Campbell County Extension

Horticulture Newsletter

August 2025
Volume 3, Issue 4

Cooperative Extension Service

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Bring on the Pythium

Spring 2025 in Kentucky has been without a doubt, one of the wettest springs on record. After checking in with UK Meteorologist, Matt Dixon, in fact, this spring set a record as the 4th wettest spring with a combined rainfall accumulation of 19.99", which is about 5.5" above normal (https://graincrops.ca.uky.edu/articles/exceptionally-wet-start-2025-kentucky). Spring planting has been a challenge for sure. Here in our educational gardens we have experienced some issues with some of our annuals, which we will dig into a little deeper to figure out what's going on. Is the weather to blame?

Vinca is a lovely bright colorful annual that enjoys the hot heat. It does well in the landscape and containers and is considered deer resistant; somewhat of a "perfect" plant. But wait. If we have a cooler wet spring like we did this year, vinca may not be that perfect after all.

One trick up many gardeners sleeves is to always plant vinca in late spring after all the showers, but for some (like us) we have to get all the annuals in early May. We ignored the vinca trick and with the mix of many cooler night temperatures and above average rain events, vinca came down with a root decay, known as pythium. This pathogen loves water and causes symptoms such as: stunting, yellowing, damping off (seedling death), and complete plant death. Many plants are susceptible, not just vinca. Fruit, vegetables, and turf can all be effective by this water mold pathogen.

After sending samples to UK Plant Pathology is Lexington, we received a proper diagnosis from the lab. As a result, chemical application is not typically recommended, rather implementing some cultural practices may be the best option.

Here's what we've been doing:

First we noticed some yellowing or chlorosis of the foliage **(Photo 1)**. Prior to getting a diagnosis, we added some slow release fertilizer thinking that with all the rain, perhaps all the nutrients in the soil has leached out. We learn three days later **(Photo 2),** how quickly plants lost blooms, leaves curled, and completely chlorotic. This is when we suspected disease. Within another few days, plants were completely dying. When we removed plants, little to no roots were visible, as they completely rotted. One take away, reach out to your horticulture extension team with any of your horticulture questions to properly diagnosis a plant issue before applying any chemical even organic, as it can worsen the issue to waste your money.

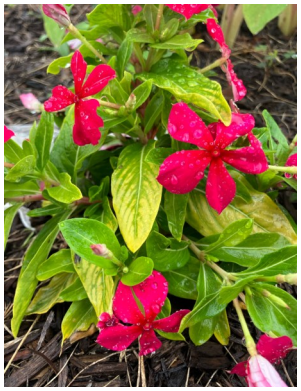


Photo 1: Chlorosis/Yellowing

Photo 2: Bloom fall, Complete Yellowing

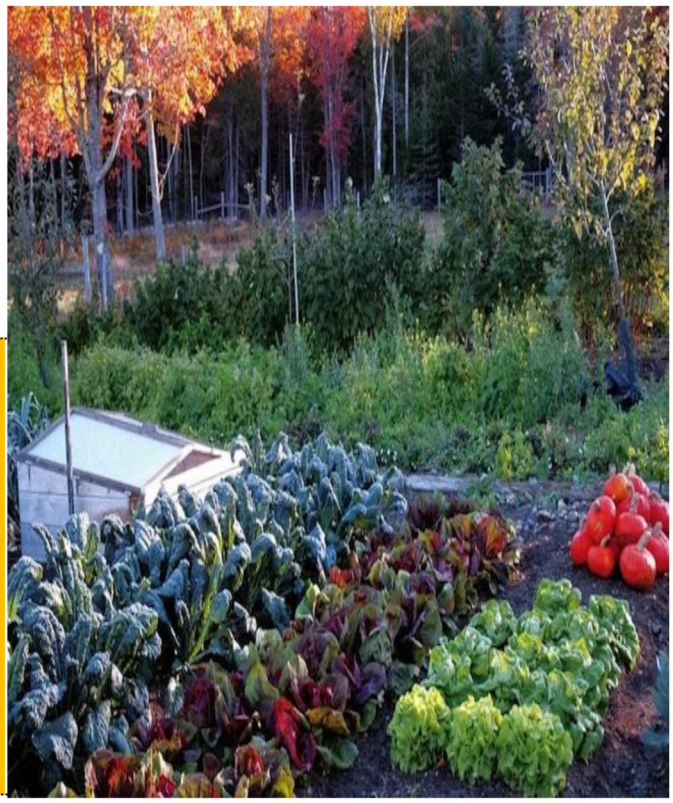
Complete Death

In this issue...

Martin-Gatton
College of Agriculture,
Food and Environment
University of Kentucky.

Growing a Fall Vegetable Garden

Wednesday
August 13, 2025
10:00 am-12:00 pm



Campbell County Cooperative Extension Office
3500 Alexandria Pike
Highland Heights, KY 41076

Your vegetable gardening doesn't have to end with the first frost. Learn how to extend your vegetable harvest into the fall and winter months.

Class size limited. Registration required, call 859-572-2600

or online at https://campbell.ca.uky.edu

Registration opens 30 days in advance of the class

Cooperative Extension Service

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

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Boxwood Alternatives

What about Viburnums?

If you currently have the 'boxwood blues' and you are looking for a good shrub to grow in your Northern Kentucky garden, why not try a viburnum? I often recommend viburnums, and I find most clients are unfamiliar with this family of shrubs. Viburnums can be evergreen or deciduous shrubs, with approximately 150 – 175 species, and are native to various places around the world.

If you like natives there is even a "Kentucky" Viburnum (Viburnum molle) which is like the Arrowood Viburnum but with beautiful exfoliating bark. So, remember the next time your browsing at your local garden center ask yourself "what about a viburnum"!

The deciduous species tend to come from cooler temperate climates while the evergreens species are from warmer regions. There are many that are completely hardy and easy to care for in our area, being an almost maintenance free addition to the landscape. Their fragrant flowers in cream, pink or white and usually appear in clusters in the spring. Many of them have colorful berries, which can be red, blue or black. They are also great shrubs to utilize as a wildlife hedge because many species of songbirds feed on the berries.

