

# Shades of Green

Agriculture and Natural Resources

E-Newsletter

July 2024



UNIVERSITY OF GEORGIA

**EXTENSION**

Athens-Clarke County

# A Note from Athens-Clarke County

## Agriculture & Natural Resources

Hello readers!

Thank you for staying tuned for another edition of Shades of Green! We are pleased to offer another newsletter featuring research-based extension publications. Follow along this month for advice on growing tomatoes and keeping plants watered during these hot temperatures! See events page for information on what's happening in our local area.

We hope you enjoy this month's issue of "Shades of Green".

Take care,

Athens-Clarke County Agriculture and Natural Resources

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# Georgia Homegrown Tomatoes

Robert R. Westerfield, Extension Horticulturist



It would be hard to imagine any home garden that did not have at least a few tomato plants. Tomatoes are considered by many to be the most prized vegetable in the garden. There is also plenty of discussion among fellow gardeners as to the best varieties and method of growing each type. This publication discusses the basics of growing tomatoes successfully, as well as avoiding common problems encountered by the home gardener.

## Getting started

Tomato plants can be started indoors from seed four to seven weeks before they are to be planted. Transplants can also be purchased from a garden center, ready to plant immediately. If you are starting your own plants from seed, use a light soil mix and give the plants plenty of light. You may need to use supplemental light if a southfacing sunny window is not available for growing. About a week before transplanting, harden-off indoor-grown plants by gradually exposing them to an increasing number of hours of light each day.

Tomato plants can be set out in the garden in mid-March to early May after any danger of frost has passed. Some southern areas of Georgia can also produce a second crop of tomatoes when planted in late July. Tomatoes are warm-season plants that grow best at temperatures of 70 degrees to 80

degrees F and require six to eight hours of sunlight a day. Choose a sunny location that receives at least eight hours of sunlight each day.

## Soil requirements

Tomatoes prefer soil that is well-drained and amended heavily with organic matter. Rotted manures, compost, rotted sawdust or other humus can be tilled into the garden site as soon as the soils can be worked in the spring.

Tomatoes require a soil with a pH in the range of 6.2 to 6.8. The pH is the general measurement of acidity in the soil. Soil testing through your local county Extension office is the best way to determine the pH. If the pH of the soil is too low, add dolomitic limestone according to the soil test recommendations. In the absence of a soil test, apply lime at the rate of 5 pounds per 100 square feet of area. Add lime several months before planting to allow time for it to react with the soil. Till or spade the lime into the soil. Dolomitic limestone also provides calcium and magnesium, which are important elements for plant growth and health. If the pH test comes back normal but the calcium level is low, apply gypsum at the rate of 1 pound per 100 square feet.

## Planting

Select only healthy transplants for planting in the garden. Tomatoes can develop roots all along their stems so plant them deeply to encourage a strong root system.

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Set the transplants down to the first set of true leaves near the soil surface. If transplants are in peat pots, it is not necessary to remove the container, but be sure to plant them deep enough so the pot is not exposed to the soil surface, which can cause the root ball to dry out. Firm the soil around the plants to force out any air pockets.

Give tomatoes a light amount of fertilizer at planting time. This can be accomplished by using a starter solution of fertilizer. Pour about 1 pint of starter solution (2 tablespoons of 5-10-10 or 5-10-5 fertilizer dissolved in 1 gallon of water) around each plant.

If plants are to be staked or trellised, space them 24 inches apart in rows that are 4 to 6 feet apart. Although it requires more work initially, staking makes caring for tomatoes easier and keeps the plant's leaves from contacting the ground and possibly introducing disease. This in turn produces higher quality fruit.

Staking can be done using commercially available cages or by using 6-foot-tall, 1-inch-square wooden stakes. Drive wooden stakes

into the ground about 1 foot deep and 4 to 6 inches from the transplants. Heavy twine or strips of cloth can be used to tie the plants to the stake about every 10 inches vertically as the plants grow. Tomatoes can also be supported by training them to trellises or using a weaving system of cord and stakes.

## Mulching

Tomatoes will benefit from mulch placed around their stems. Mulching should be done soon after transplanting. A material such as weed-free straw, chopped leaves or compost can make an excellent mulch and will help conserve moisture and reduce weed growth. Apply mulch to a depth of 2 to 3 inches. Newspaper can also be used as an effective mulch. Lay the newspaper about three sheets thick around plants to act as a weed barrier and to conserve moisture, then place an organic mulch on top of the paper. Synthetic weed barrier rolls are also available and can be very effective in reducing weed problems and conserving moisture. They work best when laid down over beds prior to planting transplants. Small slits can then be made in the material to allow for planting of the transplants. Soil or small stakes may be needed on the edge of the material to secure it during windy conditions.

