



October



2022

Cooperative Extension Service
 Daviess County
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“Around and About the Garden with Annette”

Tips From Annette

Fall brings cooler weather and a time to enjoy the outdoors.

- Houseplants that have been growing outside for the summer should be brought inside. Check for insect pests first, and treat with an appropriate method or insecticide outside before bringing inside.
- Bring succulents indoors unless they are hardy to zone 6. Succulents in the genus *Sempervivum* are hardy to Zone 6.
- Fall is the best time to plant most trees and shrubs.
- After July 1, avoid fertilizing trees until they are dormant which may be around Thanksgiving. The goal is to allow trees to prepare for dormancy and slow down growth to prevent damage to the tree leaves and twigs during freezing temperatures in the fall.
- The best time to fertilize the lawn is in the fall. Conduct a soil test to determine if phosphorous, potassium, or lime are needed. Currently, Daviess County residents receive soil tests free due to a grant from the Daviess County Soil Conservation District.
- Radishes can still be planted in the garden or containers through October 1.
- Harvest pumpkins when the fruit is a deep, solid color and the rind has hardened. They must be harvested before a hard frost.
- Sweet potatoes can be harvested when they reach a usable size. Dig a hill to check on size.

- Remove old vegetables from the garden when they are finished to avoid harboring insect pests and diseases for next year.
- If you apply animal manure (cattle, hog, chicken) to your in-ground garden area apply it in the fall and till it into the soil. This allows microbes in the soil to break down pathogens in the manure that cause foodborne illnesses.

Upcoming Events

October 6- “Maintaining Your Trees”

6:00 p.m. at Daviess County Public Library and through Facebook Live.



October hours are
 Saturdays 8:00 a.m.-noon
Holiday Market
 Saturday, November 5
 8:00 a.m. - 2:00 p.m.

Welcome Rachel

Rachel Logue is our new horticulture program assistant. She is originally from central Kentucky and attended Murray State University where she got her Bachelors in Horticulture. She started her extension career as an intern and moved into a temporary assistant position before joining us at the Daviess County Office. She enjoys reading and gardening in her spare time and is excited to dive into her new role!



Spotted Lanternfly on the Move North of Kentucky

By Jonathan L. Larson, Entomology Extension Specialist

Source: Kentucky Pest News, August 2022

The spotted lanternfly (aka SLF) is a serious invasive insect pest native to East Asia and was first found in SE Pennsylvania in 2014. Since that initial discovery, it has spread to many counties in Pennsylvania, as well as into Virginia, New Jersey, Ohio, Delaware, New York, Connecticut, Maryland, and West Virginia. Last year, in 2021, a population of SLF was discovered in southern Indiana in Switzerland County. The infestation was only about three miles from the border of Kentucky.

While this pest has still not been confirmed in Kentucky, it has been on the move in states north of us. Indiana has recently confirmed a population in Huntington County, and before that, a new find occurred in Oakland County, Michigan. These are in addition to movements in other states like Pennsylvania, Massachusetts, and New York. Kentuckians can help to make sure this invasive sap sucker hasn't snuck into the state by looking out for the different life stages and damage created by the pest.

What Is the spotted lanternfly?

SLF is very distinctive in appearance: the adult is about an inch long, with strikingly patterned forewings that mix 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, are capable of jumping, and can be quite fast.

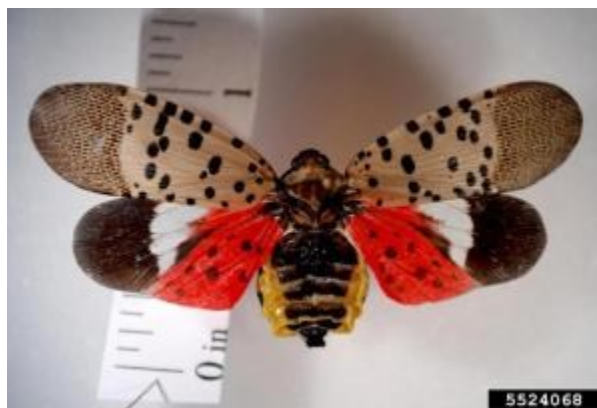


Figure 1: An adult spotted lanternfly has a very distinctive and colorful appearance. The fore wings are half spotted and half reticulated, while the back wings are a mixture of black, white, and red. (Photo: Pennsylvania Department of Agriculture, Bugwood.org).

