

NOVEMBER 2023 ISSUE

AGRICULTURE & NATURAL RESOURCES NEWSLETTER

Cooperative Extension Service
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A Monthly Newsletter by Fleming County Extension Office



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A Note From Your Agent:

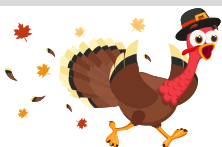
Happy Fall Y'all!

We've been busy with Agriculture and Horticulture programs this fall in our area. The Area Farm Field Day in September was a big hit. We are hoping to offer the event annually. We wrapped up the 2023 Farm School For Women program in October and looking forward to the Beef Series this month. Check out this issue for more information,

You may have seen or been asked to complete a survey for Cooperative Extension to assist us in determining the needs for folks in Kentucky and in our community. If you haven't taken it yet, we encourage you to do so. The QR code is listed below and you can also find more info later in this Newsletter.

April Wilhoit

HOW CAN WE serve you??



Cooperative Extension Service

Agriculture and Natural Resources
Family and Consumer Sciences
4-H Youth Development
Community and Economic Development

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, physical or mental disability or reprisal or retaliation for prior civil rights activity. Reasonable accommodation of disability may be available with prior notice. Program information may be made available in languages other than English.
University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.
Lexington, KY 40506



Disabilities accommodated with prior notification.

Timely Tips

Les Anderson, Extension Professor, University of Kentucky



Spring-Calving Cow Herd

- If you need to replace cows, consider buying bred heifers in some of the Kentucky Certified Replacement Heifer sales that are being held across the state this month.
- Extend grazing for as long as possible to decrease the amount of stored feed needed.
- Evaluate body condition of cows. Sort thin (less than body condition score 5) cows away from the cow herd and feed to improve their condition. Two and three-year olds may need extra attention now. These cattle can use the extra feed/nutrients.
- Dry cows in good condition can utilize crop residues and lower quality hay now (but don't let them lose any more body condition). Save higher quality feed until calving time. Keep a good mineral supplement with vitamin A available.
- Contact your herd veterinarian to schedule a pregnancy diagnosis for your cows if you have not already done so. Pregnancy diagnosis can also be accomplished using blood sampling. Several diagnostic labs will analyze the blood samples for pregnancy. Culling decisions should be made prior to winter feeding for best use of feed resources. Consider open, poor-producing, and aged cows as candidates for culling.
- A postweaning feeding period will allow you to put rapid, economical gains on weaned calves, keep them through the fall "runs" and allow you to participate in Kentucky CPH-45 sales. Consider this health and marketing program which is designed for producers which are doing a good job of producing high quality feeder calves.
- Replacement heifers require attention during the winter, too. Weaned heifer calves should gain at an adequate rate to attain their "target" breeding weight (2/3 of their mature weight) by May 1.

Fall-Calving Cows

- Continue to watch fall-calving cows. Catch up on processing of calves including identification, castration, and vaccinations.
- Cows that have calved need to go to the best pastures now! Help them maintain body condition prior to breeding in December.
- Vaccinate the cows while they are open and prior to the breeding season. Move cows to accumulated pasture or increase feed now. It is best to vaccinate cows 30 days before the breeding season begins.
- Start the breeding season in late November or early December for calving to begin in September. If you are using AI and/or estrous synchronization, get your supplies together now and schedule your technician. Don't forget Breeding Soundness Evaluations (BSE) on your bulls. Make final selection of replacement heifers now

General

- Have your hay supply analyzed for nutritive quality and estimate the amount of supplementation needed. Consider purchasing feed now.
- Take soil tests and make fertility adjustments (phosphate, potash, and lime) to your pastures.
- This is a good time to freeze-brand bred yearling heifers and additions to the breeding herd.
- Graze alfalfa this month after a "freeze-down" (24 degrees for a few hours).
- Don't waste your feed resources. Avoid excessive mud in the feeding area. Hay feeding areas can be constructed by putting rock on geotextile fabric. Feed those large round bales in hay "rings" to avoid waste. Concrete feeding pads could be in your long-range plans.

Calculate and Manage Your Largest Cost as a Cow-calf Operator

Kenny Burdine, University of Kentucky

As we turn the page on October, winter feeding will move into the forefront of cow-calf operators' minds. Most cow-calf operations have already begun feeding hay or will do so very soon. Winter feed costs are likely the largest cost for a cow-calf operation and are impacted by the number of days an operation feeds hay, the cost of the hay (or other feeds) that is fed, and the efficiency of the feeding program.

