Tomatoes!

A New Jersey Favorite

NJ Conservation Partnership

Fact sheet #2

Where does one start when writing a Fact sheet on tomatoes? You know, the fruit that more than any other has characterized New Jersey as the "**Garden State**." Anytime gardeners get together, sooner or later, the subject turns to their favorite tomatoes. One old timer will say, "I want a tomato that tastes like they did when I was a kid, one that will make my mouth pucker with that real tomato taste." Someone else, who has a sweet tooth, will prefer fruity, sweet tasting tomatoes. Such definite opinions prove that a preferred taste is quite subjective. Although we may not agree on the best taste, there are other factors to consider when choosing a tomato variety, not the least of which is whether the plant will withstand the various diseases that can occasionally plague tomatoes during NJ's hot humid summers.

Soil Requirements

Tomatoes prefer soil that is well-drained and amended heavily with organic matter. 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 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 the growth and health of the plants. 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

Tomatoes are warm-season plants that grow best in sunny locations that receive eight hours of sunlight per day. Tomatoes are also a warm season crop that puts on growth best between 70-80 degrees F. 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. 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, causing 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. Follow this up with a key fertilization at the time of flowering with a 5-10-5 fertilizer at about 1 lb/100 square feet of planting bed.

If plants are to be staked or trellised, space them 24 inches apart in rows 4 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. Staking produces higher quality fruit.

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Watering
Tomatoes need about 1 to 2 inches of water per week depending on the type of soil they are growing in. If rainfall is limited, water plants thoroughly once or twice per week. One or two heavy soakings are better than many light sprinklings.

Harvesting and Handling
For best quality, harvest tomatoes when they are fully ripened on the vine. If harvested before they are ripe, or if you find some green ones on the ground of your garden, then ripen the tomatoes in a brown paper bag. Ripe tomatoes can be preserved in the fridge but should not be placed there until fully ripened.

Determinate vs. Indeterminate
Determinate tomato varieties grow in a more compact bush form and produce most of their crop at one time. You can harvest all of the fruit in two to five pickings and then pull up the plants. Determinate varieties often produce an early crop, so you will want to plant successive plantings in order to harvest tomatoes over an extended period of time. Determinate plants are often the choice of the gardener who wants a large supply of ripe fruit at once for canning.

Indeterminate varieties set fruit clusters along a vine stem that continues to grow all season. They will continue to produce fruit, if harvested, throughout the season until first frost. Bush varieties do best when staked or grown in cages, but vine types must be given support.

Resistance
Because tomatoes are susceptible to diseases, viruses and insects, some varieties have been bred or hybridized to be resistant to certain pests. **Resistance to these pests is usually listed on the plant label using the following abbreviations:**
V = Verticillium Wilt
F = Fusarium Wilt
FF = Fusarium Wilt race 1 and 2
N = Nematode
T = Tobacco Mosaic Virus
A = Alternaria (Early Blight)
TSW = Tomato Spotted Wilt


Fusarium Wilt

Determinate Varieties
Rutgers: VFA —Terrific flavor and productivity. This has been a favorite for canning because of its abundance, juiciness and deep red color. Not as resistant as some newer varieties. 75 days to harvest.
Roma: VF: A rare open pollinated sauce tomato with some disease resistance. Thick walled few seeds ideal for sauce. 75 days to harvest.

Indeterminate Varieties
Better Boy: VFN Hybrid — Rugged vines produce large crops of bright red, 12 to 16 ounce smooth, flavorful fruit. 75 days to harvest.
Beefmaster: VFN Hybrid — A favorite for the solid, meaty, flavorful red fruit that weighs up to 2 pounds. 80 days to harvest.

Cherry Tomato Variety
Sweet Baby Girl: Hybrid — Dark red fruit has great, sweet flavor and grows in long clusters. Resistant to tobacco mosaic virus. 65 days to harvest.

**** This Fact sheet was partially developed from information obtained from the websites listed below.***

For further information about tomatoes and tomato varieties:
http://gardening.wsu.edu/library/vege008/vege008.htm
http://pubs.caes.uga.edu/caespubs/pubcd/B1271.htm