

## Home Gardening Series

# Muskmelon

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Vegetables

### Environment

**Light** – sunny  
**Soil** – well-drained, sandy  
**Fertility** – medium  
**pH** – 6.0 to 7.5  
**Temperature** – warm  
**Moisture** – average

### Culture

**Planting** – transplants or seed after  
danger of frost  
**Spacing** – hills 24-36 inches x  
48-60 inches  
**Hardiness** – very tender annual  
**Fertilizer** – heavy feeder

### Muskmelon – *Cucumis melo*

Muskmelons (also known as cantaloupe) are tender, warmth-loving vegetables. Muskmelons likely originated in Asia from India to Persia, with their center of development near what is Iran today. The culture of these melons spread to the Greeks and Romans and eventually to Spain. The Spanish introduced muskmelons to the Americas in 1535. They are members of the cucumber family, which also includes squash, pumpkins, watermelons and gourds.

Melons are divided into two groups: *Citrullus* (watermelons) and *Cucumis* (the muskmelon-cantaloupe group). The culture of muskmelons is similar to cucumbers, although they have a longer growing period. Most varieties popular in Arkansas have

salmon-colored flesh (some are green-fleshed) and netted rinds and are properly called muskmelons. The name describes the aroma (musk or perfume) of the ripe fruit.



Cantaloupe is the name used interchangeably with muskmelon for the round to oval, netted type of muskmelon grown in the Southwest. However, the true cantaloupe has a hard, warty rind and green flesh and is not widely grown in the United States.

Honeydew, crenshaw and casaba are smooth-skinned and are sometimes referred to as winter melons (the true winter melon is a Chinese vegetable). Their cultural requirements are similar to those of muskmelons. They are late in ripening (require the longest season) and lack a distinctive odor.

### Cultural Practices

#### Planting Time

Muskmelons are usually directly seeded. Unless the weather is warm, the seed will not germinate and the plants will not grow. Plant after the danger of frost has passed and the soil has warmed to 65 degrees F. Gardeners who want early production may start transplants three to four

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## Cultivars -

Crop	Cultivar	Days to Maturity	Seed Per 100 Feet of Row	Remarks
Muskmelon	Hales Best	82	1 ounce	Drought resistant, heavy yields, deep salmon flesh, good quality, an heirloom.
	Super 45 Hybrid	80	1 ounce	Orange flesh, heavy yields, ships well.
	Ambrosia Hybrid	84	1 ounce	Salmon flesh, good local market type.
	Fastbreak	65	1 ounce	Early and high yields; 3- to 4-pound fruit with thick, sweet flesh. Good for market and home gardeners.
	Athena Hybrid	80	1 ounce	Medium net, light sutures, firm flesh.
	Superstar Hybrid	86	1 ounce	Large, heavily netted melon, light sutures.
Charentais	Savor	78	1 ounce	French melon with gray-green rind, green sutures, aromatic orange flesh.
Canary	Amy Hybrid	70	1 ounce	AAS winner, smooth golden rind, white flesh.
Christmas	Lambkin Hybrid	70	1 ounce	AAS winner, splotchy, yellow and green rind, yellow flesh.

Abbreviation: **AAS**: All-America Selections®

weeks ahead of planting time. Since muskmelons do not transplant well if the roots are disturbed, you should start seed in individual containers. The proper temperature for germinating and growing the transplants is very important (72 to 78 degrees F).

## Spacing and Depth of Planting

Plant seeds 1 inch deep, and thin the seedlings to 18 to 24 inches apart or the equivalent (two plants every 36 inches or three plants every 48 inches in the hill system). Space rows at least 5 feet apart.

## Care

Fertile garden soils usually grow a fine crop of muskmelons with a preplant fertilizer application. Broadcast 3 pounds of 10-10-10 fertilizer per 100 square feet of row preplant. When the plants are 8 to 12 inches tall and the vines start to run, side-dress with another 3 pounds of fertilizer per 100 square feet of row about 6 inches on either side of the row. All melons respond favorably to mulching with black plastic, which can be installed when the soil is in good planting condition (any time from a few days to two or three weeks before planting). Make holes every 2 to 3 feet and plant seed or transplants. Use a starter fertilizer solution for transplants.

