

ORIENTAL VEGETABLE PRODUCTION

PLANTING



PLANTING SEASON

All of the oriental vegetable seeds are small and should be planted shallow. Except for the radishes, you may want to overseed and thin to a desired stand. Use raised beds (rows) to insure adequate drainage. Be careful to avoid packing the soil before germination and emergence or in the early stages of growth. Straw can be scattered thinly over the beds to help prevent packing. Keep the upper level of the soil evenly moist to get quick, even germination. Frequent, light irrigation is necessary in the fall to get a good stand. After the crops germinate, heavier irrigation should be used to avoid the development of shallow root system.

In general, all of these crops are easier to grow in the fall than they are in the spring. Bolting (premature flowering) can be a problem in the spring with almost all of these vegetables if they are planted too early, or if the spring is unusually cold. Variety selection is very important in the spring since some varieties are more resistant to bolting.

FERTILIZATION

Soil testing and fertilizer recommendations should always be followed when growing oriental vegetables. But without a soil test, use 4-6 lb of 10-10-10 or 8-8-8 per 100 ft of row. For larger plantings, the fertility and cultural practices of oriental vegetables are very similar to those of cabbage, broccoli, collards, turnips, or greens depending on the plant size and shape. Fertilizers should be well mixed with the soil to prevent root burning. The pH should be adjusted before planting to around 6.0-6.2. Three weeks after planting, side-dress with calcium nitrate (1.5 to 3 lb per 100 ft of row). Use the higher rate for the larger direct-seeded or transplanted crops. Side-dress root crops very lightly at least 30 days before expected harvest.

DISEASE AND PEST CONTROL

All of these crops will tolerate Dacthal or Treflan used as an herbicide, but **always read and follow label instructions carefully**. Using very shallow cultivation will help to keep these crops free of weeds. Do not plow soil toward the row because this will cause disease problems such as stem and foliage rots. Alternaria leaf spot (black spot) will affect many of these crops under the right weather conditions. The cabbage insect complex will probably be the most serious insect problem, although sometimes aphids (plant lice) may be seen on some of the crops. Grubs and sometimes wireworms will damage the radishes. Nematodes can be very severe on the fall root crops. This will cause major problems with malformed or forked roots. Do not follow crops which tend to build up nematode populations (cucumbers, tomatoes, or legumes) with oriental radishes.

POSTHARVEST

If these crops are to be packed before selling, you must get packing sizes and grading requirements from your prospective buyers before the harvest. Most buyers are very strict about their packing requirements. Often, restaurants aren't as concerned about packing sizes or containers as a retailer, but your potential for large volume sales is greater with a retailer. These crops can also make a great addition to your regular roadside or market garden items.

The following chart describes some of the more popular oriental vegetables and a few specifics on production requirements.

<i>Name</i>	<i>Common Name</i>	<i>Description</i>	<i>Time to Grow</i>	<i>Planting and Harvesting</i>
Napa	Chinese cabbage	Large, barrel-shaped heads.	65-90 days	Direct-seed in the fall, transplant in the spring. 3' rows, 10-12" between plants.
Bok Choy	Celery cabbage	Large petioles are eaten, leaves are usually discarded.	65-90 days	Direct-seed in the fall, transplant in the spring. 3' rows, 10-12" between plants.
Heading Mustard		Large loose heads, very strong flavored.	65-90 days	Direct-seed in the spring and fall. 2-3' rows, 10-12" between plants.
Choy Sum		Like a small bok choy plant, petioles and leaves eaten.	35-45 days	Harvest just as the flower stalk begins to form. Direct-seed in the fall and spring. 3' between beds, 12" between rows, 6" between plants.
Nyyu		Small, slightly flattened bok choy-like plant with dark green leaves. Leaves and petioles are eaten, can be used after the flower stalk has begun to form.	45-60 days	Direct-seed in the fall and spring. 2-3' rows, 4-6" between plants or twin rows at 12" x 6" staggered. Can bolt severely if spring weather is cold or the crop is planted too early.
Pu Napa	Baby napa	Smaller, more cylindrical heads often used at the loose leaf, non-headed stage.	35-75 days	Direct-seed in the fall and spring. 3' single rows, 4-6" between plants, loose leaf - twin rows - 12" x 6".

