BY THE YARD HORTICULTURE NEWSLETTER 2023

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Hello gardening friends,

For most of us, February feels like the doldrums of winter. We're so close to spring and the return of our verdant garden escapes that it seems as though we can't wait any longer for the cold dreary days to end. I, however, challenge you to look for the beauty in these last remaining days of winter. Too often it seems like we are so focused on the destination that we forget to enjoy the journey itself. If you're like me and have collected a stack of books over the past year, consider using this time to crack one open with a nice warm beverage and a cozy blanket. I also encourage you to visit your favorite hiking trail or natural area on a nice cold day—and yes, you heard me right. To me there is something truly magical about the winter landscape. There is such simple beauty in the bright green moss contrasting against the greys and browns of the leaf litter, or the calming babbling of a partially frozen stream. Whatever you decide, I hope you take in this last bit of winter before the rush of tasks arrive with the gardening season.

That being said, if you wish to run headlong into the growing season we are hosting a selection of Toolbox classes this month. The first of which is the Backyard Bird Count presented by Tony Brusate, president of the Central Kentucky Audubon Society, on Tuesday, February 7. We also have two of our ever-popular classes: Low Input Lawn Care on Thursday, February 16 and Pruning Trees and Shrubs on Tuesday, February 21. Don't wait to sign up for those two as they tend to fill up quickly!

As always, if you have any questions please do not hesitate to stop by with your samples, email us your pictures, or call us with your questions.

Thank you, Jamie Dockery, Fayette County Extension Agent for Horticulture, jamie.dockery@uky.edu

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Winter Injury Visible on Landscape Plants

With the arrival of spring's warmer weather, many landscape plants in Kentucky are showing the effects of a winter that broke records. The winter of 2022-23 approached all-time historical lows in many parts of the Commonwealth. Now landscapers and homeowners are wondering which plants might recover and which must be removed. Particularly hard-hit were evergreens and marginally hardy plant species.

"Evergreens" Not So Green This Spring

Broadleaf and needled evergreen plants retain foliage during winter, thus they continue to lose water through their leaves—although at a reduced rate—throughout the winter months. During the growing season, plant roots take up water from the soil, where it is pulled upward through the xylem (water conducting tubes inside stems). Some of this water is used by the plant, but much of it exits the plant as water vapor through pores in the leaves. Deciduous plants drop foliage in the fall to reduce water loss during the winter when soils are frozen. During sunny winter days with wind and low humidity—which were prevalent during the past two winters—the rate of water loss from evergreen foliage increases, leading to brown, scorched leaves. The pull of transpiration may even result in air pockets developing in the xylem, similar to air pockets in a siphon. Plants are unable to move water through these xylem tubes. Further injury may occur when frozen stems are bent by snow or physically shaken to remove ice and snow, and xylem cell walls are fractured.

Certain landscape plants, both deciduous and evergreen, are considered to be marginally hardy in Kentucky. Plant hardiness is based on the lowest temperature that the plant can tolerate under optimal growing conditions. The USDA Plant Hardiness Zone Map places most of Kentucky in Zone 6 with the far western counties in Zone 7a. Temperatures associated with the hardiness map are based on the 30-year average of the single lowest winter temperatures recorded each year. This is not the absolute lowest temperature experienced over a 30-year period, just the average. The map also does not take into account the duration of cold, soil moisture, humidity, solar radiation, topography, or wind. While there are shortcomings to this map, it is still a valuable aid in deciding what to plant and where it should be located.

Problems arise for marginally hardy plants when winters are colder than average. Examples include boxwood, cherry laurel, southern magnolia, Leyland cypress, crape myrtle, and nandina. Some of these plants had survived previous milder winters but now show symptoms ranging from moderate leaf burn or twig dieback to death of the entire plant (Figures 1 & 2).



