



University of Kentucky
 College of Agriculture,
 Food and Environment
 Cooperative Extension Service
 Bullitt County Extension Office
 384 Halls Lane
 Shepherdsville, KY 40165
 502-543-2257
 Email: bullitt.ext@uky.edu



Upcoming Classes

**Pre-registration is required to ensure adequate supplies.
 Call 502-543-2257 to register.**

July 2023

- Thursday, 7/13: Oyster Mushroom Make & Take, 6pm
 Learn the basics of growing oyster mushrooms and inoculate your own bucket to take home.
- Friday, 7/19: Carnivorous Plants, 6pm
 Learn about the life cycle and proper care of carnivorous plants.

August 2023

- Friday, 8/4: Growing Peppers & Making Hot Sauce, 6pm.
 Learn the basics of growing hot peppers and how to craft your own hot sauce. Materials will be provided.

September 2023

- Friday, 9/22: Cooking with Fall Vegetables, 6pm.
 Learn how to harvest, store, and cook with fall vegetables. Cooking demonstration and recipe tasting with Plate it Up KY Proud recipe will be provided.

Meetings

All meetings open to the public.
 Master Gardeners' Assn. & Horticulture Council
 (1st Tuesday of each month)

- July: No Meeting
- August 1st, 6pm
- September 5th, 6pm

Beekeepers' Association & Classes
 (2nd Wednesday of each month)

- July 12th, 7pm
- August 9th, 7pm
- September 13th, 7pm

July

Horticulture Newsletter



In this issue:

July Gardening Calendar
 Page 2

Bullitt Co. Summer Events
 Page 3

Farmers Market Recipes
 Page 4

Xeriscape Gardens
 Page 5

Manage Contaminated Compost
 Pages 6 & 7

Ongoing Programs
 Page 8

Community Seed Exchange
 Page 9



Follow us for program updates
 and daily horticulture tips!
 BullittCountyExtension
 Horticulture



July Garden Calendar

Rosie Lerner, Purdue University

Home

- Closely watch houseplants that have been set outdoors. They need more water than they did indoors. They can dry out rapidly in hot, summer breezes.
- Propagate houseplants by taking cuttings from vigorously growing plants. Place the cut end in rooting media (such as perlite, vermiculite, or peat moss soil mix). Enclose in plastic and keep out of direct sunlight.

Garden

- Supplement natural rainfall, if any, to supply 1 to 1.5 inches of water per week in a single application.
- Start seeds of broccoli, cabbage, and Brussels sprouts to transplant later for a fall harvest.
- Harvest crops such as tomatoes, squash, okra, peppers, beans, and cucumbers frequently to encourage further production.
- Complete succession planting of bush beans and sweet corn.
- Harvest summer squash while small and tender for best quality.
- Standard sweet corn is at its peak for only a day or so. Supersweet corn varieties maintain their peak quality for a longer period. Harvest when silks begin to dry and kernels exude a milky, rather than watery or doughy, juice when punctured.
- Mulch garden to control weeds and conserve soil moisture.
- Make sure potato tubers, carrot shoulders, and onion bulbs are covered with soil to prevent them from developing a green color and off flavors. Applying a layer of mulch will help keep them covered.
- Plant new strawberry plants and renovate strawberry beds.
- July is a good time to fertilize strawberries with 0.5 pound of actual nitrogen per 100 feet of row.
- Harvest raspberries when fully colored and easily separated from stem. After harvest is complete, prune out the fruiting canes to make room for new growth.
- Remove faded blossoms from annual and perennial flowers to prevent seeds from forming.
- Condition flowers cut from the garden for arranging by removing the lower leaves, placing cut stem ends in warm water, and storing them overnight in a cool location.
- The foliage of spring-flowering bulbs can be removed safely after it fades. This also is a good time to lift the bulbs for transplanting or propagation.

