



# HORTICULTURE

## NEWSLETTER

Jan. - Feb.

2020

### Carpinus Grabus - Seize the Hornbeam!

By Beth Wilson

Agent for Horticulture, Pulaski Co. Cooperative Extension

American hornbeam, *Carpinus caroliniana*, is an often overlooked tree that would greatly enhance anyone's home garden. Its relatively small stature (20-30 feet tall) means it can fit into most small landscapes with no problem. It is hardy to Zones 3 through 9.

American hornbeam is the only North American native of the genus *Carpinus*. The other common name of this tree is ironwood or musclewood. The very attractive bark is smooth and fluted, resembling flexing muscles. Its hard wood was used by early Americans to make bowls, tool handles, and ox yokes.

Hornbeams are best placed into a natural setting but they do well in shade or sun, can tolerate wet sites, and even withstand some flooding. It prefers deep, fertile, moist, and slightly acidic soils although it will grow in drier sites. Compacted soils are not the best for this tree, especially in areas that have undergone grade changes.

The tree blooms usually from April to June. Flowers are either male or female catkins. Male flowers are somewhat attractive, but female flowers are not showy. A winged nutlet forms after the female flower fades.

The canopy of the hornbeam can be pretty dense,



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## Quick TIP

*Determining where to plant a tree is a decision that should not be taken lightly. Many factors should be considered prior to planting. When planning what type of tree to plant, remember to look up and look down to determine where the tree will be located in relation to overhead and underground utility lines.*



## Carpinus Grabus - Seize the Hornbeam! *Cont.*

By Beth Wilson

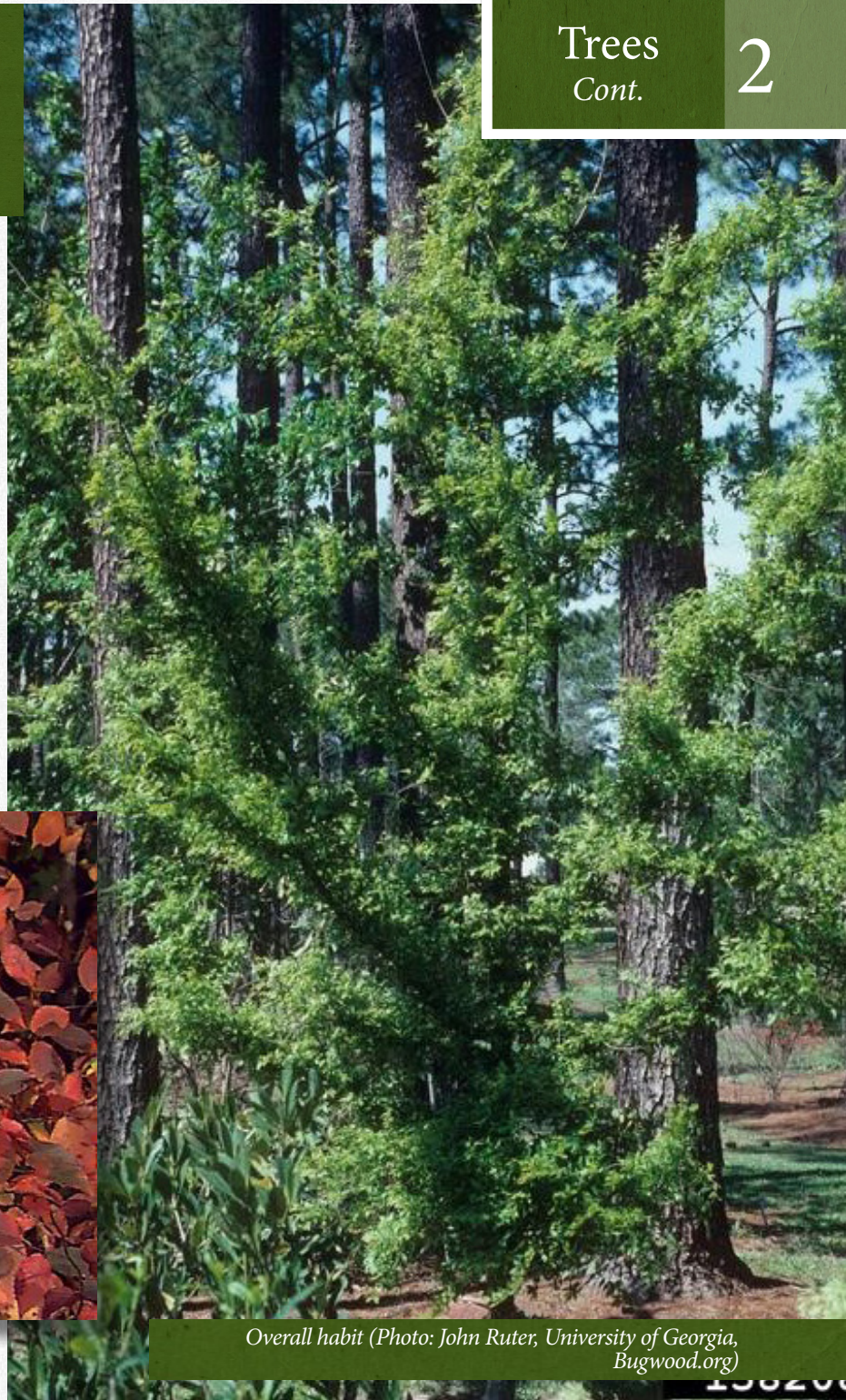
Agent for Horticulture, Pulaski Co. Cooperative Extension