Viburnums have multi seasonal interest, fragrant flowers in the spring, diverse foliage shapes and textures and often beautiful, fall foliage. Add the colorful winter berries and bark and you have a all -around great shrub!

The following selections are good performers in our area:

Alleghany - It is a tough multi-stemmed, upright shrub that typically matures to 8-10' tall (sometimes more) and as wide. Shrubs are semi-evergreen and great for screening and hedges.

Burkwoodii – Matures at about 8' tall, with dark red flower buds that open into white blooms, with an unbelievable spicy fragrance, Foliage also turns a great color (orange-red to burgundy) in the fall.

Prague - A hybrid viburnum cultivar that was discovered in the1950's in Czechoslovakia. It has abundant 3-6' flowers blooming in late April. This shrub makes a fast growing fully evergreen hedge plant that matures to 8-10' tall and wide.

Juddii - A dense rounded deciduous shrub, it typically matures to 6-8' tall and 6-10' wide. It is noted for its very fragrant white flowers in spring, nice disease resistant foliage and black fruit and purplish fall color.

Sarah Imbus

Sarah Imbus
Campbell County Extension Agent for Horticulture Education

Terri Turner
Campbell County Extension Technician for Horticulture Education

Joseph Smith
Campbell County Extension Technician for Horticulture Education

Conoy – Another great introduction by the U.S. National Arboretum and is best noted for its very compact, spreading form and glossy semi-evergreen foliage. It is densely branched and typically grows 4-5' tall and 7-8' wide. Conoy features fragrant, creamy white flowers (2-4" wide) in April. Flowers are followed by red fruits in the fall and winter.

Garden Calendar: July-August

General

- Most landscape plants require 1" of rainfall every 7 days. If rainfall has not been adequate, supplement watering. A rain gauge is a handy tool to track rainfall in your yard.

Lawns

- White grub damage becomes evident in August and September. Curative grub controls should be applied early to mid-August. To learn more, visit https://entomology.ca.uky.edu/ent10
- Kentucky Bluegrass is susceptible to Summer Patch Disease. Circular or crescent dead spots appear in late July-August. More information is available at http://plantpathology.ca.uky.edu/files/ppfs-or-t-06.pdf

- Brown Patch disease infects all species of turf in Kentucky but tall fescue and perennial ryegrass are most susceptible. This disease occurs in hot, humid weather. Look for tan lesions with a dark border. To learns ways to control brown patch, visit http://plantpathology.ca.uky.edu/files/ppfs-or-t-12.pdf

Flowers

- Annual flowers such as tall zinnias, cosmos, marigolds, bedding geraniums, and petunia benefit from removing spent flowers or deadheading. If spent blooms are not removed, these plants use their energy to produce seeds and not new flowers.
- Late July to early August is a good time to divide iris rhizomes. When dividing check the rhizomes for evidence or iris borers. Visit https://www.ksuhortnewsletter.org/newsletters/dividing-iris#:~:text=Iris%20may%20be%20divided%20from,rhizomes%20and%20smaller%20feeder%20roots. for more information.
- Powdery mildew may be evident on such plants as zinnia, peony, phlox, monarda. Powdery mildew can also affect woody plants, vegetables and fruit. To learn more visit, http://plantpathology.ca.uky.edu/files/ppfs-gen-02.pdf

Trees & Shrubs

- Avoid fertilizing trees and shrubs at this time. Fertilizing will encourage new growth that may be damaged by an early frost.
- Monitor for Azalea lace bug. Symptoms of lacebug damage include bleached leaves. Lacebugs are usually found on the underside of leaves. They leave dark, tar-like excrement on the leaves. If you do not want to use chemical controls. Consider releasing beneficial insects, such as ladybugs and lacewings. For more information, visit https://kentuckypestnews.wordpress.com/2018/07/31/lace-bugs-one-potential-cause-of-bleached-leaves/

- Japanese beetles are now in the landscape. Grapes, roses, linden trees, purple-leaf plum are favorites. There are several options for controlling them. Japanese beetle traps are not recommended. The pheromones in these traps may actually attract more beetles to your yard. For more information, visit https://entomology.ca.uky.edu/ef451

- The second generation of fall webworm is not active. These are often misidentified as bagworms or tent caterpillars. Fall webworm encase the branch tips in fine webbing and feed on the foliage of a wide variety of trees. A healthy tree can tolerate light feeding. Heavy infestations may require treatment for vulnerable trees. More information can be found at https://kentuckypestnews.wordpress.com/2018/07/17/fall-webworm-2-0/
- Pine needle scale are easily recognized by their white coating and yellow head. They line the pine needles and feed off the plant sap. Heavy infestations can give the plant a silver glow. This insect has two generations per year. The first-generation hatch in spring. The second generation of pine needle scale emerges in July. When newly hatched, they are known as "crawlers." The crawlers lack the white waxy coating that protects the body. Control is most effective at this stage. Visit https://kentuckypestnews.wordpress.com/2015/01/27/armored-scales-are-challenging/

Vegetables

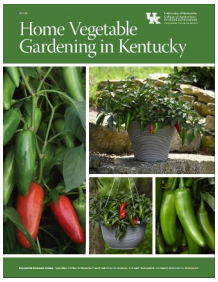
- Potatoes may be dug when the vines have yellowed and died. Skin will be delicate if dug immediately. You can wait two weeks to let the skin thicken.
- Blossom end rot on tomato is not actually a disease. It is a physiological disorder caused by inadequate watering and calcium deficiencies. It can also occur on other vegetables such as pepper and watermelon. To learn more visit, https://kentuckypestnews.files.wordpress.com/2019/07/blossom_end_rot_.jpg
- Fungal diseases of tomatoes are more prevalent during warm, humid weather of summer. Early blight and Septoria are the two most common and often occur simultaneously. https://

plantpathology.ca.uky.edu/files/ppfs-vg-26.pdf The fungicide chlorothalonil is a broad spectrum fungicide.

