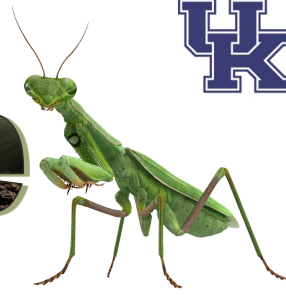


Boone County Horticulture

July-August 2023 Newsletter



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Food and Environment
Cooperative Extension Service

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Veronica

By Joseph Morgan
Boone County Extension
Horticulture Technician

The Veronica genus is home to around 500 species and is the largest genus in the plantain family. A vast majority of these species are native to temperate climates across the globe. We have several native species here in the Eastern United States and multiple non-native species that perform well in our area. The most prevalent native species in the US is *Veronica americana*, its range spans over 44 states and most of Canada. While *V. americana* and others such as *V. arvensis* may not be ideal for the landscape, in some instances being considered a weed, there are other species which maintain good form and stand out in the garden. The most commonly cultivated species include *V. longifolia* (long leaf Veronica) and *V. spicata* (spiked Veronica). These plants do well in full sun and are drought tolerant once established. Well-draining soil significantly impacts the ability of these plants to overwinter in our area. While they are hardy to zone 4, excessive moisture while dormant may lead to crown



Veronica spicata 'Royal Candles'

(Continued)

Quick TIP

Tall fescue and perennial ryegrass are very susceptible to summer outbreaks of Brown Patch fungus disease. Prevention involves mowing at a height of 2 to 2½ inches, avoiding nitrogen applications and avoiding frequent, light waterings, especially in the evening.

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rot. Both species demonstrate a tidy upright form with tall, spiked blooms that may vary in colors, often blue, purple, pink, white. Recommended cultivars of *V. spicata* include: 'Blue Charm', 'Royal Candles', and 'Icicle'. Some good *V. longifolia* cultivars may be: "Blue Giantess", "Blue John", and "Eveline". If you are looking for some alternative form of stunning blue flowers, there are some other species of Veronica worth considering. *V. unbroosa* 'Georgia Blue' is low growing perennial that will form a thick mat of small, rounded foliage. In early spring this mat will be covered with blue flowers that last until early summer. In winter, foliage turns a dark purple. *Veronica x* 'Blue Reflection' is a hybrid that behaves similarly but can be readily cut back after blooming. Despite form or species, Veronica blooms prolifically and can bring a unique deep blue color where desired. Overall, Veronica is a large and diverse genus that some gardeners may find useful for the garden if they have the right conditions.



Veronica unbroosa 'Georgia Blue'



Balsamic Veggie Pasta

4 tablespoons olive oil, divided	2 tomatoes, chopped	1 teaspoon dried basil
2 cloves garlic, minced	½ cup green onions, chopped	8 ounces whole wheat pasta
1 small zucchini, chopped	Salt and pepper to taste	1 tablespoon Parmesan, grated
1 small yellow squash, chopped	2 tablespoons balsamic vinegar	

In large skillet, **heat** 1 tablespoon olive oil over medium heat. **Add** minced garlic and **cook** one minute, until fragrant. **Add** chopped zucchini, squash, tomatoes, and green onions, and **cook** until tender. **Add** salt and pepper to taste. In a large bowl, **whisk together** 3 tablespoons olive oil, balsamic vinegar, and dried basil. **Stir in** zucchini, squash, tomatoes, and green onions. Let **sit** for 5 to 10 minutes. In a large pot, **cook** pasta

in salted water about 7 minutes, until al dente. **Drain.** **Toss** pasta with vegetable mixture until incorporated. **Sprinkle** with Parmesan cheese. **Serve** warm.

Yield: 4, 2-cup servings

Nutritional Analysis: 390 calories, 16 g fat, 3.5 g saturated fat, 0 mg cholesterol, 200 mg sodium, 52 g carbohydrate, 1 g fiber, 6 g sugars, 0 g added sugars, 10 g protein

Think “Outside the Boxwood” With These Boxwood Replacements

By Joe Smith
Boone County Extension
Horticulture Technician

Well I don't have to tell any local gardeners that last December's winter weather event was extremely hard on many of our landscape plants especially our boxwoods. So we need to move forward and look for similar shrubs to fill the void created by these damaged or dead boxwoods in our local landscapes. Traditionally the boxwood served an evergreen structural foundation type shrub in many landscape applications. Basically they provided winter interest and added some structure during the winter dormant season.

So what can we find as substitutes that will perform well with our crazy local weather patterns and challenging site conditions?

