



AGRICULTURE & NATURAL RESOURCES NEWSLETTER MAY 2025

AGENT NOTES

The time has come to gear up for a great planting and growing season. The running of the Kentucky Derby marks the time for most homeowners to transplant flowers and begin their summer gardens. This is no different for those with crops in fields as well, spring rains have put a damper on crop progress the past couple weeks. After what appeared to be an early spring the wet season has arrived in full force. As a result, we shift our mindset to managing stress and pest infestations, as conditions are right for problems to show up. As summer approaches we all enjoy being outside and planting and growing just about everything. Just a reminder watch out for those weeds, disease, and anything else that is not desirable in your fields or landscape. So if you have problems arise reach out to us here at the Extension Service and let's create a control plan. As always be safe and enjoy!!



Adam Thomas

LaRue County Extension Agent
for Agriculture & Natural Resources Education
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CALENDAR OF EVENTS

- May 13th - 7 pm
LaRue County
Cattlemens Meeting
- May 13th - UK Wheat
Field Day- UKREC
Princeton
- May 13th-14th - UK Beef
Backgrounding Short
Course- UK Research
Farm Versailles
- May 15th - KCA Region 2
Meeting- LaRue County
Extension
- May 15th - KATS Crop
Scouting Clinic- UKREC
Princeton
- May 29th - Living with
Alpha-gal Syndrome-
7pm, LaRue County
Extension
- June 5th - Senior Farmers
Market Voucher
Registration- 9am LaRue
County Extension

Estate Planning and Farm Transition

Aleta Botts
KY Farm Transition Initiative

5/13/2025
Tuesday • 7 pm

LaRue County Extension Service - 807 Old Elizabethtown Rd., Hodgenville



CAIP Education Eligible

Steak Dinner sponsored by LaRue
County Farm Bureau Insurance
Patty Holbert & Price Smith, Agents



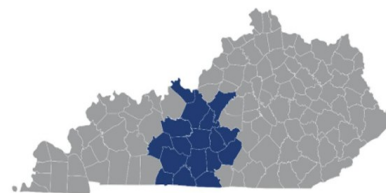
Join us for a Region 2 Meeting!

These meetings are open to all KCA members of each region.

Meetings will include updates from KCA and KBC, guest speakers,
and networking with other county associations. A meal will be provided.

May 15, 2025 • LaRue County Extension Office
807 Old Elizabethtown Rd, Hodgenville, KY • 5:30 - 7:30 PM

Please RSVP to rcain@kycattle.org by May 7, 2025.



Region 2 counties include Meade, Hardin, Nelson, Grayson, LaRue, Butler, Edmonson,
Hart, Green, Taylor, Warren, Barren, Metcalfe, Adair, Simpson, Allen and Monroe.

A Two-Day Program Focused on Post-Weaning Management of Feeder Cattle

Backgrounding Shortcourse

May 13 & 14, 2025

University of Kentucky C. Oran Little Research Center
4410 Frankfort Rd, Versailles, KY 40383
Program will begin with registration at 7:30 am ET

Registration
limited to 30
attendees!

Program Topics

- | | |
|------------------------------|-----------------------------|
| - Bunk Management | - Health Diagnostic Tools |
| - Health Risk Management | - Best Management Practices |
| - Vaccination Protocols | - Feed Mixing & Management |
| - Cattle Processing | - Cattle Handling Equipment |
| - Confinement Considerations | - Haylage Fermentation |
| - Feeds and Feeding | - Disposition & Performance |
| - Develop a Feeding Program | - Technology Tools |
| - Ruminant Digestion | - Enterprise Budgets |

Registration

Cost to attend: \$30/individual (includes lunches/dinner)
Pre-registration is required and is limited to the first 30 individuals
Registration Deadline: May 6th

Online Registration Link
<https://www.eventbrite.com/e/uky-backgrounding-shortcourse-tickets-1321765178229?aff=oddtcreator>

Or to register, please send email: jeff.lehmkuhler@uky.edu
For more information call
Dr. Jeff Lehmkuhler:
859-257-2853