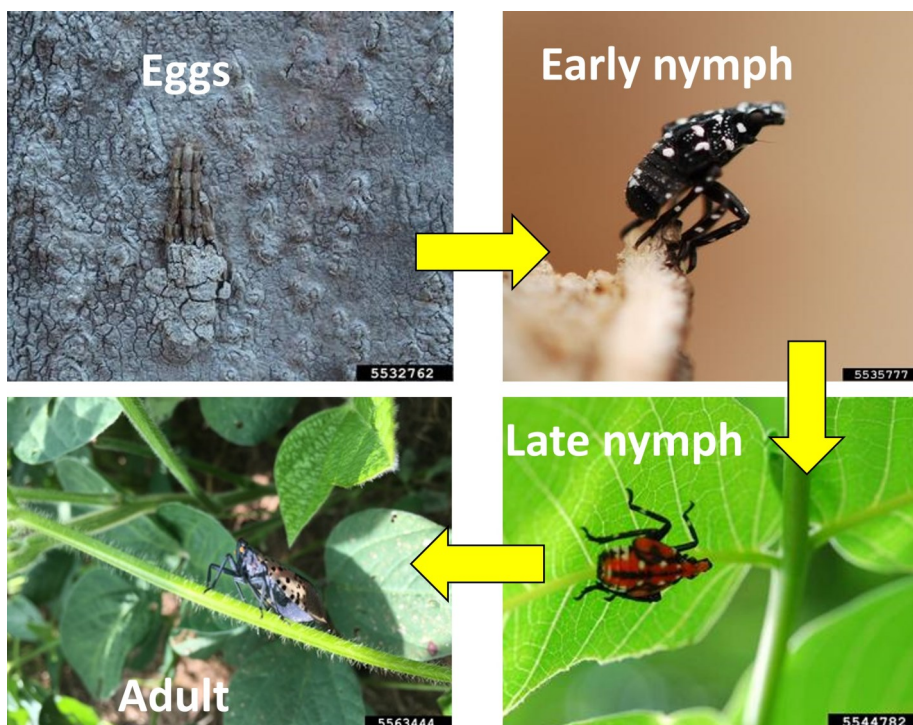


Figure 2: Spotted lanternflies start as eggs, which look like they are covered with brown-grey spackle, and then develop through spotted nymphal stages before maturing into the adult form. (Photos: Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org).

Spotted Lanternfly on the Move North of Kentucky

continued

What does it do?

This pest is also known to feed on more than 70 other plant species. This includes specialty crops (like grapes and hops), 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 a true bug, part of the order Hemiptera, and it feeds using piercing sucking mouthparts. As these bugs feed, they excrete honeydew, a sugary fecal material that accumulates on nearby plants and surfaces and can attract black sooty mold issues. 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 will lay their eggs on natural and unnatural surfaces alike. While they use trees, the cryptic egg cases have also been found on cars, lawn furniture, firewood, stones, and many other substrates. This causes issues for quarantine and a headache for those that live in infested areas trying to move goods out of the quarantine.



Figure 3: 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: 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.



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.



Harlequin bug



Boxelder bug



Large milkweed bug



Leopard moth

What can people do to help?

Kentuckians should be on the lookout for this pest. Report suspicious looking bugs and egg cases to the Department of Entomology 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.

Figure 4: 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).

What Says the Woolly Bear about Winter?

By Jonathan L. Larson, Entomology Extension Specialist

Source: Kentucky Pest News, September 2022

Now that summer is winding down, things like pumpkin spice, Halloween costumes, and hoodies may start appearing. Conversations may also start to turn toward predictions regarding the upcoming winter. A quick Google search reveals that there seems to be a negative anticipation about the 2022-2023 winter season, with some outlets predicting colder than average temperatures and possibly even higher than average amounts of snowfall. Though only time will tell if these models and predictions come true, others may turn to an unexpected meteorologist when prognosticating about the winter: the humble woolly bear caterpillar.

What is a woolly bear?

The woolly bear is also known as a woolly worm as a larva. They are a part of a group of moths known as “tiger moths.” The specific weather predicting species is *Pyrrharctia isabella*, also known as the Isabella tiger moth. The adult form of the moth is a pale orange/light brown when the wings are closed. There can be broken black dots and lines on the wings as well. This species exhibits sexual dimorphism, which can be seen when the wings are open for flight. Isabella tiger moth females have slightly rosy hindwings, while males have pale orange hindwings.

The larval form is undoubtedly the more famous stage of their life cycle. They overwinter as caterpillars and can be found first in the spring. These winter warriors will pupate and become adults, laying eggs that will hatch into the next generation of caterpillars, which are seen as summer ends. While they are hairy throughout their lives, they don’t develop the thicker furry coat with bands of black and orange until almost completely grown. The larval stage is known to feed on a variety of plants, including grasses and clover, as well as sunflowers, milkweed, corn, maples, and birches. They aren’t normally considered a significant pest though.

When they pupate, the hairs from their body are incorporated into a cocoon that helps protect the pupal form. If you have ever looked under a log and found what looks like a webby hairball, it could have been a woolly bear inside there developing into an adult moth.

Where does weather prediction come in?



Figure 2: Woolly bear caterpillars are known for a black and brown banding pattern to their “fur.” Folk wisdom tells us that these hairs may help when predicting winter weather. (Photo: Whitney Cranshaw, Colorado State University, Bugwood.org)

Folk wisdom holds that the woolly bear can be an indicator for upcoming winter weather when caterpillars are found in the autumn. There are two methods of prediction that can be employed. In the first, looking at the caterpillars for the relative amount of black hair versus orange hair will demonstrate how drastic winter might be. The more black hair compared to orange, the worse winter will be. A more analytical version of this folk wisdom is that the 13 body segments of the caterpillar represent the 13 weeks of winter. Looking at where black versus orange appears can tell when winter will be at its worst on the calendar.

