

Chinese Vegetables

Chinese vegetables include Chinese cabbage, bok choy, mustard greens, winter radish, snow peas, yard-long beans, and varieties of melons, eggplant and cucumbers, among others. These vegetables are becoming more familiar to an increasingly diverse population and the popularity of ethnic foods. Many Chinese vegetables will grow well in the home garden.

GROWING COOL-SEASON CROPS

Many common Chinese vegetables are cole crops (cabbage relatives) that perform well as cool-season crops in South Carolina. These include Chinese or napa cabbage, bok choy, mustards, and Chinese broccoli. Snow peas are also grown during the winter or early spring.

Planting: Cole crops should be grown in early spring or fall. If planting in spring, it is essential to plant early enough to ensure that the crop is harvested before temperatures become too hot. Most will bolt (produce a flower stalk) if exposed to a prolonged cold period following a favorable growing period. Transplants are best for spring plantings, but fall plantings may be directly seeded into the row.

Many Chinese greens seeds are small and should be planted shallowly and then thinned to the desired spacing. Raised beds can be used to ensure good drainage. It is critical to keep the soil evenly moist during seedling establishment, especially for summer or fall plantings.

Fertilizing: It is best to base fertilizer application on the results of a soil test. Information on soil testing is available in the fact sheet HGIC 1652, *Soil Testing*. If a soil test has not been taken, apply 5-10-10 at 3 pounds per 100 square feet before planting. The soil pH must be between 6.0 and 6.4 for best growth. Mix fertilizers thoroughly with the soil to prevent root burning.

Watering: These vegetables grow best with uniform soil moisture. Water the garden in the morning so that the foliage is dry before dark. Water sufficiently to moisten the soil to a depth of at least 6 inches. Avoid light sprinklings, which encourage shallow rooting. The critical periods for moisture are stand establishment and crop maturation. Mulching can help conserve water and reduce weeds. Use very shallow cultivation to help keep these crops free of weeds.

Common Problems: Cole crops will bolt (produce a flower stalk) if exposed to a prolonged cold period following a favorable growing period, followed by warm conditions. This is a problem of spring-planted and overwintered crops. The larger the plants are at the time of exposure to the cold period, the higher the incidence of bolting. Lack of nitrogen or other nutrient stresses as well as competition from weeds, insects or diseases that slow vegetative growth can also promote flowering. Some varieties are more susceptible to bolting than are other varieties.

Bolting can be prevented by:

- Maintaining a steady, moderate rate of growth.
- Setting out young, healthy transplants that have not been stressed.
- Watering well when transplanting to start root growth and remove air pockets from the soil.
- Planting at the correct time for your area.
- Growing slow-bolting varieties.

The Chinese cole crops are affected by the same pests and diseases that affect other cabbage relatives. These include the imported cabbageworm, cabbage loopers, Harlequin bugs, cabbage maggots, aphids and flea beetles.

Common disease problems include black rot, wire stem, downy mildew and *Alternaria* leaf spot. Grubs, nematodes and sometimes wireworms may damage Chinese radishes.

COOL-SEASON CHINESE VEGETABLES

Chinese Cabbage: This close cousin of regular cabbage is also known as celery cabbage. Chinese cabbage forms dense heads that may be very upright and tall (michili types) or round or barrel shaped (napa types). The leaves are slightly wrinkled and thinner than leaves of regular cabbage with wide, crisp midribs.

Chinese cabbage is best sown in late summer and autumn rather than spring. If seed is sown in spring young plants may bolt if they are frosted or exposed to a long period of cold nights.

Sow the seed thinly in the row, and thin the plants to 12 inches apart for michili types, and 18 inches apart for napa types.

- ‘Michili’ has an elongated semi-heading shape that resembles romaine lettuce and light green leaves with a broad white midrib.
- ‘China Pride’ is a napa type that forms a 5½ pound head. It is tolerant of downy mildew, bacterial soft rot and tip burn.
- ‘Jade Pagoda’ is a michili type that is best for fall planting. It is widely adapted, slow-bolting and produces high yields.

Bok Choy (*Brassica chinensis*): These plants have many names including pak choy, bok-choi, celery mustard and spoon cabbage. They form loose upright heads with dark green leaves and thick, crisp, white or pale green ribs. Most varieties are bolt-resistant:

- ‘Joi-choi’ is vigorous, uniform and slow-bolting. The plants are upright with dark green leaves, ivory stems and fine, spoon-shaped stalks. ‘Joi Choi’ is very tolerant of cold weather.
- ‘Chin-Chiang’ is a fast-growing baby bok choy that is resistant to high temperatures and matures in 30 days.
- ‘Mei Qing choy’ is a baby bok choy with light green stems and paddle-shaped leaves.