Figure 1. Leaf browning of southern magnolia exposed to drying winter winds. (Photo: Julie Beale, UK)

Figure 2. Leaf burn and twig dieback of holly from winter injury. (Julie Beale, UK)



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Winter Injury Visible on Landscape Plants (continued)

Managing Winter Injury on Landscape Plants

Rule number one in addressing winter injury is to be patient. If the foliage or the tips have been damaged but the stems and buds are still green, wait until the plant puts out new growth before deciding if the plant should be pruned or removed. Sheering dead foliage will immediately improve the appearance of the plant, but pruning should not be done until after the chance of the last frost has passed.

Spring fertilization is not recommended, especially for plants suffering winter injury. The addition of nitrogen can encourage more growth than the damaged stems can supply with water during hot, dry summer months ahead. The addition of water during dry periods is more beneficial than the addition of fertilizer. When necessary, fertilization of woody landscape plants should occur in late fall.

Established broadleaf evergreens in exposed locations can be protected from the intensity of winter sun and wind. Cover these plants with light-colored cloth or burlap prior to the onset of winter. Spray moisture on the cloth prior to the onset of extremely windy sub-freezing temperatures. Water frozen on the cloth will further reduce the effect of the wind.

The best long-term approach, however, is to match the plant to the site. This can involve using hardy needled evergreens where evergreens are desired and deciduous species that originated in our climatic zone.

By William M. Fountain, Extension Horticulturist and Julie Beale, Plant Disease Diagnostician



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Time to Control Fruit Diseases

Winter is a good time to prepare fruiting crops for the season ahead. Many fruit diseases can be partially controlled by being vigilant with cleanup and fungicidal sprays at proper times. Remember that pruning should take place in late February on fruiting trees. Below is a list of fruit crops along with diseases of concern and some things to do to help you have a successful harvest.

Apple diseases of concern: scab, cedar rust, and fire blight.

- If you are ordering nursery stock, plan on growing disease-resistant apples. Nursery catalogs will indicate varieties that are scab resistant.
- Prune out old fire blight cankers now, while it is still cold, so new infections won't occur. Prune also to thin the tree canopy to allow good air movement and sunlight penetration.
- Remove and destroy fruit mummies left on the tree from last season. Remove nearby cedar trees, source of rust diseases, if possible.
- Obtain fixed copper or Bordeaux mixture to apply to the apple twigs and branches just as the buds begin to swell next month.
- Obtain a scab fungicide with ingredients such as mancozeb, captan, myclobutanil, or thiophanate-methyl so that sprays can be applied as green foliage (green tips) is just emerging and repeated periodically throughout the spring months. Carefully read fungicide labels before making spray applications.

Stone fruit diseases of concern: peach leaf curl, plum black knot, and eventually brown rot and scab.

- Apply fixed copper or Chlorothalonil sprays now to prevent peach leaf curl. In some parts of the state, it may be already too late because of warm weather, buds may have begun to swell and leaf curl infections may have just begun.
- Prune to thin the tree canopy to allow good air movement and sunlight penetration. Prune out any diseased or cankered twigs and branches from the trees. Prune out black knot disease swellings from plum trees.
- Remove and destroy last year's mummified fruit still hanging in the tree or on the ground.
- Obtain brown rot and scab fungicides with ingredients such as sulfur, captan, or myclobutanil. Read and understand the chemical labels.

Grape diseases of concern: black rot, anthracnose, cane and leaf spot, and downy mildew.

- Prune the grape canopy to allow good sunlight penetration and air movement, as well as to maximize fruit production. Prune out any diseased, dead, or cankered vines.
- Remove and destroy all of last year's fruit mummies hanging on the vine and lying on the ground.
- Apply lime-sulfur sprays to the dormant vines just as buds begin to swell to prevent anthracnose.
- Obtain fungicides with ingredients such as captan, mancozeb, myclobutanil, or thiophanatemethyl to be used for black rot and cane and leaf spot management. Be prepared to apply fungicides as the first green leaves are beginning to appear on the vines and to repeat the applications throughout the spring as called for on the pesticide label.