All muskmelons require pollination by bees for fruit growth to continue. They have both male and female flowers, which are only open and receptive to pollination for one day. If the female flower is not pollinated, the fruit shrivels up and falls off. Use plants such as salvias and sunflowers near the garden to attract bees.

Extremes in soil moisture (too much rain or extended drought) cause muskmelons to suffer. Irrigation is recommended in case of drought, especially when the vines are growing and the fruits are developing. Muskmelons ripen to highest quality when the vines remain healthy, the temperature is warm but not excessively high and the weather is comparatively dry at the time of maturity. About three weeks prior to harvesting the melons, you can begin to hold back on water. Plants may wilt some in the afternoon, but as long as they recover by morning, they have enough moisture. Excessive rain or irrigation right before harvest can lead to tasteless melons that split.

## Harvesting

Good eating quality depends upon the texture of the melon and development of sugars from proper ripening on the vines. When muskmelons are ripe, the rind changes from green to tan or yellow between the netting. Pick melons when the stem separates easily near the point of attachment (half-slip to full-slip stage of development). At these stages, there will be a crack near the point of attachment. Do not pick too early – quality will not be as high as that of melons that ripen on the vine.

Harvest early in the day when vines are dry, and be careful not to damage the vines. Pick every other day at the beginning of the season, and go over the patch every day at peak season. Honeydew and crenshaw melons do not slip and are cut off the vine before they turn completely yellow. These melons continue to improve (become soft and mellow) if kept at room temperature for a few days. When completely ripe, the blossom end is soft to pressure.

## Common Problems

Control cucumber beetles. They damage muskmelons and spread bacterial wilt by feeding on the plants. When possible, plant varieties that are resistant to fusarium wilt and leaf diseases such as powdery mildew and alternaria blight.

**diseases** – bacterial wilt (spread by cucumber beetles), fusarium wilt, leaf spot, powdery and downy mildews, alternaria blight and gummy stem blight

**insects** – cucumber beetles, squash vine borer, pickleworms, squash bug and aphids

**cultural** – poor flavor and lack of sweetness due to poor fertility, low potassium, magnesium or boron; cool temperatures; wet weather; poorly adapted variety; loss of leaves from disease or picking melons unripe. Poor pollination caused by wet, cool weather, lack of bee pollinators and planting too close result in excessive vegetative growth. A heavy rain when melons are ripening may cause some of the fruit to split open. Fruit in contact with soil may develop rotten spots or be damaged by insects on the bottom. Place a board or a couple inches of light mulching material, such as sawdust or straw, beneath each fruit until it is nearly full sized.

## Harvesting and Storage

**days to maturity** – 70 to 130

**harvest** – muskmelons are harvested at 3/4 slip; i.e., when the stem separates easily at the point of attachment

**approximate yields** (per 10 feet of row) – 8 to 40 pounds; more if trellised

**amount to raise per person** – 10 to 15 pounds

**storage** – medium-cool (40 to 50 degrees F), moist (80 to 85 percent relative humidity) conditions

**preservation** – cold storage or freeze

## Frequently Asked Questions

**Q. Some people call the fruit cantaloupe and others say it is muskmelon. Why is there this confusion?**

A. In the United States, we use the two terms interchangeably for the muskmelons. The true cantaloupe is named for the town of Cantalupo near Rome, Italy, and has a rough, warty (not netted) skin. This is the European cantaloupe and is rarely grown in America.

**Q. Can I apply uncomposted chicken litter or cow manure to the garden right before I plant a crop of muskmelons?**

A. Definitely not! Uncomposted litter or manure has a high percentage probability of salmonella or

*E. coli* infestation. The netting of these melons is difficult to clean and can easily trap these organisms, leading to food poisoning and serious illness when consumed. Follow the national organic standards which recommend natural composting of litter and manure products in the soil for 180 days prior to harvesting the crop. Smooth-skinned melons are easier to clean but still need to follow the same standards.

