

Todd County Extension Agriculture Newsletter

Watch for Fall Armyworms

By Jimmy Henning, UK Forages Specialist, with Ric Bessin and Jonathan Larson, UK Entomologists

In 2021, Kentucky was one of many states that were impacted by a historic outbreak of fall armyworms. That year marked perhaps the worst year for the pest since the 1970's and has inspired fear and dread about these hungry, hungry caterpillars rearing their head again. **In the past week, reports from western and central Kentucky have indicated that some folks are seeing egg masses and fall armyworms in turfgrass areas.** The sudden onset of fall armyworm in 2021 created temporary shortages of effective insecticidal remedies. Reports from University of Kentucky entomologists indicate we are not at the same levels as in 2021 but it is prudent to review how this pest works and what can be done about it.

Fall armyworm and Kentucky

Fall armyworms do not overwinter in this state. They are a tropical species, and they typically overwinter in southern Florida and southern Texas. These spots stay warm enough for them to persist and then mate to start the generations that will migrate northward as moths. They usually move from these warmer states into states like Mississippi and Alabama in April and May, arriving next in Tennessee by May or June. Typically, they start to appear in Kentucky by June.



Todd County Extension · 240 Pond River Rd · Elkton, KY 42220 · 270-265-5659

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.

In the bluegrass state, fall armyworms are usually associated with issues in pastures and crops (Figure 1). In this state and others, they will cross over into the home landscape to feed on turf in lawns. Initially when they feed, the tips of the blades of grass will have windowpane-like damage. As the caterpillars grow, they will progress into consuming whole blades of grass. The term “armyworm” also comes from the fact that these pests move in a group across the grass, creating a distinct line of damage



Figure 1. Typical fall armyworm damage in a young orchardgrass stand.

opposed to undamaged grass. Newly planted sod is more susceptible to being killed by these pests than established turf areas.

What should you do now?

Keep a close watch on your pastures/hayfields for egg masses and armyworms over the next few weeks. Egg masses may be laid on any outdoor surface and have a fuzzy covering. The eggs themselves are small and round, less than 1/8 inch in diameter.

If you have 2-3 caterpillars per square foot or more, then you should consider spraying. In other words, these numbers will likely mean you will have considerable damage to late summer/fall growth in your pastures and hayfields. Fall armyworms have a characteristic inverted ‘Y’ on their headcap (Figure 2).



Figure 2. Two large fall armyworm larvae forced out of the ground by a soapy water drench. Note the inverted ‘Y’ on the head capsule of the larvae on the right. (This may be easier to see in the photo on page 1.)

Fall armyworm is a sporadic late summer fall pest of alfalfa and mixed stand pastures. Best time to scout for this pest is in the early morning as they hide from the sun at midday. Soapy water drenches can be used to flush larvae from the soil at any time. Control should be considered if 2 to 4 larvae per square foot are found.

A potential alternative to insecticide application for hay crops near harvest stage, is to mow the crop IMMEDIATELY. Unfortunately, waiting 2 or 3 days for good curing conditions is not an option since armyworm defoliation is so rapid. Once cut, the conditions in the mowed forage become less conducive for the armyworm.

Check with your ag supplier about their current availability of insecticides. A copy of the labelled insecticides is found in Figure 3. Pyrethroids such as Warrior work best on small larvae (less than ¾ inch),

while diamides such as chlorantraniliprole works better on larger ones. Always be sure that the crop to be protected is on the label of the pesticide to be used.

For the future

In terms of the future, fall armyworm will remain a threat until the first frosts of the fall. Cold weather in the fall and winter kills this insect. It can only overwinter in the extreme southern parts of the United States and re-infests the state each summer.



Additional Photo: Fall armyworm damage on alfalfa, several years ago in Oldham County, KY. Note that they fed from the ground up. During the heat of day, you will often find fall armyworms at the base of plants/in organic matter where it is shaded. Because armyworms may feed from the ground up — they can go unnoticed until there is substantial damage. SCOUTING IS CRITICAL.

Fall Armyworm Insecticides	MOA Group	Graze/harvest – Pre Harvest Interval (days)
carbaryl - Sevin XLR, Sevin 4F, etc.	1A	7 for alfalfa (May temporarily bleach tender foliage) 14 days for pasture and grasses for hay
methomyl - Lannate	1A	7 days for grazing or hay (alfalfa)
bifenthrin – Brigade 2E	3A	Not for use on alfalfa 30 days for forage and hay
<i>b</i> -cyfluthrin - Baythroid XL (1 st and 2 nd instars only)	3A	1 day forage 7 days for hay (alfalfa) 0 day forage, 7 days for hay (pasture grass)
<i>g</i> -cyhalothrin – Declare, Proaxis EC	3A	1 day forage 7 days for hay (alfalfa) 0 day forage 7 days for hay (pasture grass)
<i>l</i> -cyhalothrin – Warrior II	3A	1 day forage 7 days for hay (alfalfa) 0 day forage, 7 days for hay (pasture grass)
<i>α</i> -cypermethrin – Fastac EC	3A	3 days for cutting or grazing (alfalfa)
<i>z</i> -cypermethrin – Mustang Maxx	3A	3 days for cutting or grazing (alfalfa) 0 days for cutting or grazing (grass forage and hay)
permethrin – Ambush, Permethin 3.2 AG	3A	0 or 14 days depending on rate used (alfalfa only)
pyrethrins - PyGanic	3A	0 day forage/harvest
Spinosad - Entrust	5	0 days for forage, 3 days for hay
Bt products - Agree WG, Biobit HP, DipelDF, Javelin	11	0 days
methoxyfenozide – Intrepid 2 F	18	0 day forage, 3 days for hay (alfalfa) 0 day forage, 7 days for hay (Grass forage, fodder and hay)
chlorantraniliprole – Coragen, Prevathon, Vantacor	28	0 day alfalfa 0 day for grasses grazing or hay