especially in full sun. The leaves are alternately arranged on the stem, 2 to 5 inches long. New leaves in the spring emerge as a reddish-purple color, then turn dark green in the summer.

Fall color can be quite variable including colors of yellow, orange, red, and reddish-purple.

Successful transplanting has been shown to be difficult. When planting, be sure to use ball and burlapped or container plants.

Although the straight species is a great choice, there are several cultivars available: Ball O' Fire™, Firespire™, and Palisade™.



Overall habit (Photo: John Ruter, University of Georgia, Bugwood.org)



Fall color  
(Photo: hort.uconn.edu/plantPhotos/carcar13.jpg)

## Quick TIP

Ideally, trees are planted during the dormant season - in the fall after leaf drop or in early spring before budbreak. Weather conditions are cool and allow plants to establish roots in the new location before spring rains and summer heat stimulate new top growth. Healthy balled and burlapped or container trees, however, can be planted throughout the growing season if given appropriate care.

## Tool Clean Up & Care

By *Bethany Pratt*

*Agent for ANR and Horticulture,  
Jefferson Co. Cooperative Extension*

At the end of the gardening season, it's so easy to just walk away from your garden and "deal with it" in the spring. And when it comes to tools, as long as they are back in the shed, well, you've done great and can find them again when you need them. However, even your gardening tools need a little TLC to keep them fresh (and disease free) for next year. So over the winter, spending some time caring for your tools will help them last longer and keep your garden healthier for the next season.

The first thing to do is give all tools a good sanitizing to remove any bacteria or fungi that might be lingering on them. Start by using water to wash off any chunks of debris such as soil or resin. Then make up the Safe & Easy Sanitizing Solution (recipe below) to use to clean your tools. For tools like pruners, shovels, hoes and rakes, tip them into a bucket of the solution for about 10 seconds and then allow them to air dry.

Once tools are dry it's time to sharpen them! Keeping blades on pruners, soil knives and hoes sharp will also make your work a lot easier and safer come spring. If you are a do-it-yourselfer, there are lots of manual and electric grinders or rasps available to sharpen your blades. However, if you are unsure of what to do, many of the neighborhood hardware stores offer a tool sharpening service for just a few dollars.

Finally, if you have tomato cages or wire trellises you use from year to year, they also need to be cleaned. For tomatoes in particular, many of the fungal blights can overwinter on cages so cleaning them will really cut down on your diseases. To start with, remove all dead plant materials and strings from the cages. Then spray them down to remove any chunks of soil or resin. Finally, use a clean rag to wipe down the cages or trellises with the Safe & Easy Sanitizing Solution and allow them to air dry before storing them for the winter.



Spending just a few moments cleaning, sanitizing and sharpening tools now will get you ready for the next season with fewer diseases and tools that work the way you want them to. Keep it clean!

### Safe & Easy Tool Cleaning/Sanitizing Solution

#### Ingredients:

10 Cups of room temperature water

1 Cup of Bleach OR 6% Cleaning Vinegar

#### Directions:

Fill a bucket or container with a lid with water. Pour in bleach, stir with plastic spoon until mixed. Store at room temperature. Solution can be stored for 2 weeks indoors.