Taxus or yew are great plants that have worked well locally and are tough as nails in many landscape applications. Some newer more compact growing cultivars like 'Tauntonii,' 'Densiformis' and 'Everlow' would definitely fit the bill.

Thuja or arborvitae are a group of native evergreens that offer a lot and the newer more compact varieties such as 'Tater Tot,' 'Hetz Midget,' 'Mr. Bowling Ball' and 'Woodwardii' could be considered.

The junipers also are great substitutes in those hot, dry, full sun locations in landscape. The more compact and spreading cultivars that can be utilized would be 'Royo,' 'Montana Moss', and 'Lemon Fizz' etc.

So when it comes to replacing those damaged boxwood or planting new landscape projects consider a bit of bio diversity and “think outside the Boxwood!”



Juniperus “Montana moss”

Kentucky Summer Squash

SEASON: June through October.

NUTRITION FACTS: Squash is low in calories. One cup of raw squash contains only 20 calories. It contains vitamins A and C, and is naturally free of fat, cholesterol, and sodium.

SELECTION: Popular summer squashes include yellow crookneck, yellow straightneck, zucchini, cocozelle, and pattypan. Pick or purchase summer squash when they are small and tender, and eat both the skin and the seeds. The skin holds many of the nutrients so do not peel. Harvest squash when it is 6 to 8 inches in length. Pattypan squashes are ready when they are 3 to 4 inches in diameter or less.

STORAGE: Store unwashed squash in plastic bags in the crisper drawer of the refrigerator. Wash the squash

just before preparing. The storage life of summer squash is brief. Plan to use it within two to three days.

PREPARATION: Summer squash is a mild-flavored vegetable that combines well with herbs and seasonings. Try it with basil, allspice, rosemary, and marjoram. Cook summer squash as a side dish or use it in stews, casseroles, and main dishes. Summer squash can be grilled, steamed, boiled, sautéed, fried, or used in stir-fry recipes.

PRESERVING: Select small squash with small seeds and a tender rind. Wash and cut into ½-inch slices and heat in boiling water for 3 minutes. Cool promptly in cold water and drain. Pack in containers leaving a half inch of headspace. Seal and freeze.

SUMMER SQUASH

Kentucky Proud Project
County Extension Agents for Family and Consumer Sciences
University of Kentucky, Dietetics and Human Nutrition students
June 2019

Source: www.fruitsandveggiesmatter.gov

Buying Kentucky Proud is easy. Look for the label at your grocery store, farmers market, or roadside stand.
<http://plateitup.ca.uky.edu>



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The Importance of Rainfall Monitoring and Irrigation

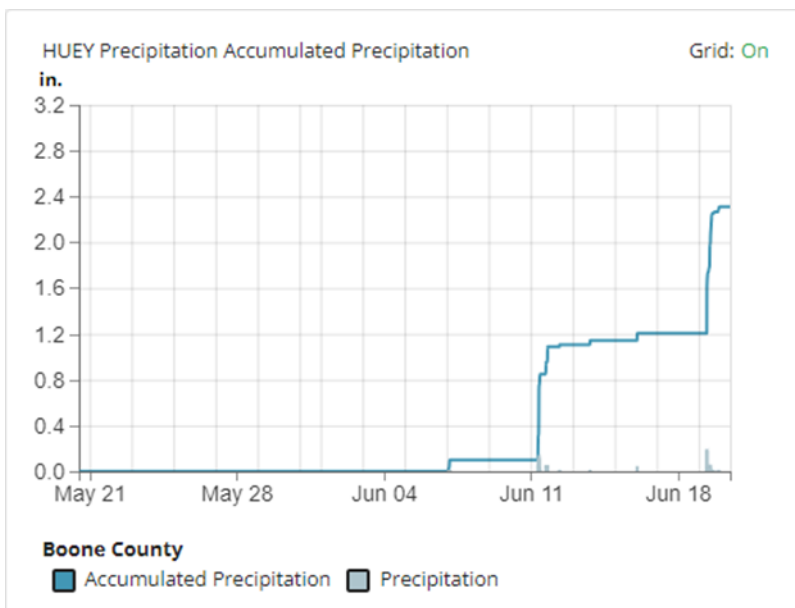
By Joseph Morgan
Boone County Extension
Horticulture Technician

