

Vine crops such as cucumbers, muskmelons and watermelons can take up considerable garden space, but there are compact varieties suitable for backyard gardens. These crops are all members of the same plant family and have common growth requirements. Contrary to popular belief, they will not cross with one another to influence flavor. Off-flavors usually originate from bitter flavor compounds that develop during hot, dry weather. Under poor growing conditions, sugars do not mask these and other flavors. Cucumbers are native to India, and melons originated in the Middle East. Both of these crops are well adapted to the warm, dry Kansas weather.

Varieties

Select varieties with your preferred characteristics. For example, choose one of the new disease-resistant varieties or a compact or “bush” variety suitable for a small garden.

Cucumbers

Slicing and pickling type cucumbers are available, including many new hybrid varieties. Pickling cucumbers are firm, blocky, and mild in flavor. Slicers include Burpee Hybrid II, Dasher II, Diva, General Lee, Suyo Long, Raider, Sweet Slice, and Sweet Success, and several excellent small-vined cucumbers such as Bush Champion, Salad Bush, Spacemaster, and Patio Pik. Pickling types include Alibi, Bush Pickle, Pioneer, and Liberty. The mild-flavored “burpless” types are difficult to grow in exposed areas where heat and wind can damage the vines.

Muskmelons

The terms “muskmelon” and “cantaloupe” are used interchangeably. Hybrid varieties such as Burpee’s Hybrid, Supermarket, Harper Hybrid, and Ambrosia offer excellent flavor and vine vigor. Several new small-vined types including Minnesota Midget, Lilliput, and Musketeer are available. Earli-Dew, an early-maturing honeydew melon, has done well in K-State trials.

Watermelon

Crimson Sweet, developed at K-State, produces excellent, medium-sized fruit. Sangria and Allsweet are other medium-sized fruit that do well in Kansas. Small-fruited varieties also have smaller vines. For small-vined, “ice box” melons, consider Sugar Doll, Mini-Love, Sweet Beauty, Faerie, or Yellow Doll (yellow). Or try seedless types such as Summer Sweet, Yellow Buttercup, Gypsy, and Tri-X 313.

Soils and Fertilizer

Vine crops are warm-season vegetables that prefer deep, well-drained soils. Muskmelon, especially watermelon, do best in sandy areas while cucumbers can be grown well in heavier soils. If a soil analysis is not available, apply 1 to 2 pounds per 100 square feet of a 10-10-10 or 12-12-12 fertilizer and incorporate before planting. Vine crops may benefit from a light side-dressing of fertilizer trickled along the row when the vines are 10 to 12 inches long. This improves yields and summer vine vigor. Use 1 to 2 pounds of a high-nitrogen fertilizer such as a 29-5-4, 27-3-3 or similar per 100-foot row. Lawn fertilizers work well as long as they do not contain a weed preventer or weed killer. Nitrate of soda (16-0-0) can be used, doubling the rate to 2 to 4 pounds per 100-foot row.

Planting

Soils must be warm (65° to 70° F.) to encourage germination. Plant when all danger of frost is past. This is usually early to mid-May at the earliest for most of eastern and central Kansas. For cucumbers and muskmelons, plant one to three seeds per hill or cluster of plants, with hills spaced 2 feet apart in rows 5 to 6 feet apart. Small-vined watermelons can be planted at this rate, but large-fruited types should be planted 5 to 6 feet apart. Plant seeds ½ to 1 inch deep, firming the soil around the seed.

Transplanting

Many gardeners speed production by starting seeds indoors and transplanting outside after the danger of frost is past. Seeds should be started in peat pots or plantable containers 10 to 14 days before you are ready to transplant. Melon plants should have only one or two small sets of leaves when transplanted. These crops are sensitive to transplanting, so be careful not to damage the tap root when you set them out. Cover the plants with hot caps or a floating row cover to reduce the chance of frost damage or wind injury.

Transplanting works best when combined with plastic mulch, which helps warm the soil and prevent evaporation. Apply plastic mulch, then set the transplants or seeds through small holes that have been cut or burned into the plastic. A drip irrigation line can be placed down the middle of the row before laying the plastic to make plants easier to water. Plastic mulch is available at garden centers and nurseries.

Flowering and Pollination

Vine crops produce separate male and female flowers on the same plant. Both flower types are yellow, but the female flowers have a miniature fruit at the base. Only the female flowers will develop fruit. Male flowers usually appear first and often outnumber the female flowers. Bees transfer pollen to the female flowers. The flowers are open in the morning and early afternoon when bees are active. Poor pollination can result in misshapen or underdeveloped fruit. Avoid spraying insecticides on plants when flowers are open. The insecticide Sevin is especially deadly to bees if the active ingredient is carbaryl. Spray when the flowers are closed in the evening to control insects without harming insect pollinators.

Cultivation and Care

Vine crops are easy to cultivate. Control weeds before they become large by scraping lightly with a hoe. Irrigate during dry periods to encourage heavy yields. Vines need the most water when growing vigorously and starting to set fruit. Reduce watering as production begins. Too much water encourages foliar diseases and reduces the sweetness of muskmelon and watermelon. Soaking the soil or using furrow irrigation will reduce the chance of foliar diseases.

Harvest

Harvest fruit as it ripens to increase yields. Pick cucumbers when they reach full size and the skin color is still dark green. Older, soft fruit with hard seeds have poor flavor. Pick muskmelons when the stem slips easily from the melon and leaves a clean, dish-shaped scar on the fruit. At the full-slip stage, you will notice a strong, musky aroma. Harvest watermelon when the underside turns a buttery yellow color. The small tendril, the curly string-like projection where the fruit attaches to the main vine, usually dries up when the melon is fully ripe.

Nutritional Value and Use

Cucumbers are usually grown for flavor rather than nutritional benefits. Muskmelon provides some vitamin A and C, and all vine crops provide minerals to varying

degrees. Cucumbers can be used in salads or pickled. See [Preserve it Fresh, Preserve it Safe Cucumbers](#) (MF1184) for more information on pickling. Melons are usually eaten fresh, but gardeners can freeze melon balls in a sugar syrup.

Insect Pests

Two types of cucumber beetles can harm cucumbers and melons. One is yellow and black spotted and the other striped. Both types of beetles feed on plants early in the season, injecting bacteria that causes plants to wilt and die. A floating row cover can be used to protect young plants, but edges must be sealed to keep the beetles from entering. Eventually row covers have to be removed so bees can pollinate the flowers. If a row cover is not used or has been removed, it may be necessary to spray to protect the plants. Products containing permethrin or carbaryl (Sevin) are available to homeowners, but these insecticides, especially Sevin, are toxic to bees. Once plants have started flowering, spray in the evening after bees have returned to the hive and flowers are closed. Continue to spray weekly throughout the growing season.

Aphids harm cucumber and melon plants by sucking out plant juices and causing twisted or distorted growth. Permethrin products will control aphids and cucumber beetles, but Sevin does not. Other insects are of minor importance but may develop in certain years.

Diseases

Vine crops also can develop foliar leaf blight diseases in warm, damp periods. Anthracnose and alternaria are the most common. They appear as brown spots (black on watermelon), usually on older leaves near the base of the plants. Use fungicides containing chlorothalonil or mancozeb as labeled. Powdery mildew may develop on muskmelons and cucumbers. As the name suggests, this disease organism produces a powdery white growth that spreads covering the leaves if not controlled. Warm, damp weather favors disease development. Myclobutanil products should be used for control. Diseases can be managed by rotating crops, using quality seed, and correcting problems when they first develop.

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