Tat soi: This very hardy green forms a flattened, thick rosette of dark green, spoon-shaped leaves. It is good for growth as a winter crop because mature plants can withstand frost and snow. Sow seed in the fall or plant transplants in spring with 4 to 6 inches between plants in rows 2 to 3 feet apart. Spring sown plants are prone to bolting.

Chinese Broccoli: This popular bunching green is also called Chinese kale or kai lan. Chinese broccoli is grown for its tender, thickened, flower stalks and young leaves. It does not form a head and is similar to European broccoli rabe.

Plants need 55 to 70 days from a fall seeding to harvest. They grow best during cool weather. Harvest just before

flowers open. Cut the center stem first, leaving a long stub to encourage the side shoots to develop

Chinese Mustards: Chinese mustards are usually broad-leaved greens, sometimes red-leafed with green ribs. There are many varieties and forms. Most have a pleasantly spicy flavor. Young leaves can be used in salads, while older leaves — which are stronger flavored — are steamed or stir-fried. Grow them as you would regular mustard greens.

- ‘Tendergreen’ is slow-bolting with a long harvest period.
- ‘Savanna’ is an exceptionally early maturing variety with thick, deep green leaves with a mild flavor. It holds well in the garden.
- ‘Red Giant’ has striking red purple leaves and can grow to 2 feet or more. It is very pungent when mature and is best used while young.

Chinese Radishes: Chinese radishes — also known as lo bok — are usually similar to Japanese daikon with long white cylindrical roots. Some varieties are yellowish, green or black, with oblong or spherical roots. The leaves are generally hairless and can be eaten as cooked greens. The roots are generally quite large, often 2 to 4 inches in diameter and 6 to 20 inches long. They are eaten raw, cooked or pickled.

Chinese radishes are bigger than the common radish and need more space and a longer growing season. A deep, loose, moist, fertile soil is required. Plant in late winter or early spring for spring and summer use and in late summer for fall harvest.

- ‘Shunkyo Semi-Long’ This distinctive 4-to 5-inch long, cylindrical, pink radish matures in 32 days. The flavor is both hot and sweet.
- ‘China Rose’ The roots are 4 to 5 inches long, elongated and thicker at the bottom than at the top. The skin is deep rose with crisp white flesh. Good keeper. 52 days.
- ‘Chinese White’ The roots are elongated, 6 to 8 inches long and wider at the lower end. The skin and flesh are pure white and mild flavored. It is good for pickling and winter storage. Matures in 50 to 60 days.
- ‘Misato Rose Flesh’ The roots are round to oblong, 4 inches in diameter with a mild sweet flavor. The skin is pale green and white with rose pink flesh. This variety is very cold-tolerant and stores well.

Snow Peas: This edible podded pea is one of the most expensive fresh vegetables, and since its flavor deteriorates quickly after harvest, it is well worth growing at home. The pods are very tender and sweet if eaten while young before the peas develop.

Grow the vigorous vines as you would other peas, providing trellising for support. Plant seed about 1 inch deep six to eight weeks before the last expected spring killing frost in single rows with seed spaced about 5 inches apart. Maintain good soil moisture during bloom and pod development for the best quality. The plants will decline rapidly in hot, dry weather. Harvest before the peas expand.

- ‘Oregon Sugar Pod II’ The pods are smooth, stringless, and 4 to 5 inches long on 28-to 30-inch vines. This variety is resistant to powdery mildew.

WARM-SEASON CROPS

Some Chinese vegetables that grow best in warm seasons include: Chinese spinach, yard-long beans, Chinese okra or luffa, bitter and winter melons, and Chinese eggplant and cucumbers.

Since these vegetables are from several different families, their cultural needs vary. They are covered under each individual crop.

Chinese Spinach: This green — also known as calaloo or hin choy — is actually a type of amaranth or Joseph’s Coat grown for its edible leaves. Amaranths vary in foliage color, leaf shape, plant height and flavor. Several varieties are grown as bedding plants, and some are also grown for grain. Greens types of amaranths usually grow from 2 to 4 feet tall. They grow best in sunny, raised beds with well-fertilized soils and plenty of moisture. Chinese spinach thrives in hot weather and if grown in cool seasons, the leaves may be tough and poor quality.