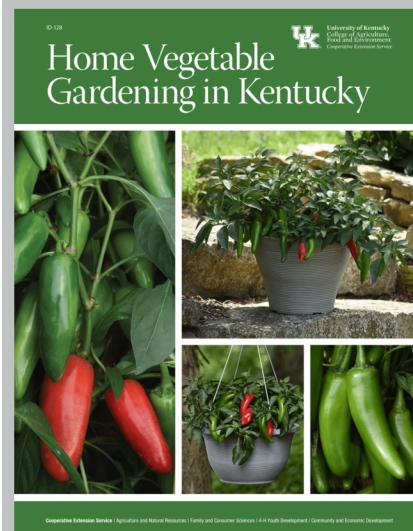
Need your soil tested? Drop off 8 dry oz. at our office to receive a free analysis report with recommendations. For more information, call 502-543-2257



Yard

- Keep newly established plants watered during dry weather. Allow water to penetrate deeply into soil rather than sprinkling frequently and lightly.
- Apply mulch around young plants to help conserve soil moisture and control weeds.
- Continue a fruit tree spray program to keep diseases and insects under control.
- Remove water sprouts and suckers (sprouts from the roots) from fruit trees.
- When watering lawns, apply 1 to 1.5 inches of water in a single application per week. Frequent, light sprinklings will encourage roots to stay shallow, making them more susceptible to drought.
- Mow grass one-half inch higher than usual during the dry, summer months to help conserve soil moisture. Do not mow when the lawn is under severe drought stress.

For more gardening resources, tips, and information, check out ID:128, Home Vegetable Gardening in Kentucky here:



Bullitt County Summer Events

For more events & information, visit:
travelbullitt.org/local-events-info/calendar-of-events/



The Mt. Washington Farmers Market

every Wednesday and Saturday from
June 3rd – September 30th

Hours: Wednesday: 4PM – 7PM

Saturday: 8AM – 12PM

300 Snapp St., Mt. Washington, KY 40047



The Shepherdsville Farmers Market

every Saturday starting
June 3rd – September 23rd.

Hours: 9am–1pm

170 W Joe B Hall Ave, Shepherdsville, KY 40165

Cultural Passes are now available at all Bullitt County libraries! The Cultural Pass is your ticket to an amazing assortment of nearly 50 arts, culture, and heritage experiences based in the Louisville Metro area. Youth ages 0–21 are eligible for one pass, which is valid for one-time general admission at each participating institution (some restrictions may apply). Free admission is also permitted for up to one adult accompanying each Cultural Pass holder ages 15 and younger. Passes are valid June 1st–August 6th. Visit bcplib.org/cultural-pass/ for more info.

The City Of Shepherdsville,
Bullitt Co. Tourism & The Convention Commission
PRESENTS
BULLITT BLAST
& THE CITY FAIR

JUNE 30TH
6P to 10P
JULY 1ST
3P to 11P

LIVE MUSIC . DRINKS. FOOD TRUCKS
DUNK BOOTH . RIDES. FIREWORKS.
WATERMELON EATING CONTEST

SHEPHERDVILLE CITY PARK
1100 W. 1st Street, Shepherdsville, KY

BullittBlast

- Friday, June 30, 6–10P
- Saturday, July 1st, 3–11P

Bullitt Blast will feature several food trucks from the Louisville Food Truck Association as well as carnival treats by Great American Carnival. Be sure to check this event out!

1100 W. 1st Street
Shepherdsville, KY



NATURE, ART & SCIENCE
CONNECT
@ BERNHEIM

CONNECT @ Bernheim Forest

Saturday, Aug 26th 4:30pm–10:30pm

Discover the enchanting intersection of art, science, and nature during CONNECT, Bernheim's annual eclectic evening event. Come out to to experience Lake Nevin as it comes alive with spontaneous art, drum circles, light sculptures, and musical performances from renowned artists along with hands-on art and science activities. Refreshments from local food trucks, wine, and beer vendors will also be available throughout the event.



Locally sourced, in-season foods taste better. Buy Kentucky Fresh and give these healthy summer recipes from the Kentucky Nutritional Education Program a try!



Tips: Think about canning, freezing, or drying extra produce. Contact the Extension office for free resources to help you.

Farmer's Market Skillet Bake

Ingredients:

- 1/2 small onion, finely chopped
- 2 cloves garlic, minced
- 4-5 small red potatoes, sliced
- 1 tablespoon olive oil
- 2 cups shredded mozzarella cheese, divided
- 1 medium summer squash, sliced
- 1 medium zucchini, sliced
- 4 medium sized tomatoes, sliced
- 1 teaspoon salt
- 1 teaspoon pepper
- 5 fresh basil leaves, finely chopped, divided

Yield: 8, 1 cup servings



Directions:

Preheat oven to 375 degrees F. **Prepare** onion, garlic and sliced potatoes (about 1/4 inch thick). **Heat** olive oil over medium heat in a 10 or 12-inch oven safe skillet. **Add** onion, garlic, and potatoes to pan and **stir** to coat with oil. **Cook** over medium heat, **stirring** occasionally until golden brown and tender. **Add** 1 cup mozzarella cheese. In a bowl, **toss** together the squash, zucchini and tomatoes with salt, pepper, and half of the finely chopped basil. **Layer** squash and tomato slices over the potato and cheese layer. **Top** with remaining mozzarella cheese. **Bake** 35 minutes or until vegetables are tender and cheese is melted. **Remove** skillet from oven and **top** with remaining basil.



