



## *Summer Vegetable Gardening Tips from Joyce Gemmell*

### *Melon*

#### *Cucurbitaceae Family*

Most of the melons grown in the U.S have a “netted” surface and the stem “slips” (cracks and pulls away from the fruit when it is ripe). They are “muskmelons”, *Cucumis melo* (reticulatus group). European cantaloupes, *Cucumis melo* (cantalupensis group) are the only ‘true’ cantaloupes and they have no netting and do not slip from the vine, which makes them perfect for trellis culture. Honeydew and Casaba make up another group, *Cucumis melo* (inodorus group). There are several other minor groups, Oriental pickling melon, vine peach, and the serpent cucumber (*Flexuosus* group) which is also called Armenian cucumber, which is not a cucumber but a melon!



All of these different ‘groups’ have the same genus and species – so will cross with each other. To save seed from any of these you must grow one variety of melon, hand pollinate or separate by ¼ mile.

#### CULTURE:

Muskmelons are a warm season crop, heavy feeder and water user. Plant seed direct in garden soil, or use transplants in April or May, depending on soil temperatures, the ideal being 55-60 degrees. If ground is warm and you use transplants, cover rows with black plastic mulch. This protects vines and fruit from damp soil fungus diseases and sow bug damage of the rind. In a heat spell if the vines sprawl and you do not cover the plastic with leaf cover, heat from the black plastic may radiate up to the vines and fruit and cause sunburn. Set plants next to a soaker hose or drip tape.

#### Planting Dates:

Coastal region: April - June.

Inland Region: April to June.

Melons need light (sandy) soil high in organic matter. Avoid poorly drained areas or heavy (clay) soil. They also need full sun and room to spread. Critical watering times are during flowering and as fruit develops. As melons reach their harvest date, it is recommended to water less frequently for sugar build-up. Off-flavor in melons is due to plant stress, insect or disease damage, low fertility and uneven watering.

#### PESTS & DISEASE:

Aphid and leaf-hoppers are a problem on young plants. If you notice ants running all over your plants, look for aphids on the underside of the leaves. Leaves will curl up tightly on the ends of the new growth. It is almost impossible to control aphids in this condition. Use Safer soap with a hose-end sprayer and use your hands to uncurl and wash off leaves; this only works if you catch it early. Leaf-hoppers can be prevented from staying on your plants if you use an aluminum foil mulch under the plants. The reflection (of sky) from the foil disorients the insect and it moves on. Try this... it works!

Powdery mildew and various mosaic virus diseases are serious problems. Use resistant varieties. Try baking soda for powdery mildew: one scant teaspoon per quart of water. According to Japanese researchers, if applied at weekly intervals, the baking soda will both prevent infection and stop development of the disease at an early stage, though field testing shows this only works for a while.

#### FRUIT SET:

Muskmelons naturally abort about 60-70% of the female flowers that bloom. The first to bloom will usually set fruit, if bees are present and temperatures are right. Each time the plant sets a fruit it aborts more flowers. Like other melons, they produce more female flowers than the plant can mature, so plants are more or less, self-thinning.

#### WATERMELON (*Citrullus lanatus*)

Watermelon will cross with other watermelons and with citron. Culture is the same as muskmelons (above.) All melons do very well under floating row covers. They trap heat and keep soil warmer at night. The most important advantage is protecting young plants from insects, virus infection and fungus spores. Row covers need to be removed when plants begin to bloom. Watermelons ripen generally, 42-56 days after pollination. Use this as a guide to picking. If

you are close to the maturity date for that variety, check the other signs that each variety has. Watermelons have a pale spot on the underside where they have been sitting on the soil. When the “ground spot” turns from pale green to white or slightly yellow, it’s ripe.



#### MUSKMELONS (*Cucumis melo*)

The melon is ripe when the surface is netted and the under color turns from green to yellow or orange and the stem begins to loosen (“slip”) and crack away from the melon. If you pick a melon up and it separates from the vine, it’s ripe. Also, check the tendrils closest to the melon. When they turn brown, the fruit is usually ripe. Try one and if it is not sweet, cut back on the watering and try another in a few days.



## Fruit Set Problems In Squash, Melons, And Cucumbers In Home Gardens

By Hunter Johnson Jr., Extension Vegetable Specialist, Univ. of CA, Riverside

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 sometimes 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 artist's 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.

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.

***Also check out ...***

UC websites for the Vegetable Research and Information Center (<http://vric.ucdavis.edu>) and Integrated Pest Management ([www.IPM.ucdavis.edu](http://www.IPM.ucdavis.edu))

***Nutritional Information...***

177 g (1 cup, balls. raw)

Calories	60 Calories
Protein	1.49 g
Carbohydrate	24.44 g
Total Fat	0.34 g
Fiber, total dietary	1.6 g
Calcium	16 mg
Iron	0.37 mg
Potassium	473 mg
Magnesium	21 mg
Phosphorus	27 mg
Sodium	28 mg
Zinc	0.32 mg
Vitamin A	5986 IU
Vitamin B6	0.127 mg
Vitamin C	65.0 mg
Folate	37 mcg
Niacin	1.299 mg
Riboflavin	0.034 mg
Thiamin	0.073 mg

Source: USDA Database