## Fertilizing

Tomatoes are medium feeders and will require fertilizer beyond the initial starter solution. It's best to soil test through your local county Extension office to find out the actual requirements for your soil. In the absence of a soil test, incorporate 1.5 pounds of 10-10-10 fertilizer for 100 square feet of bed prior to planting. Use a complete fertilizer that contains minor

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nutrients. After the first tomatoes form on the vine and are about the size of a quarter, sidedress them with 10-10-10 at the rate of 1 pound per 100 square feet of bed. Repeat every three to four weeks until harvest is completed. If a liquid soluble fertilizer solution is used, be careful not to apply too much or too frequently as this can lead to excess nitrogen. This is a common problem causing vigorous vegetative shoot growth but few blooms or fruit.

## Watering

Tomatoes need about 1 to 2 inches of water per week depending on the type of soil they are growing in. If rainfall does not provide this quantity, water plants thoroughly once or twice per week. One or two heavy soakings are better than many light sprinklings. Consider using drip irrigation or soaker hoses around your plants. These methods will help conserve moisture and avoid getting the foliage wet, which can cause disease. Hoses can be laid near each plant above the soil but under the mulch layer.

## Harvesting and handling

For best quality, harvest tomatoes when they are fully ripened on the vine. If harvested before they are ripe, but after they reach the mature green stage, tomatoes can be allowed to ripen in the home. Place unripe mature green or pink fruit in a room with a temperature of around 70 degrees F. Fruit should be well-ventilated and not jammed

together. Fully ripened fruit may be placed in the refrigerator to prolong keeping, but never put unripened tomatoes in the refrigerator. Tomatoes can last several weeks under refrigeration.

## Tomato variety selection

When it comes to tomato varieties, the sky is the limit. They come in a large assortment of shapes, sizes and colors. While it is fun to experiment with the new and exotic tomato varieties, this publication will focus on tried and true varieties for our state. Regardless of which plants you choose, you will need to be familiar with some terminology to make the right choices.

For a full list of varieties suitable for Georgia, as well as pest and disease information, see [Bulletin 1271](#).



# Watering Landscape Plants in the Summer Heat

Sheri Dorn, UGA Extension Ornamental Specialist

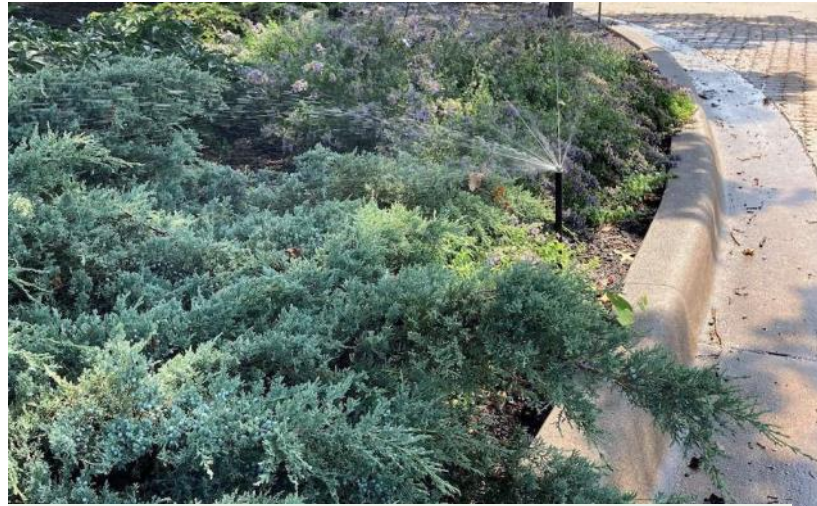
As summer heats up, Georgians tend to worry about how hot it's going to be and how dry. To properly care for the plants in our landscapes and gardens this [Smart Irrigation Month](#), residents need to pay a little extra attention to temperatures and rainfall in order to supplement water when needed.

It is easy to get busy with summer activities and forget to water or even overwater our plants because we want to be sure they will survive the heat. Monitor rainfall amounts regularly and consider using reminders on your phone or calendar to check on your plants.

## Identify how much water your plants need

On average, plants need an inch of water per week for growth and development. Summer rainfall can produce this amount of water, but it may come all at once, in a short storm, and not truly soak into the ground. Checking weather apps or websites like the [Georgia Weather Network](#) can provide information about weekly rainfall and soil moisture, or you can monitor soil moisture the old-fashioned way — go outside, stick your finger in the soil, or try to dig up a scoop!

