



Summer 2024

Cooperative Extension Service

 Daviess County  
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### Comments from Clint

Corn and soybean planting is still under way across the area but the earliest crops were planted in the last days of March and are growing fast in the warm weather and frequent rain. Many of those fields are reaching the phase when post-emergence herbicide application is required to prevent weeds from reducing yield potential of the crop. There are several considerations for herbicide application onto a growing crop to avoid reducing herbicide effectiveness or crop yield.

The first step is defining your herbicide program. Which products you will use, which additives are necessary to enhance their effectiveness, what is the proper mixing order to ensure all products work to their greatest potential and do not antagonize each other. Which nozzles and how many gallons of water are recommended. These answers are on the label of the products you have chosen. Take time to learn what is recommended for the products you're using. Make sure to educate the people who are in charge of mixing and loading the sprayer. They may complete the process a few hundred times during the course of a summer but making sure they get started correctly is the key to reducing costly mistakes.



Crop growth stage is very important for both corn and soybeans. Restrictions are explained in detail on the label. Don't apply to crops too small or too large or severe yield loss may occur.

Application timing is critical in postemergence herbicide applications. The ideal weed size is 2-4 inches and a maximum of 6 inches for control. Spraying weeds or grasses larger than 6 inches will result in weeds taking longer to die, or appearing to die and then sucker out. In the case of waterhemp, most of the emergence you see through a soybean canopy in July or August will be from the stump of a large plant sprayed in May that survived. That's how herbicide resistance develops.

Required nozzles and water volume per acre are very important. Systemic herbicides such as glyphosate or mesotrione recommend coarse water droplets of 12-15 gallons per acre. Contact herbicides such as glufosinate require fine to medium droplets and

a minimum of 15 gallons of water per acre. There is no doubt, glufosinate has become the primary herbicide for post-emergence weed control application in soybeans. Use the product according to the label and don't expect it to perform miracles. I've seen soybean fields in May with waterhemp so out of control my advice was tillage or paraquat and start over. Expecting glufosinate, 2,4-D, or dicamba to solve a problem like that is expecting resistance to increase and poor yields.

The contact herbicides, especially glufosinate thrive in hot, humid sunshine. Of course, there are days when the clouds are out and you will keep spraying, but we strongly encourage not starting before mid-morning and stopping by early evening.

All herbicides work better in temperatures above 50F. This is not a problem for summertime applications but can be more challenging for those early spring burndowns.

Drought conditions can be problematic as well. Weeds dealing with drought will metabolize herbicide more slowly, increasing their time to die and their possibility of recovery. Likewise, crops suffering from drought will metabolize the herbicide more slowly increasing their risk of injury. Most soil residual herbicides require rainfall to activate. An extended period between application and activation may allow grass and weeds to emerge.

Be aware of temperature inversions. This is where a layer of warm air is trapped between cooler air that is higher in the atmosphere, and dense, cooler air that is close to the surface of the earth because of less sunlight intensity. When an herbicide is applied during a temperature inversion, the warm air can trap herbicide droplets above the cool air, and lateral wind can transport the herbicide away from the targeted deposition site. These conditions are usually present before sunrise and after sunset.

Most everyone has been rained out spraying. Unless you are chased out of the field by a severe thunderstorm, the products you were using probably did their job, but with reduced efficacy. Ideally, 4-6 hours should pass between application and rain.

## SUMMER ANNUAL GRASSES ARE A TOOL FOR PASTURE RENOVATION

There are several factors to consider when determining the need to kill out an existing stand of forage, whether grass, or a mixture of grass, weeds, and clover. The primary reason is the simple decline of desirable plants. This occurs over time and is most often a result of overgrazing, or cutting hay too close to the soil. Weeds and undesirable clovers compete, leading to a further decline in forage quality. In addition, endophyte infected tall fescue may be the only perennial grass in the mix, further hindering animal performance on pasture overrun with weeds. If you have a field that fits this description, killing it off and seeding a warm-season grass this month will provide an excellent forage for hay or grazing. This practice is also the initial step in preparing the field for establishing permanent cool season grass this fall.

