BY THE YARD HORTICULTURE NEWSLETTER 2022

University of Kentucky College of Agriculture, Food and Environment Cooperative Extension Service Fayette County Extension 1140 Harry Sykes Way Lexington, KY 40504 (859) 257-5582 fayette.ext@uky.edu http://fayette.ca.uky.edu/

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Though considered an unwanted weed by many, our native frost aster, Symphyotrichum pilosum, is often one of the last flowering plants available to pollinators.



Cooperative Extension Service Agriculture and Natural Resources Family and Consumer Sciences 4-H Youth Development Community and Economic Development Happy October Folks!

I hope everyone is having a wonderful fall and enjoying this excellent weather we've been having. Even though fall marks the end of our growing season, October is one of my favorite months. I welcome the sight of that final burst of color from our late season asters, goldenrods, and mums and the (hopeful) blaze of autumn leaves.

Whether you're just as excited about the fall as I am, or dreading the incoming doldrums of winter, there's certainly no shortage of tasks to do. On top of the normal garden chores like cutbacks, leaf cleanup, and lawn fertilizing; September has ended on the dry side, so don't forget to water any new plants or grass seed. Speaking of new plants, October is a great month to plant trees and shrubs. The root system of woody plants will continue to grow and establish even after the leaves have fallen off, so your new plant will have a head start on the growing season next year.

If anyone is particularly excited about trees (I know I sure am!), consider attending one of the events happening during Tree Week which will be October 8-16, 2022. Inside this newsletter we've included this year's Tree Week poster and a brief blurb from the Urban Forest Initiative, who have organized this event.

We only have one Toolbox Class this month, which is Tulips (inperson) on Thursday, October 13th at 6:00pm. This class costs \$20.00 and you must pre-register to attend.

As always, if you have any questions please don't 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

Tyson Gregory, Fayette County Horticulture Technician, tyson.gregory@uky.edu

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What Says the Woolly Bear About Winter?

Now that summer is winding down, things like pumpkin spice, Halloween costumes, and hoodies may start appearing. Conversations may also start to turn toward predictions regarding the upcoming winter. A quick Google search reveals that there seems to be a negative anticipation about the 2022-2023 winter season, with some outlets predicting colder than average temperatures and possibly even higher than average amounts of snowfall. Though only time will tell if these models and predictions come true, others may turn to an unexpected meteorologist when prognosticating about the winter: the humble woolly bear caterpillar.

What is a woolly bear?

The woolly bear is also known as a woolly worm as a larva. They are a part of a group of moths known as "tiger moths." The specific weather predicting species is Pyrrharctia isabella, also known as the Isabella tiger moth. The adult form of the moth is a pale orange/light brown when the wings are closed. There can be broken black dots and lines on the wings as well. This species exhibits sexual dimorphism, which can be seen when the wings are open for flight. Isabella tiger moth females have slightly rosy hindwings, while males have pale orange hindwings.

The larval form is undoubtedly the more famous stage of their life cycle. They overwinter as caterpillars and can be found first in the spring. These winter warriors will pupate and become adults, laying eggs that will hatch into the next generation of caterpillars, which are seen as summer ends. While they are hairy throughout their lives, they don't develop the thicker furry coat with bands of black and orange until almost completely grown. The larval stage is known to feed on a variety of plants, including grasses and clover, as well as sunflowers, milkweed, corn, maples, and birches. They aren't normally considered a significant pest though.

When they pupate, the hairs from their body are incorporated into a cocoon that helps protect the pupal form. If you have ever looked under a log and found what looks like a webby hairball, it could have been a woolly bear inside there developing into an adult moth.

(continued on next page)



Figure 1: Adult woolly bears are called Isabella tiger moths, and they are a pale orange color when viewed with the wings closed. The moths are usually seen in the late spring/early summer. (Photo: Rebekah D. Wallace, University of Georgia, Bugwood.org)

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What Says the Woolly Bear About Winter? (continued)

Where does weather prediction come in?

