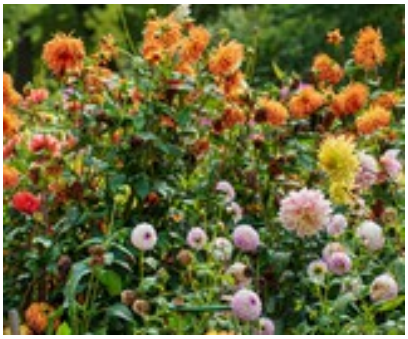


HORTICULTURE NEWSLETTER

Fall 2025

"Around and About the Garden with Annette"

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

Cooperative Extension Service
Daviess County
4800A New Hartford Road
Owensboro, KY 42303
(270) 685-8480
http://daviess.ca.uky.edu

Tips From Annette

As the growing season comes closer to the end, enjoy the outdoors and gardening practices before it becomes cold.

- Bring houseplants growing outside during the summer indoors. Before bringing them in, check for insect pests. Treat with appropriate method or insecticide.
- Most succulents, unless they are from the genus Sempervivum, which are hardy to Zone 7, need moving indoors or they will freeze.
- Fall is the best time to plant most trees and shrubs.
- Plant spring flowering bulbs like daffodils, tulips, and crocus.
- The best time to fertilize the lawn is in the fall. Test the soil in the lawn to determine if phosphorus, potassium, and lime are needed. Save money by applying only what is needed.
- Soil tests for Daviess County residents are currently free due to a grant from the Davies County Soil Conservation District.
- Late fall is the best time to fertilize most tress and shrubs after they are dormant if they need it. Their roots continue to grow at soil temperatures above 40 degrees F.
- If you apply animal manure (examples cattle, hog, chicken) to an 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.

Events

Monday, October 20, 2025
Making a Terrarium

10:00 a.m. or 6:00 p.m. at the Daviess County Cooperative Extension Service Office

Cost $15. Class size limited. Registration required. Call 270-685-8480

Thursday, October 23, 2025
Guest Speaker, Ashton Robinson-
"Mahr Arboretum, Madisonville, KY - A Hidden Gem Close to Home"
1:00 p.m. at the Daviess County Cooperative Extension Service Office

No registration necessary.

Tuesday, November 4, 2025
Commercial Pesticide Training, CEUs available

8:00 a.m. - 12:00 p.m. at Bittel Hall, Daviess County Lions Club Fairgrounds, Philpot, Kentucky

Registration required. Call 270-685-8480.

Tree Surface Roots: Why they happen and what to do

By Rick Durham, UK Extension Horticulture Specialist

Big shade trees are a gift — until their roots start showing in the lawn. Surface roots make mowing tough, trip people up and can heave sidewalks. They aren't a sign your tree is failing, though. In most cases, they're a normal response to how roots grow and how soil behaves.

Most tree roots spread outward in the top 4–15 inches of soil because that's where oxygen is available. In heavy, compacted, or poorly drained soil, oxygen is scarce, so roots creep even closer to the surface. Each year those roots thicken, the way a trunk does, and they can push through the turf. Erosion from rain and foot traffic exposes them more. Nearly any mature tree can develop surface roots, though poplars, willows, maples (Norway, red, silver), sycamores, aspens, beeches and some ash and pin oaks are frequent culprits.

The worst thing you can do is cut or grind off visible roots. That invites decay and insects, removes thousands of feeder roots that absorb water and nutrients, and can weaken the tree's stability. Piling on lots of soil is risky too; deep fill over the root zone can suffocate roots.

First, consider adding a mulch layer over exposed roots. A two- to three-inch layer of shredded wood or chips cushions the roots, reduces mowing around the tree and holds moisture. Extend the mulch ring as far as you can — ideally to the dripline — and keep it pulled back a few inches from the trunk. Skip "volcano" mulching—don't pile mulch around the trunk. If you want plants under the canopy, hand-dig small pockets within the mulched area for shade-loving perennials or groundcovers between roots; avoid rototillers and do not add thick layers of soil first. Make sure plant roots extend down into the soil and not just into the mulch.

Growing grass under trees is also an option but has its own challenges. Even shade-tolerant species may not provide a thick enough cover to be attractive. The grass and tree roots will constantly compete for moisture and nutrients, and you may find yourself watering the grass under the tree more often than in other parts of the yard. Nevertheless, if you want to try grass, rake away debris of sticks and excess leaves, then add just enough topsoil —a half inch or less — just enough to fill in between roots and smooth the surface. Seed with a shade-tolerant grass and water as needed. When mowing, you may want to set your mower deck a bit higher to avoid damaging any exposed roots. Because roots continue to thicken, expect to repeat this light topdressing every year or two rather than burying everything at once.