- Now is the time to start planning and planting your fall garden. Cool season crops such as kale, collards, bibb lettuce, turnips, and cole crops such as kohlrabi, Chinese cabbage, Brussels sprouts, cabbage, cauliflower and broccoli. Home Vegetable Gardening in Kentucky is an excellent reference for all your gardening questions. Recommendations for planting a fall garden can be found on **page 18**. http://www2.ca.uky.edu/agcomm/pubs/id/id128/id128.pdf

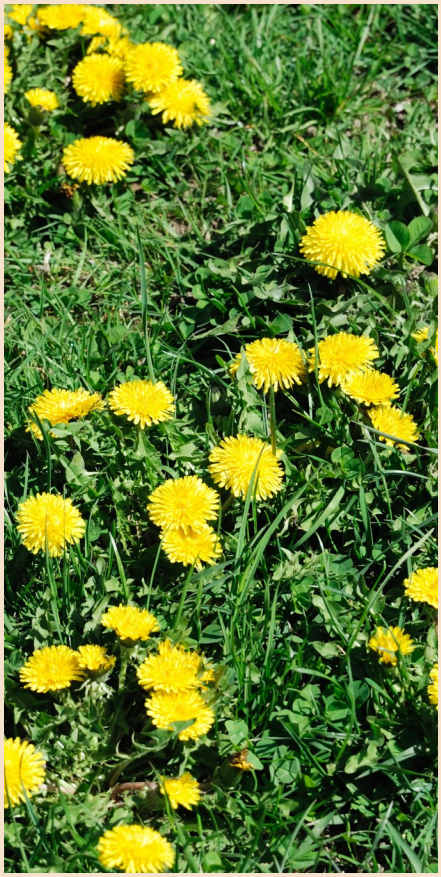
Sharpen mower blades to help avoid torn grass blades, tip browning, poor vigor, and turf browning

Start your fall garden now by planting broccoli, Brussels sprouts, cabbage, cauliflower, beets, carrots, collards, kohlrabi, and rutabaga, turnips, spinach, and snow peas (in August).



Don't water large established trees up close to the trunk. Most of the feeder roots on trees are at least as far out as the branches, so water in the "dripline" area!

"How to Ruin Your Lawn..."



Many people believe cutting the grass down to the soil line means you won't have to mow it often. Well you're right, because doing so weakens your lawn so much it might die. Also unfortunately, the weeds that soon replace it will need close cutting, so you'll end up mowing those instead.

Box Tree Moth on Our Border

By Jonathan L. Larson, Entomology Extension Specialist

Back in 2021, the box tree moth, a new problem for boxwoods, was accidentally shipped from Canada to the United States. This caterpillar pest had been established in Ontario, Canada but over the last couple of years, established populations were found in New York and Michigan here in the U.S. In the 2021 incident, Michigan, Connecticut, and South Carolina received infested materials. At the time, Kentucky seemed to be in the clear regarding this pest. However, this month, a sample of this pest was trapped in the Hamilton County, OH area. This puts it much closer to Kentucky, and that means an increased need to recognize this pest and be on the look-out for it.

What is the box tree moth?

Box tree moth is an invasive species originally from Asia (specifically China, Japan, Korea, and Eastern Russia) and it has been creating extensive damage in over 25 European nations since first appearing in Germany in the mid-2000s.

In its final instar, the box tree moth caterpillar is about a half inch long. It is primarily yellow green in color, with black and white stripes that run vertically down the body on each side **(Figure 1).** On each abdominal segment there is a pair of black dots.

The adult moth is broadly fan shaped. Most adults will have brown exterior margins on their wings and an inner white triangle that spans the wings and body. Some adults may be completely brown. The box tree moth superficially resembles

Figure 1: The damaging caterpillar stage of box tree moth is a mixture or yellow, green, and black. It has stripes and dots that run along the side of the body. (Photo: Matteo Maspero and Andrea Tantardini, Centro MiRT – Fondazione Minoprio).

the melonworm moth in coloration and the patterns on their wings. The box tree moth has white comma-like markings near the wing margins that the melonworm lacks.

Figure 2: The adult box tree moth usually has brown margins on the wings with a white interior and white "commas" along the edge. (Photo: Szabolcs Sáfián, University of West Hungary, Bugwood.org).

Why is it an issue?

This pest will be an issue for the many boxwoods grown in production in Kentucky, as well as the ones already in place as a landscape plant. So far, they have only been observed to feed on boxwood plants in the genus Buxus, other landscape plants should be safe from their hungry mouths.

As for the damage they create, tree moth larvae feed on the leaves and the bark of boxwood plants. The initial caterpillar stages after emerging from their egg will feed on the undersides of leaves, creating a papery or peeling appearance. Older larvae eat entire leaves, leaving behind only the midrib. As the plant runs out of foliage, the larvae will move lower on the shrub to feed on the bark. This will induce girdling and may possibly kill the plant. The older larvae also produce webbed structures (similar to what you see with tent caterpillars and webworms), which are messy, filled with dead leaves and shed skins. In Europe, there has been widespread devastation of boxwoods in infested areas.

What to do now?

For now, nursery owners and those who own boxwoods in their landscape (essentially almost everyone in Kentucky) should monitor their plants for the distinct symptoms created by this pest.