Folk wisdom holds that the woolly bear can be an indicator for upcoming winter weather when caterpillars are found in the autumn. There are two methods of prediction that can be employed. In the first, looking at the caterpillars for the relative amount of black hair versus orange hair will demonstrate how drastic winter might be. The more black hair compared to orange, the worse winter will be. A more analytical version of this folk wisdom is that the 13 body segments of the caterpillar represent the 13 weeks of winter. Looking at where black versus orange appears can tell when winter will be at its worst on the calendar.

Others believe that the direction the caterpillars are crawling can predict the weather. If they are heading south, then Old Man Winter has the worst in store for us.

Does it work?

It may not surprise anyone to hear that this particular method of winter foretelling has been found inaccurate. No correlation has been found between caterpillar color form and the severity of winter. Woolly bears can be highly variable in their coloration, not only year-from-year, but caterpillar-to-caterpillar.

Even though they won't be hired by the Weather Channel anytime soon, woolly bears do have a unique connection to winter. As mentioned before, the caterpillar is the overwintering stage of this moth species. This is fairly unique as many moths would overwinter as an egg or as a pupa, both inactive life stages that can safely hide away from chilly temps. Woolly bears survive the winter by finding an out of the way spot to hide from cold air temperatures. Further, they produce glycerol, an antifreeze like chemical, which can allow them to be super cooled to subzero temperatures for extended periods of time and still survive. So, even if they can't tell us how cold the upcoming months may be, they will be prepared for the worst!

In Kentucky, we can celebrate this unique and beloved caterpillar at the Woolly Worm Festival, held in Lee County October 21-23 this year. If you go, be sure to check out the woolly worm race!

Source: Jonathan L. Larson, Entomology Extension specialist, Kentucky Pest News



Figure 2: Wooly bear caterpillars are known for a black and brown banding pattern to their "fur." Folk wisdom tells us that these hairs may help when predicting winter weather. (Photo: Whitney Cranshaw, Colorado State University, Bugwood.org)

Mower Maintenance

Cold weather has hit but are you done with your mower. Learn what you need to do to have it ready for next season. taking care of a few things now will save you time, money, and frustration in the spring.

Run the gas tank empty or add fuel stabilizer

There are two ways mower owners can store their equipment: first, they can get rid of the gas completely by running the mower or draining the fuel. Second, they can add a fuel treatment and stabilizer. Gas begins to degrade and go stale only 30 days after pumping it and stale gas can cause varnish and gumming that clog the fuel system and carburetor jets. Plus, over 90 percent of fuel in the United States contains up to 10 percent ethanol, which attracts moisture and can cause corrosion. "We recommend mower owners get in the habit of treating their fuel every time they fill their red fuel can." And according to Briggs & Stratton, it's important to use a fuel treatment and stabilizer that does not contain additional alcohol.

Change the mower's oil

Either in the fall before storage, or during a spring tune-up, it is important to change the oil to remove any dirt and debris that can prevent the oil from lubricating and cooling the engine.

Remove the battery if equipped

On riding mowers, removing the battery during the winter season can help prevent potential damage from corrosion of the battery and battery terminals.

Clean the undercarriage and remove debris

After a full season of cutting, dirt and grass can build up on the blades and get stuck on the mower's undercarriage. Cleaning it now can help ensure a quality cut and can help keep the mower running smoothly for the next season.

Store your lawn mower in a clean, dry place

Leaving a mower outside can lead to damage caused by moisture. According to Briggs & Stratton's recently released poll, nearly 10 percent of homeowners leave their mower outside unprotected from the elements. Storing a lawn mower in a clean, dry place will ensure it is protected from the damaging weather elements.

Source: Andrew Rideout, Agent for Horticulture, Henderson Co. Cooperative Extension Service, Kentucky Hort News



URBAN FOREST INITIATIVE PRESENTS



-IN COMMUNITIES THROUGHOUT KENTUCKY-OCTOBER 8–16, 2022

Lexington Tree Week October 8-16, 2022

Tree Week is a celebration of the trees in our communities and all the ways that trees impact our lives! Trees benefit us and the environment in so many ways, and they are a source of strength and hope in the face of changing climate. Join us October 8th through 16th for a week full of events including: tree plantings, tree walks, tours and hikes, trees and art, educational programs, yoga, and so much more!

