

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

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Fall Maintenance Checklist

- Clean up litter and dead leaves
- Control weeds
- Prune out diseased plant parts to help control disease
- Test your soil! Check nutrient and pH levels, Fertilizer recommendations, Lime/Sulfur adjustments
- Plant trees and shrubs
- Mulch garden beds
- Pull out annuals that are killed by frost
- Cut back dead stems of herbaceous perennials
- Remove any spent flowers or foliage
- Keep seed heads on plants to provide food for birds and other wildlife and provide winter interest to the garden

Divide or transplant herbaceous perennials (Divide fall-blooming plants in early spring and divide springblooming plants in late summer/ early fall)

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- Bring tender plants indoors for the winter
- Dig up and store tender plant bulbs
- Purchase and plant spring-blooming bulbs in the fall
- Dethatch and aerify lawns, re-seed lawns and bare patches, and fertilize and water lawns

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Why Leaves Change Color

Have you ever looked at the beautiful, changing leaves of fall and wondered why their colors transform from lush green to striking orange, yellow, or red? The change of color is due to chemical reactions occurring in the leaves. The chemical process known as photosynthesis makes it possible for plants to produce their own food. Photosynthesis occurs within the leaves of a plant where a pigment called chlorophyll is found in the cells. Chlorophyll gives plants their green color. As fall arrives, the days become shorter and temperatures begin to cool. Plant leaves stop food production and chlorophyll pigments break down. As the chlorophyll deteriorates, new colors like orange

and yellow appear. These pigments (carotene and xanthophyll) were actually in the plant leaves all along, but they were masked by the green of the chlorophyll. Chemical processes are still occurring within the leaves, and these processes may result in different color combinations. Presence of the pigment anthocyanin gives leaves a rich red color.



Weather can impact fall color as well. Warm, sunny days with cool nights promote bright red fall foliage. These bright days encourage the production of sugar, and the cool nights trap the sugar within the leaves. As a result, an-



thocyanin pigments are created. On the other hand, early frost can ruin fall color and may cause leaves to turn brown and fall off the tree.

Autumn leaf color can also depend on the type of tree. Trees with gorgeous yellow fall foliage include ash, hickory, and gingko. Red oaks, red maples, and gum trees are great for fall red color. Sugar maple and sassafras create lovely orange hues.





The Variability of the First Fall Freeze

by Tony Edwards - National Weather Service Charleston, WV

With the turning of the calendar to the month of October, Mother Nature typically responds with cooler temperatures and more pleasant weather compared to the heat and humidity of summer. With the cooler temperatures at night, most locations across Kentucky will likely see their first freezing temperatures during the month of October, putting an end to the growing season. However, where you live - and the elevation at which you live - can have a significant impact on when you see those first freezing temperatures of the fall.

Many locations in Kentucky typically see their first freeze during the last week of October. However, rural areas in valleys away from bodies of water can see this occur a week earlier, while locations on ridge tops or near large bodies of water can see this first freeze occur up to a week later, into early November. You may wonder why this variability occurs?



As shown in the illustration above, cold air is heavy and tends to drain into the lower elevation valleys and hollows on clear, calm nights. As this happens, warmer air rises and typically forms what's known as the thermal belt. This thermal belt can keep the ridgetops several degrees warmer than the valleys. In fact, in the extreme terrain of eastern Kentucky, ridgetop locations can quite often be 10 to 20 degrees warmer than the valleys below on calm and clear mornings. Water also holds heat longer and so larger bodies of water such as lakes and rivers can moderate the temperatures for nearby locations.

So, while it's pretty much inevitable that our gardens will succumb to the cold at some point during the month, the location of your garden in relation to elevation and proximity to bodies of water can make a big difference in how long those last tomatoes and peppers linger on the vines.

Poison hemlock – What The Home Gardener Needs To Know Source: Sharon Flynt, UK extension horticulture agent

County extension offices around the state have fielded many phone calls this spring and summer from homeowners and gardeners concerned about poison hemlock. The concern seems to be justified but only if the poison hemlock is ingested by humans or livestock. Poison hemlock is one of the most toxic plants in the world. It is well known throughout history for accidental deaths of humans and animals. One of the most well-known poison hemlock deaths took place in 329 B.C. when Greek philosopher Socrates ingested the deadly plant.

Poison hemlock has been getting closer to populated areas recently and Kentucky isn't immune. Poison hemlock is a biennial flowering plant, meaning it takes two years to complete its biological lifecycle. The first year the plant grows leaves, stems and roots. Low rosettes of parsley or fern-like shiny green, triangular leaves with a very pungent odor is noticeable. It will grow no taller than 2 to 3 feet the first year.

