

Cooperative Extension Service
Boone County
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Spotted Lanternfly Update

By Robert Brockman Boone County Extension Agent for Horticulture

It has been a year since we first reported that the spotted lanternfly (*Lycorma delicatula*) was found in Boone County. In August of 2024, it was found in three locations in Boone County, all locations were on the western half of the county. While we had a few sitings of young lanternflies early in the 2025 season, numerous sitings started to come in towards the end of July 2025 from all across the county. This article contains general information about the spotted



Adult spotted lanternflies are distinctive looking insects with a pink-khaki coloration and spots and stripes on their wings. (Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org)

lanternfly from our 2024 article as well as updated information on management.

The spotted lanternfly is an invasive insect whose native range is Southeast Asia. It has been in the United States for eleven years, originally being found in Pennsylvania in 2014. This is an invasive insect very unlike the emerald ash borer (*Agrilus planipennis*), which came through and killed almost all untreated ash trees (*Fraxinus spp.*) in the region. The emerald ash borer was a specialist which only fed on ash trees, and to a very small extent, related species such as the American fringetree (*Chionanthus virginicus*). Spotted lanternflies are generalist insects that prefer to feed on a few species, but will commonly feed on many. In this manner, they are similar to Japanese beetles (*Popillia japonica*). The plant most associated with spotted lanternfly is Tree of Heaven (*Ailanthus altissima*) which is also native to Southeast Asia and is often used as a host plant. In addition to feeding on Tree of Heaven, spotted lanternfly are known to feed on over a hundred species. A few of their preferred species include grapevine (cultivated and wild), hops (cultivated and wild), fruit trees, and hardwoods such as maples. We do not expect spotted lanternflies to kill large numbers of healthy plants, as was witnessed with the emerald ash borer. Instead, they are expected to kill already unhealthy plants in addition to being a nuisance.

(Continued)

Cooperative Extension Service

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

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Spotted lanternflies are sometimes mistaken as butterflies due to their bright colors. However, spotted lanternflies are more closely related to cicadas, plant hoppers, and aphids than butterflies. Unlike butterflies, spotted lanternflies go through incomplete metamorphosis. Because of this, young spotted lanternflies have a similar shape and overall look to their parents. Young spotted lanternflies, which are also called nymphs, lack wings and have different coloration than their parents. Spotted lanternflies feed in a similar way to aphids and other true "bugs". Rather than chewing up leaves or boring into plants, lanternflies will suck the



Figure 8: Spotted lanternflies are unique looking insects, with distinctly colored wings and unique patterns. The front wings are khaki pink with black spots and broken black lines. The back wings are a mixture of red, white, and black. (Photo: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org)

plant's sap and poop out a condensed sugary sap that we call honeydew. Honeydew first appears as glossy liquid on leaves, sidewalks, and even cars. However, shortly after appearing, honeydew is often colonized by black fungus which is called sooty mold. Honeydew can also attract many insects such as bees, ants, and wasps.

Dr. Jonathan Larson, UK entomologist, recommends the following for managing spotted lanternflies in the home landscape.

"If you choose to use insecticides, there can be two approaches: treating host plants with systemic products or treating insects and plants with contact insecticides.

Trees can be treated by certified arborists with a systemic product containing the active ingredient dinotefuran until the end of September and starting again in July of next year. This product is not available for the general public to purchase and treat with themselves. It is labelled for use in Kentucky and for spotted lanternfly control specifically. Depending on the size of the tree being treated, the application may be made as a soil drench, trunk spray, or trunk injection.

There are some options to directly spray spotted lanternfly as well. These sprays do pose a potential hazard to non-target organisms (birds, butterflies, bees, fireflies, people, etc.) so consider the severity of your situation before choosing to treat. That being said, products that contain the active ingredients bifenthrin or beta-cyfluthrin will offer the most efficacy and last for longer periods of time on plant surfaces. These are pyrethroid products, they will work if sprayed on top of the insect or if the pests crawl through it later. Pyrethrin, an organic product, provides similar levels of suppression but lasts for much less time. Other organic options include neem oil or insecticidal soap, though they may not be as effective or last long after application."

Why Leaves Change Color in the Fall

Sharon Flynt, UK Extension Horticulture Agent

The Fall is one of the most beautiful seasons of the year, as tree leaves change colors to bright oranges, vibrant reds and eye-popping yellows. Trees that change color in the fall are deciduous trees. They go dormant in the winter to protect the tree from freezing temperatures and will generate new leaves in the spring.

Three factors cause the tree leaves to change color at this time of year: length of night, leaf pigments and weather. Length of night is the only constant of the three. Following the summer solstice in June, the daylight shortens in the Northern Hemisphere and nights become longer. The increasing length of night triggers certain reactions in trees and leaves.



In conjunction with sunlight, chlorophyll, which produces the green color in leaves, and carotenoids, which give us the orange, yellows and browns, are working all summer to produce food for the tree. After the solstice, night length steadily increases, causing excess plant sugars to build up and chlorophyll production to slow down and eventually stop in the leaf. When chlorophyll production ceases, the carotenoid pigments are unmasked, and any anthocyanins in the leaf start producing reddish purple colors in response to bright light, giving the leaves their fall colors.

