

IISSISSIPPI STATE UNIVERSITY M

# **County Gardeners Extension Express**

#### **MULTI COUNTY**

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#### Look for Six Common Causes of Tomato Wilt in the South

Tomatoes are in almost everyone's garden and would easily be voted the number one vegetable. However, as much as we love to grow tomatoes, we must admit that it's not always easy to do. In fact, sometimes it's downright heartbreaking.

One of the heartbreaks of growing tomatoes occurs when our plants wilt. Wilt occurs suddenly or gradually when leaves, shoots or stems droop or collapse. In our part of the world there are six common causes of tomato wilt.

The first two causes of tomato wilt are the most obvious, yet they are very important to mention. They are the lack of or excess of water. We all understand why leaves droop or plants die from lack of water; however, tomato plants that stand in water for very long wilt too. If soils stay saturated plants will die. This is why we recommend planting in well-drained soil or in raised beds.

A third and prominent cause is a disease known as Bacterial Wilt. Many gardeners describe plants with this disease as looking like they had hot water poured on them. They are fine one day and the next are permanently wilted. Bacteria actually clog the plumbing system of the plant resulting in a virtual drought.

Bacterial Wilt can be diagnosed with a simple test. First, remove the plant from the soil. Rinse the roots and lower stem. Once rinsed, cut a section from the lowest part of the stem, just above the roots, about four inches long. Have a jar of water ready so that the stem section can be suspended in the water, bottom end down. Then, watch the bottom end of the stem for a wispy, cloudy, milky ooze. This is bacterial streaming. The bacterial ooze is almost transparent, but can be seen releasing from the base of the stem.

There isn't much that can be done for bacterial wilt except to remove and destroy affected plants. Future plantings should be made in a different location. Tomatoes may be grown in containers, but if roots grow from the bottom of the container into infected soil they may contract the disease. Do not reuse stakes or ties.

Other common causes of tomato wilt include Southern Blight, Fusarium Wilt and Root Knot Nematodes. Nematodes and Fusarium may be avoided by planting tomato varieties that are resistant to both of these pests. Southern Blight, however, is another one of those "overnight" killers like Bacterial Wilt. It can be recognized by white fungal growth at the soil line or by beige "seed pearl" sized balls of white, beige or brown.

If your plants wilted, try to determine the reason so that it can be avoided next time. There may yet be a simple solution to keep your love for tomatoes intact. Happy gardening!

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IN TELL

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## **Understanding Weed & Feed Products**

Weed & Feed products have been on the market for years. It's big business. People who have used them for years will swear by them. There are also those who say they don't work as expected. But are they really being used correctly? When using preor post-emergence herbicides, timing of application is important. Likewise, when fertilizing your lawn, timing is also important. Let's look at the big picture to see if weed and feed products are right for you.

As part of a preemergence program to control summer annual weeds, preemergence herbicides should be applied in February before lawn green-up occurs to obtain the best results. The problem is, if using a weed & feed, it's too early to fertilize when preemergence herbicides need to be applied to control many of the weeds listed. One well-known company sells more weed & feed products than any other. Their product with crabgrass preventer contains 30% nitrogen. Many other weed and feed preemergence products also contain at least some nitrogen. You know that nitrogen is a growth element so, here's the dilemma: Do you apply the product early while the grass is still dormant or semi-dormant to control the weeds? Or do you wait until it's time to fertilize when the lawn is greening up which is after many of these weeds have emerged? Simply put, the timing of applying some weed & feed products together don't always work in one's favor.

So, are they really being used correctly? The answer can be both yes and no. There are weed & feed products that can be applied at the correct time and serve both purposes. Those products contain a post-emergence herbicide, such as 2,4-D, for controlling some existing broadleaf weeds and the label may read "apply before weeds mature". Again, it's all about the timing, but these don't always help prevent weed seeds from germinating. You should not use post-emergence (weeds have emerged) herbicides while the lawn is transitioning from dormancy to green-up. The labels will be specific about timing.