Mom's Macaroni Salad

Ingredients:

- 2 cups macaroni, cooked according to directions on box or bag
- 2 stalks celery, chopped in medium size pieces
- 1/2 small onion, diced
- 2 bell peppers, chopped in medium size pieces
- 1/2 cup pickle relish or chopped pickles
- 2 hardboiled eggs, chopped (optional)

Dressing:

- 1/4 cup salad dressing or mayo
- 1 tablespoon sugar
- 1 tablespoon apple cider vinegar
- 1 tablespoon pickle juice (or more until desired consistency)

Yield: 16, 1/2 cup servings



Directions:

Mix salad ingredients in a large container. Leave room to mix in the dressing. Mix dressing in small bowl until smooth and creamy. Add dressing to mixed salad ingredients. Keep refrigerated.

Notes: 1 % milk may be substituted for the pickle juice. Doing so will decrease the sodium content.

BEAT SUMMER HEAT WITH LOW-WATER XERISCAPE GARDENS

Nikki Keltner, Illinois Extension

Every summer, gardeners notice that the summer heat steals the beauty of certain plants. They fade and wither, leaving us with only the memories of what once was. To keep these plants happy and healthy, watering becomes a nightmare during high heat and periods of no rainfall. Xeriscaping, or low-water-usage gardening, may be the answer. The term xeriscape often brings visions of parched desert landscapes. But a xeriscape can be colorful, attractive, and inviting while requiring far less water than traditional landscapes. Regardless of your location and climate, you can create a beautiful xeriscape on your property.



The 6 principles of xeriscaping.

Many homeowners mistakenly associate xeriscaping plants with a dry, desert-themed garden, producing only plants like cacti and agave. Really, xeriscaping plants can range from anything from classic drought-tolerant succulents to prairie plants to ornamental grasses. Even cottage garden-type plants can thrive in a xeriscape design.

- Group plants according to water needs. Plant thirsty plants together to concentrate watering in specific areas, rather than "blanket" watering.
- Build soil lips or soil basins around plants to direct water to plant roots. Depending on plant size, this basin should be 3 to 18 inches from the base of the plant.
- Mulch gardens to retain soil moisture and keep beds weed-free. Weeds take up water that could be used by desirable plant material. If your soil drains too quickly, amend it by adding moisture-holding organic matter.
- Pick the right plant for the right spot. Choose plants that thrive in hot, dry conditions.

Popular blooming "dog day" plants

All of these plants will survive the hot days of August with very little attention and care, requiring only an occasional pruning off of old blossoms. Try one or two next year and enjoy your garden all season long.

- Celosia, or cockscomb (*Celosia argentea*), is unique for its unusual feathery or brain-like flowers of bright red, yellow, orange, and pink. Celosia is an annual that may grow from 6 inches to 4 feet tall, depending on the variety. Bring fresh cut celosia inside for an excellent accent flower, or hang it to dry.
- Spider flower (*Cleome hassleriana*) can reach 4 to 5 feet tall in full sun. The unique spider-like flowers are rose, violet, or white. Cleome is an annual, meaning it grows from seed every year. It will re-seed freely in your garden.
- Gomphrena, or globe amaranth (*Gomphrena globosa*), blooms in a variety of bright colors including purple, orange, red, rose, and pink. Generally, the plant grows 1 to 2 feet tall. This is an old-fashioned flower that is easy to grow. It makes an excellent dried flower that holds its color well. Pick just as the flowers open fully and hang upside down to dry.
- Madagascar periwinkle, also known as annual vinca (*Catharanthus roseus*) is a plant that seems to thrive in hot areas. Its lush, dark green foliage is somewhat glossy and forms a 2-foot tall mound. Annual vinca is available in white, pink, purple, and bicolors. If you have a difficult southern exposure to work with, try this annual. It is slow to start if spring temperatures are cool and it does not tolerate wet areas.
- Threadleaf coreopsis (*Coreopsis verticillata*) is a perennial that will reach 18 to 24 inches in height. It has yellow, daisy-like flowers that last from late spring to late summer. This plant will grow best if planted in a dry, full-sun area.
- Orange coneflower (*Rubdeckia fulgida*) is the perennial form of blackeyed Susan. Its cheery yellow or orange daisy flowers brighten up the August garden.
- Blanket flower (*Gaillardia species*) is a perennial plant available in a variety of hot colors like golden yellow and mahogany red. Cultivars are available in a range of sizes with most growing in the 2-foot height range. Blanket flower tolerates dry soil and temperatures of 90 degrees Fahrenheit or higher.