As time passes, a cell layer between the leaf petiole, which connects to the tree's stem, begins to close. Once that cell layer completely closes, the leaf drops, closing off any openings into the tree and protecting it from winter's freezing temperatures and harsh winds.

Fall color vividness depends on temperature and moisture. Sunny, warm days, cool nights and soil moisture in early fall produce the most color. This combination of moisture and temperature produce a vast array of color, and that's why no two autumns are ever alike.

For more information on your local trees, contact the Boone County Extension office of the University of Kentucky Cooperative Extension Service.



Keep all newly planted perennials and trees well watered going into the winter. This is particularly important for evergreens as they can lose a lot of water through their foliage.

Growing Garlic

By Robert Brockman Boone County Extension Agent for Horticulture

Garlic is a unique vegetable crop that is eaten by many but grown by few in Northern Kentucky. While incredibly useful in the kitchen, it's biology is different from both our typical warm and cool season vegetables. Garlic is divided into hard and soft necked varieties, as well as elephant garlic, which is a different species. All three of these can be grown in Northern Kentucky, though hard necked varieties tend to be the most popular.

Garlic is typically planted in early October and then harvested towards the end of June or the beginning of July. While you may see very little growth over the fall and winter, this fall planting allows garlic to form a strong root system that will power it into the spring and summer.

When selecting a location for your garlic, soil drainage and sun exposure are incredibly important to keep in mind. Garlic does not like to be sitting in wet soil, particularly when it starts to form a bulb in the summer. Full sunlight will also encourage the garlic to form a good bulb.



Plant your garlic 1.5 inches deep with the pointy end facing upward. Garlic can be planted as close as 4 inches apart but will form larger cloves if planted 6 inches apart. It prefers a soil that is rich in organic matter, so an addition of compost is beneficial. After planting, a 3-4 inch mulch layer of straw will help the plant both with weed control and moderating soil temperatures. As garlic is a poor competitor, weed control is likely to be the most important part of management.

Garlic is harvested when approximately 50% of the plant has turned yellow, which typically occurs in early summer. Garlic flowers, also called scapes, can also be harvested. The proper time to harvest scapes is when it is forming a curlicue, which is well before the flower opens. Scapes can be used in a similar manner as the cloves, but are typically not as strong flavored.

Check out our program on growing garlic on October 7th at the Boone County Enrichment Center. Registration is required.

Fall is an ideal time to take a soil test, as issues with soil pH can be corrected before spring planting. Wait until spring to apply nitrogen to everything but cool season lawns.



Front Porch Flowers: Garden Mums

By Sophia Becker Boone County Extension Horticulture Technician

As summer winds down, the intense heat often leaves your garden flowers looking weathered, wilted, and worn out. But don't worry, fall brings shorter days, cooler temperatures, and a fresh opportunity to revamp your containers with seasonal favorites. One of the most popular fall plants? Garden mums.

Let's take a closer look at this autumn staple and help you better understand what you're growing.

Chrysanthemums, commonly known as mums, have been beloved fall flowers in American gardens since the late 1700s. Among the many varieties, "garden mums" are the most common type sold in nurseries. These are the ones grown as annuals that form neat, compact mounds of color and are ideal for porch displays and containers. Mums come in a wide range of colors, from soft lavenders to deep rusty



oranges, you can find any color to match your front porch color palette.

Garden mums are often divided into blooming categories: early-blooming mums typically flower from late August through mid-September, mid-season mums from mid- to late September, and late-blooming varieties from late September into early October. Most mums will hold their color until temperatures dip to around 30°F. If planted in the ground or if you've chosen a late-blooming variety, they may last even longer, surviving down to 20°F thanks to the insulating warmth of the soil.

They're typically sold in 4-inch pots or larger 6 or 8-inch round pots. The 4-inch mums are great for mixed-plant containers, adding just a small pop of color without taking up too much space. On the other hand, the 6-to 8-inch mums are the "go big or go home" option, perfect for filling entire containers with vibrant color and making a bold statement on your porch.

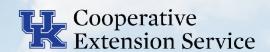
When it comes to light, mums thrive best with at least 6 hours of full sun a day. Sunlight plays a crucial role in helping them bloom. If you're buying a mum with unopened buds, full sun will encourage strong, vibrant blooming. However, if the flowers are already open, they can do well in partial sun.

Watering is where most people struggle with mums. Their dense blooms and fine, shallow root systems can make them tricky. Overhead watering can lead to premature bloom death and even rot because water has a hard time reaching the soil through the thick layer of flowers and leaves. Instead, water your mums from underneath, soaking only the soil, and only when it feels dry. Finding the right balance is key: mums don't like to be too wet or too dry.

A simple way to tell if your mum needs water is to pick up the pot. If it feels light, it's time to water. You can also stick your finger a couple of inches into the soil; if it's dry, give it a thorough drink until it drains.

Enjoy your fall planting!





