operators who have made investments for the next crop season. For the full Bulletin click [HERE](#)

## Ohio Farm Custom Rates 2022

Authors: Barry Ward, John Barker, Eric Richer Edited by Jamie Hampton



Farming is a complex business, and many Ohio farmers utilize outside assistance for specific farm-related work. This option is appealing for tasks requiring specialized equipment or technical expertise. Often, having someone else with specialized tools perform tasks is more cost effective and saves time. Farm work completed by others is often referred to as “custom farm work” or more simply, “custom work”. A “custom rate” is the amount agreed upon by both parties to be paid by the custom work customer to the custom work provider. The “Ohio Farm Custom Rates 2022” publication reports custom rates based on a statewide survey of 223 farmers, custom operators, farm managers, and landowners conducted in 2022. These rates, except where noted, include the implement and tractor if required, all variable machinery costs such as fuel, oil, lube, twine, and labor for the operation. For the full article click [HERE](#)

# July Events



## **Auglaize County Events:**

27<sup>th</sup>, Nature Walk and tree identification with Carri Brown at the Dr. Elizabeth Yahl Kuffner Nature Preserve located at 14840 County Road 66A St. Marys Ohio 45885.

28<sup>th</sup>, Touring Auglaize A Management Series, Succession Planning presented by David Marrison. Please RSVP to Jamie Hampton at 419-910-6062 or email at [Hampton.297@osu.edu](mailto:Hampton.297@osu.edu)

## **Nearby Happenings:**

23<sup>rd</sup>, Using Annual Forages in your Pasture, 10am- 1pm, Morrow County. Contact Carri Jagger to RSVP in the Morrow County Extension Office at 419-947-1070

23<sup>rd</sup>-30<sup>th</sup> Shelby County Fair

26<sup>th</sup>, The manure science review at the Northwest Agriculture Research Station at 4240 Range Line Road, Custar, Ohio 43511. Online registration can be found [HERE](#).

27<sup>th</sup>, Agronomy 101 9am-12pm, will be held in Arcanum. Contact Taylor Dill to RSVP at 937-569-5000



**THE OHIO STATE UNIVERSITY**

EXTENSION

### **OSU Extension Auglaize County**

Jamie Hampton ANR Extension Educator

208 Blackhoof Street

Wapakoneta, Ohio 45895

[Hampton.297@osu.edu](mailto:Hampton.297@osu.edu)

419-910-6062