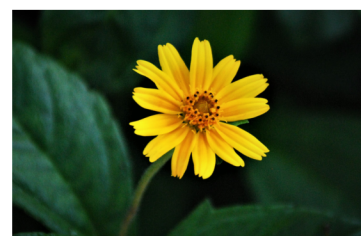
CELOSIA



SPIDER FLOWER



THREADLEAF COREOPSIS



BLANKETFLOWER



MANAGE COMPOST AND SOIL CONTAMINATED WITH BROADLEAF HERBICIDES

Luukinen et. al, NC State Extension

Persistent broadleaf herbicides are a group of chemicals used to kill weeds. The group includes both pre-emergent herbicides, applied to the soil to interrupt the germination process, and selective post-emergent herbicides applied directly to the plant to kill broadleaf weeds and not grass. Though they do not kill grass, they can be taken up by grass, consumed by horses or cows, passed through the digestive tract, expelled as manure, and still remain active after composting. Plant injury caused by herbicide residues in compost or manure can be similar to injury caused by herbicide drift or volatility (evaporation) from these same and other auxin-like herbicides. During thermophilic composting, high temperatures and microbes destroy most herbicides. However, persistent herbicides (such as the ones described in this publication) may remain viable for many months.

Answers to Frequently Asked Questions

What is wrong with my plants?

Have you noticed that your garden plants are not growing normally? Have you experienced poor seed germination or even the death of young plants? Do plants have twisted, cupped, and elongated leaves, misshapen or smaller fruit; and reduced yields? These symptoms, shown in NC State Extension publication [AG-727](#), are similar in appearance and could be caused by plant diseases, nutrient deficiencies, or insect pests. However, it may also be that manure or compost applied to your garden soil is contaminated with persistent broadleaf herbicides.

What are persistent broadleaf herbicides & where are they used?

Broadleaf herbicides are commonly used to kill broadleaf weeds that grow among grass crops such as turf, corn, wheat, barley, pasture grasses, or hay. Grassy crops are not affected by broad-leaf herbicides because of their hormone and metabolic systems. Broad leaves have a flat, broad surface with a network of prominent veins. Unfortunately, broadleaf plants do not just include weeds, but also most flowering plants as well as fruit and vegetable crops that are grown for food. Some herbicides are called persistent because they can last for a long time in the environment. When these types of herbicides stay in the soil, they can damage garden plants over multiple years. In persistent broadleaf herbicides, the active ingredients are clopyralid, aminopyralid, aminocyclopyrachlor, and picloram (EPA, 2021). The use of clopyralid was restricted by the manufacturer in 2002 to non-residential lawns and turf only (office parks, playgrounds, golf courses, pastures, and forests).

Which plants or crops are affected?

Nearly all vegetable crops can be affected by persistent herbicides. Some notable exceptions include asparagus, corn, leeks, and onions. These are all related to grasses, which are not targeted by broadleaf herbicides.

The following crops are known to be sensitive to the persistent herbicides picloram, clopyralid, or aminopyralid:

- Herbs: parsley
- Flowers: compositae family (daisies), dahlias, flowers in general, marigolds, roses, sunflowers, and fruits: grapes and strawberries
- Vegetables: beets, carrots, celery, eggplant, legumes, lettuce, peas, peppers, potatoes, spinach, and tomatoes.
- Other: cotton, mushrooms, and tobacco

What are typical symptoms?

- Poor seed germination
- Death of young plants
- Twisted, cupped, and elongated leaves
- Misshapen fruit
- Reduced yields

Bean grown in contaminated garden soil vs healthy bean leaf



Nutrient deficiencies, plant diseases, and insects can cause similar symptoms to persistent herbicide damage. However, if multiple types of broadleaf plants are affected, grass-like plants are not affected, and only one part of the plant is affected, it may be herbicide damage. If neither you, nor anyone near your plants have applied herbicides, the damage may be from persistent broadleaf herbicides in compost.

How did the herbicides get in my yard?

