How often should I water my lawn? How often should I water my trees and shrubs? How often should I water my houseplants? These questions come up quite often at the Extension office here in Johnston County. The answer most commonly given is, “That depends on the type of plant and the environment.” Let me explain.

About 90% of what makes up a plant is water. Regardless of this fact, about 90% of the water a plant takes up through the soil is lost to a process called transpiration. Transpiration helps keep the plant tissues cool in much the same way perspiration helps cool the human body on a warm breezy day. As the water into the leaves some of it heats up and turns into water vapor or evaporates. The water vapor is then pulled out of the plant through holes in the leaves called stomata. The rate of transpiration will be greater the higher the temperature and wind velocity are.

Another factor that determines the amount of water a plant needs is the size of the plant. A large plant in a small container will need water much more frequently than a small plant in a large container. For houseplants, the bigger they get the more frequently they will need to be watered.

For ornamental plants, the larger the plant the larger the root system is. Many ornamental plants have a large enough root system that they can survive for two to three weeks without any additional irrigation or rain. However, it may take one to two years to get a newly planted tree, shrub or perennial established in the landscape where it will not need additional irrigation.

Home lawns are another story. Even though most turfgrass species that are found in home lawns are
drought tolerant, they will grow and perform much better if they receive about one inch or water a week. For home lawns, it is best if that water comes in one or two applications a week. In heavy (clay) soils, one application of water during the week will be enough. In more sandy soils the water drains away quickly so two applications may be needed. Cycling the irrigation will allow the water to penetrate deep into the soil rather than having a lot of waste from surface runoff. Cycling is running the irrigation until water begins to run off the surface then moving the water to another area to allow what has been applied to soak into the soil, then coming back and applying the rest of the needed water.

The answer to the question, how often should I water is still, it depends. Hopefully after reading this article it will be easier to find an answer to each individual situation.

FEATURED PLANT

Hydrangea quercifolia 'Ruby Slippers'

Ruby Slippers Oakleaf Hydrangea

By Shawn Banks

How much water is needed to irrigate a lawn?
That is a question best answered by referring to the Turfgrass Irrigation Management System (TIMS) website. On the TIMS website participants are asked to input information about their irrigation system and where they live. With this information TIMS can tell you how much water to apply that week or how many minutes to run the irrigation system. By using the TIMS website weekly to schedule irrigation it's anticipated that participants will reduce water use by 25% while improving the health of their lawns. Visit this site and see if it will work for you [http://www.turffiles.ncsu.edu/tims/default.aspx](http://www.turffiles.ncsu.edu/tims/default.aspx).

Ruby Slippers is a new hydrangea released by the U.S. National Arboretum in 2010. This compact plant has large upright inflorescences that make it ideal small residential landscapes. Ruby Slippers in seven years has reached a height of three and a half feet with a width of five feet. Aside from the compact form of this plant the dark green foliage that turns mahogany-red in the fall and the flowers that open white but quickly turn to pink then rose are other characteristics that stand out about this plant. This plant will grow in full sun or light shade in USDA hardiness zones 5 through 8, which puts us in a good location to grow this plant.
Yard Villain

_Rhizoctonia solani_

Large Patch

By Shawn Banks

Large patch is a disease that attacks warm season grasses in the spring or in the fall. Factors that encourage development of Large Patch in warm season grasses include fertilizing late in the summer or too early in the spring, over irrigating, poor soil drainage, mowing the grass too low, and an excessive thatch layer. Centipedegrass is most likely to have problems with Large Patch followed by Zoysiagrass, then St. Augustinegrass, with Bermudagrass being least likely to have problems. Characteristic symptoms of Large Patch disease include large (2 feet to 10 feet in diameter or larger), circular areas of dead grass. If there are several areas in a lawn they will grow together making an even larger dead patch. Usually around the edges of enlarging dead patches the grass will have a red, orange or bronze color. A closer look at the sheath of the grass plant will reveal an irregularly shaped, reddish-brown or gray lesion.

To avoid Large Patch in your lawn don’t fertilize 6 weeks prior to the first frost in the fall or for 3 weeks after the start of spring green up. Avoid planting grass in low areas that stay wet after a rainstorm, or install some subsurface drainage to remove standing water quickly from these areas. Irrigate only when the lawn needs the water and even then water deeply to encourage a deep root system. Mow the lawn at the recommended height for your turf type and aerate the lawn as needed to relieve soil compaction.

If chemical treatment is needed to control large patch, these treatments should be applied in the fall as a preventative. In sever cases two or more applications may be needed. For chemical recommendations contact your local Cooperative Extension office.

For more information on Large Patch disease in warm season grasses visit TurfFiles on the Internet at [http://www.turffiles.ncsu.edu/diseases/Large_Patch.aspx](http://www.turffiles.ncsu.edu/diseases/Large_Patch.aspx).

What's in Season

_Armoracia rusticana_

Horseradish

By Vicki Shore

Like some horseradish with that roast beef? Grating the root of this hardy perennial releases a sharp pungency that can clear the sinuses.
Horseradish can be propagated by seed, but a much easier method is dividing roots. In early spring choose roots about ½ inches thick and cut into pieces about 6 inches long. Plant these pieces vertically to a depth of about 2 inches in deep fertile soil.

Thin out or transplant for a final spacing of 12 inches apart. Do not grow indoors.

The leaves are large, elliptical, pointed and bright green. White flowers appear in spring.