Bramble diseases of concern: anthracnose and orange rust.

- Prune out dead and winter-injured canes.
- Apply lime-sulfur fungicide to the canes in early spring just as the buds begin to swell, but before green tissue emerges.
- Be prepared to remove and destroy orange-rust infected blackberries and black raspberries. These plants will appear abnormally whitish and spindly in early spring as they emerge from the ground. If orange rust is present in the neighborhood, remove and destroy wild blackberries growing in nearby fields and fencerows, if feasible.
- If, because of rainy weather last year, plants died from root rot disease, improve drainage in the garden or grow brambles on raised beds.

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Time to Control Fruit Diseases (continued)

Strawberry diseases of concern: fruit rot diseases.

- Apply straw mulch to the beds between the rows and under the canopy so that fruits will not have to touch the ground.
- Provide adequate spacing of the strawberry plants to provide good sunlight penetration and air movement to help reduce gray mold fruit rot.
- Hand remove dead leaves and stems from the strawberry bed to reduce the presence of the gray mold fungus.
- If sprays, such as captan, are to be used to prevent fruit rot, the sprays need to be applied to the strawberry flowers in early spring.

Blueberry diseases of concern: twig blights and cankers.

- Prevent twig canker diseases by avoiding stressful growing conditions. Mulch blueberries with
 organic matter, such as wood chips, and adjust the soil pH if necessary to provide favorable growing
 conditions.
- Prune out dead and dying twigs and branches from the blueberry plants.
- If, because of wet weather, blueberries are declining and dying due to root rot disease, improve garden soil drainage or grow blueberries on raised beds.

By Dennis Morgeson, Agent for Horticulture, Washington Co. Cooperative Extension Service

Plant Spotlight: American Hornbeam

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

American hornbeam is the only North American native of the genus Carpinus. The other common name of this tree is ironwood or musclewood. The very attractive bark is smooth and fluted, resembling flexing muscles. Its hard wood was used by early Americans to make bowls, tool handles, and ox yokes. Hornbeams are best placed into a natural setting, but they do well in shade or sun, can tolerate wet sites, and even withstand some flooding. It prefers deep, fertile, moist, and slightly acidic soils although it will grow in drier sites. Compacted soils are not the best for this tree, especially in areas that have undergone grade changes.

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

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

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

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

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

By Beth Wilson, Agent for Horticulture, Pulaski Co. Cooperative Extension Service

Fall color – photo hort.uconn.edu/ plantPhotos/carcar13.jpg



Carpinus caroliniana bark -Photo Beth Wilson, UK



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Winter Sowing Seeds

Start your garden in the winter by starting seeds in a specially prepared milk jug. Learn what plants you can winter sow and how to do it in this one-page guide.

Winter sowing is a method of starting seeds in late winter for spring transplanting. The dome works similar to a mini greenhouse.

Supplies

- Člean plastic jug
- Scissors
- · Nail or scratch awl
- Potting mix
- Seeds
- Duct tape
- Pots or cell packs
- Labels
- Pencil or grease pencil

What plants can I winter sow?

Plants include but are not limited to:



Supplies needed for winter sowing seeds. University of Missouri Extension

- Perennial flowers ---- dianthus, phlox, gaillardia, Shasta daisy, poppy, salvia
- Native plants -— milkweed, black-eyed Susan, purple cone flower, liatris, lobelia, penstemon and countless others
- Cool season annuals to start in fall or winter ---- snapdragon, pansy, nasturtium
- Cool season vegetables in late winter ---- broccoli, cabbage, cauliflower, lettuce, kale, and spinach
- Warm season vegetables can be started in April ---- tomatoes, peppers, zucchini, cucumbers
- · Herbs ---- oregano, marjoram, thyme, chives, basil, parsley