In the early spring and fall, it may be best to apply your weed control and fertilizer separately. Apply a pre-emergence herbicide for summer annuals in late winter or early spring, then fertilize later. Then add another preemergence application in late August or early September for winter annuals. You may even want to add a weed and feed AFTER a couple of lawn cuttings to improve control of weeds and get that first fertilizer application down. Our lawns in south Mississippi are well on their way towards dormancy and growth is subsiding towards the end of August, so if you're thinking of applying a weed and feed in the fall, there's really no need. It is a waste of money. A soil test will indicate if there is a need for potassium, which is the best element to apply (Muriate of Potash) for providing winter protection.

Read the label before purchasing a product to be sure it's labeled for your turf type. Companies may change a formulation on occasion, so even if it's a product you've used many times, check the label again before you purchase! In 2015, Scott's Bonus S Weed & Feed changed its formulation from Atrazine to Metsulfuron-methyl (MSM). MSM can be used safely on St. Augustine and centipede grass when applied according to label directions. However, it will damage carpetgrass. Our centipede lawns have a lot of carpetgrass and many centipede lawns in our area had thin spots as a result. Scott's quickly changed back to the original formulation, Atrazine. Be sure to read the label and remember, more is NEVER better!



Scott's Bonus S requires both turf and weeds to be actively growing.



Ferti-lome **Centipede Weed** & Feed can be used on all our grass types but it contains a post-emergence herbicide only.





Scott's Halts Crabgrass **Preventer contains** a preemergence only and is ok to apply in both early spring and fall. If you plan on seeding, don't use this or any other preemergence herbicide.

# Garden Calendar: May

#### Planting

- \* Plant Crape Myrtles when plants are in color.
- \* Plant annuals and perennials early in the month and keep well watered.
- \* Set out Chrysanthemums.
- \* Continue planting Gladiolus. Can also plant Calla Lilies, Ginger Lilies, Tuberose, and Cannas.
- \* Take Hydrangea cuttings and let root in coarse sand.
- \* Plant in shade: Impatiens, Coleus, Sweet Alyssum, Lobelia, and annual Dianthus.
- \* Plant in the full sun: Verbena, Periwinkle, Ageratum, Marigolds, Zinnas, Petunias, Wax Begonia, Clematis, Four-o'clocks, and Portulaca.
- \* Plant these Vegetables and Fruits this month: Cucumber, Tomato, Pepper, Squash, Peas, Beans, Eggplant, Corn, Okra, Parsley, Watermelon, and Cantalope.

#### **Pest Control**

\* Keep an eye on garden pests and diseases: red spiders, thrips, aphids, lacebugs, lacewings, mealy bugs, caterpillars, slugs, snails, mildew, fungus, and crown rot.

#### Pruning

- \* This is the last month to prune Azaleas and Camellias as new buds are formed in June.
- \* Gardenias can be pruned by bringing a bouquet inside to beautify the house.
- \* Cutting bouquets regularly will keep your plants pruned and prolong the blooming season.
- \* Cut in early morning or late afternoon and put into water immediately.
- \* Remove seedpods from bulbs and irises; they sap the plants' strength.

#### Mulch

\* Mulch layer helps maintain moisture and can protect roots from extremes in temperature.

#### Miscellaneous

\* Water deeply during weeks that it does not rain.

#### **Home Accent**

- \* Repot house plants during their active growing period: April through September.
- \* May is a good month to repot and divide overcrowded ferns.

#### In Bloom

Confederate Jasmine, Gardenias, Begonias, Impatiens, Salvia, Geraniums, Roses, Hydrangeas, Magnolias, Azaleas, Clematis, Phlox, Sweet William, Deutzia, Honeysuckle, Golden-Rain Tree, Pomegranate, Mock Orange, and Weigela.















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### Lawn Care

Lawns are now beginning to show spring growth. Be careful not to push the grass by forcing early growth with lots of fertilizer. If fertilizer is put on too early, it will feed winter weeds and not the turf. A good rule of thumb to follow is to mow your lawn twice before fertilizing. Typically this begins in April in the coastal counties and into May moving northward. This is when you should begin to fertilize your lawn. A soil test is recommended to determine your soils nutrient levels.

Fertilizer analyses are listed on the bag as percentages of Nitrogen, Phosphorous, and Potassium (N-P-K).

In order to convert the fertilizer product you have available into units of nitrogen, divide the desired amount of nitrogen by the percentage of nitrogen found in the product you have available. For example, for most applications you will want to apply 1 pound of nitrogen per 1000 ft<sup>2</sup>, divide the



desired 1 pound by the percentage of that nutrient found in the product, .13 in the case of a 13-13-13 product. (11b N/.13 N=7.69 lbs of actual fertilizer product to equal 1 pound of nitrogen).