## Quick TIP

*Have problems with carpal tunnel syndrome? Here is a way to give tools a comfortable grip: Wrap cotton clothesline rope tightly around a tool's handle. Use duct tape to hold the rope ends in place. Then spiral several layers of the tape around the rope-wrapped handle, overlapping it. For a larger grip, wrap the handle with clothesline more than once, continuing until you find a diameter that's comfortable.*

## Growing Citrus

By Andrew Jeffers

Agent for ANR and Horticulture,  
Clemson University

Adding a citrus tree to your home may seem a bit daunting, but they are actually quite easy to care for. When purchasing your citrus it's important to keep in mind that it may take some time before they bear fruit. This all can depend on the age of the tree and when it was grafted. Lemons and limes can take 5 to 7 years, while grapefruit, mandarins, and oranges can take up to 9 plus years. Depending on what size you are looking for, and how much you are willing to pay, you can find some that will bloom within the first year.

Speaking of size, they are often sold in a manageable 3 gallon pot as a dwarf bush type or you can buy them in an actual tree form. Just keep in mind citrus have the potential to grow 20ft tall when planted in the ground and dwarf types, when planted in containers, can be kept to 3-5ft tall.

In general, Citrus trees prefer full sun in outdoor locations, or south facing window with lots of bright natural light. At least 8 hours of sunlight, as well as high humidity, 30% to 60%, are required for optimum growth and development. Optimum temperatures for fruit production are between 65°F and 85°F. Most citrus trees can tolerate cooler temperatures, down to around 50°F; however for some, even as low as 35°F. When it comes to winter care and temperatures drop below 25 °F, especially for extended periods of time, this can cause significant damage to citrus trees. During these cold periods, they will need to be moved into a protected area. Maintain the temperature between 55 °F and 65 °F. Take in consideration the type of container that you will be planting in, make sure it has plenty of drainage holes and isn't too heavy to move when it starts to get cold. Once temperatures are consistently over 50°F citrus can be moved back outside. Slowly acclimate them over a one to two week period.



Otherwise you run the risk of sun burning your plant.

When it comes to planting your citrus plant, it is just like any other tree you would plant in your yard. Make sure the root flare is above the soil line when planting; this will allow oxygen to get to the roots and prevent crown rot. As for your potting mix, avoid using native soil. Think about using a slightly acid, well-drained potting medium, such as cactus mix. Re-pot your citrus every 2-3 years. Due to this sandy mix, you will have to water your citrus often throughout the summer, especially during the peak of the summer heat you will need to water every day. Before watering, check to see if there is any moisture in the top 2-3 inches of soil. During the winter reduce watering, as over-watering can lead to root rot. The soil should always be moist but never soggy. Because of the frequent watering in the summer, citrus can experience nutrient loss. Make sure to fertilize throughout the active growing

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Quick  
TIP

*There are lots of varieties available, but some are more suited to small-scale cultivation than others. The Emperor mandarin is easy to cultivate and produces sweet fruit; Valencia is probably the best orange variety as it is hardier than many other species and produces a crop over a longer period; Meyer lemons can be grown in small spaces, and do well in pots; while Tahiti limes are ideal as they produce a lot of juice.*

## Growing Citrus Cont.

By Andrew Jeffers  
Agent for ANR and Horticulture,  
Clemson University

season. April-September use a fertilizer for acid loving plants. Yellowing leaves may be a sign for a need of more fertilizer. If we take care of our citrus plants we want to be rewarded with fruit, right?

The final thing we need to consider is pollination. Almost all citrus are self-pollinated, except for tangerines they need cross pollination. The fragrant flowers, which is worth having a citrus even if you never get fruit off of them, will attract honey and bumble bees to help pollinate. If you plan to always keep your citrus inside and are worried about pollination, when it's flowering make sure to give your flowers a little flick to help spread the pollen around between flowers. Flower production is induced when the temperatures drop below 68°F. Depending on variety, most citrus trees bloom in spring to set fruit that are ready to harvest in fall and winter. Others may flower and fruit off and on year-round, especially lemons and limes. Potted trees often set much more fruit than the tree can support, so fruit drop is very common. The time from blossom to fruit harvest varies by type and variety. In general, most lemons and limes ripen in six to nine months. Citrus fruits ripen only on the tree, but can remain on the tree in good condition long after they are mature.

Citrus have few pest issues; scale, mealybugs, aphids and spider mites are the common ones. Washing and wiping the leaves can help deter these insect pest; as well as insecticidal soaps and synthetic insecticides.



*Don't panic! It helps to be aware that, like many other tropical plants, citrus will often drop many or even all of their leaves when moved either outdoors at the start of the season or indoors at the end. This leaf drop is natural. It's the plant's way of adjusting to different light levels. New leaves will develop that are better suited to the new light levels. Just give the plant time.*

Quick  
TIP

## Can I Garden Over My Septic System

By Amanda Sears

Agent for Horticulture,  
Madison Co. Cooperative Extension

As we start to think about gardening and lawn care this year, one question may pop up: Can I garden on my septic system? Well, there are a couple of questions to consider:

**1. Can a garden be contaminated by bacterial and viral hazards which may be found in septic drainfields?** A properly operating septic system will not contaminate the soil with disease organisms, but it can be difficult to tell if the system is working at optimum efficiency. Also, the soil type can make a difference. Clay like soil will eliminate any organism within a few inches of the system, while a sandy soil could allow for movement of bacteria several feet.