Directions

- 1. Start with a clean milk jug. Using a sharp object, punch several drain holes in bottom. Discard the cap of the milk jug.
- 2. Cut around the middle of the jug leaving just a small hinge.
- 3. Use a well-draining potting mix.
- 4. Fill the bottom of the milk jug with potting mix 3 inches deep. Moisten the soil thoroughly and then let it drain. Sow seeds according to the depth on the seed packet. Reattach top and bottom using duct tape. Label date and what was planted. Insert the label inside. Place outdoors in a protected area but can still receive sun, rain, and snow through the hole at the top.
- 5. Once seedlings emerge, monitor often. Even during the cold temperatures, the inside of the milk jug can heat up quickly and cause seedlings to wilt. It may need opened during the day but close it in the evening. Once temperatures warm up in spring, the top can be removed during the day and then put back on at night.
- 6. Monitor soil moisture and water when needed. Transplant seedlings when 2 to 3 inches tall and have true leaves.

By Donna Aufdenberg, Field Specialist in Horticulture, University of Missouri Extension

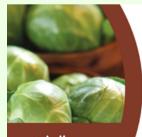


You can directly sow some cool season annuals like poppies, bachelors buttons, larkspur, and love-in-a-mist outside right now.

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February Quick Tips

- The spring window for seeding lawns is mid-February through mid-March.
- Continue to monitor house plants for pest problems.
- Don't forget water for the birds in winter!
- Now is time to start cool-season vegetable seedlings indoors. Wait until late March to start quick crops like tomatoes.
- Have your soil tested now for spring gardens.
- Bring branches of early blooming spring shrubs indoors for forcing. Good candidates are Forsythia, Flowering Quince, Flowering Cherries, and early blooming Magnolias.
- Prune large shade trees now. If late in the month, some bleeding may occur. This is no cause for concern.
- Plan to prune fruit trees this month. A day with temperatures above 40 degrees will allow you to spray them with dormant oil, which will take care of many overwintering insect pests.
- Shop local garden stores now for best selection of seeds. Complete any mail orders for seeds as newer varieties will sell out quickly. Select varieties with disease resistance where possible.
- Plan to rotate crops in this year's vegetable garden. You want to avoid not only growing the same plant in last year's location but any related plant from that family. Ideally try to set up a four-year rotation for each family and plot (for example, grow other unrelated crops for three years before you plant tomatoes in the same location again). This makes a significant difference in the amount of disease pressure.



Recipe of the Month

Chicken and Brussels Sprouts One Pan Meal

2 skinless, boneless chicken breasts (about 1 pound) 1 tablespoon olive oil

Salt and pepper to taste

Preheat oven to 425 degrees F. Cut chicken into bite-sized pieces. Heat oil in a heavy, oven-safe skillet or pan over medium heat. Add chicken and sauté 3-4 minutes. Lightly season with salt and pepper. Add vegetables and stir gently to combine. Cook 3-5 minutes until vegetables are tender. Remove from heat. If skillet or pan is not oven-safe, transfer mixture to a baking dish. In a small bowl, combine half-and-half, nutmeg and salt and

12-14 Brussels sprouts, trimmed and quartered
1 cup sliced fresh mushrooms
1 red bell pepper, diced, about 1 cup

2 cloves garlic, minced 1/2 cup half-and-half 1/4 teaspoon nutmeg 3/4 cup Parmesan cheese

1 medium yellow onion,

diced, about 1 cup

pepper to taste. **Pour** mixture over chicken and vegetables. **Sprinkle** with Parmesan cheese. **Bake** 25-30 minutes until lightly golden on top. **Serve** hot.

Yield: 6, 1 cup servings

Nutritional Analysis:

220 calories, 9 g fat, 3.5 g saturated fat, 0 g trans fat, 70 mg cholesterol, 340 mg sodium, 11 g carbohydrate, 3 g fiber, 4 g sugars, 23 g protein.