While many homeowners benefit from permanent irrigation systems, there is a large population of gardeners who must water vegetable gardens, annual displays, and landscape beds by hand. With ever fluctuating rainfall patterns and intermittent dry periods on the rise (this year being no exception), observing rainfall patterns and precipitation accumulation is becoming key to maintaining the vigor of all gardens alike. At the time this article was

written, recorded rainfall for Boone County for the year is 19.8 inches (per Kentucky Mesonet), a full 2.82 inches behind the average 22.62 inches (per usclimatedata.com). While a 2.82-inch rainfall difference over the span of 6 months may not seem too harmful, this number does not tell the full story. Between May 8, 2023, and June 10, 2023, there was a total of 0.6 inches of precipitation, spread over the course of 4 days. This dry period extended throughout the prime planting window for annual displays and vegetable gardens. Anything that was not watered sufficiently during this period, suffered heavily, or died out completely. This lack of rainfall was particularly problematic for small seedlings and other juvenile plugs or potted material, minimal root systems did not provide sufficient access to any residual moisture deep in the soil.

As we progress into the growing season, tracking the rainfall and adequately watering, when necessary, will go a long way to increasing the quality of our vegetable and annual gardens. Avoiding drought stress and providing good general growing conditions is the first step to prevent pests and diseases. Vegetable gardens should, on average, get an inch of rainfall equivalent per week. Ensuring we look at all the data, not just monthly, allows us to better align our watering schedule with weather patterns. As plants become more established, drought stress may take longer to appear, however, consistent moisture from watering or rain will be key in preventing other issues such as splitting tomatoes.

The single best resource for tracking rainfall accumulation in our area is the Kentucky Mesonet provided by WKU. This can be found at <https://www.kymesonet.org/> This website provides detailed temperature and precipitation data for many counties across the state, including Boone County. I would highly encourage using this resource to better plan your irrigation through the growing season.



Quick TIP

Give established landscape beds a weekly soaking of water—about one inch. Avoid watering in the evening. Soaker hoses are another option if night watering is necessary. Water new plantings twice a week if no rainfall occurs.

The Year of the Aphid?

By Robert Brockman
Boone County Extension Agent
for Horticulture

We have consistently received two questions this spring. Those questions are “what is wrong with my broadleaf evergreen?” and “what are these tiny dots on my plant?” As we have already written about how December’s winter storm damaged many broadleaf evergreens, let us now talk about an insect that we have been seeing high populations of this year.

Aphids are very small insects that must be looked at with a hand lens or microscope to see in detail. They tend to be clustered in groups as small as five and as large as several hundred or thousand. A unique aspect of an aphid’s life cycle is the female’s ability to give live birth to more female aphids without fertilization. This phenomenon is called parthenocarpy and it allows aphid populations to very quickly build up and become noticeable.

Aphids are distant relatives of insects such as stink bugs, plant hoppers, and cicadas, and feed in much the same way. All of these insects have a mouthpart called a stylet which allows them to suck plant juices out of the plant without making large, noticeable holes in the foliage. Rather than chewing up leaves, aphids will attach themselves to the undersides of leaves and to the soft stems of new plant growth. This causes leaves and new growth to curl up and become deformed. This feeding causes stress to plants and trees that are already stressed, but the real threat is caused by bacterial and viral diseases that are transferred (vectored) from plant to plant by aphids. Most species of aphids are very selective in the host plants that they will feed on, and the disease that they can vector.

One last unique, and sometimes problematic aspect of an aphid’s biology is the excrement that it produces. As they are feeding on a high sugar and low protein liquid diet, while still needing plenty of protein, they must find a way to get rid of large amounts sugar and water. They do this by producing honeydew, which is essentially sugar water excrement. Honeydew attracts many other insects which want a free high-sugar meal. This can include honeybees, wasps, ants, and many other insects. Ants will often form a mutualistic relationship with aphids where they protect aphids from predators and harvest the honeydew which is produced. Occasionally, a group of fungus we call sooty mold will colonize honeydew-soaked leaves and turn the entire leaf surface black. While this sooty mold is not directly attacking the plant, it can prevent the plant from photosynthesizing if it covers much of the plant’s leaf surface.

(Continued)



Magnified
rose aphids

Whitney Cranshaw, Colorado State University, Bugwood.org

Insecticidal soaps or Neem oil can be used to control, mealy bugs, scale and mites on vegetables.