There are times when providing extra water is especially important for plant survival. When they are first installed, plants need water more frequently. Depending upon how the plant was produced and site conditions like sun exposure,



Irrigation systems can help get water to plants when it is needed, but always follow best practices — this photo shows what not to do. Avoid wetting plant foliage for prolonged periods of time to reduce risk of plant disease. Make sure irrigation water lands in the beds so that no water is wasted on sidewalks and driveways.

wind, soil characteristics and temperatures, newly installed plants can require water daily until they root in enough to use water in the surrounding soil. As these new plants get established, the need to provide supplemental water decreases.

Water is also critical to plants in their first year. If you installed new plants earlier this year to take advantage of cooler temperatures and spring rains,

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be sure to check them throughout this summer and fall. If the summer turns out hot and dry, they'll need some additional water. They simply do not yet have expansive root systems to access moisture in the soil as summer gets warm and dry. If we go longer than a week without rain, especially with temperatures above 85 degrees Fahrenheit, consider providing supplemental water to prevent or reduce plant stress.

Providing supplemental water can also be strategic for older plants. Trees that have been planted for two or three years can benefit from supplemental water if summer conditions are hot and dry for extended periods of time. Some plants, like ever-green *Chamaecyparis* and *Cryptomeria*, thrive in moist soils. If the summer becomes hot and dry, these plants will experience stress. Their foliage will become brown and brittle, and once it dies, it doesn't regrow. Under conditions of excess heat and dryness, entire sections of these plants will die, often leaving the plant badly disfigured. You will not realize their need for supplemental water until the damage is done. Instead, if we realize it's been hot and dry for an extended period of time, we can provide essential water that will reduce plant stress.

Just as it is important to give plants enough water, it is equally important to avoid overwatering them. Too much water can lead to root rots and plant death, not to mention high water bills. Use the information available to you to make sound decisions about watering your plants. Water when necessary in the amount that is needed.



Some plants, like *Chamaecyparis*, prefer moist soils and will be stressed and even damaged by prolonged dry spells, especially when summer temperatures are high. (Photo by Sheri Dorn)

# Watering Landscape Plants in the Summer Heat

**Sheri Dorn, UGA Extension Ornamental Specialist**

## **How to water your plants**

We all want to be good stewards of our water, so it's important to apply it efficiently and effectively. Remember to water late in the day or early in the morning. There are several ways we can get water to our plants, with varying levels of expense and effort.

### **Hand watering**

If you need to get water to plants, the simplest solution is extending a hose or using watering cans.

### **Ollas**

Ollas are unglazed clay pots set deeply into the ground with the neck just above soil level so that the pot can be filled with water. Slowly, the water in the olla seeps into the surrounding soil, providing supplemental moisture for plants that are in close proximity. Ollas can be used strategically for high-value plants that can benefit from supplemental moisture in hot, dry conditions, but should ideally be set in the soil at plant installation so as not to disturb roots.

### **Soaker hoses**

These hoses are designed to deliver water slowly over a broad area. They are especially helpful for providing supplemental water to larger planting beds or evergreen hedges.

They soak the soil rather than wetting plant foliage, so they don't typically contribute to foliage disease.

### **Sprinklers**

Connected to a water hose, sprinklers can help get water to larger areas in a pinch, but they are not the best option for routine watering. Water can be lost to evaporation while the sprinkler is running, especially if it is run during the day, and plant foliage will likely be wet, increasing risk of disease.

### **Irrigation systems**

Drip irrigation is an efficient way to get water to plant roots. Set zones and timers to deliver supplemental water only when needed. Connecting to rain gauges avoids running irrigation systems when it's raining or when soil conditions are moist. Check for system leaks and breaks, as well as places where water streams may not be reaching plants. Avoid excessive wetting of plant foliage to reduce the incidence of disease.



# Watering Landscape Plants in the Summer Heat

Sheri Dorn, UGA Extension Ornamental Specialist

## Improving soil health for better hydration

When it comes to keeping our plants hydrated and healthy, it always pays to follow good practices from the time of planting. Remember to properly prepare your soil prior to planting so that root systems can get established. Incorporate organic matter, like compost, to improve the soil's ability to retain moisture. Compost added to heavy clay soils improves drainage and aeration. Apply mulch around plants to protect them from trimmer and lawn mower damage. Mulch also protects the soil from the erosive forces of rain, reduces weeds, and helps keep soils and plant roots cooler during the summer.

As you enjoy your summer and your landscape and gardens, take a few minutes to consider the water needs of your plants. Timely application of water in the proper amounts can keep them healthy and beautiful, protecting your investment.