The number of winter feeding days is largely a function of stocking rate and pasture conditions throughout the grazing season. At the national level, the percentage of pasture rated poor and very poor has been lower than last year, but higher than the average of the previous 5-year period. In the Southeast, pastures are generally in worse condition than last year and considerably worse than the 2017-2021 average. In my home state of Kentucky, a lot of cow-calf operations have been feeding hay for a while and will see a higher than normal number of feeding days this winter.

At the same time, hay values are not always easy to estimate because most operations produce their own hay. What hay does get sold is typically sold privately, so there is limited public data on the market price of hay fed by cow-calf operators. Hay is also unique in the sense that there can be wide ranges in hay values across regions due to the high costs associated with moving hay from one area to another. For these reasons, producers really have to put a value on the hay they feed based on what it cost them to produce it or what they paid for it, if purchased.

Finally, feeding efficiency is sometimes the forgotten factor in winter feed costs because it can be hard to observe and quantify. There is always a loss associated with feeding as cattle don't utilize 100% of the hay that is produced or purchased. This is typically a function of hay storage and feeding method and there is merit in looking for economical ways to limit losses at these two points.

I use the table below in Extension programs as a way to discuss the variation in winter feeding costs based on hay values and losses associated with storage and feeding. Costs are expressed on a daily basis with the assumption of a 1,300 lb cow consuming 2.25% of her body weight each day. The number of hay feeding days can be multiplied by the daily cost to estimate hay cost per cow through the winter.

WINTER HAY COST PER COW PER DAY				
Estimated Hay Cost per Ton				
	\$60 / ton	\$80 / ton	\$100 / ton	\$120 / ton
15% loss	\$1.03	\$1.38	\$1.72	\$2.06
25% loss	\$1.25	\$1.67	\$2.09	\$2.51
35% loss	\$1.60	\$2.13	\$2.66	\$3.19

Assumes 1300 lb cow consumes 2.25% BW per day

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Over the last couple of years, hay values in my area have seemed to shift from the left half of the table to the right half and that has had a significant impact on the cost of wintering cows. For illustration, a \$20 per ton increase in hay value leads to an increase of \$0.34 per day at the 15% loss level and increases at higher loss levels. While lowering storage and feeding losses will likely come at some cost, reducing this loss from 30% to 15% results in gross savings of \$0.37 per cow per day when hay is valued at \$100 per ton, and increases as hay becomes more valuable. Having a feel for winter feeding costs can be a crucial first step in understanding cow-calf profitability and is definitely something that cow-calf operators should seek to manage.

Autumn Sweet Potato Chili

Servings: 8 Serving Size: 1 cup Recipe Cost: \$5.19 Cost per Serving: \$0.65

Directions:

1. Combine sweet potatoes, chili powder and salsa in a large saucepan.
2. Bring to a boil, reduce heat to simmer, and cook until heated through, stirring as needed.
3. Add beans with liquid and cook another 3 minutes to blend flavors.
4. Thin with water if needed. Heat through.
5. Serve with sour cream, cheese and cilantro on the side.

Notes

Option: To reduce sodium, use vegetables canned without added salt.

Source: Jeffrey Hines, former Graphic Artist for Nutrition Education Program, University of Kentucky Cooperative Extension Service



INGREDIENTS

- 1 (15 ounce) can sweet potatoes (do not drain)
- 1 tablespoon chili powder
- 1 (16 ounce) jar salsa
- 2 (15 ounce) cans black beans (do not drain)
- Water to achieve desired consistency
- ½ cup reduced-fat sour cream
- Shredded sharp cheddar cheese
- Dried or fresh chopped cilantro

Nutrition Info: 160 calories; 0g total fat; 0g saturated fat; 0g trans fat; 0mg cholesterol; 790mg sodium; 32g carbohydrate; 9g fiber; 12g sugar; 7g protein; 0% Daily Value of vitamin D; 4% Daily Value of calcium; 10% Daily Value of iron; 6% Daily Value of potassium.



**INTERESTED IN JOINING THE 2024
FLEMING COUNTY FARMERS MARKET?**

For info call (606) 845-4641 or email april.wilhoit@uky.edu



Forage Timely Tips: November

- Apply 30-40 lbs/N/acre to strengthen cool-season grass sods going into winter.
- If not already done, inventory hay and assess hay quality.
- Using a plate meter or grazing stick, estimate stockpile available for winter grazing.
- Adjust animal numbers or purchase additional hay to balance forage-feed supply to livestock needs.
- Graze crop residues and cover crops that will not overwinter. Be careful to avoid fields that contain johnsongrass that have recently frosted.
- Graze winter annuals that will not overwinter such as brassics and oats.
- Graze other winter annuals once they are 6-8 inches tall and are well anchored. Do NOT graze closer to 4 inches.
- Sugar content will rise in tall fescue with the cool temperatures and short days of fall. Alkaloid content of tall fescue can also be high in certain years, but will begin decline after a hard freeze.
- Talk with local conservationist about developing a grazing plan and cost-share opportunities.

