

Warm Season Gardening (published 4/27/2024)

By Earl Hockin, Master Gardener

Beginning in May and continuing to the beginning of October is the period of warm season gardening for our area. For most gardeners this is the busiest time for harvesting, maintaining, and enjoying the outcome of gardening. A key feature of the warm season is that soil temperatures are a minimum of 50F which is the minimum temperature for seed germination for beans, corn, and tomatoes. However, for squash, okra, watermelon, cucumber, eggplant, beans, peppers and pumpkin 60F is the minimum temperature for seed germination. Sweet potato slips should not be planted until the soil temperature is at least 60F.

One way to maximize the joy and benefit of gardening is to combine companion flowering plants with vegetables. For example, bumblebees are outstanding tomato pollinators. They are particularly attracted to snapdragons. Thus, growing some snapdragons will attract bumblebees at the prime time for vegetable pollination. Nasturtiums are another excellent annual for a companion to tomatoes as they have a strong smell that confuses pests like whiteflies and, at the same time, attracts aphids more than do tomatoes. The nasturtiums will also attract ladybugs which will feed on the aphids. Another great companion for tomatoes is basil as its smell deters harmful insects.

When planting tomato transplants, you should ideally plant them as deep as possible, just below the first true leaves or leaving no more than the top 25% of the transplants above ground. If the transplant is rather tall, one very successful option is to plant it horizontally. Create a trench at least 2 inches deep, and place about  $\frac{3}{4}$  or a bit more of the seedling in the trench and cover it. The portion that you have left above ground will, within a day, or two bend and grow vertically. The portion you have put underground will produce additional roots which is beneficial.

When putting the seedling in the ground, put  $\frac{1}{4}$  cup of granular organic fertilizer in the ground or a balanced fertilizer (10-10-10) around them. Put 2 or 3 cups of compost in the bottom part of the hole or trench. Then when they start to develop fruit, spread  $\frac{1}{2}$  cup of 5-10-5 fertilizer around the top of inch of soil and again when you first harvest some tomatoes. Additionally, if possible, add a cup of worm castings. If you cannot obtain these, then use a commercially available organic fertilizer that has a ratio of something like 3-6-4 or 5-10-5 (nitrogen-phosphate-potash). Typically, the mid-season fertilizer application would be nitrogen only. This is often called a side-dress application and depends on how much rain we have had to leach nitrogen from the soil. A complete fertilizer like 10-10-10 or even sometimes 6-12-12 depending on P and K levels would be applied at planting. Too much phosphorus fertilizer can make it difficult for a plant to uptake iron and zinc. Also, phosphorus when over applied can cause issues for surface water such as creeks, rivers, and lakes. A soil analysis is best, but when in doubt limit phosphorus application.

Since, eggplants and peppers are from the same family as tomatoes, they can also be treated similarly. If the nitrogen content of the fertilizer is significantly more than the phosphates and potash, you will end up with a very tall green plant with fewer blooms and fruit than you might expect given the size of the plant.

Though tomatoes, eggplants and pepper are warm season vegetables, they will stop producing flowers when daytime temperatures exceed 90F, which can happen mid to late summer. However, when it starts to cool down, they will resume flowering and produce fruit.

Some flowers to grow in the warm season to enjoy their blooms include Mandeville vine, ageratum, coleus, chrysanthemum, begonia, cockscomb, cornflower, cosmos, gerbera daisy, impatiens, lantana, marigold, pansies, petunias, salvia, and sunflowers. These are all great options to grow in containers. They will need regular watering. Stick your finger down to at least your first knuckle. If it feels dry water the container by pouring the water onto the soil at the base of the plant. Also to keep them flowering, be sure to dead head spent blossoms to promote continued blossoming. A good resource for considering which annuals and biennials to grow in Tennessee gardens is <https://uthort.tennessee.edu/wp-content/uploads/sites/228/2023/11/W874-A.pdf>

During the warm humid season of summer cut the grass to a height of 3.5-4 inches tall as this helps overcome weeds and lets the grass grow deeper roots to better access water.

## **Resources**

“Turfgrass Maintenance – Mowing,” <https://utia.tennessee.edu/publications/wp-content/uploads/sites/269/2023/10/W161-I.pdf>

“Starting a Garden: Warm Season Vegetables,” <https://extension.illinois.edu/blogs/good-growing/2020-03-27-starting-garden-warm-season-vegetables>

“Vegetables and Herbs,” <https://uthort.tennessee.edu/vegetables-and-herbs/>

“Leggy Tomatoes,” <https://www.purdue.edu/hla/sites/yardandgarden/leggy-tomatoes/>

Companion Planting in Home Gardens” <https://extension.umn.edu/planting-and-growing-guides/companion-planting-home-gardens>

## **FREE Presentation**

Dr. Doug Tallamy is the T. A. Baker Professor of Agriculture in the Department of Entomology and Wildlife Ecology at the University of Delaware. He is a leader in native plant horticulture. He will present “Learn more about nature gardening”.

**May 6, 2024, 6:30pm EST**

Register at:

<https://tennessee.zoom.us/meeting/register/tZ0uc-qspz0pHdSx0-0v-Xfo3sSWPDiT7hnx>

## **How do I ask a question?**

If you have a question for the Master Gardeners, submit them to us on our website at [www.netmga.net](http://www.netmga.net). Click the link at the top of the page, “ASK A MASTER GARDENER” to send in your question. Questions that are not answered in this column will receive a response from a Master Gardener to the contact information you provide.

*The Master Gardener Program is offered by the University of Tennessee Extension. The purpose of the Master Gardener program is to train people as horticultural-educated volunteers. These volunteers work in partnership with the local Extension office in their counties to expand educational outreach, providing home gardeners with researched-based information.*