Recommended Hotel Accommodations: Holiday Inn Express & Suites, Versailles, KY 40383

The Extension Office will be

Closed
MEMORIAL DAY
5/26/2025



SPRING CALVING COW HERD

Dr. Les Anderson, Beef Extension Professor, University of Kentucky

- Continue supplying a high magnesium mineral until daytime temperatures are consistently above 60 degrees F.
- Improve or maintain body condition (BCS 5) of cows before breeding season starts. If necessary, increase energy intake even on pasture.
- Bulls should have a breeding soundness evaluation (BSE) well before the breeding season (at least 30 days). Contact your local veterinarian to schedule a BSE for your herd sires.
- Schedule spring “turn-out” working in late-April or early-May, i.e. at the end of calving season and before the start of breeding season. Consult with your veterinarian about vaccines and health products for your herd.
- Consider breeding yearling replacement heifers one heat cycle (about 21 days) earlier than cows for “head-start” calving. Mate to known calving-ease bulls.
- Record identification of all cows and bulls in each breeding group. • Begin breeding cows no later than mid-May, especially if they are on high endophyte fescue. Cows should be in good condition so that conception occurs prior to periods of extreme heat.
- Consider synchronizing estrus in all cows. Exposing late-calving cows and first-calf heifers to a progestin (MGA feed or CIDR device) for 7 days before bull turn out increases pregnancy rates and shortens the next calving season.
- Choose the best pastures for grazing during the breeding season. Select those with the best stand of clover and the lowest level of the fescue endophyte, if known. Keep these pastures vegetative by grazing or clipping. High quality pastures are important for a successful breeding season.
- Observe breeding pastures often to see if bulls are working. Records cows’ heat dates and then check 18-21 days later, for return to heat.
- Harvest hay. Work around the weather and cut early before plants become too mature. Harvesting forage early is the key to nutritional quality. Replenish your hay supply!
- Rotate pastures as needed to keep them vegetative.
- Clip pastures to prevent seedhead formation on fescue and to control weeds.
- Seed warm season grasses this month.

FORAGE TIPS

UK Forage News

- Start hay harvests for quality forage. Consider making baleage to facilitate timely cutting.
- Seed warm season grasses for supplemental forage once soil temperature is at 60 F.
- Clip, graze, or make hay to prevent seedhead formation.
- Rotate pastures as based in height rather than time: TF 8 to 10 / 3 to 4; OG 8 to 10 / 4 - 5; Bermuda - 4 - 6 / 1 -2; Sorghum Sudangrass 20 to 24 / 8 to 12
- Consider temporary electric fencing to subdivide larger pastures and exclude areas for mechanical harvesting.
- Scout pastures for summer annual weeds and control when small.

2025 WHEAT FIELD DAY

Wheat Science Group



Martin-Gatton
College of Agriculture,
Food and Environment

Grain and Forage
Center of Excellence

MAY 13, 2025



TOPICS INCLUDE:

CURRENT WHEAT CROP UPDATE

Dr. Chad Lee & Dr. Mohammad Shamim

SULFUR FOR WHEAT: PAST, PRESENT & FUTURE

Dr. Edwin Ritchey

OPTIMAL N FOR 2025 - Dr. John Grove

2025/26 WHEAT OUTLOOK - Dr. Grant Gardner

RESIDUAL HERBICIDES FOR MANAGEMENT OF FALL AND SPRING EMERGING ITALIAN RYEGRASS

Dr. Travis Legleiter

MANAGEMENT OF IMPORTANT WHEAT DISEASES

Dr. Heather Kelly (University of Tennessee)

UPDATES ON OCCURRENCES OF APHIDS, HESSIAN FLIES, AND FALL ARMYWORMS IN 2024-25

Dr. Raul Villanueva

BREEDING FOR SCAB RESISTANCE IN SOFT RED WINTER WHEAT

Dr. Dave Van Sanford & Maggie Gillum

VARIETY TRIAL WALK THROUGH

UKREC Farm
1205 Hopkinsville St.,
Princeton KY 42445

9:00am - 12:00pm CT
Registration 8:30 am

LUNCH SPONSORED BY



KENTUCKY
Small Grain
GROWERS' ASSOCIATION

EDUCATIONAL CREDITS:

CCA Credits:

IPM: 1 HR

Crop Mgmt: 1.5 HR

PESTICIDE CREDITS:

1 CEU for Cat 1a

1 CEU for Cat 10



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MANAGEMENT OF FUSARIUM HEAD BLIGHT IN WHEAT

Carl A. Bradley, Plant Pathology Extension Specialist

Several wheat fields in Kentucky are now at the anthesis stage (Feekes 10.51, “flowering”) or fast approaching it. Anthesis is a critical time, as wheat becomes susceptible to infection by *Fusarium graminearum*, the primary causal agent of Fusarium head blight (FHB; also known as scab) in Kentucky (Figure 1). This disease can cause reduced grain yield, test weight, and quality. In addition, the fungus can produce toxins that will contaminate grain, such as deoxynivalenol (DON; also known as vomitoxin). Harvested grain with high levels of DON may be discounted or outright rejected at the elevator. To achieve the best management of FHB, different management practices must be implemented, such as planting wheat into fields that were previously cropped to soybean (rather than corn), planting wheat varieties with moderate to high levels of resistance to FHB, and applying foliar fungicides at the proper timing. Of these different management practices, the application of foliar fungicides is the only one that can be done during the growing season.



Figure 1. Symptoms of *Fusarium* head blight (scab) of wheat (note the “bleached” heads) (Photo: Carl Bradley, UK).

Fungicides

Proper fungicide application timing is critical in achieving the best efficacy. The best application timing is when plants are beginning to flower (early anthesis – Feekes growth stage 10.51), but some efficacy may still be achieved within a few days after Feekes 10.51. It is important to always follow the label recommendations and consider the preharvest interval (PHI) requirements, which can vary from product to product. Fungicide products that contain quinone outside inhibitor (QoI; strobilurin) active ingredients should not be applied for control of FHB, and most do not list FHB control or suppression on their label. In multiple university research trials, strobilurin fungicides have been shown to increase DON levels in grain compared to non-treated checks. Therefore, it is extremely important that only effective fungicides be applied for management of FHB.

Some questions about the possibility of making two applications for management of FHB have been asked recently. A two-application system would include the first application at Feekes 10.51, followed by an additional application about 4-6 days later. The Bradley Lab at the University of Kentucky has evaluated treatments such as these, and some results from 2020 to 2022 are shown in Table 1. The results of these trials are a bit mixed, where an additional statistically significant decrease in DON was observed with multiple application treatments vs. a single application of Miravis Ace at Feekes 10.51, but an economic benefit would not always been likely. If a second application is made, it is important that labels are read and understood to be certain that the second application is legal. Some restrictions on the maximum amounts of active ingredients that can be applied could come into play as well as some restrictions on the latest growth stage that products can be applied and the pre-harvest intervals.

When making a decision on if a fungicide application is needed, FHB risk should be assessed. An FHB Prediction Tool is available on-line [here](#). This risk is based on weather conducive for FHB and should be assessed for each field as they begin to develop heads in anticipation of flowering. It is important to continually monitor the FHB Risk Prediction Tool as more and more wheat fields get closer to the anthesis stage.

Acknowledgement

This article references the results of research supported by the U.S. Department of Agriculture (USDA) under agreement no. 59-0206-0-183, which is a cooperative project with the U.S. Wheat and Barley Scab Initiative. This federal funding has been crucial for university scientists and USDA-Agricultural Research Service scientists across several states to discover and developing new ways to manage Fusarium head blight and the associated mycotoxins, such as deoxynivalenol (DON; “vomitoxin”), that can contaminate grain.