FLEMING COUNTY

How can we serve you?

Take a ten-minute survey to help us develop programs addressing needs in our community.

[GO.UKY.EDU/SERVEKY](https://go.uky.edu/serveky)



**KENTUCKY COOPERATIVE
EXTENSION SERVICE**



PRIVATE PESTICIDE APPLICATOR TRAININGS

5:00 PM | JANUARY 23
11:00AM | FEBRUARY 29
8:30AM | MARCH 1



TO REGISTER: CALL (606) 845-4641 OR USE THE QR CODE
AT FLEMING COUNTY EXTENSION OFFICE

DATES DON'T WORK FOR YOU? CONTACT APRIL TO
DISCUSS OTHER OPTIONS: APRIL.WILHOIT@UKY.EDU

DEADLINE TO REGISTER: 7 DAYS PRIOR TO CLASS

****CLASSES ARE CANCELLED IF
NO ONE REGISTERS****

 Cooperative
Extension Service

Non-Certified Pesticide Applicator



A recent addition to the Kentucky Administrative Regulations created a new classification of pesticide applicator. The Non-Certified Pesticide Applicator (NCA) classification allows an individual to use general use pesticides under the supervision of a private applicator. The relevance of this classification to farm owners and workers is added legality and record keeping best practices. By ensuring that all applicable farm workers receive NCA training, private applicators can fulfill any necessary documentation and take proactive measures to mitigate risks associated with pesticide application.

Individuals can receive their annual NCA training from their supervising certified private applicator (CPA) or through their local County Extension Agent for Agriculture and Natural Resources. Training materials for use by the supervising CPA and a list of their responsibilities are available from the () County Extension Service office. Like the private applicator program, NCAs are issued a blue verification card through the () County Cooperative Extension Service office. Supervising applicators maintain training records for three years.

To receive NCA status, an individual must be at least 18 years of age or older. An age exemption of 16 years or older is applicable to the immediate family of the supervising private applicator. NCAs are specifically prohibited from applying Restricted Use Pesticides (RUP), gramoxone, ariel application and fumigants. In the supervision of NCAs, private applicators are required to fulfill the following use specific requirements:

- Access to product label.
- Access to clean, functional label required PPE.
- Instruction specific to the pesticide and site of application

More information regarding NCA training for workers and supervisors can be obtained through the Fleming County Cooperative Extension Service office by contacting April Wilhoit at (606) 845-4641, april.wilhoit@uky.edu .

Cleaning & Disinfecting Hand Tools & Planting Supplies (PPFS-GEN-17)

Cheryl Kaiser, Plant Pathology Extension Support, and
Nicole Gauthier, Plant Pathology Extension Specialist

Formerly called Cleaning & Disinfecting Home Garden Tools & Equipment with a focus on residential gardeners, this new version has an expanded scope that now includes small commercial growers, as well. This broader scope is reflected in the changes to the title and text.

The revised publication still provides step-by-step instructions on cleaning and sanitizing tools, pots, and other planting supplies in order to remove microscopic plant pathogens that could otherwise be transmitted to healthy plants. Examples of common, readily available cleaning products and disinfectants/sanitizers are provided.

Cleaning & Disinfecting Hand Tools & Planting Supplies (PPFS-GEN-17) is available online.

For publications on managing plant diseases using sanitation practices, visit the [UK Plant Pathology Extension Publications](#) webpage.

University of Kentucky

College of Agriculture, Food & Environment

Extension Plant Pathology



Martin Gattton
College of Agriculture, Food and Environment
Cooperative Extension Service

Plant Pathology Fact Sheet

PPFS-GEN-17

Cleaning & Disinfecting Hand Tools & Planting Supplies

Kim Leonberger
Plant Pathology
Extension Associate

Kara Back
Horticulture
County Extension Agent

Nicole Gauthier
Plant Pathology
Extension Specialist

IMPORTANCE

Dirty tools, containers, and surfaces come as no surprise to small commercial growers and residential growers (FIGURE 1). Rinsing with water to remove obvious soil or plant residues is a common practice. However, this type of basic cleaning can fail to remove microscopic plant pathogens that can remain on surfaces. Tools, containers, shoes, and surfaces should also be disinfected to remove fungal, bacterial, and viral plant pathogens to prevent transmission to healthy plants. Some readily available products can either clean items or disinfect, while others can both clean and disinfect. The following details the cleaning and disinfecting methods suggested for growers with small acreages and residential gardeners. [Note: Guidelines for cleaning and disinfecting surfaces and equipment in large commercial production settings are more stringent; producers should consult *Cleaning and Sanitizing Commercial Greenhouse Surfaces* (PPFS-GH-07) for recommendations.]