Boxwoods are also hosts to boxwood leafminers and boxwood psyllids that may leave behind damage. Box tree moth is the only caterpillar pest of boxwoods, and their damage is different in comparison to our other pests. Boxwood leafminers cause the leaves to appear blistered as they feed from the inside. There is also an orange or bronzed color caused by their damage, which is focused on the newest growth. Similarly, boxwood psyllid prefers to

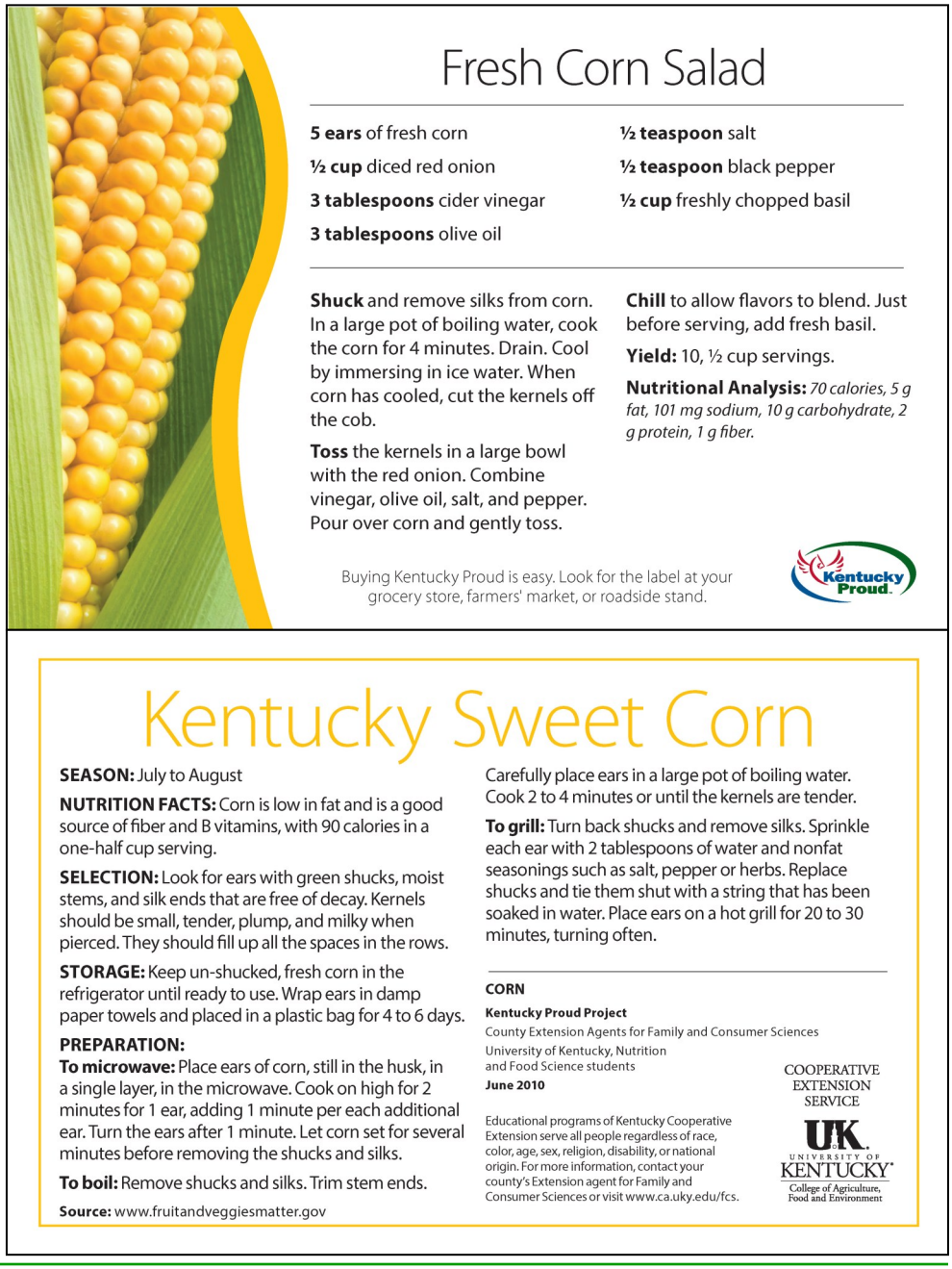
In clockwise motion from the above image; box tree moth damage, boxwood leafminer damage, and boxwood psyllid damage.

Figure 4: Box tree moth is not the only pest of boxwoods, though their damage looks different than the symptoms left behind by boxwood leafminer and boxwood psyllid. Leafminers create blistered, bronze, leaves in the newer growth while psyllids cause the newest growth to become cupped. (Photos: Ferenc Lakatos, University of Sopron Bruce Watt, University of Maine, and Penn State Department of Plant Pathology & Environmental Microbiology Archives, Bugwood.org in order)

Figure 3: Boxwoods infested with box tree moth will initially have symptoms such as thin papery leaves. As the larvae mature, they will consume more of the leaf tissue, leaving only the midrib as seen here. (Photo: Ferenc Lakatos, University of Sopron, Bugwood.org).

attack the newest foliage, but they cause the leaves to cup inward on themselves. Winter damage can also superficially resemble the symptoms of box tree moth. None of these issues would include the webbing associated with box tree moth.

If you believe you have encountered this pest or that your plant has been damaged by it, UK Entomologists appreciate you submitting a photo or sample in order to confirm or deny this. Samples can be submitted directly to the Office of the State Entomologist/ Department of Entomology by emailing reportapest@uky.edu.



Fresh Corn Salad

5 ears of fresh corn
½ cup diced red onion
3 tablespoons cider vinegar
3 tablespoons olive oil
½ teaspoon salt
½ teaspoon black pepper
½ cup freshly chopped basil

Shuck and remove silks from corn. In a large pot of boiling water, cook the corn for 4 minutes. Drain. Cool by immersing in ice water. When corn has cooled, cut the kernels off the cob.

Toss the kernels in a large bowl with the red onion. Combine vinegar, olive oil, salt, and pepper. Pour over corn and gently toss.

Chill to allow flavors to blend. Just before serving, add fresh basil.

Yield: 10, ½ cup servings.

Nutritional Analysis: *70 calories, 5 g fat, 101 mg sodium, 10 g carbohydrate, 2 g protein, 1 g fiber.*

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

Kentucky Proud

Kentucky Sweet Corn

SEASON: July to August

NUTRITION FACTS: Corn is low in fat and is a good source of fiber and B vitamins, with 90 calories in a one-half cup serving.

SELECTION: Look for ears with green shucks, moist stems, and silk ends that are free of decay. Kernels should be small, tender, plump, and milky when pierced. They should fill up all the spaces in the rows.