Others believe that the direction the caterpillars are crawling can predict the weather. If they are heading south, then Old Man Winter has the worst in store for us.

Does it work?

It may not surprise anyone to hear that this particular method of winter foretelling has been found inaccurate. No correlation has been found between caterpillar color form and the severity of winter. Woolly bears can be highly variable in their coloration, not only year-from-year, but caterpillar-to-caterpillar.

Even though they won’t be hired by the Weather Channel anytime soon, woolly bears do have a unique connection to winter. As mentioned before, the caterpillar is the overwintering stage of this moth species. This is fairly unique as many moths would overwinter as an egg or as a pupa, both inactive life stages that can safely hide away from chilly temps. Woolly bears survive the winter by finding an out of the way spot to hide from cold air temperatures. Further, they produce glycerol, an antifreeze like chemical, which can allow them to be super cooled to subzero temperatures for extended periods of time and still survive. So, even if they can’t tell us how cold the upcoming months may be, they will be prepared for the worst!

In Kentucky, we can celebrate this unique and beloved caterpillar at the Woolly Worm Festival, held in Lee County October 21-23 this year. If you go, be sure to check out the woolly worm race!

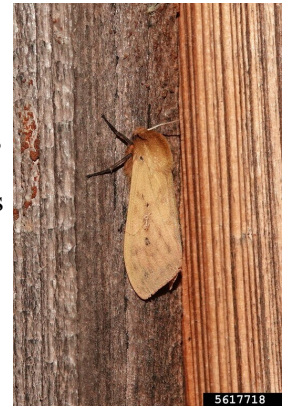


Figure 1: Adult woolly bears are called Isabella tiger moths, and they are a pale orange color when viewed with the wings closed. The moths are usually seen in the late spring/early summer. (Photo: Rebekah D. Wallace, University of Georgia, Bugwood.org)

Why Leaves Change Colors In The Fall

By Sharon Flynt, UK Extension Horticulture Agent

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. It is the increasing length of night that triggers certain reactions in trees and leaves.

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

As time passes, a cell layer between the leaf petiole, where it connects to the stem of the tree, 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.



Hickory



Tulip Poplar



Sugar Maple

In Kentucky, orange and yellow colors are shown on yellow-poplar, birch, hickory, white oak, and sugar maples.



Dogwood

Oak, maple, black-gum, sassafras, and dogwood trees produce various shades of red in the fall.



Black Gum

Baked Broccoli Frittata

Yield: 8 servings

Ingredients:

1 cup broccoli florets
1/2 cup tomato, diced
1 small red bell pepper, sliced
2 green onions, sliced into 1 inch pieces
1 tablespoon olive oil
6 whole eggs
1/4 cup Dijon mustard
2 tablespoons water
1/4 cup 2% milk
1/4 teaspoon salt
1/4 teaspoon black pepper
1/2 teaspoon Italian seasoning
1 cup low fat mozzarella cheese, divided

Directions:

Preheat oven to 375 degrees F. **Place** broccoli florets, diced tomato, bell pepper and green onions in a 9x13 inch baking dish. **Spoon** olive oil evenly over vegetables. **Roast** the vegetables in the oven until crisp-tender, approximately 10 minutes. In a bowl, **combine** eggs, Dijon mustard, water, milk, salt, black pepper and Italian seasoning. **Whisk** mixture until frothy. **Stir** in 3/4 cup of shredded low fat mozzarella cheese. **Pour** the egg mixture over the roasted vegetables. **Stir** gently with a fork to combine. **Sprinkle** the remaining 1/4 cup of mozzarella cheese over the top. **Return** to oven and **bake** 20-25 minutes or until set and cheese is browned on top. **Serve** immediately.

Nutritional Analysis:

130 Calories
8 g fat
3 g saturated fat
170 mg cholesterol
400 mg sodium
5 g carbohydrate
1 g fiber
2 g sugars
9 g protein



Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers' market, or roadside stand.

Plant of the Month

Hamamelis virginiana

Native to Kentucky



Common Name: common witchhazel

Type: Deciduous shrub

Family: Hamamelidaceae

Zone: 3 to 8

Height: 15.00 to 20.00 feet

Spread: 15.00 to 20.00 feet

Bloom Time: October to December

Bloom Description: Yellow sometimes tinged with orange or red

Sun: Full sun to part shade

Water: Medium

Maintenance: Low

Flower: Showy, Fragrant

Attracts: Birds

Tolerate: Deer, Erosion, Clay Soil

Source: Missouri Botanical Garden

Please "like" the Daviess County Cooperative Extension Facebook page at:

www.facebook.com/daviesscountyextension/

We have daily posts related to all areas of Cooperative Extension.

For exclusive gardening information and how-to videos, also visit and "like" the Facebook of the Green River Area Extension Master Gardener

Association at

www.facebook.com/graemga/

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