Figure 3. Fall armyworm insecticides, their mode of action (MOA) and the graze/harvest-preharvest interval (days). From ENT-17, University of Kentucky.

Kentucky Strawberry Growers at Risk for Neopestalotiopsis Disease

By Nicole Gauthier, UK Plant Pathology Extension Specialist

In late August, Neopestalotiopsis disease was confirmed in strawberry cuttings across Kentucky. Some cuttings showed symptoms quickly, while others developed symptoms several days after becoming infected.

Neopestalotiopsis disease is caused by a fungus that can infect both cuttings and mature plants. Symptoms can range from leaf spots (Figure 1) to crown and root rots to fruit infections (Figure 2). The pathogen overwinters in debris and as melanized spores in soil. Once introduced to fields, it can survive 3 to 5 years.

Symptoms

Symptoms on leaves begin as light-colored spots with dark borders; spots expand rapidly to cause blighting and plant dieback. Leaf symptoms are easily confused with strawberry leaf spot and strawberry leaf blight. Fruit symptoms begin as tan lesions that turn orange and sunken. Fruit become mummified and develop large black fruiting bodies.

Fruit symptoms can resemble anthracnose fruit rot. Symptoms progress rapidly under warm, humid conditions (68 to 85°F, 90 to 100% RH).

Spores are spread short distances by water splash and long distances by movement of infected plants. In Kentucky, Neopestalotiopsis disease was introduced by rooted cuttings and propagation material.

Management

- Avoid planting symptomatic plants or those sourced from a supplier with a history of Neopestalotiopsis disease.
- Infected plants **cannot be cured**.
- If you have been contacted by your cutting producer regarding potential infection, it is recommended to destroy plants immediately.
- Take extra caution to sanitize surfaces and tools. Avoid tracking soil/media to clean greenhouses and fields.
- Growers who need disease confirmation should work through their local Extension agent for diagnostic sample submission.
- Fungicides Switch and Thiram can suppress disease, but research trials have documented only 50% effectiveness in the highest rated spray treatments.
- Healthy plants can be protected with Switch, Bravo, or one of the fungicides listed in the *Southeast Regional Strawberry IPM Guide*.
- Organic producers should protect healthy plants with a rotation of Serenade Opti and Actigard. Organic management options are limited.



Figure 1: Neopestalotiopsis leaf spots symptoms. (Photo: P. Brannen, University of Georgia)



Figure 2: Neopestalotiopsis fruit rot symptoms. (Photo: N. Peres, University of Florida)

Strawberry Disease (continued)

Guides Available at the Extension Office:

- Southeast Regional Strawberry IPM Guide
- Neopestalotiopsis disease in strawberry: what do we know?
- Pestalotia Leaf Spot and Fruit Rot of Strawberry
- Fruit and Orchard Sanitation
- Greenhouse Sanitation
- Cleaning and Disinfesting Commercial Greenhouse Surfaces

FSMA/Produce Safety Grower Training

If you have not yet taken the **Produce Safety Grower training**, we have a unique opportunity to offer an in-person class this October or November. **However, the class can only be offered if we have the minimum number of participants.** Please call the Extension office at 270-265-5659 if you need this training.

All other FSMA trainings are offered online only, so to do this live, we need to hear from you.

EVENTS

September 21

Kratky Herb Gardening Workshop

10:00—11:00 am

Travelers Lantern

103 South Main Street, Trenton

September 24

Beef Quality & Care Assurance Certification

6:00 - 7:15 pm

Todd County Extension Office

OR

Online anytime at

<https://www.kybeefnetwork.com/>

Certification is free during September.

December 10

CPH 45 Cattle Sale

Kentucky-Tennessee Livestock Market

Guthrie, KY

**Private Pesticide Applicator Certification
will be offered monthly**

January - April 2025

Elkton's

HarvestFest

VENDOR
BOOTHS

—

FREE
CHILDREN'S
AREA

—

LIVE
MUSIC

—

FOOD
TRUCKS

—



Saturday, September 28th, 2024

Historic Public Square, Elkton, Kentucky

9 am to 3 pm

Visit ElktonKy.com/Harvestfest for Vendor Registration and More Information

Fall Gardening Tips: Embrace the Fall Season

By Frank Amaro, Kentucky Extension Master Gardener & Naturalist

As temperatures begin to cool and leaves start to change, fall presents a wonderful opportunity to prepare your garden for the months ahead while still getting some last-minute harvests. Here are some essential tips to help make the most of your fall gardening experience.

