

Tomatoes in Mississippi



Staked tomatoes require the highest input costs of any vegetable crop. The high labor costs can be offset by lucrative returns.

Soils

Tomatoes require a well-drained soil with a soil pH of 6.0 to 6.5, and with a good supply of organic matter. Do not plant tomatoes on clay soils.

Varieties

Florida 47—70 days, 9-ounce fruit.

Merced—73 days, determinate, 10-ounce fruit.

Mountain Spring—72 days, determinate, 8-ounce fruit.

Cherry Grande—65 days, determinate, and good yields of ½-inch fruit.

Mini Charm—70 days, grape tomato.

Transplants

One ounce of tomato seeds will produce approximately 8,000 transplants. Container-grown tomato plants have a higher survival rate than the field-grown transplants.

If you are buying your tomato transplants, reduce the risk of getting diseased plants by dealing with a reputable grower.

Planting Dates

Zone	
Coastal Counties	March 1 (approximately)
South Central	March 15
Central	April 1
North Central	April 5
North	April 10

Tomatoes planted later than the above dates will require more management for disease and insect control.

Spacing

Space determinate tomato vines 18 to 24 inches in a row for unsupported vines, or 14 to 24 inches for staked vines, with 4 to 5 feet between rows. Space indeterminate vines 30 to 48 inches in a row and 5 to 6 feet between rows. Space rows for equipment access. Some growers place 2 rows about 3 to 4 feet apart and then leave 8 to 10 feet for equipment.

Transplanting

Apply one-half pint of starter solution per plant. Mix 3 pounds of a soluble fertilizer rich in phosphate (such as 10-52-17) in 50 gallons of water. Set plants deep enough to cover cotyledons. Water the same day.

Staking

The Florida weave system consists of driving 1-inch x 1-inch x 4-foot stakes after every second plant. Tie twine to end stake, stretch, and wrap each stake; tie to end stake. Repeat for other side of the row. The process is repeated three or four times at 8- to 10-inch intervals up the stake as the plants grow; 5- to 5 ½-foot stakes may be used for indeterminate varieties.

Fertilizer

The amount of fertilizer to apply can best be determined by a soil test. Higher yield goals require more fertilizer. Sandy loam soils require a split application of fertilizer to help prevent leaching. Apply one-half to two-thirds of the fertilizer preplant, and sidedress at first cultivation or at fruit set with remaining fertilizer. On loam and silt loams, broadcast all fertilizer before transplanting. Avoid too much nitrogen. Using calcium nitrate helps prevent blossom rot.

Weed Control

Black plastic mulch can increase soil temperature and can help control some weeds. Herbicides labeled for tomatoes are listed below:

- Preplant incorporate—bensulide (Prefar), trifluralin (Treflan).
- 4 to 6 weeks after transplanting—DCPA (Dacthal).
- 5- or 6-leaf stage or after transplant recovery—metribuzin (Sencor)
- Grass control: sethoxydim (Poast).

Always read the label for herbicide use.

Irrigation

Supply water uniformly from first fruit set to harvest. Drought followed by rainy conditions can cause fruit cracking. Uneven moisture contributes to blossom-end rot. Tomatoes require 1 inch of water per week from rain or irrigation.

Nematodes

Most tomato varieties are susceptible to nematode injury. Soil test for nematodes, and treat before transplanting. Use resistant varieties.

Insects

Tomatoes require protection from aphids, cutworms, hornworms, pinworms, leafminers, thrips, and fruitworms. Consult Extension Publication 554 *Disease, Insect, and Nematode Control Recommendations for Commercial Vegetables in Mississippi*.

Diseases

Tomatoes are susceptible to a number of diseases. Choose disease-resistant varieties if possible. Use chlorothalonil to treat for early and late blight on foliage. Control against Southern blight with quintozone (Terraclor). Consult Extension Publication 554 for more detailed information on disease control.

Disorders

Blossom-end rot results from calcium deficiency in the fruit tissue. Maintain an adequate supply of calcium in the soil, and keep the plants from suffering stress from lack of water.

Catfacing is caused by poor pollination, cool temperatures, and/or 2,4-D injury. Large-fruited varieties are more susceptible.

Uneven ripening is more common in some varieties. Maintain a proper nutrient balance.

Grading

Tomatoes are graded into grades 1, 2, and 3, according to shape, freedom from sunscald, cuts, puffiness, catfacing, scars, growth cracks, and insect injury. Tomatoes are packed according to sizes, from extra small (maximum diameter of 2 1/8 inches), small, medium, large, and extra large to maximum large (minimum diameter of 3 1/2 inches).

Tomatoes are also classified according to color: green, breaker, (at least 90 percent of the surface is green), turning, (90 to 70 percent of the surface is green), pink (30 to 60 percent surface pink or red), light red (60 to 90 percent red), red (90 to 100 percent red).

Handling and Packaging

Supervise picking and packing tomatoes to reduce loss through careless harvesting. Tomatoes may be jumble-packed in 20-, 25-, or 40-pound corrugated boxes. They may be packed in consumer-sized units of 6 tomatoes on pulp trays and overwrapped with plastic film. Overwrapped trays are packed in boxes for shipping.

Cherry and grape tomatoes are packed in small plastic clam shells.

Storage

Storage life depends on stage of ripeness when tomatoes are harvested and the quality of fruit expected. Store mature greens at 13 °C (55 °F), turning at 10 to 13 °C, pink at 5 °C, and ripe at 2 to 5 °C (36 to 40 °F).

Yield

An acceptable tomato crop yield is 600 to 1,000 (25-pound box) boxes per acre for fresh-market.

Preharvest cost \$ 1,354

Harvest cost 2,905

Total \$ 4,259 (approximate only)

Yields of 1,500 boxes can be obtained.

msucares.com

The information given here is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended of other products that may also be suitable.

By **Dr. David Nagel**, Extension Horticulture Specialist

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