The two most popular warm-season grasses are sorghum/sudangrass hybrid and pearl millet. Both are thick-stemmed grass plants. The most inexpensive and easiest method to harvest these crops is by grazing. Haying is possible, but curing can be difficult without using a mower conditioner and hay tedder. Both plant types are susceptible to nitrate toxicity if severe drought conditions occur after nitrogen application. Sorghum/sudan is subject to prussic acid but pearl millet is not. Both types of grass can be planted from May through July, but June is the ideal window. Planting in June allows one hay harvest or grazing from the field determined for renovation this fall. It also provides very warm soil which is ideal for germination. One, possibly two, harvests should be expected before September, especially with pearl millet which regrows rapidly if a five-inch stubble height is left. Ideally, harvest should occur after the grasses reach 18 inches in height but before seed head development. The second harvest would occur in 4 to 6 weeks.

Summer annuals have a high nutrient requirement so lime, P, and K should be applied according to the soil test and 60 to 100 pounds of nitrogen is needed at seeding followed by an additional 50 pounds after each harvest. Sorghum/Sudan should be seeded at 20 to 40 pounds per acre, ½ to 2 inches deep if necessary to get moisture. Pearl millet should be seeded at 10 to 20 pounds per acre, ½ to ¾ inches deep.

If seeding the field this fall with a perennial cool-season grass such as a novel-endophyte fescue, time should be taken when planting the warm-season grass to get the field smoothed up, limed, and ready for no-till planting. Ideally, the warm-season grasses would also be no-tilled, but this is the opportunity after spraying with glyphosate to kill the existing stand and use some tillage to smooth eroded areas. Thus, improving stand establishment and leaving the field prepared for seeding this fall.

### TEST YOUR HAY

Grass hay fields grew ahead of pace in the warm April. Wet weather in May delayed the first hay harvest past the proper growth stage for many fields. Considering what I expect to be variable hay quality, I encourage you to arrange to have your hay nutrient feed value tested. You can enter the information provided into a basic UK Beef Forage Supplement Calculator available online or as an App for your smartphone. There is no reason to over or under feed your herd. Forage testing combined with the ration balancing app is a simple, affordable way to ensure your nutrition is hitting the mark. I am happy to come to the farm to assist in the sample collection process, just give me a call at 270 685 8480.

### KADF UPDATE

Call the extension office to ask that a 2024 County Agricultural Investment Program (cost share) request be mailed to you. Projects must be complete and required documentation must be postmarked by November 30. Visit <https://www.kyagr.com/agpolicy/2024-Program-Guidelines-and-Applications.html> to discover which projects and items are eligible for reimbursement.



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Lexington, KY 40506



Disabilities accommodated with prior notification.

## DRONE APPLICATION SCHOOL

Several farms have bought aerial drones with liquid and dry application ability to use this year. We all know how important it is to get the aircraft and pilot in compliance with the rules and regulations. The University of Kentucky is hosting a Drone Pilot Certification course June 10 and 11, 2024 at the Hopkins County Extension Office in Madisonville.

The registration link for the Drone Pilot Certification course is at <https://2024KATSdronepilotcertification.eventbrite.com>

This registration link is for the course only, the \$400 cost includes all the study materials and lunches for both days. A separate fee of \$175 will be paid to Madisonville Community College.

- June 10: 8:00 am til 5 pm with practice exams to be completed on your own in the evening.
- June 11: 8:00 am until lunchtime. Exams will be scheduled for the afternoon at Madisonville Community College. FAA exam information and requirements can be found at [https://www.faa.gov/uas/commercial\\_operators/become\\_a\\_drone\\_pilot/](https://www.faa.gov/uas/commercial_operators/become_a_drone_pilot/)

## DAVISS COUNTY LIONS CLUB FAIR

Daviess County Lions Club Fair catalogs will be available at the Extension office and local businesses soon. But mark your calendars for July 17 through July 20 and plan to attend all or part of the activities. Many people participate in the vegetable, crop, flower, and canned goods displays. The time to enter those items is Tuesday, July 16 from 4 to 6 p.m.

More information and full exhibit lists can be found on our website at <https://daviess.ca.uky.edu/dc-fair>



[www.facebook.com/daviesscountyextension](https://www.facebook.com/daviesscountyextension)

## 2024 WOODLAND OWNERS SHORT COURSE

This woodland and wildlife educational program features 5 online evening sessions and the option of one of two field sessions. Instructors include faculty and staff from UK as well as our partners from the Natural Resources Conservation Service, Kentucky Division of Forestry, Kentucky Department of Fish and Wildlife Resources, and the Kentucky Association of Consulting Foresters. This is a great opportunity to learn more about forestry and wildlife management in Kentucky and to connect with the natural resources professionals available to work with you. Register to attend at <https://wosc.ca.uky.edu/2024WOSC>.