Sow the tiny seeds ½ inch deep or less after the soil is thoroughly warm, and keep the bed evenly moist. Thin young plants to 6 inches apart. Pinch the growing tips to force the plant to branch and make more new and tender growth. Begin harvesting greens five to six weeks after sowing.

- ‘Merah’ Coleus leaf is another name for this attractive and especially flavorful variety. The leaf centers are dark magenta, surrounded by lime green.

Yard-long Beans (*Vigna unguiculata*): These unusual beans are known as Chinese long beans, asparagus beans or dau gok. They are closely related to black-eyed peas and cowpeas, but their long pods are eaten fresh like pole beans.

Grow them as you would pole beans. They are easy to grow but very sensitive to cold. Plant seeds ½ to 1 inch deep and 3 inches apart after soils have warmed thoroughly in late spring. Plants need a sturdy trellis on

which to climb. Harvest the pods while they are still tender, ideally while less than the thickness of a pencil. While the pods can grow up to 3 feet in length, they are best when only 10 to 12 inches in length.

The plants are tolerant of high temperature and acid soils but intolerant of cold temperatures, and under low soil moisture the pods are short and fibrous. Yard-long beans will produce well where high temperatures prevent flower set of snap beans.

Chinese Okra: This squash relative — also known as luffa — is called Chinese okra because of the okra-like shape and pronounced ribbing of its fruit. It is also known as dishcloth gourd or luffa when fully mature. It is harvested for eating while still tender. Plants are vigorous growing vines related to melons and squash, and are grown in the same way. Plants are more productive when trained on a trellis and can produce 10 to 20 fruit per plant.

Fruits are elongated, cylindrical and may be more than a foot long. The angled luffa (*Luffa acutangula*) is more tender and best for use as a vegetable. The smooth luffa (*L. aegyptiaca*) which is without ribs is much more fibrous and is best for growing as dishcloth or sponge gourds.

Plant seed after all danger of frost is past and the soil is warm in hills 3 feet apart in rows at least 4 feet apart. For maximum production, trellis the plants. Cultural requirements are the same as for other members of the cucurbit family. Fruit for consumption as a vegetable is ready to harvest in about 100 days. Harvest when 6 to 8 inches in length and still tender. Allow another 30 days for the fruit to fully mature if it is to be used as a gourd or as a dishcloth.

Bitter Melon (*Momordica charantia*): This vigorous annual cucurbit vine is also known as bitter gourd, balsam pear or foo gwa. It produces sour or bitter fruit that look like small, light green, warty cucumbers. Varieties with lighter green skin are usually milder in flavor. The young immature fruit are stuffed, used in stir fries or pickled. Once the fruit begins to turn yellow or the fruit splits, it is no longer edible.

Grow bitter melon as you would grow cantaloupe or honeydew melons. Start seed indoors and plant out when the weather is warm. They grow best with a trellis to climb on in fertile soil and abundant water.

The fruits grow rapidly during hot weather and, like cucumbers, must be harvested daily to keep the fruits from becoming too large. Fruits are sensitive to chilling injury and should not be stored below 55 °F.

Winter melon (*Benincasa hispida*): This squashlike vegetable is widely used steamed, stir fried and in a special soup served in its own shell. It is called winter melon because it will store through the winter after harvesting. The large fruit are pale sea green with a thick waxy coating, and shaped like round or oblong pumpkins. This fruit takes about five months to mature from seed. Since they store well, they are often planted to mature in midautumn as are pumpkins. Their cultural requirements are similar to winter squash or pumpkins. They need warmth and lots of water in the growing season. Immature fruits can also be harvested for fresh use.

Cucumbers: Chinese varieties of cucumbers are usually thin, long and with smaller seeds than standard American slicers. The skin may have ridges or be smooth. They are generally not bitter and have a very pleasant slightly sweet taste. They are best grown on a trellis to produce straight fruit. Otherwise, grow them as you would regular slicing cucumbers.

- “Suyo Long” The slender fruit are 12 to 18 inches long with spiny, darkgreen, ribbed skin. This type is highly productive, with powdery mildew resistance and good heat tolerance.

Eggplant: Chinese varieties are usually very long and thin, and white, lavender-streaked or purple. They are picked while still young and tender and eaten cooked as a vegetable or stuffed with minced meat. Most will not need peeling when picked young. Plants may need to be supported so that the long fruits will grow straight. Otherwise, grow them as you would regular eggplants.

- ‘Pingtung Long’ The 10-to 11-inch long fruits are very slender and tender with glossy purple skin. Plants are heavy-yielding and tolerate extreme heat and wetness.

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