Since it is hard to be sure if your septic system is working an optimum level, I do not recommend planting a garden in this area. An ornamental, such as grass, would be a better fit for this area. But, I know many of you will still attempt to raise a garden in this area anyway. So if you do, stay away from rooting crops such as carrots or potatoes. Also avoid leafy vegetables such as lettuce or kale, since water may splash up from the ground during rains. Plants that grow up off the ground, such as tomatoes, may be a better fit. Be sure to trellis any vining crops, such as beans or squash up off the ground.

**2. Is it safe for the septic system to have a garden growing over it?** The simple answer is no. While walking or light digging over a drain field is not a problem, plowing, tilling, or building up soil for a raised bed can damage the system. According to Marvin Dixon at the Madison County Health Department, gardening on a septic system can damage components and lead to erosion in that area. He recommends gardening no closer than ten feet from the drainfield.



With all of that in mind, stay at least ten feet from the septic system. The health of you and your family is too important to be put at risk and the cost to repair a septic system is too high to chance it.

### Quick TIP

Don't fret about finding a suitable plot in your backyard, simply start a container garden anywhere you'd like. Plus this way you can ensure the soil is fertile and easily prevent weeds! You'll be more likely to follow through with your gardening if your container garden is near your back door or a window you use often. First start small, then work your way up to a bigger garden.

## Plants for Tough Sites: Wet

By Amy Aldenderfer

Agent for Horticulture,  
Hardin Co. Cooperative Extension

One of the toughest places to garden is wet soil. Soils that hold too much water can be hard to prepare in the spring; there is low oxygen in the soil so slow root growth; increase in humidity which plays into the hands of plant disease.

Causes and solutions: Can you correct the problem?

If your soil is wet because of a hardpan (a compacted layer under the surface) sometimes breaking that layer up will allow water to percolate through the soil normally. Using a broad fork to break up the area or double-digging a bed will disturb the compacted layer enough, but it's a lot of work.

If your soil has a high clay content, then adding compost (not peat moss or sand) will "fluff" the soil by adding air pockets and little sponges (the compost). The best way is to amend the entire bed or area instead of individual planting holes. Otherwise, you get a "bath tub effect" where the holes fill with water until there is no air and then drains into the surrounding soil.

If your site was a natural wetland, enjoy the challenge! Building raised beds or filling in low spots may be an option.

Plant choices are crucial to gardening in a wet site. Think about what grows near a pond or stream. There are plants that grow in the water, the true water plants, which we will not discuss here. The water-adjacent plants can dip their roots in the water and like to grow on the bank. The third



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*Soil can be wet because it is compacted, or because of a high water table, where the upper level of the ground water is near the soil surface. Clay soils are wet in winter and baked dry in summer. A simple drainage test will tell you if your soils are compacted.*

Quick  
TIP

## Plants for Tough Sites: Wet

By Amy Aldenderfer

Agent for Horticulture,  
Hardin Co. Cooperative Extension

group, moisture lovers, likes to have a low but constant supply of moisture throughout the season.

### Water-Adjacent

- Joe-pye-weed (*Eupatorium purpureum*)
- Sneezeweed (*Helenium autumnale*)
- Hairy Sunflower (*Helianthus hirsutus*)
- Iris
- Cardinal Flower (*Lobelia cardinalis*)
- Swamp Milkweed (*Asclepias incarnata*)
- Narrow-leaf Sunflower (*Helianthus angustifolius*)
- Scarlet Beebalm (*Monarda didyma*)
- Smooth White Beardtongue (*Penstemon digidialis*)

### Moisture Lovers

- Black Cohosh (*Actaea racemosa*)
- Columbine (*Aquilegia canadensis*)
- Yellow Trout Lily (*Erythronium americanum*)
- Virginia Bluebells (*Mertensia virginica*)
- Spotted Beebalm (*Monarda punctata*) plant with caution!
- Jacob's Ladder (*Polemonium reptans*)

Remember to look at the light requirements as well as the moisture needs for the plants.



## Quick TIP

The Drainage Test is simple: • Take your shovel and dig a hole 1-foot deep, and fill the hole with water. Allow to drain completely and then refill. • Measure the amount of water that drains in an hour's time. If less than 2 inches per hour, you have poor drainage.