STORAGE: Keep un-shucked, fresh corn in the refrigerator until ready to use. Wrap ears in damp paper towels and placed in a plastic bag for 4 to 6 days.

PREPARATION:

To microwave: Place ears of corn, still in the husk, in a single layer, in the microwave. Cook on high for 2 minutes for 1 ear, adding 1 minute per each additional ear. Turn the ears after 1 minute. Let corn set for several minutes before removing the shucks and silks.

To boil: Remove shucks and silks. Trim stem ends. Carefully place ears in a large pot of boiling water. Cook 2 to 4 minutes or until the kernels are tender.

To grill: Turn back shucks and remove silks. Sprinkle each ear with 2 tablespoons of water and nonfat seasonings such as salt, pepper or herbs. Replace shucks and tie them shut with a string that has been soaked in water. Place ears on a hot grill for 20 to 30 minutes, turning often.

Source: www.fruitandveggiesmatter.gov

CORN

Kentucky Proud Project
County Extension Agents for Family and Consumer Sciences
University of Kentucky, Nutrition and Food Science students
June 2010

Educational programs of Kentucky Cooperative Extension serve all people regardless of race, color, age, sex, religion, disability, or national origin. For more information, contact your county's Extension agent for Family and Consumer Sciences or visit www.ca.uky.edu/fcs.

COOPERATIVE EXTENSION SERVICE
UK UNIVERSITY OF KENTUCKY College of Agriculture, Food and Environment

Time to Plant your Fall Garden

Source: Rick Durham, UK Extension Horticulture Specialist

As the summer warmth begins to wane, you don't have to bid farewell to the joys of cultivating your garden. This time between seasons offers a golden opportunity to plant a vibrant fall vegetable garden, promising an uninterrupted flow of produce throughout autumn. Alternating balmy days and brisk nights support a variety of cool-season vegetables for your family to enjoy.

Some of the best quality vegetables are produced during fall's warm days and cool nights. These environmental conditions add sugar to late-season sweet corn and cole crops, such as cauliflower and cabbage, and add crispness to carrots.

Fall vegetables harvested after early September consist of two types: the last succession plantings of warm-season crops, such as corn and bush beans, and cool-season crops that grow well during the cool fall days and withstand frost.

When planting a fall garden, group crops the same way you would in the spring; plant so taller plants don't shade out shorter ones. To encourage good germination, fill each seed furrow with water and let it soak in. Keep the soil moist until seeds have germinated. Be aware that cool nights slow growth, so plants take longer to mature in the fall than in the summer.

You may use polyethylene row covers to extend the growing season of frost-sensitive crops, such as tomatoes, peppers and cucumbers. This helps trap heat from the soil and protect the crop from chilly night temperatures.

Often Kentucky experiences a period of mild weather after the first killing frost. If you protect frost-sensitive vegetables at critical times in the fall, you could extend the harvest season by several weeks.

Once these vegetables die due to lower temperatures, you may be able to plant cool-season crops in their place. Leafy greens like lettuce and spinach may grow into November or December under polyethylene row covers if outside temperatures do not drop below the teens. Be sure to allow for ventilation on sunny days to prevent overheating.

You may successfully seed or transplant the following vegetables now for fall harvest: beets, Bibb lettuce, broccoli, Brussels sprouts, cabbage, carrots, cauliflower, collards, endive, leaf lettuce, kale, mustard greens, spinach, snow peas and turnips.

For more information about horticultural topics or classes near you, contact the Campbell County Cooperative Extension Service.

Do you enjoy gardening?

Cooperative Extension Service

Become a Garden Volunteer

Commitment: Workdays and location can vary, however, they are usually from 9am to 12pm at the Lakeside Educational Garden.

Skills: No prior gardening or horticultural skills are required.

Things to Bring: We will provide all tools and materials required for these workdays.

Opportunities & Benefits: Hands-on training is provided during all workdays, connect with like-minded gardeners. Join us for educational tours.

Common tasks include:

- Planting
- Harvesting
- Assemble floral arrangements
- General garden maintenance

Interested in learning more? Reach out to the Campbell County Cooperative Extension Horticulture Agent for more information or send an email to: sarah.imbus@uky.edu

The Horticulture Team works to maintain the Lakeside Educational Garden. This team is perfect for gardeners of all skill levels looking to enhance their gardening knowledge. Whether you're new to gardening, or have many years of experience, this team is for you!

Campbell County Cooperative Extension Service

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MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Cooperative Extension Service

CAMPBELL COUNTY FARMERS MARKET 2025

Highland Heights*— Tuesdays
Senior Citizens Activity Center
3504 Alexandria Pike
May 13 thru October 28
3:00 p.m. to 6:00 p.m.

Fort Thomas**— Wednesdays
Mess Hall in Tower Park
801 Cochran Avenue
April 9 thru December 17
3:00 p.m. to 6:00 p.m.
Hours extend to 7:00 p.m. June-September
(Senior shopping begins at 2:45 p.m.)

Alexandria*— Fridays
Southern Lanes Sports Center
7634 Alexandria Pike
May 16 thru October 24
3:00 p.m. to 6:00 p.m.

Newport*— Saturdays
Next to Pepper Pod Restaurant
709 Monmouth Street
May 18 thru October 26
9:00 a.m. to 12 noon

