



UConn Home & Garden Education Center



Cucurbits: Cucumbers and Squash

Site and Soil

Cucurbits grow best in full sun sites with good air circulation and prefers soil that is moist, well drained, fertile and rich in organic matter. The soil's pH should range from 5.5 to 6.8. Lime and fertilizer rates of application should be based on periodic soil tests. Natural fertilizers such as compost and manures, and slow-release commercial fertilizers along with limestone are effective when tilled into soil before planting time.

Varieties

There are many varieties of cucumbers and squash with great variation in shape, size, color, taste and texture. Squash plants are herbaceous (non-woody) annuals, either winter or summer types. Summer squashes are harvested as immature fruit, while winter squashes are harvested as mature fruit.

Varieties of Cucurbits Suitable for Growing in Connecticut

Pickling cucumbers	Alibi, Calypso (res. to PM), County Fair (res. to bacterial wilt), Cross Country, Little Leaf-19 (less attractive to Cucumber beetles)
Slicing cucumbers	County Fair (res. to bacterial wilt), Dasher II (res. to PM), Diva, General Lee, Marketmore 76 (res. to PM)
Bush Scallop	Peter Pan, White Ruffles, Sunburst
Spaghetti	Orangetti, Vegetable Spaghetti, Tivoli (bush-type)
Summer Green	Seneca Zucchini, Zucchini Elite, Cocozells Bush, Ambassador, Milano, A and C Zucchini improved
Summer Yellow	Early Prolific Straight neck, Seneca Prolific, Sundance, Dixie, Goldrush, Multipik
Winter	Waltham Butternut, Buttercup, Bush Buttercup, Gold Delicious, Table Queen, Cream of the Crop, Blue Hubbard, Golden Hubbard

Planting

Cucurbits are a warm season crop that must be planted after all danger of frost is past and the soil has warmed. They grow best at temperatures between 65°F to 75°F. Seeds germinate poorly at low soil temperatures, therefore, wait until the soil is 60°F before planting. Plant seeds one inch deep and 12 inches apart in rows 40 inches apart, or plant several seeds in hills that are three feet apart. Thin plants in rows so they are two to three feet apart and thin plants in hills to two or three plants per hill. For vine-type squash, thin plants four to six feet apart.

Care

It is important to control the weeds through frequent shallow cultivation and/or with the use of mulches. A black plastic mulch stops all weed growth and can help in warming the soil. If using an organic mulch, wait until early July before laying it down to allow the ground to warm. Cultivate all the weeds before applying the mulch. Desirable materials include straw, saltmarsh hay or sawdust. Hay should be avoided because it may contain weed seeds. Avoid using fresh lawn clippings or clippings from a lawn that was treated with an herbicide within the last six weeks.

Cucurbits require a plentiful supply of water. Keep the soil evenly moist throughout the season. If it does not rain, an application of an inch of water per week will be enough.

Cucumber plants may be monoecious with male and female flowers on the same plant, gynoecious, with predominately female flowers (a few monoecious seeds may be included for pollination), or parthenocarpic which do not require pollination for fruit to set.

Squash plants are monoecious, having male and female flowers on the same plant. Male blossoms appear first on a long stalk which often lifts the flower above the foliage. The female flowers are on a short stalk that resembles a small fruit. Squash requires cross-pollination, which is done mainly by bees or other insects. Different varieties of squash will cross-pollinate, so do not save seed if different varieties are grown in the same area and flower at the same time. Cross-pollination will not affect the look or taste of this year's fruit. It can affect the look and taste of the squash grown from the seed of the cross-pollinated plants. Bush varieties are excellent choices for gardeners with small plots. Most of the summer squash are bush varieties.

Harvest

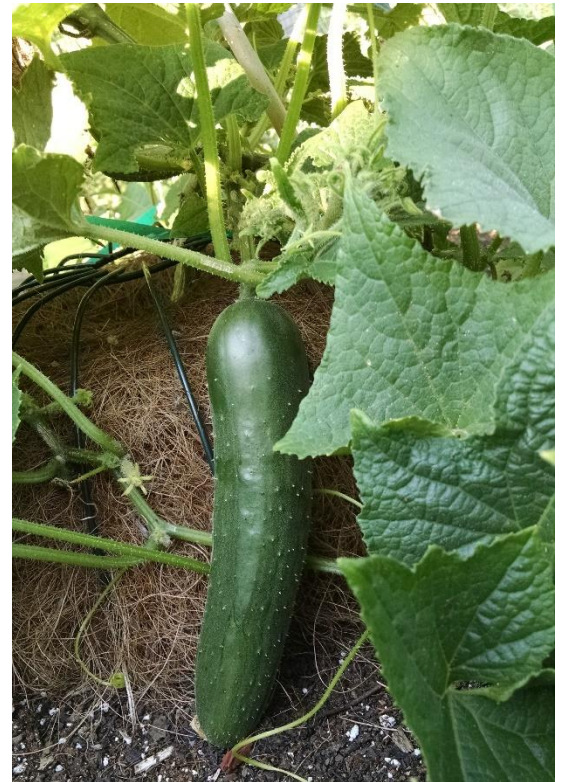
Harvest cucumbers and summer squash throughout the growing season. Pick summer squash with elongated fruits when they are less than three inches in diameter and up to eight inches long.