FIGURE 1. POTS (A) AND TROWELS (B) OFTEN BECOME COVERED WITH SOIL; PRUNERS (C) MAY BECOME COVERED IN PLANT SAP OR PLANT DEBRIS DURING USE. THESE ITEMS SHOULD BE CLEANED AND SANITIZED TO REMOVE POTENTIAL PATHOGENS.

Agriculture & Natural Resources • Family & Consumer Sciences • 4-H/Youth Development • Community & Economic Development



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

2024

BQCA Certification

at Fleming County Extension Office

JANUARY 24 | NOON
FEBRUARY 27 | 5:00PM
APRIL 5 | 8:30AM



Pre-registration required, please use
the QR code or call (606)845-4641



What to Consider When Renting Out Your Farm



According to 2022 KFBM data, only 27% of land farmed by Kentucky farmers is owned by the farmer. The remaining 73% is typically comprised of landowners that may or may not have a background in farming. In some cases, the landowner inherited the farm and may not even live in the same state as the farmland. There are several factors the landowners need to be aware of and consider when renting their farm.

One decision that needs to be made is what type of rent the landowner plans to receive. There are three main types of rent that were discussed in recent article [“Land Rental Agreements.”](#) Below, you’ll find a few highlights of each type of rental agreement. The first thing the landowner needs to consider is how much risk they are willing to take. If the landowner doesn’t want any risk, they should choose a cash rental agreement. This will allow them to receive a steady income each year that will not be affected by the crop yield. This will solely be based on a rental price per acre, which can vary by location, ground quality, grain prices, and the local market.

There are many factors that go into determining the cash rental price. Location and ground quality are one of these major factors. What soil types are located on the farm? Is the farm prone to flooding? Is there field drainage tile on the farm? Are there any other possible causes for low productivity that might need to be addressed?

Grain prices are also another factor that play a big role in determining the cash rental price, but just looking at the grain prices does not tell the whole story. Typically, when grain prices increase, so do crop input prices and this increase will sometimes hurt the farmer’s profitability more than the increase in the grain prices improves it. Because there is so much variability in grain prices, farmers will lock in prices to protect their profitability from a large price drop, so they are very rarely able to completely capitalize on any major price increases. Once a farmer agrees to increase the amount of the cash rent payment, it is hard to ever convince the landowner to lower the payment back down when there is a market downturn.

Some landowners are willing to take on risk with the potential of a higher return. These landowners should choose a share crop leasing agreement. This will allow the landowner to receive a higher payment in good crop years, but they are also accepting the risk of a lower payment in low yielding years. The landowner may choose to purchase crop insurance on their share to hedge against the risk of lower crop yields. They may also choose to sign up for government payments through the local Farm Service Agency office. Depending on the percentage of the share agreement, the landowner might also have to share in some of the crop expenses that they would not have to share in with a cash rental agreement.

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Once the type of leasing agreement is decided, there are other issues to take into consideration. One issue that may come up is the possibility that some of the land is unsuitable for row crop farming and the renting farmer may not be willing to rent that portion of the land. In that case, the landowner may want to speak to the local FSA and NRCS offices to see if there are any programs available for this portion of the land, such as the Conservation Reserve Program (CRP). If so, this may allow the landowner to generate some income off that portion of land they would otherwise not generate.

One factor that may be often overlooked by a landowner is providing access to the land for the farmer. In many instances a farm may be landlocked, so some type of access needs to be provided to the farmer. Also, many farms may have fences on the farm that either need to be maintained or need to be removed. In both cases, an agreement needs to be made on who will be responsible for maintaining the roads and either maintaining or removing any fences.

Field Drainage tile has been installed on many farms to assist in the regulation of excessive water on a farm at any given time. In many instances, this field drainage tile will help increase the productivity of the farm. Field drainage tile is considered a capital expense with a 15-year recovery period. This can quickly become an expensive, but valuable investment for both parties. In many cases the landowner and the farmer may share in this cost, but there are other cases where the farmer agrees to cover all the cost of the field drainage tile installation. In either case, the farmer may request a longer-term leasing agreement because of this 15-year investment. They may also request a pro-rated payment to cover some of the cost of the field tile if the rental agreement does not extend past a certain number of years.

Before the final rental agreement is made, the landowner has other factors to consider. What happens if the landowner decides to sell the farm or passes away? The lease agreement terms, as well as an exit strategy for both parties are also necessary.

These are only a few of the decisions that need to be made before a leasing agreement is made between landowner and tenant. Many land leasing agreements are made verbally and with a handshake, but for the protection of both parties there should be a written and signed agreement with all the specific details of the agreement listed. This will allow both parties to have something in writing in case any issues ever arise. This will also provide a written basis to go back to when/if any future agreements are made between the parties.