**Q. Why do the first blooms drop off my muskmelon plants?**

A. The first flowers to appear on the vines are male, and they drop naturally. The female flowers, which develop later, have a swelling at the base that forms the fruit. Bees will pollinate these female flowers, and the fruit develops. Since the flowers only open for one day, they must be pollinated that day.

**Q. What causes poor fruit set and low yields?**

A. The failure of female flowers to set and develop melons can result from lack of pollination by bees; cool, wet weather (which also slows bee activity) and planting too close (which results in a heavy growth of leaves). Too much nitrogen fertilizer will delay flowering.

**Q. How can I grow muskmelons in a small garden?**

A. Muskmelon plants can be trained to a fence or trellis. Soon after the fruit begins to enlarge, they should be supported with mesh bags tied to the supporting structure.

**Q. Will muskmelons cross-pollinate with other vine crops?**

A. No. Muskmelons will not cross-pollinate with cucumbers, watermelons, squash or pumpkins. Different varieties of muskmelon, cantaloupe, honeydew, crenshaw, Persian and canary cross-pollinate readily, but this cross-pollination will not be evident unless seeds are saved and planted the following year. Melons are not bitter because of cross-pollination.

**Q. Are bees necessary for pollination and fruit set in home-grown muskmelons?**

A. Yes. Bees are necessary for the pollination of all cucurbits. Although muskmelons produce some perfect flowers (those that contain male and female parts) which can set fruit without pollen from a male flower, an adequate supply of bees during bloom ensures an abundant muskmelon harvest. Most problems with fruit set in muskmelons are caused by a lack of pollinating insects when the plants bloom.

**Q. What is the best way to determine when a muskmelon is ready for harvest?**

A. A muskmelon is ready to harvest when the stem easily separates from the fruit. To avoid over-ripening, harvest muskmelon “slips” before they naturally separate from the vine. Check maturity of muskmelon by placing your thumb beside the stem and gently applying pressure to the side. If the stem separates easily, the muskmelon is ripe.

**Q. What is the difference between a honeydew and a muskmelon?**

A. Muskmelons develop a netting on the outside, while honeydew melons are smooth. Honeydew melons are closely related to muskmelon but ripen later. Most honeydew melons have white or green flesh and mature within 100 to 120 days after planting. Honeydew melons do not slip from the vine as muskmelons do and are mature when they become creamy to golden yellow in color and the blossom end softens slightly.

**Q. What causes poor flavor and lack of sweetness of fruits with smooth rinds?**

A. Poor soil fertility (especially low potassium and sulfur), cool temperatures, wet or cloudy weather, choice of a poorly adapted variety, loss of leaves by disease or picking the melons before they are ripe can all contribute to poor quality.

**Q. The foliage of my muskmelons is covered by brown dead spots that fall out and give the foliage a very tattered appearance.**

A. This disease, anthracnose, can be controlled with fungicide applications at 10- to 14-day intervals.

**Q. After the recent rains, my muskmelons began to rot. Around the base of the decay, there was a white fungal mat.**

A. This is southern blight. The control for this is mulching between the fruit and the soil. Heavy soils are more prone to this problem than light, sandy soils. Chemicals do not prevent this. Waterings should be light and quick so the soil does not stay wet for long.

**Q. The stems near the crown of my muskmelons are splitting, and an amber-colored ooze is forming around these cuts. Soon after this happens, the plants wilt and die.**

A. This is gummy stem blight. It is a soil-borne fungal disease that infects and kills young plants. It can be controlled with fungicide sprays applied at the crown of the plants when they are just beginning to form runners. Rotation within the garden also helps prevent this problem.

**Q. My muskmelon leaves look wilted and have a sticky substance all over them. What causes this?**

A. A wilted appearance and sticky honeydew on melons are characteristics of heavy aphid infestations. Control aphids on muskmelons with a recommended insecticide. Use as directed on the label.