Tree Week is a community effort, with events and programs hosted by a range of groups and individuals in various communities throughout Kentucky. Check out our website (<u>ufi.ca.uky.edu/treeweek</u>) for the schedule and for more information.

All are welcome and invited to join us in celebrating our trees!

Allison Eades, Tree Week Coordinator



Pumpkin Apple Muffins

- 1¼ cups all-purpose flour 1¼ cups whole-wheat flour 1¼ teaspoons baking soda ½ teaspoon salt 1½ teaspoons ground
- cinnamon
- 1/2 teaspoon ground ginger 1/2 teaspoon ground nutmeg 1/4 cups honey 2 large eggs

1½ cups fresh pureed pumpkin ½ cup canola oil 2 cups Granny Smith apples, finely chopped

Preheat oven to 325 degrees F. In a large bowl, combine flours, baking soda, salt and spices. In a small bowl, combine honey, eggs, pumpkin and oil; stir into dry ingredients just until moistened. Fold in apples. Fill greased or paper lined muffin cups, two-thirds full. Bake for 25 to 30 minutes or until muffins test done. Cool for 10 minutes before removing from pan.



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

Yield: 18 muffins

Note: Can substitute two cups

granulated sugar for honey, decrease

oven temperature to 350 degrees F.

Nutritional Analysis: 200 calories, 7 g

160 mg sodium, 35 g carbohydrate,

2 g fiber, 20 g sugar, 3 g protein

fat, 0.5 g saturated fat, 35 mg cholesterol,

baking soda by 1/4 teaspoon and increase

For More Plate It Up Recipes, Visit: http://tcshes.ca.uky.edu/content/ plate-it-kentucky-proud

Helping Trees Survive Planting

Trees and shrubs add beauty and value to a home's landscape. But as few as 50% of planted trees do not survive beyond one or two years. Why? Improper installation is the leading cause of failure of newly planted trees. You can grow trees successfully if you are aware of a few important planting guidelines.

Planting the biggest tree you can afford is not always the best option. Though it is true 2" to 4" caliper trees give an instantlylandscaped look to homes, these trees are more prone to transplant shock and water stress. Transplant shock occurs from the loss of root system when the tree is dug from the nursery. As much as 95% of the plant's roots may be removed during the digging process. This means fewer roots are available to provide water to the many branches and leaves. Symptoms range from scorch on the edges of leaves, dieback in the crown, increased vulnerability to diseases, insects, and drought, or tree death. Transplant shock, more or less, continues until the tree canopy and tree roots come into balance. For comparison, a 1" caliper tree planted with 5% of its root mass, provided good care, can recover 100% of its roots by the end of one year. A 4" caliper tree planted with 5% of its root mass, will take five years to recover 100% of its root mass. During this time the smaller caliper tree may easily catch up in size to the larger tree.

Planting too deeply can kill trees. This problem may occur from three causes. First, overambitious hole diggers can easily dig the planting hole too deep for the root ball. Backfill placed in the bottom of the hole that is not recompacted will allow the root ball to sink as the soil settles. Avoid this situation by measuring the height of your root ball and leaving about 10% of the ball aboveground. Another common mistake is excessive mulching. Excessive mulch reduces the amount of oxygen reaching the roots, causing them to grow into the mulch. During a drought the mulch will dry out as will the roots, thus causing root loss. Never apply more than 2 to 3 inches of mulch. Finally, sometimes trees may be shipped from the nursery already at a disadvantage. Container stock that has been transplanted into larger pots could have its roots buried in the process. Balled and burlapped trees may have extra soil on the top of the ball due to cultivation and digging. As a result, the roots become too deep in the ball or container. Inspect trees at the time of purchase to see if the root flair (the place where the trunk becomes the roots) is near the surface. Ones that are 2 or more inches below the surface should be avoided or at the very least remove the soil until you can see the root flair when planting. Remember to use only the existing soil on site when filling in your planting hole, no amendments should be added.

It's okay to loosen or even cut the roots. When planting container-grown trees be sure to remove the container and inspect for circling roots. You may be able to tease these roots loose from the media and spread them out in the planting hole. If a plant is severely pot-bound, use a knife or pruners to make vertical slices through the roots in several places to divide compacted roots. Leaving circling roots will eventually lead to girdling of other roots or the tree trunk itself. Girdling restricts the movement of water to the tree's canopy and can lead to decline. Girdling can also occur on balled-and-burlapped trees.