Additional Resource

[Illinois Cash Farm Lease Form](#)

Forsythe, M. "What to Consider When Renting Out Your Farm." Economic and Policy Update (23):10, Department of Agricultural Economics, University of Kentucky, October 30th, 2023.





**United States
Department of
Agriculture**

Natural Resources Conservation Service

USDA NRCS in Kentucky Announces Application Cut-Off Period for the 2024 Environmental Quality Incentives Program (EQIP) will be November 3, 2023.

Lexington, KY, October 2, 2023. The USDA-Natural Resources Conservation Service (NRCS) in Kentucky is encouraging landowners, farmers and producers to visit their local NRCS office now to receive information and apply for conservation technical assistance and possible funding opportunities.

The application process for NRCS's conservation programs is continuous, but funding selections for specific programs are made throughout the year. For the Environmental Quality Incentives Program (EQIP), Kentucky NRCS has announced that applications for assistance received by November 3, 2023, will be evaluated and considered for funding.

New for Fiscal Year 2024, Kentucky NRCS will be utilizing ACT NOW to process conservation applications in eight fund accounts to deliver a conservation product to EQIP applicants faster. New and existing applications received prior to October 3, 2023, thru November 3, 2023, which meet program eligibility requirements and the minimum ranking score threshold in one of the ACT NOW fund accounts identified below will be selected for immediate funding until designated funds are depleted. Selections will be made weekly beginning October 3, 2023. Any applicants competing in one of the ACT NOW accounts who do not meet the minimum ranking score threshold will be evaluated for funding with all other applications after the March 8, 2024, ranking deadline as funds allow.

EQIP is a conservation program that provides financial and technical assistance to farmers and ranchers who face threats to soil, water, air, and related natural resources on their land. Through EQIP, NRCS develops contracts with agricultural producers to voluntarily implement conservation practices. Persons engaged in livestock or agricultural production and owners of non-industrial private forestland are eligible for this program. Eligible land includes cropland, pastureland, private non-industrial forestland, and other farm or ranch lands.

In Fiscal Year 2023, NRCS in Kentucky provided over \$28 million in EQIP financial assistance to assist private land users to address natural resource issues on their land.

For more information about EQIP or the other programs offered by NRCS, visit us on the web at www.ky.nrcs.usda.gov or contact your local NRCS service center at <http://offices.sc.gov.usda.gov/locator/app>.

BEEF EDUCATION SERIES

PRESENTED BY THE BUFFALO TRACE COUNTIES COOPERATIVE EXTENSION OFFICES

- 11/2: CATTLE HEALTH @ FLEMING COUNTY EXTENSION
- 11/9: CATTLE NUTRITION @ MASON COUNTY EXTENSION
- 11/16: CATTLE FACILITIES @ LEWIS COUNTY EXTENSION

6PM
MEAL PROVIDED

CALL TO REGISTER OR USE QR CODE:

- BRACKEN COUNTY: (606) 735-2141
- FLEMING COUNTY: (606) 845-4641
- LEWIS COUNTY: (606) 796-2732
- MASON COUNTY: (606) 564-6808
- ROBERTSON CO.: (606) 724-5796



HEALTH

NUTRITION

FACILITIES

REGISTRATION REQUIRED BY:
10/27/23 TO PLAN FOR MEAL



COMMERCIAL PESTICIDE APPLICATOR CONTINUING EDUCATION TRAINING

Presented by the Buffalo Trace Cooperative Extension Service Counties

NOVEMBER 17, 2023
9AM-3:30PM EST

30 MINUTE LUNCH BREAK



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service

CALL (606)845-4641 TO REGISTER FOR
THIS FREE TRAINING OR REGISTER
USING THE QR CODE:



This training has been approved by the Kentucky Department
of Agriculture for 1 specific hour in each category.

- Category 1A: Agricultural Plant
- Category 2: Forestry
- Category 3: Ornamental & Turf & Lawn Care
- Category 4: Seed Treatment
- Category 10: Demonstration & Research
- Category 11: Aerial

LOCATION: VIRTUAL VIA ZOOM

LIMITED
SPOTS

FRESH GREENERY

CHRISTMAS WREATH MAKING CLASS



NOVEMBER 28 @ 5PM
NOVEMBER 29 @ 9AM
NOVEMBER 29 @ NOON

FLEMING COUNTY EXTENSION OFFICE
1384 ELIZAVILLE RD, FLEMINGSBURG



USE THE QR CODE OR CALL (606) 845-4641 TO REGISTER BY NOVEMBER 17TH
CHECKS MADE PAYABLE TO: FLEMING CO. EXTENSION OFFICE

Crop Protection Webinar Series Begins Nov. 2

Beginning Nov. 2, 2023, the University of Kentucky Martin-Gatton College of Agriculture, Food and Environment will present a series of four webinars covering field crop protection. Hosted through the Southern Integrated Pest Management Center, the webinars will feature UK extension pest management specialists discussing plant pathology, weed science and entomology topics.