Kentucky Proud

* Accepts WIC, SNAP and Senior Farmer's Market Nutrition Program

** Accepts WIC, SNAP, Senior Farmer's Market Nutrition Program and Kentucky Double Dollars

LOCALLY GROWN — FRESH from the FARM

Cooperative Extension Service

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

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Lexington, KY 40506

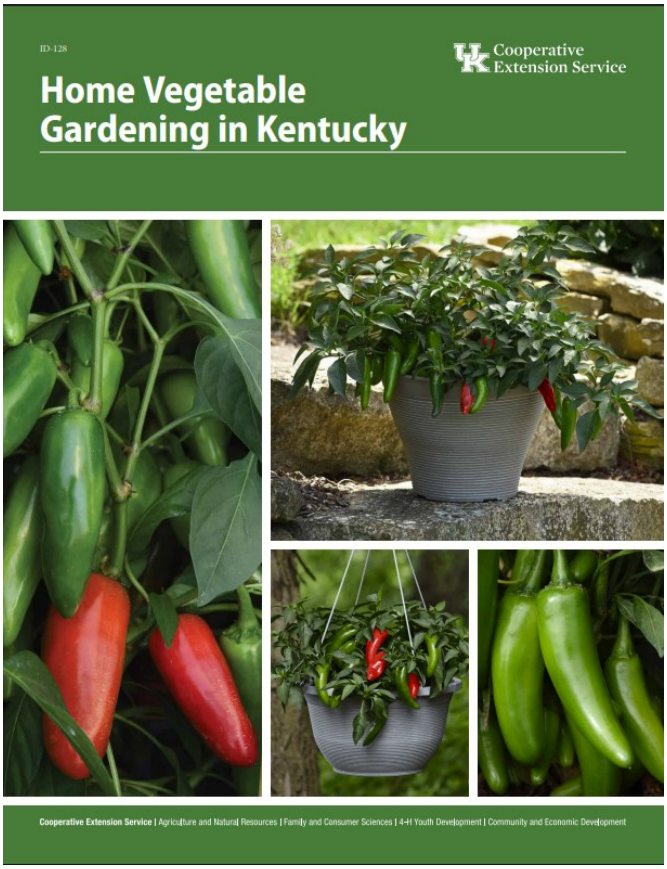
Disabilities accommodated with prior notification.

Campbell County Cooperative Extension
3500 Alexandria Pike
Highland Heights, KY 41076
(513) 572-2600

Make your home garden thrive! The five benefits of plant diversity

Source: Rick Durham, University of Kentucky Department of Horticulture professor at the Martin-Gatton College of Agriculture, Food and Environment

A home garden filled with a variety of plants is not just beautiful—it's smart! Having different types of plants growing together can help gardeners enjoy fresh food much of the year, help manage pests, promote pollinators and even improve the soil. Let's explore why a diverse garden is a great idea.



Seasonal Harvests: Fresh Food for Much of the Year

One of the best reasons to plant a mix of vegetables, fruits and herbs is that different plants grow best in different seasons. Some plants, like lettuce and spinach, thrive in cool weather and can be harvested in spring and fall. Others, like tomatoes and peppers, love the heat and grow best in summer. By planting a variety of crops, gardeners can enjoy fresh food throughout the year instead of just one season.

Intercropping: Making the Most of Space

Intercropping involves planting different vegetables side by side to take advantage of the different times of maturity, heights, spread or rooting depths. A classic example of intercropping involves corn, beans and squash. A few weeks after sowing corn seeds, you plant pole beans close to the corn rows to use the corn stalks for support. The squash is a vining plant and will spread between the rows of corn and beans. As another example, you can set tomato transplants between lettuce plants; the lettuce matures and is harvested before the tomato plants grow very large.

Natural Disease and Pest Control: Creating Healthier Plants

A diverse garden can also help keep insect pests under control. When a garden has only one type of plant, insects that like that plant can quickly take over. But when there are many different plants, pests have a harder time finding their favorite food. Beneficial insects such as natural pest predators may be attracted to different plants in the garden.

Just like insects, plant diseases spread more easily when there is only one type of plant in a garden. If a disease attacks one plant, it can quickly spread to all the others of the same kind. But in a diverse garden, diseases have a harder time spreading because different plants have different levels of resistance. This helps keep the garden healthy and productive.

Gardeners should also consider rearranging the placement of similar plants from year to year to prevent insect and disease build-up in the soil.

More Pollinators: Helping Bees and Butterflies

A garden with many types of flowers and vegetables attracts helpful insects like bees and butterflies. These pollinators help plants produce fruit and seeds by spreading pollen from flower to flower. Without pollinators, many fruits and vegetables wouldn't grow well. By planting a mix of flowers and food plants, gardeners can support pollinators and enjoy bigger harvests.

Better Soil Health: Building Stronger Plants

Different plants use different nutrients from the soil. If a garden only has one type of plant, the soil can lose important nutrients quickly. However, when a variety of plants grow together, they help balance the nutrients they take from the soil. Some plants, like beans and peas, even add nitrogen back into the soil, making it healthier for future crops.

A home garden with a variety of plants is stronger, healthier and more productive. By planting different crops, gardeners can enjoy fresh food much of the year, reduce pests naturally, improve soil health, attract pollinators, and prevent diseases. Whether growing vegetables, herbs or flowers, diversity makes a garden better in every way.

So, next time you plan your garden, think about adding a mix of plants—it's a simple way to make your garden thrive!

Contact the Campbell County Extension Office for more information on garden planning, crop rotation, and suggested vegetables to plant together.

Related publication: ID-128: Home Vegetable Gardening in Kentucky

ENT-0101

Box Tree Moth: What Should You Do?

PART 3 OF 3: BOX TREE MOTH (BTM) SERIES

Joe F. Boggs, Agricultural and Natural Resources Educator and Assistant Professor, Ohio State University Extension, Hamilton County/OSU Entomology

Ashley Kulhanek, Agricultural and Natural Resources Educator, Ohio State University Extension, Medina County

Amy K. Stone, Agricultural and Natural Resources Educator, Ohio State University Extension, Lucas County

Kayla I. Perry, Assistant Professor of Forest Entomology, Department of Entomology, The Ohio State University

Samuel F. Ward, Assistant Professor of Forest Entomology, Department of Entomology, The Ohio State University

Box tree moth (BTM) *Cydalima perspectalis* (Walker, 1859); Lepidoptera: Crambidae] is a new, invasive species for Ohio that threatens the plant health of boxwoods (*Buxus* spp.) and the economic health of the green industry in our state (APHIS, 2022). A number of effective tools are in the BTM pest management toolbox (Boggs, 2024). The following information provides tips on how and when to apply these tools.

What Should You Do?

1. Do not make preventative insecticide applications to boxwoods

Insecticide applications should only be made to boxwoods with an identified BTM infestation, or to those boxwoods in close proximity to a confirmed BTM caterpillar infestation. Preventative insecticide applications outside the locations where BTM has been found are not recommended.