<i>Name</i>	<i>Common Name</i>	<i>Description</i>	<i>Time to Grow</i>	<i>Planting and Harvesting</i>
Chinese Radish		Long, large turnip-like root crop. 12-24" long, 2-4 lb. Pickling and some fresh uses.	45-60 days	Direct-seed in the fall and spring. Will bolt if planted out of season. There are all-season varieties.
Daikon		Japanese radish, more pungent than most Chinese or Korean radishes. Also longer and thinner. Pickled or stir-fried with ginger and soy sauce.	55 days	Direct-seed, twin row 12" x 6"
Korean Radishes		Large 4-6 lb turnip-like vegetable. Pickling and fresh uses.	50-70 days	Direct-seed. 3' rows, 8-10" between plants. This variety bolts 100% if planted in the spring. Fall planting only.
Yutoy or Yu Choy	Edible rape	Small, dark green plant. Leaves and central flower stalk with opened and unopened flowers are eaten. Harvest just as the flowers begin to open, very popular.	35-60 days	Direct-seed in the fall or spring. Multiple rows per bed, 12" x 4"
Chinese Broccoli	(Guy Lon or Kailon) Chinese white-flowered kale	Smaller than European broccoli, loose-headed small flower stalks with white flowers eaten with some of the flowers open.	45-60 days	Direct-seed in spring and fall. 3' beds with double rows, 12" x 6" can use wide beds with multiple rows.
Mizuna	Japanese mustard	Will form large clump-like head. Not as pungent as some mustard. Used in salads, cooked, or pickled.	45 days	Direct-seed single or multiple rows, 2-6" between plants, 12" between rows.
Tah Tsai or Tatsoi		Chinese flat cabbage, dark green leaves, grows as a flattened rosette after early spring planting.	45-60 days	Upright when planted in warmer seasons. Direct-seed or spring transplant. Will bolt if spring is cold. 2-3' rows, 4-6" between plants or twin rows/bed 12" x 6" staggered.

<i>Name</i>	<i>Common Name</i>	<i>Description</i>	<i>Time to Grow</i>	<i>Planting and Harvesting</i>
Shanghai Cabbage		Small, stocky bok choy-like plant with wide, light green petioles. This is the part which is eaten, leaves are discarded. Very popular in eastern China.	50-65 days	Direct-seed in the spring or fall. 3' beds, double rows, 12" x 8".
Leafy Mustard		Like American curly mustard, fairly strong-flavored, used as a green or pickled.	40-60 days	Direct-seed in the fall and spring. 2-3' rows, 2-4" between plants. Can be broadcast onto wide beds.
Swollen-Stem Mustard		Much like leafy mustard, but the large swollen stem is also eaten.		Grow like leafy mustard allowing slightly more room between plants.
Chong ak Moo		Small Korean radish. Swollen on the bottom end.		Picked young (2-4"). The roots and leaves are pickled and eaten fresh (cooked). 2-3' between rows, 4" between plants. Can be planted on wide beds in multiple rows. Direct-seed in the fall or spring. Some bolting can be seen some springs.

This list includes **some** of the sources for many of these oriental vegetable crops.

Sakata Seed
2709 Cabbage Ct.
Ft. Myers, FL 33901
(813)939-0093

Stokes Seeds, Inc.
Box 548
Buffalo, NY 14240

Holmes Seed Co.
2125 46th St. NW
Canton, OH 44709

Otis Twilley Seed Co. Inc.
PO Box 65
Trevose, PA 19053-0065

Sunrise Enterprises
PO Box 1960
Chesterfield, VA 23832

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The mention of a specific product or company does not imply endorsement by Clemson Extension Service
Call your local Extension office for more information.