The one-hour webinars will be held on Thursday mornings in November and will take place via Zoom at 10 a.m. EST/ 9 a.m. CST. Pre-registration is required for each webinar.

"We are excited to work with the Southern Integrated Pest Management Center again to offer these webinars to anyone who wants to learn about the latest University of Kentucky research on grain crop pest management. Information discussed in these webinars will be helpful as farmers and advisors make decisions on what practices to implement in 2024," said Dr. Kiersten Wise, UK extension plant pathologist.

Details and links for pre-registration are as follows:

- Nov. 2, 2023 - Webinar #1: *Do multiple corn fungicide applications pay?* with Kiersten Wise, extension plant pathologist. Pre-Registration: https://zoom.us/webinar/register/WN_CfQFt0dQSnq5ifdnaSre7A
- Nov. 9, 2023 - Webinar #2: *What have we learned from nearly two decades of research on soybean with foliar fungicides?* with Carl Bradley, extension plant pathologist. Pre-Registration: https://zoom.us/webinar/register/WN_3SvKPhEDSSWcYhnUnLrvsQ
- Nov. 16, 2023 - Webinar #3: *Managing the offensive spread of weeds* with Travis Legleiter, extension weed scientist. Pre-Registration: https://zoom.us/webinar/register/WN_SIOzGyib0jOk4A6pTRHGmw
- Nov. 30, 2023 - Webinar #4: *Insects in field crops during two years of partial drought and heat wave* with Raul Villanueva, extension entomologist. Pre-Registration: https://zoom.us/webinar/register/WN_AqyCh08TQGCAlXvKxqdwFA



Figure 1. Damage caused by bean leaf beetle to seedlings. (Photo by Raul Villanueva, University of Kentucky Extension Entomologist)

The webinars are open to agriculture and natural resource county extension agents, crop consultants, farmers, industry professionals, and others, whether they reside or work in Kentucky or outside the state.

Participants may receive one hour per webinar in continuing education units for Certified Crop Advisers. Kentucky pesticide applicators can receive one continuing education unit in Category 1A (Agricultural Plant) per webinar.

For more information contact Jason Travis, UK agricultural extension associate, at (859) 562-2569 or email jason.travis@uky.edu.

Spotted Lanternfly Has Arrived in Kentucky

Jonathan L. Larson, Entomology Extension Specialist

The spotted lanternfly (aka SLF) is the newest invasive species that has found its way to the Bluegrass State. In early October, a homeowner in Gallatin County noticed the adult form of this insect on their property and worked with their local county Extension agent to submit photos to reportapest@uky.edu. Thanks to this, the Kentucky Office of the State Entomologist was able to visit the site and collect specimens to submit for federal confirmation, officially certifying an infestation. Thus far, no other county has reported lanternflies. As with all invasive species, the spotted lanternfly causes trouble in the areas that they move in to, and Kentuckians should expect to see this pest more frequently in the coming years.

What is the Spotted Lanternfly?

SLF is very distinctive in appearance.; the adult is about an inch long, with strikingly patterned forewings that mixes spots with stripes. The back wings are contrasting red, black, and white. The immature stages are black with white spots and develop red patches as they age. They are a type of planthopper; they are capable of jumping and can be quite fast.



Figure 1: Adult spotted lanternflies are distinct looking insects; their fore wings are half spotted and half reticulated, while the back wings are a mixture of black, white, and red. On the left, the wings are open and showing all of the color; on the right is how the insect is most likely to be encountered- with the wings closed over its back (Photos: Pennsylvania Department of Agriculture, Bugwood.org).

Spotted lanternflies develop through a process called incomplete metamorphosis. This means that the female lays eggs, which will hatch to reveal “nymphs,” immature insects that vaguely resemble the adult. They gradually get larger during the growing season, eventually developing their wings and becoming adults. SLF starts off black with white dots, and then before becoming adults, develop red markings.

How did it get to Kentucky?

The spotted lanternfly is a non-native insect that is from East Asia. The first confirmed infestations were found in Pennsylvania in 2014. Following that discovery, the pest has steadily made progress in infesting other states, such as New Jersey, Ohio, Delaware, New York, Connecticut, Maryland, and West Virginia. In 2021, an infestation was confirmed in Switzerland County, Indiana (directly across the Ohio River from Gallatin County, Kentucky). Further movement in Indiana has been confirmed in 2022 and 2023. In 2022, there was also confirmation of SLF in Cincinnati, OH, with the problem growing in 2023.