DON'T GET BURNED BY FIRE BLIGHT

Kim Leonberger, Plant Pathology Extension Associate, and Nicole Gauthier, Plant Pathology Extension Specialist

Fire blight is an important disease of apple, crabapple, pear, and flowering pear in Kentucky. Symptoms are often not observed until late spring or early summer; however, initial infections occur at bloom. The pathogen survives winter in dead, dying, and diseased wood and in cankers. Removal of these pathogen sources can reduce spread of fire blight and should be completed in late winter while the pathogen is dormant.

Fire Blight Facts

- Early symptoms include wilt of flower cluster and blossom death (Figure 1). Disease spreads to shoots or branches where tips wilt and rapidly die (blight) to form a characteristic 'shepherd's crook' (Figure 2). Dark brown, sunken cankers (stem lesions) develop and expand to girdle branches, resulting in branch death (Figure 3).
- Potential hosts include apples, pears, and several landscape woody ornamentals in the rose family.
- Primary infection occurs at bloom and may continue through petal fall or until shoot elongation ends.
- Rainy conditions, periods of high humidity, and temperatures between 65°F and 70°F favor disease development.
- Caused by the bacterium *Erwinia amylovora*.
- Bacterial cells overwinter in dead, dying, and diseased wood.



Figure 1: Apple flower clusters infected with fire blight. (Photo: Nicole Gauthier, UK)

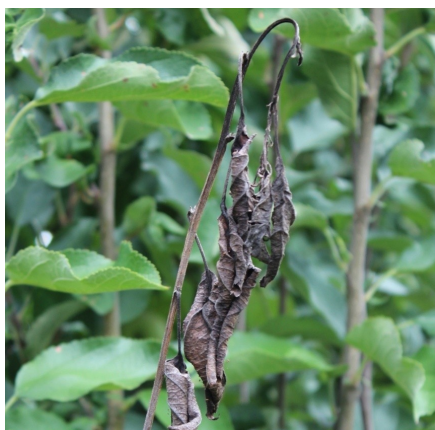


Figure 2: Rapid shoot death from fire blight may result in a 'shepherd's crook' appearance. (Photo: Nicole Gauthier, UK)



Figure 3: Dark brown, shrunken cankers develop and expand to girdle branches. (Photo: Nicole Gauthier, UK)

Management Options

- Select cultivars that are tolerant or resistant to fire blight.
- Maintain plant health with proper nutrition and irrigation practices.
- Prune to increase air flow through the plant canopy.
- Remove infected plant tissues during winter when plants and pathogens are dormant. Do not prune when trees are wet. Burn, bury, or otherwise dispose of diseased material.
- Bactericides should be applied preventatively. Once infection occurs, sprays are not effective. Homeowners can apply copper during dormancy to reduce overwintering inoculum. Additional bactericides available for commercial growers are presented in the *Commercial Fruit Pest Management Guide* ([ID-232](#)). Always follow label directions when utilizing bactericides.
- Fire blight risk throughout the season can be determined by the disease development models available through the [UK Ag Weather Center website](#).



COMING
soon

SENIOR FARMERS MARKET
NUTRITION PROGRAM
VOUCHERS
06/05/2025
DISTRIBUTION BEGINS AT **9 AM**

LaRue County
FARMERS Market
2025

LaRue County Extension Service
807 OLD ELIZABETHTOWN RD., HODGENVILLE

Contact the Extension Office for program guidelines, 270-358-3401.



LaRue County Farmers Market
OPENING DAY
JUNE 12th
2025
9 am - 1 pm

LaRue County
FARMERS Market
2025

Cooperative Extension Service

LaRue County High School Parking Lot • 925 S. Lincoln Blvd., Hodgenville • (270)358-3401



Horticulture Webinar Wednesdays
12:30pm ET/11:30 am CT
Visit [kentuckyhortnews.com](https://www.kentuckyhortnews.com)

May Classes
Wednesdays
12:30p ET/11:30a CT

May 7 -
Vegetables: Summer Veggies
May 14 -
How to Net Fruit Crops
May 21 - Passalong Plants
May 28 - Hosting a Plant Swap

Register before the class starts to receive the email with the Zoom link.
<https://tinyurl.com/MayHWW255>



SOIL TESTING

Routine testing is free for
LaRue County residents.