Persistent broadleaf herbicides may have been used to manage broadleaf weeds in pastureland. Herbicide residues may exist in forage crops, pasture grasses, or hay that livestock eat for food. These residues are not broken down when digested by livestock, and they are found in manure in addition to forage crops themselves.

If either the forage crop or the manure is used for compost, persistent herbicide residues may remain intact and can still be active even after the composting process is complete, leading to unintended damage (Daugherty and Kerley, 2018). Herbicide-contaminated compost is an ongoing problem across the country. Some garden plants can easily take up herbicides from the soil, which then disrupt normal plant growth (Davis et al., 2018). Tiny amounts of these herbicides (even as little as 3 parts per billion) can impact some garden plants. Several of these herbicides can persist in compost and soil for several years (Michel et al., 2015).

Taking Action

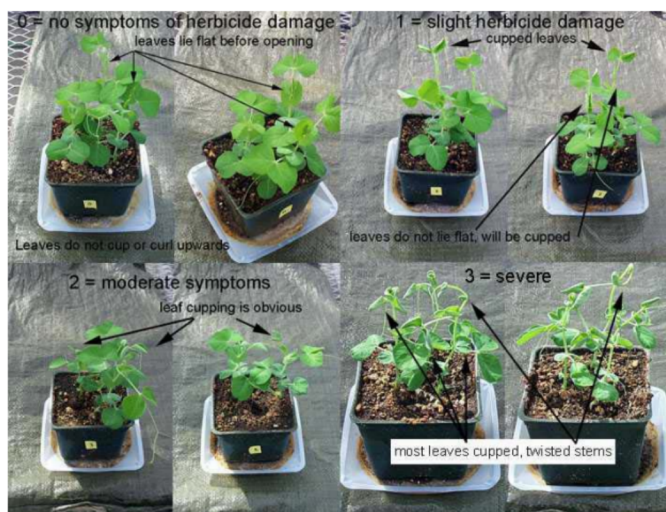
Making your own compost gives you control over the ingredients. If you decide to purchase compost, contact the supplier and learn what feedstocks they use. Some potential red flags for herbicide contamination are straw or hay, lawn clippings, or animal manure. If they are unsure of the feedstock or list a potentially contaminated source, consider purchasing elsewhere.

Test compost before adding to your garden soil!

Persistent herbicides can damage plants even at levels lower than a lab may be able to detect. If you're not sure whether your compost is free of herbicides, you may want to run a simple, inexpensive bioassay before applying the compost to your garden or landscape. Bioassays are sensitive, affordable tests you can do in pots or within your garden if you've already added compost. When planning to run a bioassay, keep in mind that it will take three to four weeks to complete.

Bioassay steps (adapted from (Davis et al., 2020))

1. Take several small shovelfuls from throughout the pile of aged manure or compost, and be sure to get deep inside the pile. Mix thoroughly. [Note: dry pockets of compost will likely contain higher concentrations of herbicide residues than moist sections. Test dry pockets and moist sections separately.]
2. Prepare three to six small (4- to 5-inch) pots. Fill some with a 1:1 mix of the compost and a commercial potting mix that contains fertilizer. Fill at least one pot with only the commercial potting mix, no compost or manure.
3. Label all pots to know which ones have the compost/manure.
4. Put saucers underneath each pot, or position the pots far enough apart ensuring that water running out of the bottom will not reach any of the other pots.
5. Plant three pea or bean seeds in each pot, water normally, and let them grow for two to three weeks.
6. There should be at least three sets of true leaves on the peas or beans at that time. Monitor the pots for normal /abnormal growth including poor seed germination, twisted, cupped, and elongated leaves, and death of young plants.



Bioassay performed by Washington State University on soil contaminated by clopyralid.

If the plants grown with the compost exhibit problems like those described above, and plants grown without compost look healthy, then you can assume that the compost is contaminated. Contaminated compost can be spread on turfgrass which is not harmed by broadleaf herbicides. Regardless of the type of garden plan you grow, you should NOT compost plant materials grown in soil contaminated with persistent herbicides. Doing so could continue the cycle of compost contamination and impact additional gardens.