Quick
TIP

It is around this time that most people, horrified, ask how to control aphids and what they can spray. My answer is usually to spray water, and a lot of it. I recommend water to knock the aphids off plants and onto the ground where they are easier prey for other insects and also where they must very, very slowly march back to their host plant from. I do not recommend insecticides unless the aphid species can carry a problematic disease. While insecticides do a much better job of killing aphids than water does, it also kills all of aphid's predators. Aphids can reproduce quickly and will recover from insecticide sprays much quicker than their predators. A few common predators of aphids include both the adults and larvae of ladybugs (lady beetles) and lacewings. These predators will decimate aphids whenever they find them, naturally controlling aphids populations.

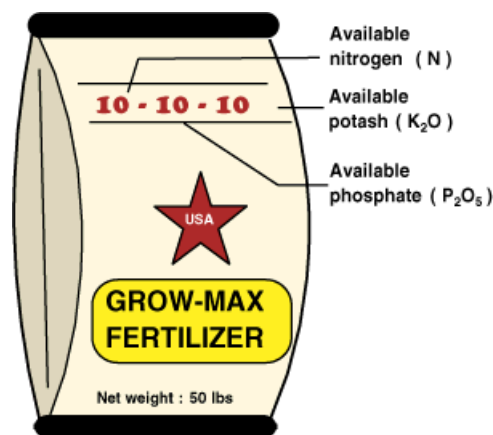
Understanding Fertilizers

*By Robert Brockman
Boone County Extension Agent
for Horticulture*

We frequently get calls into the office asking about what the best fertilizer is to use. These calls are always challenging to answer because it is difficult to get all of the context. We typically answer by asking you to bring in a soil report, which will help us give the most detailed and complete answer. However, it may be helpful to take a step back and take a look at a fertilizer bag and what information it has on it.

The most common fertilizer that we get asked about is 10-10-10. But what do those numbers stand for? And how much do you need to apply if your soil report says that you need two pounds of phosphorus?

The three numbers that always appear on a bag of fertilizer stand for the three macronutrients that all plants need and they are always in the same order. This bag of fertilizer has 10% nitrogen - 10% phosphorus - 10% potassium. While many see these numbers and think they are the pounds of nutrient in the bag, they are not. You will need to calculate the pounds of nutrient in the bag by multiplying the % by the bag's weight. In this case, we have 0.10×50 pounds which means that we have 5 pounds of each macronutrient in the bag.



The next big question is how much we need to apply if we need two pounds of phosphorus. Based on our calculation, we would need to apply twenty pounds of this fertilizer. The only problem with this is that we have now also applied two pounds of nitrogen and two pounds of potassium, whether we needed those nutrients or not. You may think that this isn't a big deal, but it can actually lead to problems. It can lead to you paying for nutrients you didn't need, you giving nutrients to your plants that can cause plant problems, and even nutrient runoff.

A common symptom of oversupply of nitrogen to our plants is that they become very large and lush, at the expense of producing beautiful flowers or fruits. This happens frequently with tomatoes that have been overfertilized, they are large and lush, but produce few fruits. Oversupply of both nitrogen and phosphorus leads to algae blooms in neighborhood lakes, streams, rivers, and large water bodies such as the Gulf of Mexico. These algae blooms suck up oxygen from the water and leads to massive fish kills. To supply only the nutrients that your plants need, look for fertilizers that better match the needs found by your soil report. Keep an eye on our fall program schedule as we will be offering a more complete program on understanding how to test your soil, and better fertilize your lawn and garden.

Interested in Becoming a Master Gardener Volunteer?

Are you interested in beefing up your knowledge of gardening and also helping out the community around you? The Master Gardener Volunteer program gives you the knowledge and first hand experience to take your gardening to the next level. Master Gardener trainees attend sixteen classes from early December through March. A break is taken around the holidays. Classes are held on Thursday from 10am to 2pm and cover such topics as vegetative propagation, insect identification, growing fruit trees, grafting, and much more. The training rotates between Boone, Kenton, and Campbell counties but is in Boone County this year! After the training, Master Gardeners help out the greater community through outreach, educating the public, and service at gardening sites. If you are interested in becoming a Master Gardener or have questions about the program, reach out to us!

Great Pumpkin Contest

The 2023 Boone County Fair will once again be holding a “Great Pumpkin Contest” in the open agriculture/horticulture categories. Last year, we received many entrees for “Largest Pumpkin by Weight”, and we are hoping to see more great pumpkins this year. There have been a few new categories added to the catalog including a separate “Largest Pumpkin by Weight-Professional Grower” and “Largest Pumpkin by Weight-Up to 75lbs,” the addition of these two categories opens the door for better separation of competition between hobbyists and professionals and the opportunity to sneak in a cheeky 70 pounder. While the largest pumpkin categories have the highest prize for first place, they are not the only pumpkin categories, others include best quality Jack O’ Lantern and most unusual specialty gourd. **The entry period is Sunday, August 6th, from 2:00pm – 5:00pm.**



GREAT PUMPKIN CONTEST

Professional Grower: Person or Organization that grows produce for the purpose of selling said produce. **Hobby Grower:** Person that grows produce for their own consumption.