## More resources from UGA Extension

[University of Georgia Cooperative Extension](#) publications offer additional advice for the [care of ornamental plants](#), tips for [saving water in the landscape](#), information about [irrigation systems](#), and even [sources of water for plants](#). You may even want to get your personal copy



Mulch around plants in the garden has many benefits, including protecting them from trimmer and lawn mower damage. Mulch also protects the soil from the erosive forces of rain, reduces weeds, and helps keep soils and plant roots cooler during the summer. (Photo by Sheri Dorn)

of the [Georgia Master Gardener Handbook](#), which provides guidance for water-smart garden practices as well as plant installation and maintenance. The handbook is \$20 off with code SUMMER20 for a short time.

If you have questions, reach out to a [Master Gardener Extension Volunteer](#) for help! Master Gardeners are volunteers trained in horticulture and gardening to help answer your questions, and they are available through many local UGA Extension offices. Find a Master Gardener near you at [extension.uga.edu](http://extension.uga.edu).

# Local July Events

**UGA Extension** offices around the state are working hard at developing quality online presentations on various topics.

Visit the UGA Extension [event calendar](#) to see events happening local to our county as well as virtual opportunities.

## Small Town Saturday

Every fourth Saturday 2-8 pm

**Athentic Brewing Co.**

**108 Park Ave**

Local artisans selling their goods plus food from Baskat Catering

## Jefferson Freedom Festival

June 29th, 2024

5 PM-10 PM

Downtown Jefferson, Georgia

## Star Spangled Statham

July 6th, 2024

5 PM-10 PM

Railroad Street

Statham, Georgia 30666

## Old Bishop Bash

July 4th, 2024

Watkinsville, Georgia

## State Botanical Garden of Georgia: Sunflower Concert Series

June 18th, July 16th, August 13th, September 17th

State Botanical Garden of Georgia,

The Flower Garden

The Sunflower Concert Series at the State Botanical Garden of Georgia is an opportunity for the community to enjoy music in the garden.

## Red, White, & BLUEberry Day

July 4th, 2024

8 AM-12 PM

279 Storey Porter Road

Jefferson, GA

## Diamond Hill Farm Stand

Every Thursday, 4-6 pm

Vegetables and fresh flowers are available on hand and pre-ordered. Every Thursday, 4-6 p.m. at Authentic Brewing Company.

[www.diamondhillfarmathens.com](http://www.diamondhillfarmathens.com)

# Local Farmers Markets



The **Athens Farmers Market** is running year-round on Saturdays from 8am-12pm at Bishop Park, and Wednesdays from 5pm-8 pm at Creature Comforts. Make sure to visit [their website](#) for updates and details.

Find them on Facebook:

[@AthensFarmersMarket](#)



## West Broad Farmers Market

Will hold markets beginning Saturday, **April 20—December 15th, 2024** from 11 am-2 pm in the West Broad Neighborhood, and on the 2nd and 4th Tuesday of the month at Authentic Brewing Company in Normaltown.

Visit [their website](#) for more information.

Find them on Facebook:

[@WestBroadMarketGarden](#)

MARIGOLD



MARKET

The **Marigold Market** is returning on Saturdays 9 am—1 pm at Pittard Park starting April 6th. The Monday Marigold Market (& Café) offers fresh produce and seasonal soup specials year-round, 9 am—3 pm weekly at the Historic Pittard Bank Building. Visit [their website](#) for more information.

Find out more on Facebook:

[@marigoldmarketwinterville](#)


Instagram: [@marigoldmarketwinterville](#)



Concerned about the state of your garden?

Are weeds taking over your landscape?

No need to fear, Clarke is here!

Follow @gardenwithclarke on Instagram  and learn how to battle pests, identify weeds, build your soil and so much more as you garden alongside Clarke, Athens-Clarke County's super gardener!



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UGA Extension Athens-Clarke County





## Helpful resources online:

[Find My Local Extension Office](#)

[Georgia Turf](#)

[Free Online Webinars](#)

[Pest Management Handbook](#)

[Pesticide Applicator Info](#)

[Georgia Certified Plant Professional](#)

[Bugwood— Pest Images](#)

[UGA Center for Urban Agriculture](#)

[Extension Publications](#)

[OnlineLandscape Alerts](#)

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## Athens-Clarke County Extension Agriculture and Natural Resources

### Mission Statement

The UGA Athens-Clarke County Extension’s mission is to respond to the people’s needs and interest in Agriculture, the Environment, Families, and 4-H/youth in Athens-Clarke County with unbiased, research-based education and information.

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