Along with fertilizer applications, cutting heights are important for healthy grass. Cutting grasses that need to be left tall is a common mistake. Choose an even higher cut for grass in shade. Sharpen your mower blade before the season and at least once a month while the turf is actively growing to ensure a quality cut which can help prevent disease and insect damage. Replace that old oil with new and stale gas with fresh before you start your mower this spring.

#### Recommended cutting heights for the different turfgrasses are: Common bermudagrass:

 $1\frac{1}{2}$  inches

**Hybrid bermudagrass**: 1 inch

**Zoysiagrass:** 1-1<sup>1</sup>/<sub>2</sub> inches

**Centipede/carpetgrass:** 1½-2 inches

**St. Augustinegrass:** 2<sup>1</sup>/<sub>2</sub>-3 inches



For shady areas raise the mower deck another 1/2 inch for all species



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## **Raised Bed Gardening Benefits Everyone**

Raised beds can help where gardening space is limited, the site is low and collects water, the soil drains poorly, or other poor growing conditions arise. We've seen our share of these problem areas with the recent rainfalls resulting in flooding. Although we think of the site conditions primarily, raised beds are also a great way to garden for those with mobility issues. Raised beds are planting areas where the soil is several inches higher than that of the natural grade. This is accomplished by adding soil to the growing area or by adding and mixing amendments such as compost, sand, composted sawdust, or bark. Where the native soil is adequate, raised beds can be made by removing several inches of soil from the bed area, filling the excavation with organic matter like manure or old hay, and mixing the soil with the added organic matter. Raised beds can be framed with wood, bricks, or cement blocks, or they can be left unframed. The choice of

materials is up to the gardener, but the newer treated lumber works well while keeping in mind a deeper bed gives you more planting options. Cedar, fir, and redwood have natural resistance to decay if you don't want to use treated lumber.

Raised-bed soil that has been improved by adding organic matter and sand often enables excellent root crops like carrots, onions, and parsnips to grow, even though they would not grow in the native soil. Select vegetables that produce a lot for the space they occupy. Trellis vining crops like cucumbers, pole beans, Malabar spinach, and melons. Support melon fruit in slings. Raised beds require more water than ground-level beds, but when the alternative is no garden at all, it's worth the extra effort. Some additional advantages of raised-bed gardening:

Raised beds produce more vegetables per unit of garden space because space is not wasted with walkways between every row; Soil in raised beds dries and warms more quickly in spring, which permits earlier planting of spring vegetables; Soil does not compact because soil in beds is not walked on; Closely spaced plants in raised beds shade out weeds and reduce weed problems and the need for frequent cultivation.

Raised bed gardening, however, does have disadvantages: Closer spacing of plants can reduce air flow and increase disease problems; Yields from individual closely spaced plants may be lower than from widely spaced plants (total production from the closely spaced plants is often higher); Require more frequent watering because of improved drainage; May require more frequent fertilization because of the leaching resulting from frequent watering and excellent drainage; Permanent sides make it difficult to relocate the garden; Can be expensive to establish.

Ideally, raised beds should be no wider than 4 feet and no longer than 25 feet unless crossovers are provided to allow for easy access around them. Beds 4 feet wide and 25 feet long contain 100 square feet and make calculations for rates of application of fertilizer and granular materials easier. Let's face it, we're not getting any younger so raised beds are a great way to garden without having to dig in the soil too much. For more information on building raised beds, refer to publication P3087, **Constructing Raised Beds for the Mississippi Gardener** at extension.msstate.edu.







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## **Cedar Apple Rust**

You may have noticed an orange fungus pustule on your mayhaw, pear or apple fruit and leaves. This is a fungus called cedar apple rust. Cedar apple rust is a common disease that appears on cedar trees as orange

galls following wet weather. After these galls appear, the wind will then distribute spores to mayhaw, pear and apple trees where the fungus will attach to leaves and fruit. This fungus will cause fruit to fall off prematurely and can cause defoliation.