Northern Kentucky Master Gardener Program

Join other gardeners for this 11-week volunteer training program. Subjects include botany, tree identification, soils, propagation, disease and insect identification and much more. Complete the program requirements and use your new knowledge by volunteering 40 hours at Extension—approved sites in order to become a *Certified Master Gardener*.

Fridays –10:00 a.m.–Noon February 20 thru April 24, 2026

Classes will be held at:
Kenton County Extension
Durr Education Center
450 Kenton Lands Road
Erlanger, KY 41018

This class has limited space.



\$70.00* fee for this program

*this fee is due upon acceptance of your application, there will be an additional fee of \$30.00 for your background check. This is due mid-way through the course.

For more information contact:

Campbell County Extension Office
Terri Turner (859) 572-2600
Email: terri.turner@uky.edu

Please note, completed forms and in-person interview does not guarantee acceptance to the program.

Notifications will be sent via email by November 17th

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for More Information...

For more information or to register for any of our classes, visit our website at boone.ca.uky.edu. Click "Online Class Registration" or call us at 859-586-6101.

Upcoming Horticulture Events Please Register

Please Note:

► For most Horticulture classes, registration opens one month prior to the class.

Propagating and Enjoying Culinary Herbs through Winter

► September 9, 10-11:30am Boone County Extension Florence (Meeting Room) Learn how to sow herb seeds and take cuttings from outdoor herbs to bring them inside to enjoy through the winter.

Seed Saving

► September 23, 6-7pm Boone County Extension Enrichment Center (Project Room) Are you interested in saving the seeds from your garden for next year? This program will focus on seed saving tips.

Native Nuts (and Fruits)

► September 25, 6-7:30pm Boone County Arboretum ← Are you a native nut? Come and join us as we search the Boone County Arboretum for native nut and fruit trees. Species highlighted include pecan, black walnut, hickories, persimmon, and pawpaw.

Growing Garlic

► October 7, 6-7:30pm

Boone County Extension Enrichment
Center (Project Room)

Are you interested in growing your
own garlic? Come and learn the best
time (now!) and methods for
growing this unique vegetable.

Fall Color Walk

► October 21, 1-2:30pm
Boone County Arboretum. ←
Join us as we walk around the
Arboretum and observe the many
fall colors. We will be pointing out
some of the species with the best fall
color.

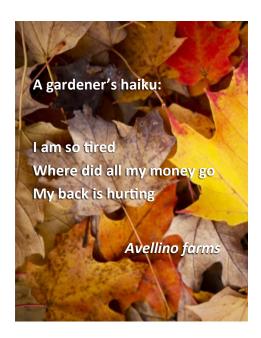
Soil Fertility & Soil Testing

▶ October 23, 6-7:30pm Boone County Extension Enrichment Center (Project Room) Are you interested in learning about your soil's fertility and how to improve that fertility? We will discuss practical things you can do to benefit the soil and your plants that grow in it!

Holiday Houseplants

▶ December 2, 10-11:30pm Boone County Extension Florence Come and learn how to grow some of the houseplants we associate with the holiday season!

♦ Register for Arboretum events with the Boone County Arboretum at bcarboretum.org/events



Extension Campus Locations:

Find us here...

Virtual via Zoom, Must register to receive Zoom link **Extension Service office**, 6028 Camp Ernst Rd., Burlington Enrichment Center, 1824 Patrick Dr., Burlington Florence Location, 7111 Dixie Hwy., Florence Farmers Market, 1961 Burlington Pk., Burlington

Environmental and Nature Center, 9101 Camp Ernst Rd., Union Environmental & Nature Center Barn & Gardens, 9203 Camp Ernst Rd., Union Boone County Arboretum, 9190 Camp Ernst Rd., Union; Register at: www.bcarboretum.org/

Fall Harvest Salad

5 cups torn leaf lettuce 2½ cups spinach leaves 1 medium red apple, chopped 1 medium pear, chopped 4 tsps. lemon juice ½ cup dried cranberries ½ cup feta cheese crumbles ½ cup chopped walnuts

Dressing:

2½ Tbsps. olive oil 2 Tbsps. Balsamic vinegar 1½ tsps. Dijon mustard 2 tsps. Kentucky honey tsp. salt



Combine leaf lettuce and spinach leaves in a large salad bowl. Mix apples and pears with lemon juice in a small bowl and add to lettuce mixture. Prepare dressing by whisking together the olive oil, balsamic vinegar, Dijon mustard, honey and salt; pour over lettuce mixture and toss to coat. Sprinkle salad with cranberries, feta cheese and walnuts. Serve immediately.

Yield: 8, 1 cup servings. Nutritional Analysis: 130 calories, 9g fat, 1.5g saturated fat, 240 mg sodium, 12g carbohydrate, 3g fiber, 7g sugar, 3g protein. Source: Plate It Up Kentucky Proud. https://fcs-hes.ca.uky.edu/recipe/fall-harvest-salad



Tor more information or if you have questions, contact us—we are here to help! 859-586-6101 • boone.ca.uky.edu

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