Squash, summer

(Cucurbita pepo)

Recommended Varieties	Disease Resistance
Scallop (patty pan)	
Peter Pan Hybrid (bush)	AAS
Sunburst (bright yellow)	AAS
Scallopini (bush)	AAS
Early White Bush (white)	
Yellow	
Early Prolific Straightneck	AAS
Sundance (crookneck compact)	
Early Golden Summer Crookneck	
Dixie (crookneck compact)	
Zucchini	
Aristocrat	AAS
Greyzini (compact)	AAS
Ambassador (compact)	PM
Gold Rush (golden fruit)	AAS
Burpee Fordhook	AAS

Summer squash grows on nonvining bushes. Many varieties have different fruit shapes and colors. The three main types include the yellow straight neck or crooked neck; the white, saucer shaped, scallop or patty pan; and the oblong, green, grey or gold zucchini. Soil containing plenty of well-rotted compost or manure is ideal, although good crops may be grown in average soils that have been fertilized adequately. For extra early fruit, plant seeds in peat pots in greenhouses or hotbeds and transplant about 3 weeks later after danger of frost is past. Older plants that have hardened off and stopped growth will not transplant well and should be discarded. Squashes are warm season plants and do not do well until soil and air temperatures are above 60^0 F.

Squash plants have separate male and female flowers on the same plant. The male flowers do not produce fruit but they do supply the pollen that fertilizes female flowers. Pollen must be transferred to the female flowers by bees for fruit to develop. Use insecticides late in the evening to prevent killing bees. See the review regarding fruit set problems in squash and its relatives by Hunter Johnson, Jr., retired University of California Cooperative Extension Vegetable Specialist, which is printed below.

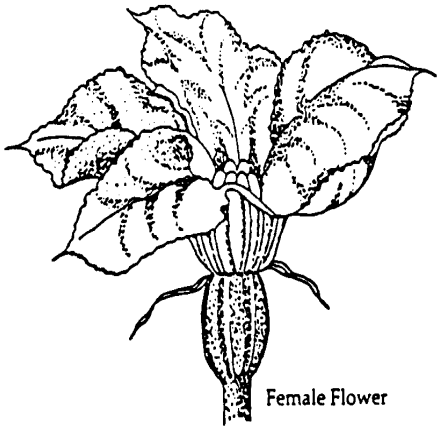
Seed or transplants can be planted through black plastic. Cover seed with I inch of soil. Under good growing conditions, fruits are ready for first harvest 50 to 65 days after seeds are planted. Zucchini types should be harvested when immature, about 6 to 8 inches long and 1-1/2 to 2 inches in diameter; patty-pan types, when 3 to 4 inches in diameter; yellow crookneck, when 4 to 7 inches

long. If the squash rind is too hard to be marked by a thumbnail, it is too old. Remove old fruit to allow new fruit to develop. Check plants daily once they begin to bear.

Fruit Set Problems In Squash, Melons, and Cucumbers in Home Gardens[1]

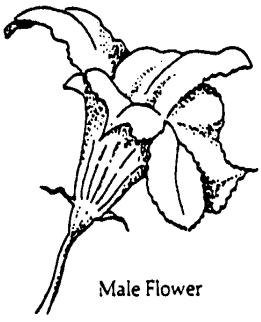
Squash, melons, and cucumbers belong to the same family, often called “cucurbits," and have a flowering habit which is unique among the vegetable crops. They bear two kinds of flowers, male and female, both on the same plant. In order for fruit set to occur, pollen from the male flower must be transferred to the female flower. The pollen is sticky; therefore, wind-blown pollination does not occur. Honeybees are the principal means by which pollen is transferred from the male to the female flower. Other insects cannot be depended upon for pollination. Farmers who grow these crops place hives of bees In their fields to insure that pollination takes place. Wild honeybees are rare in some urban neighborhoods, and when bees are absent, fruit set on garden plants in the cucurbit family is very poor and often non-existent. If only a few bees are present in the area, partial pollination may occur, resulting in misshapen fruit and low yield.

When no bees are present in the garden or the bee population is too low for good fruit set, the dedicated gardener can substitute for the bee by pollinating by hand. Hand pollination is a tedious chore, but it is the only means of obtaining fruit set in the absence of bees. The pollen is yellow in color and produced on the structure in the center of the male flower. You can use a small artists paintbrush to transfer pollen, or you can break off a male flower, remove its petals to expose the pollen-bearing structure, and roll the pollen onto the stigma in the center of the female flower. When hand-pollinating, it is important to use only freshly opened flowers. Flowers open early in the morning and are receptive for only one day.



The female flower in cucurbits can be recognized easily by the presence of a miniature fruit (ovary) at the base of the flower. Female squash flowers are much larger than the female flowers on melon and cucumber plants. The male squash flower can be identified by its long, slender stem. The female squash flower is borne on a very short stem.

In melons and cucumbers, male flowers have very short stems and are borne in clusters of three to five, while the females are borne singly on somewhat longer stems.



Squash Flowers

Gardeners often become concerned when many flowers appear early, but fruits fail to set. The reason for this is that all of the early flowers are males. Female flowers develop somewhat later and can be identified by the miniature fruit at the flower base. In hybrid varieties of summer squash, however, the first flowers to appear are usually females, and these will fail to develop unless there are male squash flowers -- and bees -- in the nearby area.

A common misconception is that squash, melons, and cucumbers will cross-pollinate. This is not true; the female flowers of each can be fertilized only by pollen from that same species. Varieties within each species, however, will cross-pollinate. Thus, zucchini squash will cross with crookneck or acorn squash, and similarly among varieties of cucumber, and among varieties of muskmelon. When more than one variety of a particular cucurbit is grown in the garden, they will readily cross, and seed saved from these plants will produce fruit which will be different from either of the parents.

[1]*The author is Hunter Johnson, Jr. retired University of California Cooperative Extension Vegetable Specialist, Riverside Campus.*

Nutritional Value of Summer Squash (crookneck, zucchini, other types)

Serving size:	1/2 cup slices, boiled	Primary Nutrients		%RDA(m)	%RDA(f)
Calories	18	Folic acid	18 mcg	9	10
Fat	0.3 g	Vitamin C	5 mg	8	8
Calories from fat	15%	Magnesium	22 mg	6	8
Cholesterol	0				
Sodium	1.0 mg				
Protein	0.8 g				
Carbohydrate	3.9 g			% Min Requirement	
Dietary fiber	1.3 g	Potassium	173 mg	8.7	

Problem Diagnosis for Summer Squash

Summer squash, *(Cucurbita pepo var. melopepo),* is a relative of winter squash, *(Cucurbita pepo var. melopepo), pumpkin (Cucurbita pepo var.* pepo), *melons (Cucumis melo)* -- cantaloupe, honeydew, crenshaw - cucumbers *(Cucumis sativus),* and watermelon *(Citrullus lanatus). The* cucurbits suffer from similar pests and diseases. See Problem Diagnosis for Cucumber to understand how to diagnose the most common insect pests and diseases that attack summer squash.