

Clark County

Horticulture Newsletter

From the Ground Up!



November 2023

Clark County Extension Service • 1400 Fortune Drive • Winchester, KY 40391 • 859-744-4682 • clark.ext@uky.edu • <http://clark.ca.uky.edu/>

A Word from the Agent . . .



Hello and Happy November! I hope you all are doing well and have been enjoying the sudden weather shift that we all have been loving.....or at least tolerating! As gardening activities wind down and we focus on the upcoming holidays for a couple months, I have one very important piece of information for you. The United States latest invasive pest, the Spotted Lanternfly, has officially made it's way into Kentucky. All information regarding the Spotted Lanternfly

and it's favorite host, the also invasive tree of heaven, is in this issue of the Horticulture newsletter. I sincerely hope you all take the time to read about this pest because we rely on you when it comes to tracking the spread of it. If you see what you suspect to be a lanternfly, please snap a picture of it or catch it and bring it in. There are a few look-alikes that can be confused for Spotted Lanternfly, so check out the chart in this newsletter for that as well. Any time you see a bug that you aren't sure what it is or if its harmful to anything or not, send me a picture! That's what we are here for. But the more eyes we can have helping watch for this pest, the better off we can track and manage the spread of it.



Before I let you go, I need to take a quick second to say thank you for a fabulous 2 years as your Horticulture Agent. It's been a great 2 years, and I am looking forward to the many more to come, serving you as your County Extension Agent for Horticulture. I work in a fabulous community with a fabulous group of coworkers and am supported not only by each of you, but a fabulous family as well. I think you know by now, but always feel free to reach out and say hey or tell me how I can help!

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By Jonathan L. Larson,
UK 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.

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.



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).

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 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.

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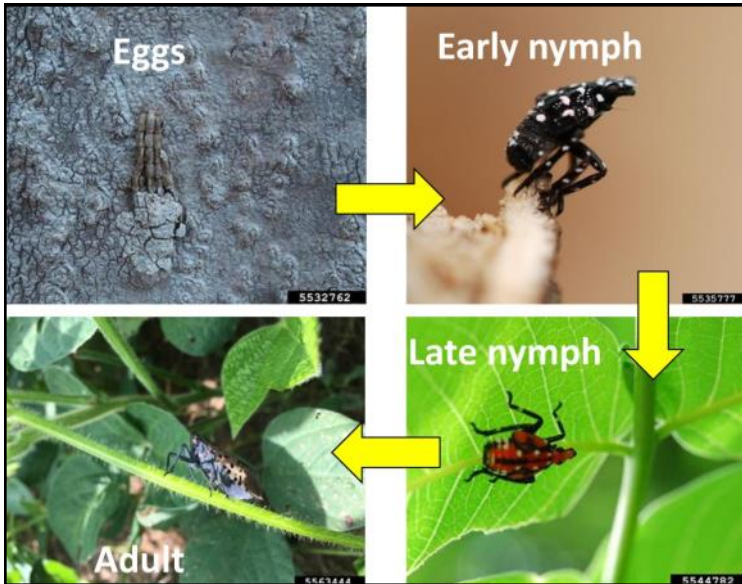


Figure 2: Spotted lanternflies start as eggs, which look like they are covered with brown-grey spackle, and then they develop through spotted nymphal stages before maturing into the adult form (Photos by Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org).



Figure 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 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).

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.

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.

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.

Ornate bella moth



White lined sphinx moth



Pink underwing moth



Ailanthus webworm moth



Other insects may have spots or stripes but not quite the same mixture as the SLF.

Leopard moth



Harlequin bug

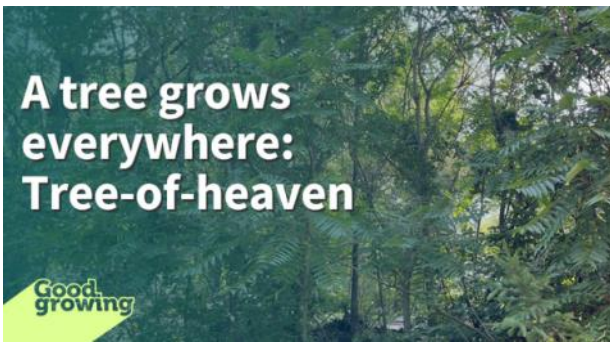


Boxelder bug



Large milkweed bug

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).



Two separate serendipitous events occurred recently that brought a plant back to the forefront of my attention. First, a few weeks ago a colleague asked me to confirm the species of a tree growing near a public garden. The garden was struggling to grow, and a cursory identification of the tree marked it as Black Walnut (*Juglans nigra*). Having earned a reputation for suppressing the growth of other plants through the production of a growth-inhibiting chemical, and having large, compound leaves, the culprit seemed to be identified. Upon arrival, instead of finding black walnut, I found *Ailanthus altissima*, also known as tree-of-heaven.

The second unexpected time *Ailanthus altissima* became part of my daily conversation was a few weeks ago when Spotted lanternfly was confirmed to have been found in Illinois. Spotted lanternfly is an invasive pest that sap sucks on the stems, branches, and trunks of woody plant material. It can reduce plant vigor and produce an abundance of honeydew, a sticky, sugary substance excreted by the insect. Spotted lanternfly feeds on many orchard and ornamental plants including grape, apple, stone fruits, maples, walnut, and willow. However, its preferred host plant is *Ailanthus altissima*, tree-of-heaven.