In late summer of this year, sites of SLF were confirmed in Illinois and Tennessee, as well. Just when it seemed that the insect might be in every state that touches Kentucky (but not actually in Kentucky), the local infestation was also discovered. Thus far, the number of insects discovered in

Continued on next page

Kentucky doesn't rival the infestations you might see images of online or in news reports from states in New England. It is possible that the Gallatin County population arrived via natural movement from Indiana. SLF can jump and fly, and their natural spread can take them 3 to 4 miles from an infested site in a given year. It is also possible that they were accidentally brought into the state on infested goods or on a car, truck, or other means of transport.

What does it do?

This pest is known to feed on more than 70 plant species, including specialty crops like grapes, apples, peaches, and hops, as well as trees such as maple and black walnut amongst other hardwoods, and fruit crops. Their preferred host for a portion of their life cycle is the tree of heaven (another non-native/invasive species). SLF is classified as a true bug, part of the order Hemiptera. They feed using piercing sucking mouthparts. As they feed, they excrete honeydew, a sugary fecal material that accumulates on nearby plants and surfaces and can attract black sooty mold fungi. Honeydew can also be slippery for people and unfortunately can attract stinging insects looking to feed on it. Another unique problem is that beekeepers near SLF infestations report that their bees will forage so heavily on the honeydew that they end up with honey made from SLF fecal material rather than nectar.

Finally, females lay their eggs on natural and unnatural surfaces alike. Eggs are being laid right now as autumn settles in, and they will overwinter in that stage. While they use trees, the cryptic and hard-to-see egg cases have also been found on automobiles, trains, lawn furniture, firewood, stones, and many other substrates. It's possible that Kentuckians who travel to Gallatin County or to Cincinnati, OH could pick up hitchhiking female lanternflies that will come back to un-infested parts of Kentucky and lay eggs there.



Figure 3: Spotted lanternflies feed on tender growth as nymphs before moving on to feed on the trunk and branches of trees as these bugs get larger and stronger (Photo by Emelie Swackhamer, Penn State University, Bugwood.org).

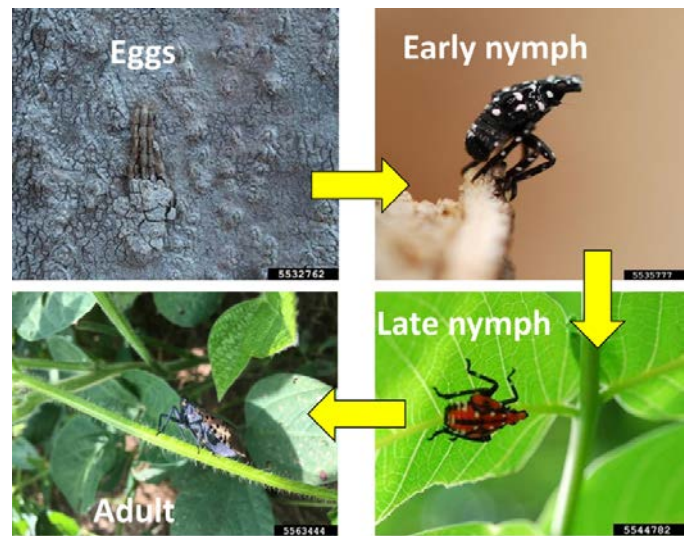


Figure 2: Spotted lanternflies start as eggs, which look like they are covered with brown-grey spackle, and then they develop through spotted nymphal stages before maturing into the adult form (Photos by Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org).



Figure 4: A mass of spotted lanternfly eggs has been laid on this vehicle. The eggs will hatch the following spring if not removed (Photo courtesy of WPMT Fox 43).

Continued on next page

What can people do to help?

Kentuckians should be on the lookout for this pest. Report suspicious looking bugs and egg cases to the Office of the State Entomologist at reportapest@uky.edu. When making a report, please include an image or a sample of the suspect, otherwise it will be difficult to confirm the problem. It is also important to include geographic information. It is true that this is a difficult pest to eliminate, but with the help of citizens monitoring for populations, there is hope that their spread can be slowed to allow communities more time to prepare.