Natural burlap is bio-degradable and needs only to be removed from the top portion of the root ball, but synthetic burlap will not decompose and can girdle roots. If a wire basket is holding together natural burlap, remove it if possible, if not cut and fold down the top half of the basket. If your planting hole is too small, don't break or bend roots to make them fit. Take the time and enlarge your planting hole. The hole should be 2 to 3 times as wide as the root ball at the top of the hole sloping inward to the width of the root ball at the base. Be sure to remove tags, wires, or ropes from the stems or trunk of plants.

Source: Kelly Jackson, Agent for Horticulture, Christian Co. Cooperative Extension Service, Kentucky Hort News



Photo 1: The root flare of a container grown tree after having excess soil and girdling roots removed. The pink line on the trunk is where the original soil level was located. Source: University of Florida Extension

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October Quick Tips

- Make it a point to be thorough in cleaning up any diseased plants. Many diseases over-winter in plant debris. Diseased perennials and annuals should be removed from the garden in the fall. Similarly, any trees that have had disease problems should have all the leaves raked and removed from the garden to lessen the chance of infection next year.
- October is prime bulb planting time. Plant tulips, daffodils, crocus and other spring favorites now for a beautiful early display.
- Feeding lawns is best done in the late fall. The end of this month and all of November are great times to fertilize your turf.
- House plants should be treated as necessary for insects before coming indoors for the winter.
- Store any pots or containers that may be damaged by freezing temperatures.
- October is an excellent time to plant most trees and shrubs. Make sure to plant at the proper depth. The root flare of trees (the point where the roots branch off the trunk) should be at soil level.
- Avoid planting broadleaf evergreens in the late fall as winter injury may result. Hollies, Boxwoods, Magnolias and others are best planted in the spring.
- Needled evergreens drop their old needles in the fall. Yellowing, browning, and subsequent needle fall is normal if it is only occurring in the interior of the plant.
- Many insects find their way indoors in the fall. Most are not harmful, just annoying. Your vacuum cleaner is an easy way to get rid of an occasional insect.
- Make notes of your gardening successes and failures for reference next year. It is never too early to start planning next year's garden.
- After the first hard freeze, remove non-hardy annuals and cut back perennials to near ground level. The removed plant material can be placed in the compost bin.
- Clean up around fruit trees by raking leaves and removing dried fruit. This will help control several diseases and insects.
- Remove and burn bagworm cases from evergreens. The cases contain eggs which will hatch in spring to produce next year's population.
- Check tree twigs for egg cases of eastern tent caterpillar. The egg cases are dark and shiny, they look like someone has dabbed lacquer around the stem. They usually occur on branches that are about pencil size in diameter. They will break off the branch easily if rubbed with the hand or fingers.
- Many insects can also be found in dead leaves in and around the garden and landscape. Getting rid of those dead tomato vines, bean bushes, and squash vines and fruit will lessen the chance that these pests will be able to overwinter in the garden and so will lessen the incidence of pest problems in the spring.
- Although normally not necessary, fall is the best time to apply fertilizer to woody plants. It is best to wait until the plants are dormant so don't apply fertilizer before late October. Dividing the fertilizer application into two or three parts is a good idea. Apply 1/3 in late October, 1/3 in November, and the final 1/3 in December. Altogether you should apply 0.2-0.3 pounds of Nitrogen per 1000 square feet.
- Don't forget to water trees and shrubs during fall and winter. Continue watering (in the absence of adequate rainfall) until the soil freezes. This is particularly true for evergreens since they continue to lose water through their leaves in winter. Keep the soil under your woody plants moist, not wet.
- A layer of mulch applied at this time of year can have many beneficial effects in the home landscape. Mulch
 moderates the normal freeze/thaw cycle than can force many herbaceous perennial plants out of the ground.
 Mulch will also help conserve soil moisture and will serve as an insulating agent during severely cold
 temperatures.
- Don't Forget! Daylight Savings Time ends Sunday, November 6, 2022, turn your clock back one hour!