Planning and planting choices help prevent the problem. In compacted or clay soils, select trees with deeper root systems such as black gum, ginkgo, yellowwood, zelkovas and many oaks are good options. You can also choose smaller ornamental trees whose roots are less likely to grow large enough to cause trouble. Plant slightly high (about two inches above grade), give trees room near pavement, and check local rules before planting along streets. Remember that roots extend well beyond property lines and will follow air, water, and space.

In short, surface roots are mostly an aesthetic and maintenance issue — a response to soil conditions rather than a sign of poor tree health. Treat the soil gently, protect the roots, and manage the area with topdressing or mulch. Your tree will thank you — and your mower will, too.

Why Leaves Change Color 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. 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.

Kentucky and Kissing Bugs

By: Jonathan L. Larson, Entomology Extension Specialist
Source: Kentucky Pest News, September 2025

Over the last week or so, kissing bugs have been in the news. In the southwestern and western United States, there are growing concerns about the prevalence of kissing bugs and the possibility that a parasite they vector may be more common in those states than previously believed. That parasite is responsible for Chagas disease, a health issue more common in Central and South America that can become a chronic long-term health issue.

As reporting expands, there have been publications and social media questions about kissing bugs and Kentucky, as well as how at-risk people and animals might be affected. There is one species of kissing bug that dwells here, the eastern bloodsucking conenose, but thus far, it has not posed a distinct human health hazard.

Figure 1: *Eastern bloodsucking conenoses are large insects with a distinctive black and orange coloration and patterns on the edge of their bodies. (Photo: Sturgis McKeever, Georgia Southern University, Bugwood.org)*

Eastern bloodsucking conenoses are out and about in Kentucky, looking to take blood meals. People can be bitten by conenoses, leaving people to wonder if they were exposed to/contracted Chagas disease. Luckily, the chances of Eastern bloodsucking conenoses vectoring Chagas disease are low due to a variety of circumstances that make the conenose different than their close relatives in the subfamily Triatominae.

Eastern bloodsucking conenose basics

As part of the kissing bug group, these are blood feeding critters (if the name wasn't a giveaway). Kissing bugs belong to the Hemiptera order, also known as true bugs. Hemiptera also includes things like aphids, stink bugs, bed bugs, cicadas, and many more. All true bugs have piercing sucking mouthparts and go through incomplete metamorphosis. Conenoses are specifically a part of the Triatominae and are closely related to assassin bugs and wheel bugs.

Conenoses start life as an egg and progress through eight nymphal instars, or stages, to reach adulthood. To go from one stage to the next, they must take a blood meal. The adults are about 3/4 inch long, dark in coloration, and have distinctive orange or red-orange squares on the border of their body.

Kissing bugs get their common name for their penchant of biting a human host near the mouth. This creepy kiss is done when humans are asleep to minimize chance of detection. Conenoses can also bite on the face. In addition to biting people, eastern bloodsucking conenoses will dine on frogs, rats, raccoons, cats, and dogs. Because of this, they can be found in tree cavities, near doghouses, and by animal enclosures.

Is there anything to be concerned about?

Kissing bugs as a group are responsible for vectoring the parasite that causes Chagas disease. This disease is more commonly associated with Central and South America than Eastern North America. In the acute phase of Chagas, which would occur soon after transmission, the CDC describes that the patient may experience fever and/or swelling around the bite site. In chronic cases, those who suffer from Chagas may have heart and digestive tract issues.

Kentucky and Kissing Bugs, continued

Typical vectoring of the Chagas pathogen comes from a kissing bug biting a person and then defecating on the person's face, often near the bite site. Upon waking, the person may wipe or itch at the bite, which can transfer the parasite into the wound.

The eastern bloodsucking conenose can and will bite humans. In the past, the pest has tested positive for the parasite responsible for Chagas. It is believed that they may acquire the parasite from rats or other wildlife they have fed on; however, they are not classically considered to be competent vectors for Chagas to humans. This is because, unlike their relatives, these conenoses do not tend to defecate while engaged in feeding or soon after feeding while still on the sleeping human. Without exposure to the infected feces, you should be relatively less likely to acquire Chagas. For this reason, if you find a conenose in your home, it is extremely unlikely you will end up with Chagas disease here in Kentucky. Of course, if you feel concerned or ill, please consult with a medical professional!