In the beginning

Tree-of-heaven is native to northern China and was introduced to France in the early 1740s by amateur botanist Father Pierre Nicolas Le Cheron. Within a few short decades, the tree had spread throughout Europe. While on a plant collecting expedition in 1784 to Europe, plant collector William Hamilton secured the seeds of both *Ginkgo biloba* and *Ailanthus altissima*, introducing the species to North America.

During the height of the Industrial Revolution, *Ailanthus altissima* was promoted in the nursery industry for its vigorous growth, tolerance of urban pollution, and indifference to poor soils. In the urban environment during a time when window screens were not yet available, the tree's shade was desired as much as its canopy being unappealing and unsupportive of insect life. For these reasons and more, the tree became the most common street tree planted in the urban environment.

This plotline is, unfortunately, a familiar one. Many of our current invasive species were once promoted by authorities.

Ailanthus altissima

Ailanthus altissima is a fast-growing tree that can reach heights of eighty feet. Large, alternately arranged, compound leaves have 11 to 25 leaflets. Each leaflet has one or more glandular serrations near the base which is helpful for identification. Large floral clusters of yellowish-green flowers emerge in the spring on female trees. Flowers are said to have an unpleasant odor described by some like cat urine or rancid nut butter. If pollinated, an abundance of seeds are produced each year perpetuating the challenge of control.

The bark of tree-of-heaven is smooth throughout its life cycle compared to that of a cantaloupe rind. The bark of younger trees have a greenish tinge to the brown bark that fades to light brown or gray with age.

An extensive root system and prolific seed production make the species difficult to control. Mechanical, physical, and chemical control strategies can be combined to combat an infestation. Tree-of-heaven is intolerant of shade and will not invade established woodlands. Look for the species along the edges of forests and wild space.

Look-a-likes

A few species of native trees can make identification complicated. Tree-of-heaven may be mistaken for black walnut, staghorn sumac, Kentucky coffeetree, and honeylocust. The serrations on the lower leaflets and the foul smell of the crushed twigs are useful identification characteristics.

- By Emily Swihart,
Horticulture Educator with the University of Illinois Extension



**Clark / Powell
Beekeepers
Association
Meeting**

**Monday,
November 13
6:30 pm**

Clark County Extension
1400 Fortune Drive
Winchester, Kentucky

~ POT-LUCK MEAL ~



Gus' QUICK TIPS for NOVEMBER

- 1 Although we are past the best time for seeding, lawns will benefit from a fall application of nitrogen. October and November are excellent months to feed as you can promote vigor without excessive growth.
- 2 Mow new grass seedlings when they reach 2.5 inches tall. Continue to mow lawns as late as needed, but always wait till the frost has melted!
- 3 Remove small piles of leaves from lawns by mowing and mulching them. Mulched leaves can be highly beneficial to the lawn, however piles of leaves left on the lawn can damage the turf.
- 4 Too many leaves to mow and mulch? Start a compost pile with all of those leaves. It doesn't have to be elaborate or technical. A simple pile will make compost if left long enough.
- 5 Winterize your equipment! Clean, sharpen, and oil your tools when you are finished with them for the season. This will have them ready to go for the next year. Also, make sure to drain or add fuel stabilizer to gasoline powered equipment.
- 6 If you have not dug and stored tender bulbs like dahlias, cannas, and gladiolus, you need to do so before the ground freezes.
- 7 Clean up peony foliage if you have had any of the leaf spotting diseases. This will help prevent/lessen the problem for next year.
- 8 Drain and store garden hoses and irrigation systems.
- 9 November is an excellent time to plant fall bulbs for next spring. Examples would be daffodils, hyacinth, tulips, and even muscari.
- 10 Plant paperwhites, amaryllis and other ready to bloom bulbs for the holidays. These plants can make wonderful gifts as well!
- 11 Protect the trunks of fruit trees with wire mesh to prevent gnawing damage from rabbits and voles.
- 12 Do a thorough cleanup of the vegetable garden. This will remove many insect and disease problems before they can become a problem next year. Once your garden is clean, add a thin layer of compost or some form of organic matter to protect it for the winter.
- 13 Monitor houseplants for insect problems. Most common pests can be controlled if detected before they become major infestations.

What's Cooking?





Sorghum Gingerbread Pear Muffins

1 cup whole-wheat flour	½ teaspoon ground ginger	½ cup sorghum syrup
½ teaspoon baking powder	¼ teaspoon salt	½ cup unsweetened applesauce
½ teaspoon baking soda	1 egg	1 pear, peeled, cored, and diced
½ teaspoon ground cinnamon	½ cup buttermilk	

Preheat oven to 375 degrees F. **Grease** 12 muffin cups or line with paper liners. In a mixing bowl, **combine** the flour, baking powder, baking soda, cinnamon, ginger, and salt. In a separate bowl, **mix** together the egg, buttermilk, sorghum syrup and applesauce until smooth. **Add** the egg mixture to the flour mixture and **combine** until the batter is just moistened. Gently **fold** in the diced pears. **Fill** the muffin cups with the mixture. They will be full. **Bake** in the preheated oven until a toothpick inserted in the center of a muffin comes out clean, about 20 minutes.

Yield: 12 muffins. Serving size, one muffin.

Nutritional Analysis: 90 calories, 1g fat, 0g saturated fat, 0g trans fat, 15mg cholesterol, 140mg sodium, 20g carbohydrate, 2g fiber, 13g total sugars, 10g added sugars, 2g protein