Horseradish grows to a height of 2 to 3 feet. Cabbage caterpillars and fleas beetles are the primary pests and these attack the leaves.

Horseradish is often used as a companion plant for potatoes to improve their disease resistance. Caution is advised as horseradish can become invasive.

Here is an Alton Brown recipe we retrieved from FoodNetwork.com to create that perfect horseradish sauce for those roast beef sandwiches.

**Ingredients**

- 1 cup sour cream
- 1/4 cup grated fresh horseradish
- 1 tablespoon Dijon mustard
- 1 teaspoon white wine vinegar
- 1/2 teaspoon kosher salt
- 1/4 teaspoon freshly ground black pepper

**Directions**

Place all of the ingredients into a medium mixing bowl and whisk until the mixture is smooth and creamy. Place in the refrigerator for at least 4 hours or overnight to allow flavors to meld. Sauce can be stored in the refrigerator in an airtight container for 2 to 3 weeks.

**APRIL GARDEN TASKS**

**LAWN CARE**

- Grass clippings are a great source of nitrogen. Practice grasscycling, a recycling practice where you leave the grass clippings on the lawn to return nutrients to the soil. This could reduce the amount of nitrogen needed in fertilizer for the year by 25%. Clippings may also be composted (they're a great nitrogen source), or sprinkled onto flowerbeds as long as they're not allowed to mat together.

- **Warm season lawn** seed may be planted toward the end of the month. Call us for a copy of 'Carolina Lawns' which tells you exactly when and how much seed to plant.

**TREES, SHRUBS & ORNAMENTALS**

- Renew mulch around trees, shrubs, and in garden beds. Make sure mulch does
not touch the bark of trees or shrubs and extends to the drip line of young trees.

- If rambunctious perennials have reproduced too freely, remove and pot the excess plants. Pass them along to friends and family. New gardeners will be thrilled to receive free plants. [http://hgic.clemson.edu/factsheets/HGIC1150.htm](http://hgic.clemson.edu/factsheets/HGIC1150.htm)

- **Don’t overfeed** azaleas and camellias. These shallow-rooted plants are not heavy feeders, and can be damaged by over-fertilizing. Submit a soil sample to be tested (it’s free) to determine if fertilizer is needed. Use a slow-release, balanced fertilizer immediately after blooming. Apply it around the drip line of the shrub, according to label directions.

- **Special fertilizers for ‘acid-loving plants’ are not necessary;** our soils are sufficiently acid naturally.

- **Watch for black spot and powdery mildew** on roses - common problems in our humid climate. Although these diseases make the foliage look bad, the plants generally do well anyway. [http://www.ces.ncsu.edu/depts/pp/notes/Ornamental/odin002/odin002.htm](http://www.ces.ncsu.edu/depts/pp/notes/Ornamental/odin002/odin002.htm)

- **Watch for lace bugs**, the most common pest on azaleas. Look for whitish, stippled leaves with shiny dark flecks on the undersides of the leaves. If found, treat with horticultural oil (an insecticide). Be sure the spray reaches all parts of the leaves and stems, including the undersides of leaves. [http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/ort039e/ort039e.htm](http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/ort039e/ort039e.htm)

- Annual flowers such as zinnas, moonflowers, cleome, gloriosa daisies and sunflowers can be seeded in mid April.

- **Let spring bulbs die down naturally.** Remove flower heads after the petals fade, and allow the foliage to die down naturally. Do not fold, twist or braid foliage. Once the foliage falls over, it can be removed. Leafy companion plants can hide yellowing bulb foliage. Tender bulbs such as ranunculus and anemone can be dug and stored when their foliage begins to yellow.

  - At the end of the month, plant summer bulbs like caladiums, lilies, gladioli, dahlias, and elephant ears.

  - **Prepare new flower beds** by loosening and amending the soil. All plants perform better when their roots can spread in loose, organic soil. Till the soil and incorporate organic matter, lime and fertilizer - according to soil test results (free kits available at this office)

  - Plant perennials now so they can become established before hot weather sets in.

**VEGETABLES & FRUITS**

- **Check tender shoots** of vegetables and emerging perennials for aphids. If found, spray off with water.
• **Watch out for and control fireblight** on apple, blackberries and pear trees (including ornamental varieties). Affected branches look like they’ve been burned with a blowtorch. Control this bacterial disease by pruning diseased limbs back to 1 foot beyond the diseased area. Be careful not to let infected foliage touch healthy foliage (yes, it’s that contagious), and disinfect tools between cuts to avoid spreading the disease. Discard rather than compost the infected limbs. [http://www.ces.ncsu.edu/depts/pp/notes/oldnotes/fd3.htm](http://www.ces.ncsu.edu/depts/pp/notes/oldnotes/fd3.htm)

• **Plant turnips before April 15.** Plant pole beans, carrots, and winter squash after April 15.

• **Cucumbers, corn, pumpkins, snap beans, watermelon, and cantaloupe** may be safely planted at the end of the month.

• **Thin cool weather crops** that were seeded last month.

• **Pick off blossoms** of strawberries planted this season. Let plants mature a year before they bear fruit.

• **Keep tomatoes** well-watered to avoid blossom end rot.

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**HOUSEPLANTS**

• **Divide overgrown house plants.**

• **Gradually introduce houseplants to the out-of-doors** for their summer "vacation." Give them partial shade at first; experiment to see which of them can handle sun. Even sun-lovers will need a few days in the shade, to get used to the intensity of sunlight, before going out onto a sunny patio.