

## Watermelons

### PLANTING

Watermelons (*Citrullus lanatus*) are warm-season crops that grow best at average air temperatures between 70 and 85 F. Melon seed do not germinate well in cold soil. The soil temperature at the 4-inch depth should be 60 to 65 F before this crop is planted. In the spring, do not plant this crop until after the last chance of frost.

PLANTING DATES		
Area	Spring	Summer
Piedmont	Apr. 20-June 30	
Central	Apr. 1-30	June 15-30
Coastal	Mar. 25-Apr. 20	

Watermelon seed can be planted directly in the garden or transplants can be grown to get an early start. Watermelons need a lot of room. Seeds or transplants should be planted in rows spaced 6 to 8 feet apart. Plants should be spaced 5 to 6 feet apart within the row.

Under normal conditions watermelons grown from transplants can be harvested as much as two weeks earlier than melons grown directly from seed.

Another way to get an early start on your watermelon crop is to use black plastic mulch. The black plastic absorbs the sun's warmth, allowing the soil to warm quickly. To plant, punch a small hole in the plastic and plant the seed or transplant. The black plastic will warm the soil faster in the spring and will also conserve moisture throughout the season. Other advantages of this type of mulch are weed control and a reduction of fruit rot.

If a second crop or fall crop is going to be planted on the black plastic mulch, spray paint the black mulch white. The hotter soils created by a black mulch become too hot during the summer and early fall. Spraying the mulch white reduces the amount of heat absorbed.

It is best to use drip irrigation in conjunction with the plastic mulch. Using drip irrigation instead of overhead irrigation keeps the foliage dry and reduces disease problems. It is also possible with the appropriate equipment to inject the needed nutrients through the drip line and spoon-feed your plants.

If earlier melons are desired, a row cover can be used alone or in combination with black plastic mulch. The row cover can be either clear polyethylene sheeting supported by wire hoops placed every 5 feet across the row or a lightweight "floating" type material. The clear plastic row covers will need to be vented by cutting slits in the side. Temperatures under these materials can get hot enough to inhibit plant growth and will need to be removed so pollination can occur.

Watermelons need a lot of room. Plant them in rows 6 to 8 feet apart. Transplants or seed should be planted in the rows 5 to 6 feet apart. If starting from seed, plant the seed about 1 inch deep.

### RECOMMENDED CULTIVARS

#### Standard:

- Charleston Gray
- Crimson Sweet
- Golden Crown
- Royal Sweet
- Tiger Baby

**Seedless:** Sugar Baby

## FERTILIZING

It is best to base fertilizer application on the results of a soil test. If a soil test has not been taken, apply 5-10-10 at 30 pounds per 1,000 square feet before planting. Melons should be sidedressed before the vines start to “run.” Sidedress with ammonium nitrate at 1 pound per 100 feet of row or calcium nitrate at 2 pounds per 100 feet of row. Sidedress a second time after bloom when fruit is developing on the vine. Too much nitrogen fertilizer can encourage excess vine growth and reduce fruit growth.

## WATERING

Watermelons need a lot of water. In fact, water comprises 92 percent of the watermelon fruit. If using overhead irrigation, water in the morning so the foliage has time to dry before dark. Wet foliage encourages foliar diseases. The use of drip irrigation is very beneficial in that no water is applied to the foliage but is applied to the plant root zone instead. When watering, make sure the soil is moistened to a depth of at least 6 inches. Watermelons need an immense amount of water during fruit set and development.

## HARVEST

Make sure you know the approximate number of days to maturity for your variety. For example, ‘Golden Crown’ takes an average of 70 days to reach maturity, while ‘Crimson Sweet’ takes around 85 days. Also, look at the tendril closest to the fruit. When this tendril turns brown, the watermelon is usually ready to harvest.

## PROBLEMS

Poorly formed fruit can be due to several problems, but lack of pollination by bees is the most common cause. Blossom-end rot is primarily due to inadequate calcium in the plant. Too little calcium can be due to several problems which include low soil pH, low calcium and irregular uptake of water. All vines and little fruit is usually due to overfertilizing with nitrogen fertilizer or planting too close.

Insect problems are usually critical only in the seedling or early growth stage. Cucumber beetles and aphids are the most noticeable problem insects.

One of the least expensive and most effective disease control measures is crop rotation. Do not plant after watermelon or similar crops such as cantaloupe, cucumber, squash and pumpkins for at least three years.

Diseases that may be a problem include anthracnose, gummy stem blight, powdery mildew and nematodes.

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