Scallop squashes are harvested at three to four inches in diameter. Winter squash should be picked when mature and fruits have hard rinds. If pumpkins and winter squash are picked prior to the seeds filling out then the plant will use starch reserves from the flesh to fill out the seeds resulting in a poorer flesh quality. Acorn and delicata squash along with pie pumpkins may be eaten immediately after harvest but butternut, Hubbard, and kabocha must be stored (cured) for 5-10 days at 80°F with 80-85% relative humidity and night temperatures above 60°F. This is not necessary for squash that will stored long-term.

Insects, Diseases and Other pests


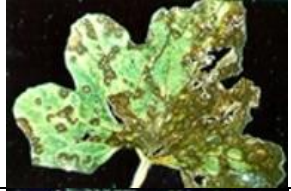






Cucurbit plants are subject to insect pests, mites and diseases. Their damage can be reduced by taking some preventive measures such as planting disease-free seed or transplants, selecting disease-resistant varieties, removing and destroying all diseased plants, controlling weeds properly, using crop rotation and keeping the garden and nearby area free of debris.


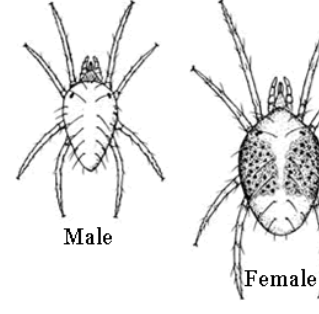
Blossom end rot of fruits may be caused by inadequate or uneven water supply and excessive nitrogen and certain other conditions which interfere with calcium nutrition in the fruit. Internal hardening, discoloration, or tissue collapse may be present even if there are no outward signs (image on right). Maintain a consistent water supply (1-2" per week) and mulch around plant bases to help conserve moisture during hot, dry periods. Fertilizers should have low nitrogen, look for ratios of 4-12-4 or 5-20-5. Soil pH should be in the 6.0-6.5 range. There are no resistant varieties. Blossom end rot can also affect eggplant, peppers, tomatoes, and watermelon.



Disorder

Symptom

<p>Angular Leaf Spot</p>		<p>Angular, water-soaked spots 1/8" to 1/4" across. Later spots dry up and drop out of leaf.</p>
<p>Anthracnose</p>		<p>Angular black spots 1/4" to 1/2" across on foliage. On fruit, sunken spots, pink at first, later turning black.</p>
<p>Downy Mildew</p>		<p>Yellow, irregular spots on uppers sides of leaves. Grayish-purple fungus growth on underside of leaves.</p>
<p><u>Powdery Mildew</u></p>		<p>Powdery gray-white growth on leaves and petioles. Premature defoliation often occurs.</p>
<p>Bacterial Wilt</p>		<p>Individual leaves wilt and turn dull green. Gradually the entire plant wilts and dies.</p>
<p>Cucumber Beetle</p>		<p>Beetle 1/5" long, yellow, three black strips down back. Generally appear at the end of May. Adults overwinter in debris in or near the garden. Transmits wilt disease.</p>
<p><u>Squash Vine Borer</u></p>		<p>White larvae of a clear-winged moth bore into stems of pumpkins and squash. Overwinters as a pupa in the soil, emerging in late June.</p>
<p>Squash Bug</p>		<p>Adults are flat, brown with orange on the abdomen, about 3/4" long. Young are gray with black legs. Eggs are brownish and in patches on stems and underside of leaves.</p>

<p>Melon Aphid</p>		<p>Small, greenish-yellow to black insects found on new growth and underside of leaf.</p>
<p><u>Spider Mites</u></p>		<p>Very small, yellow or reddish mites. Yellowish feeding spots on foliage. Webs may also be seen.</p>

Please contact the UConn Home and Garden Education Center for control suggestions.

Despite good cultural practices, pests and diseases at times may appear. Chemical control should be used only after all other methods have failed.

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