Figure 5: Be on the lookout for the weird looking adults and for the egg masses spackled onto surfaces, as seen here. Don't bring home any unwanted hitchhikers and help us by reporting odd sightings! (Photo by Richard Gardner, Bugwood.org)

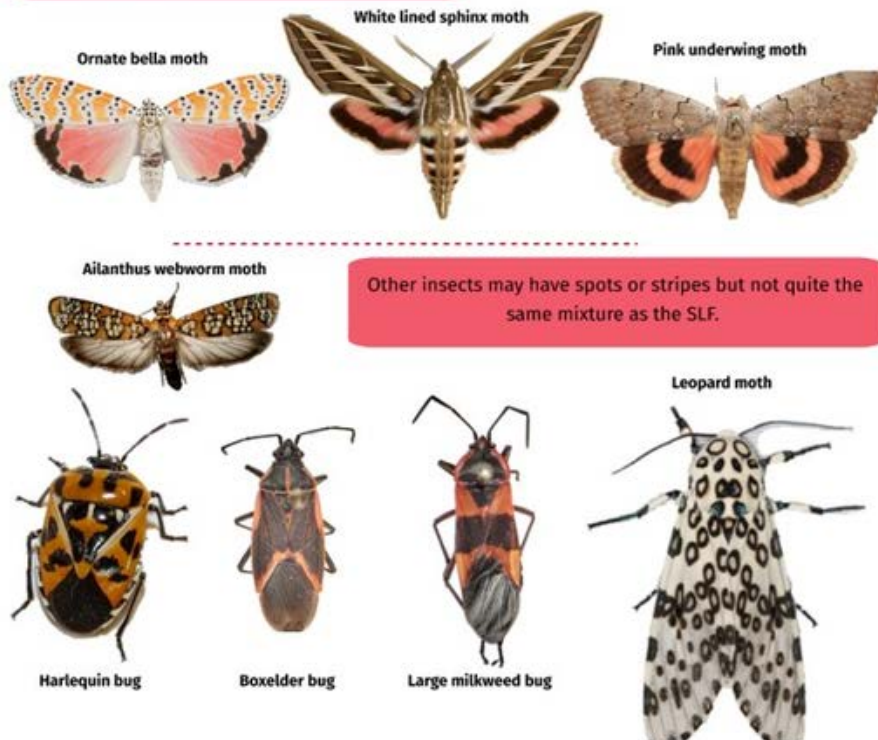
Spotted lanternfly lookalikes

While SLF is unique looking, there are some insects that resemble it!

Some moth species have similar looking under-wings. They will be fuzzy and lack the other designs SLF has.



Figure 6: While the SLF is a unique looking insect, there are some other species that can be mistaken for it at a quick glance. These are just a few that have been submitted to the University of Kentucky over the last year (Photo: University of Kentucky Department of Entomology).



Our office will be closed
November 23 & 24
to celebrate the
Thanksgiving Holiday!

*HAPPY
Thanksgiving*



Important Dates



- **November 2** | Fall Crop Protection Webinar Series Session #1 | ZOOM | 10:00AM
- **November 2** | Beef Education Series: Cattle Health | Fleming Co. Ext. Office | 6:00PM
- **November 3** | USDA NRCS EQIP APPLICATION DEADLINE
- **November 9** | Fall Crop Protection Webinar Series Session # 2 | ZOOM | 10:00AM
- **November 9** | Beef Education Series: Cattle Nutrition | Mason Co. Ext. Office | 6:00PM
- **November 16** | Fall Crop Protection Webinar Series Session #3 | ZOOM | 10:00AM
- **November 16** | Beef Education Series: Cattle Facilities | Lewis Co. Ext. Office | 6:00PM
- **November 17** | Commercial Pesticide CEU Program | Virtual Via Zoom | 9:00AM
- **November 28** | Wreath Workshop | Fleming Co. Ext. Office | 5:00PM **PRE-REGISTRATION REQUIRED**
- **November 29** | Wreath Workshop | Fleming Co. Ext. Office | 9:00AM **PRE-REGISTRATION REQUIRED**
- **November 29** | Wreath Workshop | Fleming Co. Ext. Office | 12:00PM **PRE-REGISTRATION REQUIRED**
- **November 30** | Fall Crop Protection Webinar Series Session #4 | ZOOM | 10:00AM
- **January 23** | Private Pesticide Applicator Training | Fleming Co. Ext. Office | 5:00PM
- **January 24** | Beef Quality Care & Assurance (BQCA) Training | Fleming Co. Ext. Office | Noon
- **February 27** | Beef Quality Care & Assurance (BQCA) Training | Fleming Co. Ext. Office | 8:30AM
- **February 29** | Private Pesticide Applicator Training | Fleming Co. Ext. Office | 11:00AM
- **March 1** | Private Pesticide Applicator Training | Fleming Co. Ext. Office | 8:30AM
- **March 5** | Farm & Family Night | MCTC | More info to come!
- **April 5** | Beef Quality Care & Assurance (BQCA) Training | Fleming Co. Ext. Office | 8:30AM