Mistaken identities

The eastern bloodsucking conenose can be confused with multiple, more common insects. This can include the ones you see in the diagram below. Pictured are the bloodsucking conenose, a wheel bug, a western conifer seed bug, and then a brown marmorated stinkbug. Wheel bugs have a large cog that projects from the top of their thorax that differentiates them from a conenose. Western conifer seed bugs have flattened legs that resemble an oar or paddle. Brown marmorated stink bugs are much lighter in color than the conenose.

Figure 2: *From left to right, the bloodsucking conenose, a wheel bug, a western conifer seed bug, and then a brown marmorated stinkbug..*
(Photos: Kansas Department of Agriculture, Joseph Berger, David Cappaert, and Susan Ellis, Bugwood.org, respectively).

Management

Even if you are not at distinct risk of infection, few people enjoy the idea of an insect drinking their blood while they are asleep. Conenoses are best prevented by using pest proofing methods like applying caulk to seal cracks and gaps around windows, walls, roofs, and doors; by repairing screens and windows; and by closing holes and cracks leading to the attic/crawl spaces. Conenoses are also attracted to lights and will fly at houses with outdoor lighting. Turning off outdoor lights or changing to timers/motion detection can reduce light attraction. Finally, checking pet or animal domiciles for bugs is also practical.

Those who live near wooded areas are more at risk and should be proactive. You may also need to perform pest control for things like rats, raccoons, etc. that are acting as hosts to the conenose. Insecticides are generally not necessary but pyrethroid products applied to cracks and crevices can be used for serious infestations.

Garlic Pork

Yield: 6 servings
Serving Size: 1/6 of roast and potatoes

Ingredients:

- 1 Tablespoon vegetable oil
- 2 pounds boneless pork roast
- 1 Tablespoon salt-free seasoning blend
- 1Tablespoon Worcestershire sauce
- 6 cloves garlic, peeled
- 1 Tablespoon orange juice
- 1 (14.5 ounce) can chicken broth
- 4 medium sweet (or white) potatoes, peeled and chopped
- 1 large onion, peeled and quartered

Directions:

1. In a large heavy skillet, heat oil over medium-high heat. Season meat on all sides with salt-free seasoning blend and Worcestershire sauce. Brown pork for 3 to 4 minutes on each side. Remove roast from skillet. Slit the roast about 1-inch-deep and 2 inches apart in three places on the top and insert a garlic clove in each slit.

2. Add ½ cup of chicken broth to skillet. Bring to a boil and loosen brown bits with a spoon. Add to slow cooker with remaining chicken broth.

3. Layer potatoes, onion and remaining three cloves of garlic in slow cooker. Place browned roast on top of vegetables.

4. Cover and cook on low setting for 7 to 8 hours. Shred or slice pork and serve with vegetables.

5. Optional sauce: Remove roast and vegetables from the slow cooker, leaving the broth. Turn the slow cooker on high. In a small bowl, mix 4 tablespoons cornstarch with ¼ cup water. Add this mixture to slow cooker. Remove lid and cook on high for 10 minutes, stirring a few times.

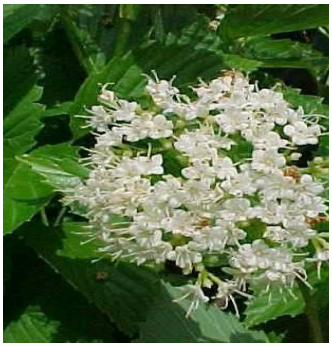
Nutritional Analysis per serving: 350 calories, 15g total fat, 4.5g saturated fat,0g trans fat, 90mg cholesterol, 480mg sodium, 0g carbohydrate, 3g fiber, 69 sugar, 33g protein

Plate it up! Kentucky Proud

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

Plant of the Month

Viburnum dentatum



Common Name: Arrowwood viburnum
Type: Deciduous shrub
Family: Adocaceae
Zone: 2 to 8
Height: 6 to 10 feet
Spread: 6 to 10 feet
Bloom Time: May to June
Bloom Description: White
Sun: Full sun to part shade
Water: Medium
Maintenance: Low
Flower: Showy
Attracts: Birds, butterflies

Source: Missouri Botanical Garden

Please "like" the Daviess County Cooperative Extension Facebook page at:
www.facebook.com/daviesscountyextension/
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/

