



GROWING SQUASH AND PUMPKINS IN NAPA COUNTY

By Dean Donaldson, Farm Advisor

Squashes and pumpkins are members of the genus Cucurbita. Four Cucurbita species (*C. pepo*, *C. moschata*, *C. maxima*, and *C. mixta*) are commonly planted as squashes and pumpkins. These species will commonly interbreed to produce a variety of fruit colors, shapes and types. Squashes and pumpkins will not crossbreed with cucumber and muskmelon (genus Cucumis) or with watermelon (genus Citrullus). If fruits are eaten when young and soft, they are 'summer squash'. If the fruits are eaten after they mature on the vine with hard shells, they are 'winter squash'. Pumpkins have sweet meat and do not have very hard shells. There are both bush and vine types, but vine types produce more fruit.

KINDS TO PLANT

Summer Squash	Winter Squash	Pumpkins
Aristocrat Hybrid Zucchini	Buttercup	Cinderella
Burpee Hybrid Zucchini	Butternut	Big Max
Burpee Golden Crookneck	Spaghetti	Connecticut Field
Early Golden Summer	Sweet Meat	Jack-O-Lantern
Crookneck	Table Ace Acorn	
Gold Rush Zucchini	Tahitian	
Green Tint Bush Scallop	Turban	
Peter Pan Scallop		
Sunburst Scallop		

REQUIREMENTS

Squash and pumpkins are sensitive to frost and require full sun. They begin growing well when summer weather arrives. All are deep rooted, and need deep, penetrating irrigation with moderate soil fertility. Bees are required to transfer pollen from male to female flowers. Fruit producing flower open for one day only. Male flowers do not produce fruit.

SOIL PREPARATION AND PLANTING

Double dig the area you will plant to squash, pumpkins or other vine crops. Before planting, work 5-10-10 fertilizer, or equivalent, into the soil at the rate of 3 pounds per 100 square feet. Bury a second application of fertilizer in a furrow about a foot away from the stem when runners are about a foot long. Promote early fruiting by planting transplants. Plant seed directly into the soil after soil temperatures reach 75°F. A clear plastic cover 4 feet square can be placed over freshly prepared soil a week or two prior to planting to help warm the soil. Vine types of squash need 3 ft. by 10 ft. spacing, while bush types need 2 ft. by 6 ft. spacing. Pumpkins need 5 ft. by 10 ft. spacing. Seeds germinate best at soil temperatures above 75°F.

CARE

Squash require little water between seeding and true leaf formation. Moisten the soil only enough to prevent root damage from soil cracking. After plants are 3 inches tall, thin to one strong plant per planting spot. Lightly cultivate every week to remove all weeds until 6 weeks after planting. Deep soak to full root depth once per week. It is normal for vine leaves to wilt in the afternoon of very hot days. Normally those leaves recover in the evening and are in normal position the next morning. If leaves are wilted in the morning, deep soak. Avoid over watering. Vines are sensitive to root rotting diseases.

COMMON PROBLEMS

Damping off diseases kill seedlings when soil is too cold or too wet. Replace with transplants. Cucumber beetles, caterpillars, snails and other assorted insects attack young plants. Control with timed application of vegetable dust, or hand pick offending creatures. Excessive fertilizing or watering is bad and stunts or kills plants by favoring root diseases. Plant disease resistant cultivars and adjust watering practices to local weather conditions. Regular fruit harvest promotes flowering. Young fruits may rot due to splashing soil during irrigation. Remove promptly. Aphids, whiteflies, spider mites and mildew often attack later in the season and signal the end of harvest is near. Rodents may eat fruit and plants.

HARVESTING

Fruit harvest for table use is a matter of personal taste. Summer squash are picked soon after flowering (even flowers are eaten) until fruits are "too tough". Winter squash fruits may be harvested when young for use as summer squash, while mature fruits are left on the vine to ripen until the vine declines in the fall. Frost may damage winter squash fruits so harvest before frost is expected. Winter squash may be 'cured' in the field to make them more durable. Cut the fruits from the vine with a short stem attached to the fruit and let it sit in the field with the vines for a week or so. Clean winter squash fruits may be stored for future use in a well-ventilated location at 40 to 60°F. Pumpkin fruits may be eaten while young, but usually are left on the vine until they are mature with a firm skin.

TRICKS

Plant transplants after the soil warms up in mid May. Don't over water, especially early in the season. Rotating large pumpkins as they develop assures uniform growth and color development. Keep summer squash picked to promote consistent flowering.

Additional Reading:

Home Vegetable Gardening, UC ANR Publication #21444, 1992.

Pests of the Garden and Small Farm, UC ANR Publication #3332, 1990.

Planting Guide for Napa County, UCCE Napa County, mimeo, 1982.

Fruit Set Problems in Squash, Melons and Cucumbers in Home Gardens, UC ANR Leaflet 21242, 1981.

To simplify information, trade names of products have been used. No endorsement of named products is intended, nor is criticism implied of similar products which are not mentioned.