Making unwarranted insecticide applications is a waste of money and product and can also have unintended consequences including producing secondary pest outbreaks. Research has shown that applications of synthetic pyrethroids (e.g., caterpillar insecticides) can kill predaceous mites that help keep plant-feeding mites in check. This can lead to plant-feeding mite outbreaks (Penman & Chapman, 1988; Gerson & Cohen, 1989).

Joe Boggs, The Ohio State University

Figure 2. BTM caterpillar with leaf stippling produced by boxwood spider mite

Joe Boggs, The Ohio State University

Figure 2. BTM caterpillar with leaf stippling produced by boxwood spider mite

Systemic applications of the neonicotinoid insecticide, imidacloprid, which is a common insecticide targeting boxwood leafminer [*Monarthropalpus flavus* (Schank)] and boxwood psyllid (*Psylla buxi* L.) stimulates increased egg production (fecundity) of the boxwood spider mite, *Eurytetranychus buxi* Garman (Szczepaniec & Raupp, 2013). This mite has been on the rise over the past several years.

THE OHIO STATE UNIVERSITY EXTENSION

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Biorational* Box Tree Moth Insecticides for Use by Home Gardeners		
Active Ingredient(s)	Biorational	Product Trade Name(s)
Azadirachtin	Botanical	Azamax, Azapro, EcoGarden
Azadirachtin + pyrethrins	Botanical	Azera Gardening
Bacillus thuringiensis (Bt.), subsp. kurstaki	Microbial	Captain Jack's Bt; Monterey Bt; Bonide Thuricide; ferti-lome Caterpillar Killer with Bt
Pyrethrins	Botanical	Bug Buster-O; Pyganic Gardening
Pyrethrins + canola oil	Botanical	Garden Safe Brand Houseplant & Garden Insect Killer 2; Garden Safe Brand Multi-Purpose Garden Insect Killer 2; Garden Safe Brand Rose & Flower Insect Killer 2; Espoma Organic Insect Control
Pyrethrins + clarified hydrophobic extract of neem oil	Botanical	ferti-lome Triple Action; Monterey Fruit Tree Spray Plus; Shield-All Plus Broad Spectrum Insecticide, Fungicide, Miticide
Spinosad	Microbial	ferti-lome Spinosad; Bonide Captain Jack's Deadbug Brew Concentrate; Bonide Captain Jack's Deadbug Brew Ready To Spray; Bonide Captain Jack's Deadbug Brew Flower & Vegetable Garden Dust; Bulls-Eye Bioinsecticide;
Spinosad + Potassium salts of fatty acids	Microbial	ferti-lome Spinosad Soap; Harris Garden Insect Spray Insecticidal Soap With Spinosad; Monterey Garden Insect Spray RTU; Natria Tomato, Vegetable & Fruit Insect Control Ready-To-Use

Box Tree Moth Insecticides for Use by Home Gardener	
Active Ingredient(s)	Product Trade Name(s)
Bifenthrin	Ortho Outdoor Insect Killer Concentrate; Ortho Outdoor Insect Killer Ready-To-Spray
Bifenthrin + zeta-cypermethrin	Ortho Bug B Gon Insect Killer for Lawns & Gardens Concentrate; Ortho Bug B Gon Insect Killer for Lawns & Gardens Ready-To-Spray; Ortho Bug B Gon/Home Defense-RTS/ Concentrate; Ortho Bug B Gon Insect Killer for Lawns & Gardens Ready-To-Spray 1; Ortho Bug B Gon Lawn & Landscape Insect Killer Concentrate; Ortho Bug B Gon Lawn & Landscape Insect Killer Ready-To-Spray; Ortho BugClear Insect Killer for Lawns & Landscapes Concentrate; Ortho BugClear Insect Killer for Lawns & Landscapes Ready-To-Spray; Ortho Home Defense Insect Killer for Lawn & Landscape Concentrate; Ortho Home Defense Insect Killer for Lawn & Landscape Ready-To-Spray
Cyfluthrin	Bioadvanced Science-Based Solutions Rose & Flower Insect Killer Ready-To-Use; Bioadvanced Science-Based Solutions Vegetable & Garden Insect Spray Concentrate
Gamma-cyhalothrin	Spectracide Acre Plus Triazicide Insect Killer for Lawns & Landscapes Concentrate; Spectracide Large Plot Triazicide Insect Killer for Lawns & Landscapes Concentrate; Spectracide Triazicide Insect Killer for Lawns & Landscapes Concentrate
Lambda-cyhalothrin	Bonide Eight Insect Control Garden & Home II Ready to Use; GardenTech Sevin Insect Killer Ready to Use 2; Martin's Cyonara Lawn & Garden Insect Control; Martin's Cyonara Lawn & Garden Insect Control Ready to Spray; Spectracide Triazicide Insect Killer for Lawns & Landscapes
Pyrethrins + sulfur	Bioadvanced Fruit & Vegetable 3-in-1 Solution Concentrate; Bioadvanced Fruit & Vegetable 3-in-1 Solution Ready-To-Use; Bonide Captain Jack's Tomato & Vegetable Ready to Use; Maggies Farm Garden Essentials Vegetable Garden Insect & Disease Control; Miracle-Gro Nature's Care 3-in-1 Insect, Disease and Mite Control; Miracle-Gro Nature's Care 3-in-1 Insect, Disease and Mite Control Ready to Spray; Whitney Farms 3-in-1 Rose & Flower Care; Whitney Farms 3-in-1 Rose & Flower Care 1
Pyrethrins + piperonyl butoxide	Bonide Pyrethrin Garden Spray Concentrate; Bonide Japanese Beetle Killer
Pyrethrins + piperonyl butoxide + clarified hydrophobic extract of neem oil	ferti-lome Triple Action RTU
Pyrethrins + piperonyl butoxide + silicon dioxide	Perma Guard Garden and Plant Insecticide D-21
Zeta-cypermethrin	Bug-No-More Large Property Insect Control; GardenTech Sevin Insect Killer Concentrate; GardenTech Sevin Insect Killer Ready To Spray; GardenTech Sevin Insect Killer Ready To Use

Fall Lawn Renovation

Wednesday, September 3, 2025
1pm

Campbell County Cooperative Extension Office 3500 Alexandria Pike | Highland Heights, KY 41076

Come join us for tips for renovating your home lawn. Topics covered include: grass selection, seeding , weed control and fertilization.