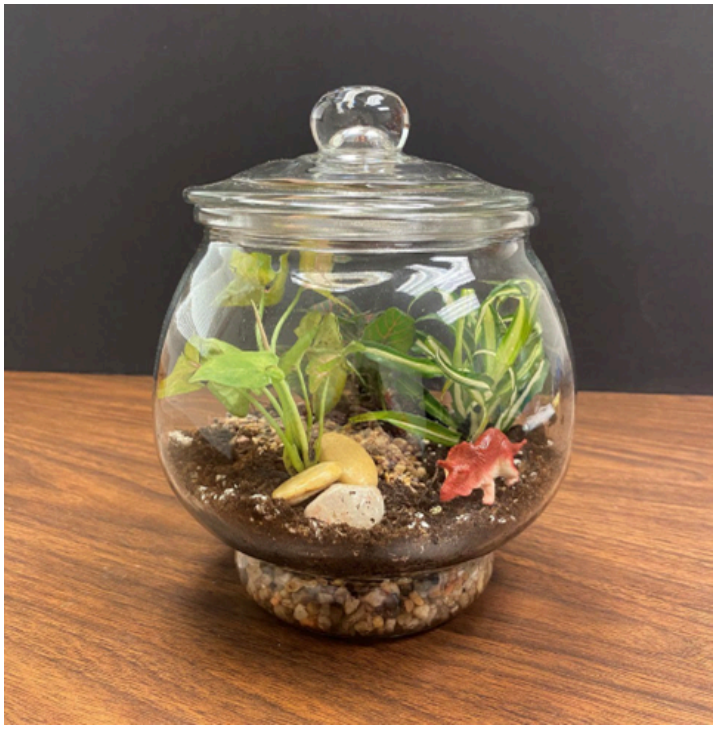
Annette Meyer Heisdorffer

Annette Meyer Heisdorffer, Ph.D.
Extension Agent
for Horticulture Education
-Daviess County

Cooperative Extension Service
Daviess County

MAKING A TERRARIUM

October 20th | 10:00 a.m. OR 6:00 p.m.



Learn how to make a terrarium

All supplies provided

Cost $15

Class size limited

Register and pay by Monday, Oct. 13
Daviess County Extension Office
4800 A New Hartford Rd

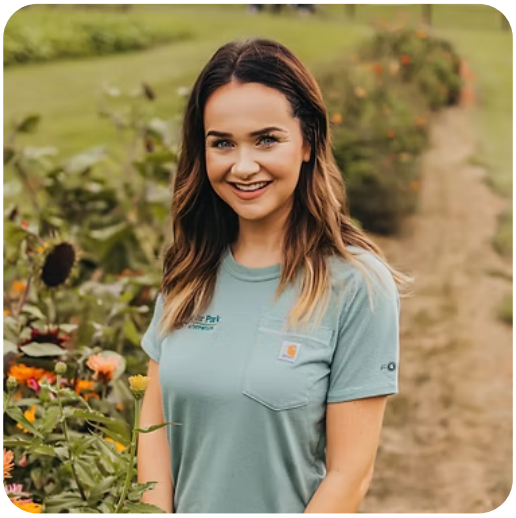
Martin-Gatton
College of Agriculture,
Food and Environment

Mahr Park Arboretum
Madisonville, KY
A Hidden Gem Close to Home

Thursday, October 23, 1:00 p.m.
at the Daviess County Cooperative Extension Office
4800A New Hartford Rd., Owensboro, KY

Guest Speaker: Ashton Robinson

Dr. Merle and Glema Mahr gifted their home and 265-acre farm to the City of Madisonville, Kentucky for constructing and maintaining a park after their passing in 2009. Dr. Mahr was a founding physician of what is known today as Baptist Health Deaconess Madisonville. Glema was a passionate community volunteer.
In 2012, a draft of the master plan was designed. The grand opening of the park was in October 2016. Today, it is known as Mahr Park Arboretum. The park provides educational and recreational opportunities. Learn about the history of the park's development and future plans as a Level II Arboretum status from guest speaker Ashton Robinson, Park Director.



For more information or if you have questions,
contact Annette Heisdorffer
(270) 685-8480 or annette.heisdorffer@uky.edu

This program is sponsored by the Green River Area Extension Master Gardener Association and the Daviess County Cooperative Extension Service.

Kentucky Extension Master Gardener

Cooperative Extension Service