



# Growing Tomatoes

Number 0016

March 12, 2010



## Tomatoes Come in Many Varieties

There are two basic types of tomato plants classified according to the way they grow: determinate and indeterminate. Determinate plants are bush type which set their fruit within a relatively short period of time, do not need to be pruned and grow well in cages. Indeterminate or vine (cordon) plants are tall growing, produce fruit throughout the growing season and need to be staked. They also need to be pruned by removing the "suckers" (shoots that grow in the axils of leaves) and tied to a stake.

Tomatoes come in all sizes and colours from the size of marbles to the size of grapefruits and in colours of pink, red, yellow orange and stripes. Stokes seed catalogue has 4 pages of tomato varieties. After each name is written the letters VFTN denoting disease resistance. Select disease resistant varieties especially to Verticillium and Fusarium wilts and early varieties in the 60 – 65 day range. Choose 3 or 4 varieties. Good container varieties are 'Patio Hybrid', 'Lunch Box' or 'Tumbler Hybrid' for hanging pots. A good full size tomato is 'Ultra Girl' or 'Ultrasonic' semi-determinate plants that can be grown with or without staking. Good cherry varieties are 'Sweet Million' or 'Sweet Gold'. Good grape tomatoes are 'Golden Honey Bunch' or 'Red Candy'. Some heritage tomatoes have little disease resistance or are late maturing and under adverse weather conditions such as a cool wet summer, they do not produce many ripe fruit.

## Soil Preparation

Tomatoes are a warm season crop. They need full sun in a warm site protected from north and west winds. The soil must be fertile and well drained. Dig in compost or well rotted manure to a depth of 30 cm before planting or apply a fertilizer high in phosphorous. Crop rotation is important to prevent a buildup of diseases in the soil so do not plant tomatoes where you have grown them or potatoes, peppers or eggplants.

## Sowing Seed

If you are growing your own seedlings, use clean containers and a seed starting mix such as Promix. For extra early harvests in July, start seeds indoors March 1-15th. These seedlings will have to be transplanted many times finally reaching a 1 gallon pot. For the main crop, start seeds indoors April 1. Sow seed  $\frac{1}{4}$  inch deep at a temperature of 25 ° C. They should germinate in 5-12 days. When seedlings

break the soil, lower the temperature to 20 ° C then to 16 ° C when they are erect.

## Growing Transplants

---

Transplant seedlings in 15-20 days when they have at least two true leaves into 2 inch pots then about 21 days later into 3-4 inch pots. Grow cool at a temperature of 14-20 ° C. Each time you transplant, put the stem deeper into the growing mix. For the home gardener a green house or grow lights are important, since a sunny window tends to get too hot resulting in a tall spindly seedling with a weak stem. Brushing your hand over the tops of the seedlings every day will simulate wind and help to make their stems stronger.

## Transplanting in the Garden

---

Harden off plants for 1-2 weeks to get them used to the hot sun and winds. Transplant outside into the garden after danger of frost is past (June 1) and when night temperatures are not below 5-10 degrees C. Use a starter fertilizer when transplanting 10 -52-10 or 6-24-6. Transplant on a cloudy day or in the late afternoon. Water plants well. Dig holes and fill with water. Let the water soak away. Then take transplant out of its pot. Plant deeply or in a trench right up to their necks if transplants are tall or have a weak stem. Cut off lower leaves on part of the stem that will be planted under the soil and they will root up the buried stem. Cage or put in stakes immediately after transplanting to avoid root damage. Protect the plants by putting a 1 foot high black plastic around outside of the cage – this keeps the plants warm and protects them from the wind. Good transplants are 8 inches high with solid thick stems. Do not forget the cutworm collars. Black or red plastics can be used. They warm the soil, conserve soil moisture reducing fruit cracking and blossom end rot and suppress weed growth. Plant tomatoes for staking 18-24 inches apart and caged plants 36 inches apart.

## Growing Tips

---

Tomatoes require an even adequate supply of water about 1 inch per week. Staked plants will need to be tied loosely and pruned during the growing season. Use a soft material such as cut up nylon stockings and leave 1 -2 inches of slack to allow the stem to thicken and grow.

## Problems

---

**Blossom end rot** is a black or brown rotten spot on the bottom of the fruit caused by water stress or calcium deficiency through irregular or inadequate watering. **Catfacing** is odd shaped fruit with unusual swellings and scar-like streaks. This condition results

from abnormal flower development due to cool weather and is more common on heritage varieties. **Blossom drop** is caused by temperatures below 10 ° C at night or above 27 ° C. **Sunscald** occurs when green or ripening tomatoes get too much sun just like sunburn. A white patch appears on the side of the tomato facing the sun. If this is a problem do not prune foliage so heavy or grow determinate varieties in cages with more protective foliage. **Tomato skins cracking** on the vine is caused by very fast growth during warm rainy periods or following a dry period. Keep moisture supply as even as possible throughout the season. **Early and late blight** can be prevented by using a copper fungicide spray such as Bordo if you have had this problem in past years. This is a preventative not a cure so must be started when plants are 12-18 cm high and repeated during the season. Read and follow direction on the container very closely. **Hornworms** are huge green caterpillars with thorn like horns at their back end. They eat both leaves and fruits very quickly. Hand pick and destroy.

## Harvesting

---

Harvest ripe tomatoes by gently breaking the stem just beyond the fruit at the knuckle. Encourage tomatoes to ripen on the vine late in the season by removing the top leaves, flowers and tiny tomatoes. If your plants are in containers, move them to the sunniest area. If frost is threatening and you must harvest tomatoes green, pick only the ones which are a mature size. Encourage them to ripen indoors by placing them at room temperature between sheets of newspaper.

## Storage

---

Never store tomatoes in the refrigerator. The cool temperature causes them to lose flavour and textures and they will not last as long as those kept at room temperature.

Learn more about tomatoes on [Wikipedia >](#)