**All pumpkin weights will be determined by the fairground scales.*

No	Class	1st	2nd	3rd
066	Largest Pumpkin by Weight-Professional Grower	\$50.00	\$25.00	\$15.00
067	Largest Pumpkin by Weight-Hobby Grower - Up to 75 lbs.	50.00	25.00	15.00
068	Largest Pumpkin by Weight-Hobby Grower - Over 75 lbs.	50.00	25.00	15.00
069	Best Quality Jack O’Lantern Under 15 lbs. (not carved)	15.00	10.00	5.00
070	Best Quality Jack O’Lantern Over 15 lbs. (not carved).....	15.00	10.00	5.00
071	Most Unusual Specialty Pumpkin/Gourd..... (bicolor, white, warty etc.)	15.00	10.00	5.00

► Are you entering the Pumpkin Growing Contest at the Boone County Fair in 2023? I want to hear about your plans for pumpkin perfection! Email me at kathleen.bryant27@gmail.com or send me a text at 859.547.8438.

For more information or if you have questions, contact us—we are here to help!

859-586-6101 • boone.ca.uky.edu

Robert Brockman

Boone County Extension Agent
for Horticulture

Joe Smith

Boone County Extension
Horticulture Technician

Joseph Morgan

Boone County Extension
Horticulture Technician

For more information or to register for any of our classes, visit our website at boone.ca.uky.edu.
Click "Online Class Registration" or call us at 859-586-6101.

Upcoming Horticulture Events *Please Register!*

Garden Walk at the Boone County Nature Center

► July 26, 6-7:30pm

Meet us at the Boone County Nature Center as we tour the orchard, dye garden, high tunnel, and vegetable trials. Register with the Boone County Arboretum

Insect Walk at the Boone County Arboretum

► August 13, 6pm-7:30pm

Boone County Arboretum
Join us as we search for insects at the Boone County Arboretum. We will be looking for beneficial insect, pests insects, and damaged plants! **Register with the Boone County Arboretum online @ <https://bcarboretum.org/events>

Horticulture Program Planning Meeting

► August 21, 11:30am-1:30pm
Enrichment Center, Lower Level, Room 1

Have any great ideas or suggestions for Extension gardening classes or programs for 2024? Join us for an informal brainstorming session to help us serve our community better.

Fall Lawn Care & Renovation Techniques

► September 7, 1:00-3:00pm
Enrichment Center, Upper Level
Come learn about fall seeding and lawn maintenance techniques suited for our local growing conditions.

Introduction to Permaculture: Fruit Tree Guilds

► September 21, 1:00-2:00pm
Nature Center Barn
Interested in sustainable design? Join us at the nature center as we install a fruit tree guild and discuss permaculture concepts.

The Right Plant Right Place

► September 27, 10:00am-12:00pm, Zoom class
Learn about selecting the right plants for the right growing conditions. We will also discuss proper planting techniques & maintenance.

Planting a Legacy Tree—Fall Tree Planting Demo

► October 5, 10:00am-12:00pm
Enrichment Center, Upper Level
Planting trees in your landscape can benefit you as well as future generations. This involves selecting the right species and by planting the tree correctly. Come to this demonstration to see it done in person.

Selecting Plants for Fall Colors

► October 11, 1:00-2:00pm
Enrichment Center, Upper Level
Join us as we discuss options beyond red maples to add excellent fall color to your garden

Composting & Vermicomposting

► October 18, 1:00-2:30pm
Enrichment Center
Have you ever had questions about how to start a compost or vermicompost (earthworm) bin? Or do you have some experience with composting but always run into the same problems? Join us and bring your questions!



Find us here...

Extension Campus Location Key:

Virtual via Zoom, Must register to receive Zoom link 🏠
Extension Service office, 6028 Camp Ernst Rd., Burlington
Enrichment Center, 1824 Patrick Dr., Burlington
Farmers Market, 1961 Burlington Pk., Burlington
Environmental and Nature Center, 9101 Camp Ernst Rd., Union
Boone County Arboretum, 9190 Camp Ernst Rd., Union; Register at: www.bcarboretum.org/