Class size limited. Registration required, call 859-572-2600
or online at https://campbell.ca.uky.edu
Registration opens 30 days in advance of the class

Cooperative Extension Service
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4-H Youth Development

MARTIN-GATTON COLLEGE OF AGRICULTURE, FOOD AND ENVIRONMENT

Educational programs of Kentucky Cooperative Extension serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expression, pregnancy, marital status, genetic information, age, veteran status, physical or mental disability or reprisal or retaliation for prior civil rights activity. Reasonable accommodation of disability may be available with prior notice. Program information may be made available in languages other than English. University of Kentucky, Kentucky State University, U.S. Department of Agriculture, and Kentucky Counties, Cooperating.

Disabilities accommodated with prior notification.

Brambles: Growing Raspberries & Blackberries

Thursday
October 16, 2025
10:00 am - 12:00 PM
At the Campbell County Extension Office
Room C ,3500 Alexandria Pike
Highland Heights, KY 41076

There'e a lot of interest in growing fresh fruit at home.This class will discuss the best production methods as well as the best varieties to select of raspberries,black raspberries and blackberries

Class size limited.
Registration required,
Call 859-572-2600
or online at https:campbell.ca.uky.edu
Registration opens 30 days in advance of the class

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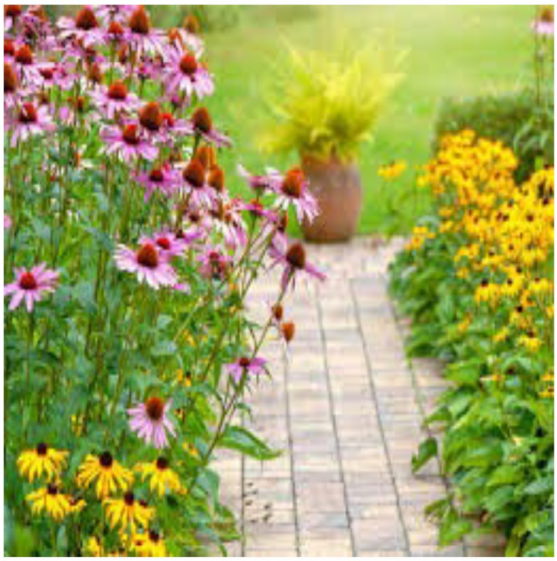
Disabilities accommodated

Martin-Gatton College of Agriculture, Food and Environment
University of Kentucky

Natives for NKY

Wednesday, November 12, 2025
1:00pm—3:00pm
at the Campbell County Extension Office
3500 Alexandria Pike
Highland Heights KY



Join us in a discussion of some great native plant selections that are well adapted to our ecoregion.

Class size limited

Registration required

Call 859-572-2600

or online at https:campbell.ca.uky.edu

Registration opens 30 days in advance of the class.

Cooperative Extension Service

ADULT HEALTH BULLETIN

AUGUST 2025

Download this and past issues of the Adult, Youth, Parent, and Family Caregiver Health Bulletins: **http://fcs-hes.ca.uky.edu/content/health-bulletins**

Campbell County Cooperative Extension Service
3500 Alexandria Pike
Highland Heights, KY 41076
859-572-2600
https://campbell.ca.uky.edu/

THIS MONTH'S TOPIC

PREVENTING HEATSTROKE IN THE "DOG DAYS" OF SUMMER

The "dog days of summer" are the hottest and most humid days of the year, usually in July and early August. The term comes from ancient times. People noticed that this period of very hot weather happened around the time the star Sirius, also called the Dog Star, rose in the sky with the sun. People believed that the heat came from this star shining so brightly. Today, we know it's just the time of year when our part of the earth is closest to the sun because of the earth's tilt. During the dog days of summer, it's especially important to be aware of the health risks of extreme heat, including heatstroke.

Heatstroke is a serious illness that happens when your body gets too hot and cannot cool down. It usually happens after spending too

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much time in the sun or doing hard physical activity in very hot weather. When someone has heatstroke, their body temperature can rise to 104 degrees F (40 degrees C) or higher. This can be very dangerous because it can damage the brain and other organs. Common signs of heatstroke include a high body temperature, red or dry skin, fast heartbeat, confusion, headache, or even fainting. It is important to treat heatstroke quickly by moving the person to a cooler place, using cool water to lower their temperature, and calling for medical help right away. Heatstroke can be life-threatening if not treated in time.

A regular stroke and a heatstroke are two very different medical problems, even though they both have the word "stroke" in their names. A regular stroke happens when blood flow to the brain is blocked or a blood vessel in the brain bursts. This can damage parts of the brain. That can cause problems like trouble speaking, weakness on one side of the body, or confusion. It is a brain-related emergency. On the other hand, heatstroke happens in the body. Heatstroke affects the whole body and can damage organs, including the brain. Both conditions are serious and need medical help right away. But they are caused by different things and affect the body in various ways.

To avoid heatstroke, it's important to stay cool and hydrated, especially when the weather is very hot. One of the best things you can do is drink plenty of water, even if you don't feel thirsty. Wear light-colored, loose-fitting clothes and a hat to protect yourself from the sun. Try to stay in the shade or indoors with air conditioning during the hottest parts of the day, usually between 10 a.m. and 4 p.m.

If you have to be outside or do physical activity, take lots of breaks and rest in a cool place. Never sit in a parked car on a hot day, as the heat in enclosed areas can increase quickly to dangerous levels. By following these steps, you can help protect yourself from heatstroke and stay safe in hot weather.

REFERENCE:
https://www.cdc.gov/heat-health/about

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