



Food: Just Grow It!



TOMATO

Tomatoes can be grown the year around at most localities in Hawaii by choosing the best adapted varieties and following a few proven cultural practices. The success of a crop of tomatoes will depend largely on the choice of the varieties in relation to the location and type of culture pruned and staked, unpruned and unstaked, or pot culture in 3 to 5 gallon containers.

Types and Climatic Requirements

The F1 hybrids: N 5, N 52, N 65 and N 69, and varieties Anahu, Healani, Kalohi and Puunui were developed for resistance to the common root knot nematode and resistance and tolerance to several other common tomato diseases by the College of Tropical Agriculture, University of Hawaii. All hybrids and varieties are adapted to the growing conditions throughout the state, but the F1 hybrids are better suited for prune and stake culture. The Florida varieties, Tropic and Floradel, are also adapted but are not resistant to the common strain of root knot nematode prevalent in Hawaii soils.

Soil Management & Fertilizers

Tomatoes will do best on well drained soils with a pH of 5.5 to 7.0. Soils with a pH below 5.5 or those in high rainfall areas usually will require pre-plant application of agricultural lime or hydrated lime to correct the pH and increase the calcium content of the soil. Apply well rotted manure or compost at the rate of 10 to 20 pounds per 100 square feet of garden area, and work into the soil before planting.

Apply a complete fertilizer such as 8-8-8 after first fruit set. Apply $\frac{1}{4}$ to $\frac{1}{2}$ cup of fertilizer in a circle 6 to 8 inches from the base of the plants and 3 to 4 inches

deep. Apply additional fertilizer once every two weeks after harvest begins.

Planting

Prune and stake culture should be the most practical for the home garden since it affords the greatest number of plants in a given area, with the fruits kept off the ground to prevent soil rot problems.

Seedlings raised in flats or peat pots are transplanted to the garden 3 to 5 weeks after seeding. Space plants 15 inches apart in rows spaced 24 to 30 inches apart. As the plants grow, remove all side shoots arising from the leaf axils, leaving only the central shoot. Place support stakes, 4 to 5 feet long, next to the seedlings and tie the vines to the stakes at 12 to 15 inch intervals with twistems, raffia or other tying material.

Plants also may be grown in circular cages made of 6 x 6 inch hog or construction wire netting, 3-4 feet high with a 16 to 18 inch diameter. With this method the plants are left unpruned and unstaked.

Plastic planting containers (3 to 5 gallon size) could also be used for growing one plant per pot of the special "bush" type tomato varieties such as Pixie hybrid, Tiny Tim, and Healani. Even with this type of culture, it is best to support the plants by short stakes or wire netting.

Irrigation & Cultivation

Irrigate an average of 1 to 2 times per week during periods of little or no rainfall before fruit set. After fruit set, 2 to 3 irrigations per week with heavy

soaking (not light sprinkling) will be necessary for most soils and localities. Plants grown in containers will need watering at least once a day after plants set fruit. Lack of soil moisture or root damage will produce fruits with, blackened dried spots on the Bottoms of the developing fruits (blossom end rot).

Insect & Disease Control

Tomato plants and fruits are commonly attacked by numerous insects and diseases; therefore, some control measure must be taken to raise a successful crop. Insect and mite pests may be controlled with Neem or insecticidal soap sprays. Bagging of the developing fruit clusters with cloth bags or paper sacks (not plastic bags) may be used to protect the fruit from melon flies in some areas. Prune off diseased leaves to control the spread of fungal diseases.

Harvesting

The fruits should be harvested no sooner than the pink or breaker stage when pink color appears on the bottom of the fruits. Fruits picked three-fourths to fully ripe will taste better than those picked less ripe. On the average, 2 to 3 harvests per week will be necessary.

Seed Availability

For the purposes of the Food: Just Grow It! Project, seeds of tomato are available from the project directors at the University of Hawaii.

Information from: University of Hawaii, College of Tropical Agriculture and Human Resources Home and Garden Vegetable Series No. 5.

Nutrition Facts	
Serving Size 1/2 cup (75g)	
Servings Per Container	
Amount Per Serving	
Calories 15	Calories from Fat 0
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 5mg	0%
Total Carbohydrate 3g	1%
Dietary Fiber less than 1 gram	3%
Sugars 2g	
Protein 1g	
Vitamin A 10%	• Vitamin C 30%
Calcium 0%	• Iron 2%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	