FARM. GARDEN. LAWN.

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807 Old Elizabethtown Rd., Hodgenville
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UK Cooperative
Extension Service

WHEN YOU'RE HOT, YOU'RE HOT!

Dr. Les Anderson, Beef Extension Professor, University of Kentucky

Last summer was a challenge for livestock. Kentucky recorded over 35 days with temperatures that exceeded 90°F and our temperature-humidity index was in the dangerous category for livestock for most of June and July. The impact of heat stress on livestock has been extensively studied over the last several decades. Heat stress reduces growth rate, can shorten gestation, increase lameness, disease, and death rates. Perhaps the most dramatic impact of heat stress is the marked reduction in reproductive efficiency.



Now is the perfect time to start planning to overcome heat stress. When I first got to UK, our Angus cows were involved in a variety of trials examining the impact of consuming endophyte-infected fescue on reproductive rate. For several years, these cows were synchronized for AI around June 10 and then exposed to a bull for 70 days. Cows consuming only endophyte-infected fescue had 55-62% pregnancy rates at the end of the breeding season. Similarly, Dr. Burris at Princeton demonstrated that the conception rate of cows decreased from 70% in early spring (April 1 – June 1) to 35% in the summer (June 20 – August 1) resulting in a pregnancy rate decrease from 90% to 58%. Heat stress reduces pregnancy rate by increasing the abortion rate of young, developing embryos and fetuses. Extreme heat stress results in embryonic/fetal loss for at least the first 45 days of pregnancy. If you are a spring calver and your cattle are consuming endophyte-infected fescue, your cows may have struggled to get pregnant this spring/summer. Plan now to determine pregnancy and hope for the best. Fall-calving cows are not immune to issues with heat stress. Heat stress and consumption of endophyte-infected fescue can induce early parturition (30-40 days premature labor), increase the thickness of the placenta, and increases calf death loss.

How can we manage heat stress? Are there management protocols that can help? Understanding solutions begins with understanding the problem. Cattle have difficulty dissipating heat effectively because they don't sweat as well as other animals. Since they don't sweat well, cattle dissipate heat by increasing their respiration rate, decreasing their activity, dilating their blood vessels near their skin so they can more effectively radiate the heat from their body, and eating less. Eating and digestion generates heat so they intake less feed to reduce the internal blood temperature. In Kentucky, and the rest of the "fescue belt," heat stress is heightened by consuming endophyte-infected fescue. Endophyte is a fungus that grows in fescue plants and this fungus produces chemicals, generically called alkaloids, that have a variety of negative impacts on animals. One of the main impacts of consumption of endophyte-infected fescue is the alkaloids constrict the blood vessels of the animal which reduces the ability of the animal to dissipate heat via radiation. So, if we want to alleviate issues with heat stress, we need to find management protocols to help cattle dissipate heat.

Fortunately, we have options! Logically, the first place to start is simply do not graze endophyte infected fescue during the summer but this is often not a viable option for many cattle producers. The breeding season can be shifted to earlier in the spring (April – June vs May – August) but this will lead to cows calving earlier in the winter, which may not be an acceptable option either. Cows supplemented with high fat supplements (ex. whole soybeans, liquid fats supplements, distiller's products) during heat stress can increase pregnancy rates in beef cows. Providing a complete mineral mix containing a blend of sodium selenite and selenium yeast, like the UK Beef IRM mineral has been shown to increase hormone concentrations necessary to support early gestation. Also, the USDA-ARS research group in Lexington has demonstrated that consumption of red clover can aid cattle during heat stress. Red clover leaves contain chemicals called isoflavones that dilate peripheral blood vessels, reduce heat stress, and can increase pregnancy rates. Most legumes have these isoflavones but the chemicals vary in the bioavailability and concentrations of the isoflavones. Whole soybeans and soyhulls also contain isoflavones and can be used to help reduce the impact of fescue toxicosis.