The best way to control this fungus is with a fungicide called Immunox. Immunox should be applied at ½ fluid oz. per 1 gallon of water. Applications should begin just before the blossoms open and be continued at 7 -10 day intervals and stopped 14 days before harvest. Another way to minimize the occurrence of this fungus is to remove cedar trees in the vicinity of your fruit trees.



### Cogongrass

If you have been on the road in the past few weeks unless you were driving with your eyes closed you have seen lots of white feathery plants in the ditches. This noxious weed called (Cogongrass) is a major problem in southeast Mississippi. Cogongrass has no nutritional benefits and is detrimental to forage crops and hinders the growth of timber.

Cogongrass is most commonly seen in pastures/hayfields, wooded areas and roadsides. The easiest time to identify the weed is now when it's blooming and in the winter while it is dormant. Now of course it can be identified by the white feathery-like seed heads. It also typically grows in a large circle, and during the winter it has a color that is different from surrounding dormant grasses.

The most effective form of treatment is through the use of herbicides. The use of Roundup (Glyphosate) or Arsenal (Imazapyr) solution twice a year where cogongrass has surfaced seems to be the most effective. These products can be found in many different brand names but the active ingredient of (Glyphosate) or (Imazapyr) is what you should seek. The first of those two applications should be a spray mix containing 0.6 fluid ounces of herbicide per gallon of water, which should be applied just before flowering starts in late April or early May.

The second spray should be a heavier dose applied in September or October four to six weeks before the first frost with a spray mixture that contains 2.6 fluid ounces per gallon of Roundup or 1.3 fluid ounces per gallon of Arsenal. There is more flexibility if you're using Arsenal, in terms of when that application can be made. The downside of using Arsenal is if you have hardwood vegetation close to the treatment zone, you may kill the hardwoods. It won't damage pine trees, but it can hurt hardwoods.

There has never been a major concern that the cogongrass may invade agronomic crops, such as cotton, corn, peanut or soybean. Rather, the greatest threat is for no-till crops, such as timber, pecans and blueberries. Cogongrass is a major problem in areas where there is little to no soil disturbance. If you are vigilant in fighting cogongrass with herbicides you can usually gain effective control on your property but this will be an ongoing battle.

# INTRO TO EXTENSION CANNING AND FOOD PRESERVATION

TUESDAY MAY 16TH - 5:30 PM

MS STATE EXTENSION LAMAR COUNTY 216 SHELBY STREET SUITE B - PURVIS MS 39475

(601)794-3910

For more information or to register for the class, please call the Lamar County Extension Service Office

# SAFELY CAN FRUITS AND VEGETABLES AT HOME

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# **Online Private Applicator Certification Program**

A *private applicator* is a certified applicator who uses or supervises the use of restricted-use pesticides to produce an agricultural commodity on his or her own land, leased land, or rented land or on the lands of his or her employer. Private applicators must be at least 18 vears old.

In response to limited face-to-face training during the COVID-19 situation, the Mississippi Department of Agriculture–Bureau of Plant Industry has approved an online private applicator certification program developed by the MSU Extension Service. Persons needing to obtain or renew their private applicator certification can complete the online training (two video training modules and a competency exam) by using the following link: http:// extension.msstate.edu/content/online-private-applicatorcertification-program. The fee for training and testing is \$20, payable online by credit card, debit card, or eCheck.

#### PEARL RIVER COUNTY BEEKEEPING ASSOCIATION

Dated: Saturday, May 6, 2023 Location: MSU Pearl River County **Extension Service Office** 204 Julia Street Poplarville, MS 39470

Doors will open at 6:30 p.m. for a time of friendship and fellowship. The meeting will start promptly at 7:00 p.m.

Our guest speaker will be Mr. Gregg Dunn. He will be discussing techniques and strategies for the hobbyists beekeeper to extract honey.

This will be "Show and tell" so come prepared to interact and ask your questions. Time to start extracting honey will be on us in a blink of the eye so time to get prepared is now.

Mark your calendars and plan to attend!

Call 601-403-2280 to RSVP for meeting .



MISSISSIPPI STATE UNIVERSITY

# Private Applicator TRAINING AND TESTING ONLINE

Watch the training modules, pass the exam, and receive your private from MDAC Bureau of Plant Industry.



Visit http://msuext.ms/agmes or contact your local MSU Extension office for info on how to register.