Plant Cool-Weather Crops

Fall is the perfect time to sow cool-weather crops that thrive in lower temperatures. Consider planting hardy vegetables like kale, spinach, broccoli, and Brussels sprouts. These crops can withstand light frosts and actually taste sweeter after a chill. Be sure to check your local frost dates to ensure optimal growth.



Extend Your Growing Season

Consider using cloches, row covers, or cold frames to extend your growing season. These protective structures can shield your plants from frost and provide a warmer microclimate for your crops to thrive. You can also experiment with planting transplants or seeds in containers that can be moved indoors during cold snaps. This way, you can continue to enjoy fresh greens and herbs right up until the first hard freeze.



Focus on Perennials

Fall is an ideal time to plant perennial flowers and grasses, which will beautify your garden year after year. Consider adding varieties like asters, sedum, or ornamental grasses to create stunning displays that last well into the winter months. Ensure to water them well before the ground freezes, giving them a solid start. Dividing and transplanting existing perennials can also improve their growth and give your garden a refreshed look.

Clean Up Your Garden

Before winter sets in, it's crucial to clean up your garden beds. Remove dead or diseased plants to prevent pests and diseases from overwintering in your soil. You can also add organic materials like leaves, straw, or compost to enrich soil. This not only improves soil structure but also provides essential nutrients for your spring garden.

Mulch for Protection

Applying a layer of mulch is essential during the fall months. Mulch insulates the soil, helping to maintain moisture and regulate temperature fluctuations. Additionally, it suppresses weeds and adds nutrients as it breaks down. Choose organic options like shredded bark, straw, or leaf mulch for the best results.

Fall Gardening (continued)

Plan for Spring

Finally, take this time to plan for next spring. Assess what worked well in your garden this year and what didn't. Now is the perfect opportunity to sketch out your garden layout, choose new plant varieties, and even start seeds indoors if you're eager to get a head start. By preparing now, you'll set yourself up for a successful and bountiful garden when spring blooms anew!

Seek Expert Advice

For those looking to further enhance their gardening skills or seek expert guidance, don't hesitate to reach out to your local Master Gardener program or the Todd County Extension office. These resources offer valuable insights tailored to your region's climate, soil conditions, and pest management strategies.

Their expertise can help you troubleshoot any issues you're facing and provide personalized advice to maximize your garden's potential as you transition into the fall season.

Embracing fall gardening can be incredibly rewarding and sets you up for a flourishing garden come spring. By implementing these tips, you'll create a thriving environment that supports various plant life while enjoying the beauty of the season. Remember, gardening is a journey—don't hesitate to connect with local experts for the best results.

Happy gardening!



Master Gardener Kratky Herb Gardening Workshop



About the Event

Traveler's Lantern in Trenton will host the Master Gardeners as they demonstrate growing herbs indoors with the Kratky Method.

What You'll Learn

- The Kratky Method
- Best Herbs for Kratky
- Indoor Growing and Lighting

21 SEPT 2024

FROM 10:00 TO 11:00 AM

AT THE TRAVELLERS LANTERN
103 SOUTH MAIN ST
TRENTON, KY 42286



FOR MORE INFORMATION

270.886.6328 OR 270.265.5659

CONTROL PROBLEM WEEDS BEFORE THEY GO TO SEED

Palmer Amaranth has been in Kentucky for a while now. **It has widespread resistance to glyphosate and ALS-Inhibitor herbicides, plus varying degrees of resistance to at least two other herbicide groups.** This chart is from a 2020 UK Extension publication describing documented herbicide resistance.

Table 1. Confirmed herbicide resistance events in waterhemp and Palmer amaranth in Kentucky and prevalence of resistance within the state.

Site of action	Site of action group #	Example active ingredient	Prevalence of resistance in KY	
			Waterhemp	Palmer amaranth
ALS-inhibitor	2	Chlorimuron, Imazethapyr	Widespread	Widespread
EPSPS-inhibitor	9	Glyphosate	Widespread	Widespread
PPO-inhibitor	14	Fomesafen	Moderate and rapidly spreading	Isolated and spreading
PSII-inhibitor	5	Atrazine	No confirmed populations	Isolated with limited spread

Palmer Amaranth is in the pigweed family and is most often **easily identified because its petioles are long, often-times longer than the leaves.**

This is a weed that we need to prevent from spreading. **It's not just a pest in grain fields – it can also be found in other crops like vegetables and hemp. I've even seen it growing in hay fields.**

Following are some photos that will help with identification if you're not familiar with palmer amaranth. **Palmer amaranth is a prolific seed producer with one plant producing around 100,000 seeds.** Contact the extension office for information on controlling this problem weed in different crops.

Extension Offices can help with weed identification. Providing the whole plant gives the best chance for accurate identification.

Have a safe harvest season.



Traci Johnson
Agriculture & Natural Resources Agent