We cannot control the temperature, but we can plan to help our cattle withstand heat stress. Develop a heat mitigation plan by limiting cattle access to endophyte-infected fescue and/or providing access of cattle to supplements or pastures that contain fat or isoflavones. Contact your veterinarian and set dates to determine pregnancy in our herd. If you have several open cows, adding a short fall-calving season is an option. We can also use this experience to help develop a plan for heat stress in the future. This cattle market is hot, and producers need to maximize their pregnancy rates and heat stress is the main factor that reduces pregnancy especially in the summer. A little planning, a little tweak to your management plan will pay huge dividends.

BROCCOLI & BEEF STIR-FRY

INSTRUCTIONS

1. Combine 1 tablespoon stir-fry sauce & minced garlic in a bowl. Add the beef strips. Let stand 15 minutes.
2. Heat 1 tablespoon canola oil in a large skillet or wok.
3. Add beef & stir fry for one minute. Remove beef from skillet.
4. Heat the remaining 3 tablespoons canola oil in the skillet or wok. Add vegetables. Stir-fry for four minutes or until vegetables are crisp-tender.
5. Return beef to skillet.



INGREDIENTS

- 1 POUND LEAN BEEF STEAK, SLICED DIAGONALLY ACROSS THE GRAIN INTO THIN STRIPS
- 1 TABLESPOON PLUS ½ CUP STIR-FRY SAUCE
- 1 CLOVE MINCED GARLIC
- 4 TABLESPOONS CANOLA OIL, DIVIDED
- 1 MEDIUM RED ONION, CUT INTO ½ INCH DICE
- 1 SWEET RED PEPPER, CUT INTO ½ INCH DICE
- 1 MEDIUM YELLOW SQUASH, CUT INTO ¼ INCH SLICES
- 2 CUPS FRESH BROCCOLI FLORETS
- 1 CUP CAULIFLOWER FLORETS
- ½ TEASPOON CRUSHED RED PEPPER FLAKES



Yield: 8, 1 cup servings

Coming up

<https://www.planeatmove.com/recipes/recipe/broccoli-and-beef-stir-fry/>

2025 CROP SCOUTING CLINIC

IDEAL FOR AGRICULTURE INTERNS, NEW AND EXPERIENCED PRODUCERS, AS WELL AS A GREAT REFRESHER FOR OTHERS

- Corn and soybean diseases and growth staging
- Scouting for insect pests of corn and soybeans
- Weed ID
- Soil nutrients and their influence on crop growth



MAY 15, 2025

8:30AM TO 3:30 PM

UK RESEARCH AND EDUCATION CENTER
PRINCETON, KY



PRE-REGISTRATION IS REQUIRED AT

2025KATSCROPSOUTINGCLINIC.EVENTBRITE.COM

For More Information
contact Lori Rogers
270-365-7541 | lori.rogers@uky.edu

CCA: 6.5 CEUs
PAT: 5 CUEs cat. 1A,
1 CEU cat. 10

SAVE THE DATE

Pest Management Field Day



June 26, 2025

Participants will meet at the Christian Life Center of the First Baptist Church in Princeton at 300 W. Main St. A caravan will then proceed to the UKREC field plots.

Registration is free—Lunch will be provided
Continuing Education Units will be available.

Register by scanning QR Code or at:

<https://tinyurl.com/3k466rxr>



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LaRue County

PO Box 210, 807 Old Elizabethtown Road

Hodgenville, KY 42748-0210

RETURN SERVICE REQUESTED

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RESOURCES 

05/29/2025 AT 7 PM EDT

Presenters
HEATHER NORMAN-BURGDOLF, PhD., DIETETICS & HUMAN NUTRITION • HEATHER SHAW, NUTRITION EDUCATION
PROGRAMS - JONATHAN LARSON, PhD. & HANNAH TIFFIN, PhD., • DEPARTMENT OF ENTOMOLOGY

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