The second year of the plant's biennial season, plant growth completes with the formation of longer stems, flowers, fruit and seeds. It's easy to confuse poison hemlock with Queen Ann's Lace, which is in the carrot family and is not poisonous. In year two, the plant can grow from 2 to 10 feet tall, and the stems have purple splotches. The purple spots are what distinguishes it from other plants. Each plant can produce up to 40,000 seeds.

Poison hemlock is usually found in unmaintained disturbed sites along fence rows, field edges, ditches, roadsides and low-lying areas with moist soil and shade. Disturbances, such as construction, utility

work, or people working the land where poison hemlock is present, help to germinate the abundant seeds. Keeping the plant from going to seed is the best way to prevent spread. You can use preemergent and post herbicides to prevent or kill poison hemlock, but timing is key when applying.





Photo Credit: University of Minnesota Extension

Plate it up! Recipes for Fall

- 12 ounces okra stalks
- 2 tablespoons olive oil
- 2 tablespoons salt-free seasoning

Tangy Dipping Sauce:

- 1 cup plain
- ow-fat yogurt
 3 tablespoons
- mayonnaise
- 1 tablespoon dried parsley
- 2 teaspoons dried dill
- 1 teaspoon
- garlic powder • 1 teaspoon
- onion powder
- 1/2 teaspoon salt

Air Fried Okra Tots with Tangy Dipping Sauce

Wash hands with warm water and soap, scrubbing for at least 20 seconds. Cut the ends off the okra. Cut the okra into 2-inch (tater tot sized) chunks. In a large bowl, place the cut okra, olive oil, and seasoning. Toss to coat. Add to the basket of your air fryer in a single layer. Depending on the size of your air fryer, you may need to cook in batches so the okra is in a single layer, which allows air to circulate and okra to be crispy. Cook at 350 degrees F for 10 minutes or until crispy, tossing halfway through. While the okra cooks, prepare the sauce by mixing all of the ingredients in a small bowl. Refrigerate the sauce until ready to serve. Serve okra tots with tangy dipping sauce. Store leftovers in the refrigerator within two hours.

Yield: 5 servings. Serving Size: 1/5 of recipe. Nutrition Analysis for Okra Tots with Tangy Dipping Sauce: 170 calories, 13g total fat, 2.5g saturated fat, 10mg cholesterol, 330mg sodium, 14g total carbohydrate, 2g fiber, 4g total sugars, 0g added sugars, 4g protein, 0% DV vitamin D, 10% DV calcium, 0% DV iron, 8% DV potassium. Nutrition Analysis for Okra Tots (no sauce): 70 calories, 5g total fat, 1g saturated fat, 0mg cholesterol, 0mg sodium, 10g total carbohydrate, 2g fiber, 1g total sugars, 0g added sugars, 1g protein, 0% DV vitamin D, 4% DV calcium, 0% DV iron, 6% DV potassium.







Twice-Baked Acorn Squash

- 2 medium acorn squash (1 - 1 1/2 pounds)
- Nonstick cooking spray
- 2 cups fresh spinach, chopped
- 4 strips turkey bacon, cooked and crumbled
- 1/2 cup grated parmesan cheese
- 1 thinly sliced green onion
- 1 tablespoon olive oil
- 2 teaspoons garlic powder
- 1/2 teaspoon salt
 - teaspoon sait
- 1/4 teaspoon black pepper
- 1/4 teaspoon nutmeg

Wash hands with warm water and soap, scrubbing for at least 20 seconds. Preheat oven to 350 degrees F. Cut squash in half; discard seeds. Place squash flesh side down on a baking sheet coated with nonstick cooking spray. Bake for 50 to 55 minutes or until tender. Carefully scoop out squash, leaving a 1/4-inch-thick shell. In a large bowl, combine the squash pulp with the remaining ingredients. Spoon into shells. Bake at 350 degrees F for 25 to 30 minutes or until heated through and top is golden brown. Store leftovers in the refrigerator within two hours.

Yield: 4 servings. Serving size: 1/2 of an acorn squash.

Nutrition Analysis: 210 calories, 9g total fat, 3g saturated fat, Zing cholesterol, 710mg sodium, 22g total carbohydrate, 4g fiber, Ig total sugars, 9g added sugars, 9g protein, 0% DV vitamin D, 15% DV calcium, 15% DV iron, 20% DV potassium.



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Upcoming Events