# Upcoming Horticulture Events

Upcoming  
Events

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## February

February 10  
Intermediate Beekeeping  
(Session 2 of 5)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

February 11  
Growing Radishes, Turnips and  
Beets  
270-821-3650  
Hopkins County Extension Office  
(Madisonville)

February 15  
Blueberry Production and Pruning  
Workshop  
606-666-2438  
UK Robinson Center for  
Appalachian Resource  
Sustainability (Jackson)

February 18  
Composting 1  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

February 18  
Starting Seeds Indoors  
859-586-6101  
Boone County Extension Office  
(Burlington)

February 21  
Lake Cumberland Seed Lending  
Library Kickoff  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

February 25  
Beginner Bee School (Session 3 of  
6)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

February 26  
Gardening Options for Everyone  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

February 26  
Grow Mushrooms on Logs  
Workshop  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

## March

March 2  
Shrubs for Kentucky Landscapes  
270-821-3650  
Hopkins County Extension Office  
(Madisonville)

March 2  
Growing Native Fruits and Nuts  
859-586-6101  
Boone County Extension Office  
(Burlington)

March 4  
Composting 2  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

March 4  
Proper Pruning Techniques  
Workshop  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

March 6  
Pass-a-long Plants  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

March 9  
Intermediate Beekeeping (Session  
3 of 5)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

March 10  
Organic Vegetable Gardening  
859-586-6101  
Boone County Extension Office  
(Burlington)

March 10  
American Kestrel Project  
859-586-6101  
Boone County Extension Office  
(Burlington)

March 10  
Growing Asparagus  
270-821-3650  
Hopkins County Extension Office  
(Madisonville)

March 14  
Fruit Pruning Demo  
859-586-6101  
Boone County Extension Office  
(Burlington)



# Upcoming Horticulture Events

Upcoming Events 10

March 17  
Container Gardening 101  
859-586-6101  
Boone County Extension Office  
(Burlington)

March 18  
New Year, New Garden  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

March 20  
PBPT Food Safety Training  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

March 20  
Fruit Grafting Program  
859-586-6101  
Boone County Extension Office  
(Burlington)

March 23 and 24  
Mosaic Pot Class  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

March 24  
Beginner Bee School  
(Session 4 of 6)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

March 24  
Onions and Leeks  
859-586-6101  
Boone County Extension Office  
(Burlington)

March 27  
New Plants for a New Year  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

March 27  
Kitchen Scrap Gardening  
859-586-6101  
Boone County Extension Office  
(Burlington)

March 31  
Growing Strawberries at Home  
859-586-6101  
Boone County Extension Office  
(Burlington)

## April

April 1  
Tree and Shrub Maintenance and Care  
859-586-6101  
Boone County Extension Office  
(Burlington)

April 2  
The Good, The Bad and the OK  
(Insects in the Garden)  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 3  
Herb Gardening  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 6  
Groundcovers and Vines for Kentucky Landscapes  
270-821-3650  
Hopkins County Extension Office  
(Madisonville)

April 7  
Making a Bee Hotel  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 8  
Growing Blueberries  
859-586-6101  
Boone County Extension Office  
(Burlington)

April 13  
Intermediate Beekeeping (Session 4 of 5)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

April 14  
Beginner Bee School (Session 5 of 6)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

April 14  
Roses  
859-586-6101  
Boone County Extension Office  
(Burlington)

April 14  
Growing Sweet Potatoes  
270-821-3650  
Hopkins County Extension Office  
(Madisonville)



# Upcoming Horticulture Events

Upcoming Events 11

April 15  
365 Days in the Life of a Gardener  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 16  
Easy Houseplants  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 17  
Container Gardening  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 17  
Award-Winning Perennials  
859-586-6101  
Boone County Extension Office  
(Burlington)

April 21  
Rock Painting  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 24  
Flowering Plants for Kentucky  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

April 28  
Beginner Bee School  
(Session 6 of 6)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

April 30  
How to Grow: Tomatoes  
270-765-4121  
Hardin County Extension Office  
(Elizabethtown)

May 11  
Intermediate Beekeeping  
(Session 5 of 5)  
606-679-6361  
Pulaski Co Extension Office  
(Somerset)

May 11  
Herbaceous Perennials for  
Kentucky Landscapes  
270-821-3650  
Hopkins County Extension Office  
(Madisonville)

June 8  
Turfgrasses for Kentucky Lawns  
270-821-3650  
Hopkins County Extension Office  
(Madisonville)



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