Kentucky  
Woodland  
Owners  
Short Course



## BULL VALUE EDUCATIONAL PROGRAM

We are excited to announce a new two-part educational program for beef cattle producers held in October in Hancock County this fall. The focus is how to determine the appropriate amount to pay for a bull based on what he will bring to your herd. After the training component, each participant will be assigned one of five bull replacement scenarios. A sales catalogue will be provided to research the bulls and determine which ones would be suitable in the assigned scenario. Videos of the bulls will be available online. Participants will return the following week for the second part of the curriculum with the responsibility of buying a bull to fit their assigned scenario. This session will be the “Mock Auction”. Every attempt will be made to simulate a real auction. Producers can come early and view the bull videos and ask questions of the sales team. At the designated time the auction will begin and all bulls will be sold to the highest bidder while viewing the video of each bull. More information will be in the fall newsletter.



[www.instagram.com/daviesscountyextension/](https://www.instagram.com/daviesscountyextension/)

## GRAIN MARKET OUTLOOK PRESENTATION

Dr. Grant Gardner, Extension Grain Marketing Specialist will be at the Extension office at 7:00 p.m. on July 22 to discuss the grain market outlook based on carry over and crop condition reports. There have not been many pricing opportunities for corn or soybeans since the end of 2023. Dr. Gardner will help guide people in making decisions on pricing the 2024 crop.



## RURAL LIFE CELEBRATION

The Annual Rural Life Celebration will be Sunday, August 11 at the St. Peter of Alcantara Parish Hall in Stanley beginning at 5:00 p.m. The event is for all who enjoy the rural lifestyle, an opportunity to gather, fellowship, and enjoy a great meal together.

## CORN FUNGICIDE APPLICATION COVERAGE RESEARCH RESULTS

To provide research-based data farmers can use to determine which application technique and corn height best meet their needs, Extension Corn Pathologist, Dr. Kiersten Wise conducted research on land farmed by Jason and Dustin Hagan last summer. Dr. Wise has received permission to discuss the results of the trial. We will have a meeting at 6:30 p.m., June 20 at the extension office to discuss the results. This field-scale research project has provided information pertaining to the yield prospects of two different reduced-height corn varieties compared to a proven normal-height corn. There is also data related to the success and limitations of fungicide application by ground sprayer, aerial helicopter, and aerial autonomous drone application techniques. In addition to comparing yield, each application technique included a tracer product in which random leaves were collected and analyzed for chemical analysis to determine the percentage of leaf area deposition by the different techniques.



## Pest Management Field Day

**June 27, 2024**

8:30 a.m. to 12:30 p.m.

### Speakers and Topics

#### Travis Legleiter

- Waterhemp and Palmer amaranth management
- Soybean residual herbicides for management of *Amaranthus* species
- Maximizing metribuzin in soybean
- Postemergence soybean herbicide programs across HR trait platforms
- Corn herbicide programs

#### Kiersten Wise

- Corn disease update

Weed Science and Plant Pathology Graduate Student Project Updates

Sign-in begins at 8:00 a.m. CDT at Princeton First Baptist Church Christian Life Center located at 300 W. Main St. Parking is available at the church lot on West Market Street. A caravan will proceed to UKREC for field plot tours.

A free lunch will be provided. Pre-registration is recommended by June 20. Pre-register online at <https://tinyurl.com/2j9y33md> or by scanning QR Code; calling the UKREC, (270) 365-7541, EXT. 22569, or email [jason.travis@uky.edu](mailto:jason.travis@uky.edu).



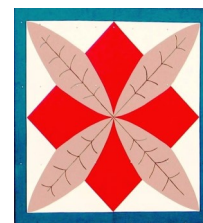
Continuing Education Units for CCA and KY Pesticide Applicators are pending

## 2024 CORN, SOYBEAN & TOBACCO FIELD DAY

**SAVE THE DATE**

**July 23<sup>rd</sup>**

**UKREC Farm  
Princeton, KY**



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