The newer generations of these herbicides are much more toxic and persist much longer, thereby increasing the risk and extent of compost, manure and soil contamination risk by orders of magnitude. Below is a list of herbicides that may persist in the soil and their year of introduction:

Phenoxy-carboxylates

- 2,4-D (1945)
- 2,4-DB (1944)
- MCPA (1950)
- MCPB (1960)
- Dicloprop (1961)

Benzoates

- Dicamba (1963)

Pyridine-carboxylates

- Picloram (1963)
- Clopyralid (1977)
- Aminopyralid (2005)

Pyridyloxy-carboxylates

- Triclopyr (1979)
- Fluroxypyr (1985)

Quinoline-carboxylates

- Quinclorac (1989)
- Quinmerac (1993)

Pyrimidine-carboxylates

- Aminocyclopyrachlor (2010)

Arylpicolinates

- Halaxifen-methyl (2015)
- Florpyrauxifen-benzyl (2018)



Deformed leaves due to herbicide damage:
Oregon State University Extension

ENTRY DEADLINE : SEPTEMBER 30TH HORTICULTURAL PHOTOGRAPHY CONTEST



2023

PHOTO CONTEST

1ST, 2ND AND 3RD PLACE PRIZES!

WIN \$100 FOR FIRST PLACE, \$75 FOR SECOND OR \$50 FOR THIRD. PHOTOS THAT DO NOT PLACE MAY BE SELECTED FOR USE IN OUR 2024 CALENDAR!

The 2023 Master Gardener's horticultural photo contest is still ongoing! Scan the QR code to be directed to the entry form and complete list of rules.



Creative Writing Course

You can participate as much or as little you as like. Cameras on or off. This is just for fun!

There will be a 30 min skills lesson at the start of class and then listening to or sharing others writing at the end.

Class on Tuesday Nights at 7pm on Zoom

Schedule of Classes:

- May 16th - Stream of Consciousness
- May 30th - No Send Letters
- June 13th - Create a character Exercise
- June 27th - Sensory Imagery
- July 11th - POV Switch Up
- July 25th - Figurative Language
- August 8th - Showing vs Telling
- August 22nd - Pacing
- September 19th - Cliché and Metaphor
- October 17th - Narrative and Short Story

To Register email lorilee.kunze@uky.edu and put Creative Write in the Subject Line



Remaining 2023 classes

- **7/13, 6pm-Oyster Mushroom Bucket Make & Take**

Learn the basics of growing oyster mushrooms and inoculate your own bucket to take home.

- **7/19, 6pm-Carnivorous Plants**

Learn about the life cycle and proper care of carnivorous plants.

- **8/4, 6pm-Growing Peppers & Making Hot Sauce**

Learn the basics of growing hot peppers and how to craft your own hot sauce. Peppers & bottles will be provided.

- **9/22, 6pm-Cooking with Fall Vegetables**

Learn how to harvest, store, and cook with fall vegetables. Cooking demonstration and recipe tasting with Plate it Up Kentucky Proud recipes will be provided.

- **10/20, 6pm-Apple Tasting**

Embrace the fall season and join us in tasting a wide variety of apples to discover your favorite kind.

- **10/28, 10am-Community Seed Exchange**

Save the date and join us for a communal gathering and seed exchange. Bring your vegetable, annual, and perennial seeds to give away or trade with others. All garden enthusiasts welcome.

- **11/3, 6pm-Family Craft Night Make & Take**

Join us for a family movie night of snacks, hot chocolate, and Holiday crafting with natural items..





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



Mark your calendars!

Bullitt County Extension Horticulture

*Community
Seed Exchange*



**Saturday,
October 28th
10a - 2p**

Join us for a communal gathering and seed exchange! Bring your vegetable, native, annual, and perennial seeds to give away or trade with others. All garden enthusiasts are welcome.

To reserve a table for this event, call 502-543-2257.

Address: 384 Halls Lane, Shepherdsville, KY 40165



Contact Us:

lorilee.kunze@uky.edu

[facebook.com/BullittCounty
ExtensionHorticulture](https://www.facebook.com/BullittCountyExtensionHorticulture)

Upcoming Events at the Bullitt Co. Extension Office

Call 502-543-2257 or visit <https://bullitt.ca.uky.edu/> for more information.



Family & Consumer Sciences

- **Sit-N-Sew:** Second Thursday of each month from 6 - 9pm

Agriculture

- **Bullitt Co. Cattlemen's Meeting:** 6/13, 7/11, & 8/8 from 7-9pm

4-H

(Contact 4-H agents for more details on upcoming events)

- **Animal Explorer Club (Ages 4-8):** 8/15, & 9/19 from 6:30 - 7:30pm
- **Lake Cumberland 4-H Camp:** July 3-7
- **Bullitt Co. 4-H Fair Public Viewing:** July 20th, 2-4pm

Go paperless!
e-newsletter
sign-up:

