



In This Issue

- Upcoming Events
- Greenup County Conservation District Tree Seedling Giveaway
- Hemlock Dangers to Livestock
- Spring Turkey Hunt Information
- Planning and Prepping for the Spring Garden
- 2023 Master Gardener Graduates
- FREE BQCA Training

UPCOMING EVENTS

- April 1: Predator Control and Guard Animal Workshop—Carter County Extension Office from 9:00AM-3:30PM—Call Carter County Extension Office at (606) 474-6686 to register.
- April 11: Spring Farmers Market Meeting at 5:30PM at GC Extension Office
- April 13: FREE Beef Cattle Quality Assurance Training at 10AM-12 noon at GC Extension Office—Call (606) 836-0201 to register
- April 18: Greenup County Beekeepers Meeting – 6PM at GC Extension Office
- April 18: FFA Regional Contest Day
- April 24: Master Gardener Meeting – 6PM at Extension Office—Speaker Richard Timberlake, GC Beekeeper President
- April 26-27: Greenup Conservation District – Tree Seedling Giveaway –See page 2 for additional information
- April 27: FREE Beef Cattle Quality Assurance Training at 1PM-3PM at Extension Office—Call (606) 836-0201 to register
- April 29: Harold Rice Memorial Tractor Ride and Chili Tasting Competition at Greenup County Farm Bureau Field
- May 6: Greenup County Farmers Market Spring Market -10AM-2PM at GC Extension Office
- May 13: Greenup County Farmers Market 9AM-2PM (each Saturday thru October)
- May 16: Greenup County Beekeepers Meeting at 6PM at Extension Office
- May 22: Greenup County Master Gardener Meeting- 6PM—Speaker Kristi Ruggles –Location TBA



To encourage wildlife,
the Greenup County Conservation District will be having a:

Tree Seedling Give-away

For: Greenup
County Residents

**Wed. & Thurs.
April 26—27**



Expected Tree Seedlings:

Bald Cypress	Northern Red Oak
Pawpaw	White Oak
Persimmon	Pecan
Washington Hawthorne	River Birch
Black Walnut	White Pine
Chinese Chestnut	Flowering Dogwood

Trees provided by:
Greenup County

Conservation District 473-3228

Kentucky Soil & Water Commission
Division of Conservation
KY Division of Forestry
(West Liberty Nursery)

All trees wrapped by:
Agriculture Students from
Greenup ATC and GCHS.

Two separate locations:

- South Shore Rotary Park
On Rt. 23 across from the
Brick Yard 10:00 ~ 4:00
- Greenup County High School
Greenhouse 9:00 ~ 4:30

BE AWARE OF POISON HEMLOCK DANGERS TO LIVESTOCK

Source: Michelle Arnold, UK extension ruminant veterinarian; J.D. Green, UK extension weeds specialist

In recent months, evidence of poison hemlock is widespread in Kentucky. Poison hemlock is toxic to a wide variety of animals including birds, wildlife, cattle, sheep, goats, pigs, horses and to humans.

People are usually poisoned when they eat hemlock mistaken for plants such as parsley, wild carrot or wild anise. Although, cattle seldom eat hemlock, they will if no other forage is available or if it is incorporated in hay or silage. A common question is how much do cattle need to eat to kill them. Unfortunately, the answer is not clear cut. There is considerable variation in the toxic alkaloid content of the plant depending on stage of growth, season, moisture, temperature, time of day and geographical region (southern plants are more toxic than northern plants). The alkaloids have two major effects: rapid, sometimes fatal effects on the nervous system, and birth defects in calves and pigs. Cattle have died by eating as little as 0.2-0.5 percent of their body weight in green hemlock.

Although this plant is often seen along roadways, abandoned lots, fencerows and other non-cropland sites, in more recent years, it has expanded out into grazed pasture lands and hay fields. Poison hemlock is classified as a biennial that reproduces only by seed. It is capable, however, of completing its lifecycle as a winter annual in Kentucky if it germinates during the fall. Flowers and new seed are typically produced in late May and June. Plants emerge as a cluster of leaves that form a rosette. Poison hemlock is most noticeable at this stage of growth in late fall through early spring with its parsley-like leaves which are highly dissected or fern-like. The individual leaves are shiny green and triangular in appearance.

As the plant begins to send up flower stalks, the leaves are alternately arranged on the main stem. Each individual leaf is pinnately compound with several pairs of leaflets that appear along opposite sides of the main petiole. As the plant matures, poison hemlock can grow upwards to about 6 to 8 feet tall. At maturity, the plant is erect, often with multi-branched stems, and it forms a deep taproot. Poison hemlock has smooth, hollow stems with random purple spots along the lower stem that help distinguish it from other similar plants. The flowers, when mature, are white and form a series of compound umbels (an umbrella-shaped cluster of small flowers) at the end of each terminal stalk. Although poison hemlock is often associated with areas that have moist soil conditions, it can also survive in dry sites.

Symptoms of poisoning can occur within 30 minutes to two hours of ingestion depending on the animal, quantity consumed and other ecologic factors. Toxicity varies depending on stage of plant growth, location and environment. Poison hemlock foliage has an unpleasant mouse urine-like odor, detectable when near the plant or when a stem or leaf is crushed, so livestock generally avoid it. Signs of acute poisoning include:

- nervousness, trembling, muscle weakness, incoordination
- salivation (slobbering)
- initial stimulation or excitement followed by depression
- dilation of the pupils
- weak heartbeat
- musty, mousy odor to breath and in the urine
- prolapse of the third eyelid across the cornea may cause temporary blindness
- death by respiratory failure, due to paralysis of respiratory muscles

Although acute disease is a primary concern, an equally serious problem is subacute intoxication of pregnant livestock that causes deformed bones and joints in calves and pigs. For this to happen, cows must eat the plants for an extended period of time during the first trimester of pregnancy. The susceptible stage of gestation for maternal exposure for cattle is from 50-75 days for skeletal defects to occur. These alkaloids continuously reduce fetal movement during tissue formation, resulting in crooked legs, deformed necks and spines. Less commonly, cleft palate results from lack of fetal movement in the head and neck regions at 30-50 days gestation, resulting in the tongue preventing normal palate closure during embryo development.

All parts of the plant, including the seeds, contain the toxic alkaloids. Ingestion of fresh, green plant material may quickly produce signs of intoxication within an hour and last for several hours. Seeds and dried plant material contain the highest concentrations of the most troubling alkaloid. Toxicity may be somewhat reduced in dried plants due to volatility of the alkaloids, but the potential for toxicity still exists, particularly when a sufficient quantity is consumed in dried hay. Seeds are highly toxic and can be a source of poisoning when they contaminate cereal grains fed to livestock. Use extreme caution before feeding animals hay or grain known to contain poison hemlock.

Diagnosis is based on history of plant ingestion, clinical signs and chemical analysis for presence of alkaloids in rumen contents. No specific treatment for poisoning exists. If acute poisoning does not progress to respiratory failure and death, the prognosis for full recovery is good. Avoid overexcitement and stress that may exacerbate clinical signs and result in death.

Public health is a concern when dealing with poisoned animals because of the possibility of alkaloid residues in meat. Elimination of plant toxicants through the milk is a minor route of excretion but may be important when consumed by a calf or a human.

The principle strategy for poison hemlock control is to prevent seed production which can be a challenge since a fully mature plant is capable of producing 35,000 – 40,000 new seeds. It is too late to use herbicide control methods after plants have produced flowers. Therefore, you should use mechanical control efforts such as mowing or cutting down individual plants just before peak flower production to avoid or reduce the amount of new seed being produced.

Make note of areas heavily infested with poison hemlock and begin to look for emergence of new plants in the fall. During the late fall, November, or early spring, March, is the best time of year for herbicide treatment. In grass pastures and hayfields herbicide products containing 2,4-D can be effective when applied to young, actively growing plants that are in the rosette stage of growth. Spot treatments with products containing 2,4-D, triclopyr, or glyphosate can also be used depending on the location.



SPRING TURKEY HUNTING INFO

Source: Kentucky Department of Fish and Wildlife Resources

This season, Kentucky hunters can expect to hear plenty of excitable gobblers in the field. This should make for especially good turkey hunting for 2023.

Kentucky's 2023 spring turkey hunting kicks off with the youth-only season held the weekend of April 1-2 followed by the general hunting season opening April 15 and continuing through May 7.

For additional information see the 2023 Hunting and Trapping Guides at fw.ky.gov.



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

Slow Cooker BBQ Turkey Legs



KENTUCKY
DEPT. OF
FISH & WILDLIFE
RESOURCES

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USDA
Supplemental
Nutrition
Assistance
Program
Putting Healthy Food
Within Reach

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EFNEP
Expanded Food and Nutrition Education Program

Slow Cooker BBQ Turkey Legs

- 2 wild turkey legs with thighs
- ¼ teaspoon ground pepper
- ¼ cup ketchup
- 1 8-ounce can no-salt-added tomato sauce
- ¼ cup water
- ¼ cup brown sugar
- 2 tablespoons prepared yellow mustard
- 3 tablespoons vinegar
- 2 teaspoons paprika

1. Wash hands with warm water and soap, scrubbing for at least 20 seconds, especially after handling raw meat.
2. Season turkey meat with pepper and place in 6-quart slow cooker.
3. To make sauce, combine the remaining ingredients and stir well.
4. Pour sauce over turkey.
5. Cook, covered, in slow cooker on low for 7 hours, or until meat is tender and falls off the bone or has reached an internal temperature of 165 degrees F.

Yield: 6 servings
Serving Size: 6 ounces of meat

Nutrition facts per serving:
370 calories; 4.5g total fat; 1g saturated fat; 0g trans fat; 170mg cholesterol; 470mg sodium; 12g total carbohydrate; 1g dietary fiber; 9g sugars; 7g added sugars; 72g protein; 0% Daily Value of vitamin D; 4% Daily Value of calcium; 15% Daily Value of iron; 15% Daily Value of potassium.

Planning and Prepping for the Spring Garden

Spring is just around the corner, and it is time to start planning (even if not planting) our vegetable gardens! At the Extension Office we have a great resource in a UK publication ID128 Home Vegetable Gardening in Kentucky. If you do not currently have a copy of this publication and plan to grow a garden, please stop by the office and pick one up. The publication is a wealth of information for both new and experienced gardeners. Here you will see some info regarding starting your Spring garden such as crops to grow, planting dates and harvest times. Both of the charts in this article are from the Vegetable Gardening publication.

If you haven't already, it is time to start taking soil samples for the 2023 growing season. By submitting your soil tests early, you can be sure to have your results back before planting time. Contact the Extension Office at (606) 836-0201 for additional information on taking soil samples. Soil testing is FREE to residents who live or farm in Greenup County.

Table 11. Crops for the spring garden.

Vegetable	Seeds	Transplants	Days to Maturity ¹
Beets	x		55-60
Bibb lettuce	x	x	60-80
Broccoli		x	40-90
Brussels sprouts		x	80-90
Cabbage		x	60-100
Carrots	x		60-80
Cauliflower		x	50-100
Celery		x	100-130
Chinese cabbage	x	x	43-75
Collards	x		75-90
Endive	x	x	60-90
Kale	x	x	50-60
Kohlrabi	x		50-70
Leaf lettuce	x	x	40-50
Mustard greens	x		35-60
Onions ²	x	x	40-120
Peas	x		60-80
Potatoes ³			90-140
Radishes	x		20-30
Spinach	x		40-70
Swiss chard	x	x	55-60
Turnips	x		40-60
Turnip greens	x		30-50

Table 14. Vegetable gardener's calendar with planting dates for Western, Central, and Eastern Kentucky¹

Western Ky	Central Ky	Eastern Ky	Planting Method ²	Crop
Jan. 15	Jan. 22	Jan. 29	I	Onions
Feb. 1	Feb. 8	Feb. 15	I	Brussels sprouts
Feb. 15	Feb. 22	Mar. 1	I	Cole crops (Broccoli, cabbage, cauliflower, kohlrabi), lettuce, Chinese cabbage
Mar. 1	Mar. 8	Mar. 15	O	Spinach, mustard, beets, peas, edible podded peas
Mar. 15	Mar. 15	Mar. 22	M	Cabbage, kohlrabi
			O	Asparagus and rhubarb (crowns), beets, carrots, collards, kale, mustard, spinach, peas, edible pod-ded peas, early potato seed pieces, radishes, turnips, green onions, onion sets, endive
			I	Peppers, tomatoes, eggplant, sweet potato slips. Dig and divide any 4 year old rhubarb plants. Fertilize asparagus and rhubarb with 1 lb 5 10 10 per 100 sq ft.
Apr. 1	Apr. 8	Apr. 15	M	Broccoli, cauliflower, collards, lettuce, Chinese cabbage, Swiss chard, onions from seeds
			O	Mustard, spinach, radishes, lettuce, Swiss chard
Apr. 5	Apr. 12	Apr. 19	I	Muskmelons, watermelons, squash
			O	Sweet corn, beets, carrots, mustard, spinach, radishes, lettuce
May 1	May 8	May 15	O	Sweet corn, mustard, radishes, lettuce
May 7	May 15	May 22	O	Green beans, lima beans
			M	Tomatoes, muskmelons, watermelons, squash
June 1	June 8	June 15	O	Sweet corn
			M	Sweet potatoes
June 15	June 22	June 29	O	Sweet corn, late potatoes, summer squash, bush beans, lettuce, parsnips, beets, carrots
July 1	July 8	July 15	O	Sweet corn (early maturing variety), carrots, beets
July 10	July 18	July 25	O	Sow seeds of fall cole crops in a nursery area
July 15	July 22	July 29	O	Sweet corn (early maturing variety), kale, mustard, turnips, summer squash
Aug. 1	Aug. 8	Aug. 15	M	Transplant fall cole crops to permanent location between now and Aug. 15
			O	Peas, edible podded peas, bush beans, radishes, beets, mustard. Divide old rhubarb or plant crowns if not done in spring.
Aug. 15	Aug. 22	Aug. 29	O	Radishes, spinach, turnips, turnip greens, beets, mustard, lettuce, endive
Sept. 1	Sept. 8	Sept. 15	O	Radishes, spinach, mustard
Sept. 15	Sept. 22	Sept. 29	O	Radishes, mustard, turnips, turnip greens
Oct. 1	Oct. 8	Oct. 15	O	Radishes
Oct. 15	Oct. 22	Oct. 29	O	Sow sets of Egyptian tree or multiplier onions. Harvest carrots before heavy freeze.
Nov. 1	Nov. 8	Nov. 15	O	Dig parsnips and store at 32-40°F, or mulch parsnips heavily in the ground

¹ Planting dates are approximate, consult your local weather conditions and adjust planting dates accordingly.

² I: Start seeds indoors; M: Move transplants to garden; O: Start seeds outdoors

CONGRATULATIONS TO THE 2023 MASTER GARDENER GRADUATES

These graduates have completed the Master Gardener Class requirements and received their certification of completion certificates.

The Master Gardeners hold monthly meetings on the fourth Monday of each month at 6PM at the Greenup County Extension Office. Current officers:

Mike Mullins, President
Fred Caudill, Vice President
Cora Frailie, Secretary
Debbie Meadows, Treasurer



2023 Master Gardener Graduates left to right: Ronda Stevens, Carla Maye, Eugenia Meade, Sharon Fields and Barbara Calhoun

FREE BEEF QUALITY & CARE ASSURANCE TRAINING IN APRIL & SEPTEMBER 2023

Source: Kentucky Beef Network

The Kentucky Beef Quality & Care Assurance (BQCA) Program is based on recommended national guidelines and scientific research; and enables beef and dairy producers to enhance their product, maximize marketability and strengthen consumer confidence. Kentucky BQCA takes national BQA practices one step further to provide the best program for Kentucky producers. The BQCA program adds a cattle handling and care component to the training model. Educational modules provide the best management practices for handling cattle and providing their well-being, while also training on the core principles of BQA.

We will be offering two FREE BQCA Trainings at the Greenup County Extension Office during the month of April, 2023: April 13—10:00AM-12:00 Noon; April 27—1:00PM-3:00PM. Call the office at (606) 836-0201 to register.

If you prefer online BQCA training, you can access instructions and the online BQCA Course at www.kybeefnetwork.com. The online training will be FREE during the months of April and September, 2023.



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RETURN SERVICE REQUESTED

Enjoy your newsletter,

A handwritten signature in cursive script that reads "Linda S. Hieneman".

Linda Hieneman,
Greenup County Extension Agent for
Agriculture & Natural Resources

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