# **Asian Greens**



# Brassica sp.

Asian greens are a diverse group of leafy vegetables most prevalent in Asian cooking. In order to simplify this category we have included Chinese & Savoy cabbages, Pac choi, and mustards. Asian greens can be grown directly from seed or purchased as transplants. Generally, Pac choi and mustards are easier to grow than cabbages. All Asian greens prefer cooler weather, mustard greens even survive through winter with minimal protection.

# **SITE REQUIREMENTS**

Asian greens require full to part sun, at least 5-6 hours of direct sun, and well-drained soil. Prepare the planting area by mixing 2-3" of composted manure and lime into the top 4-6" of the soil. In addition, mix in an all-purpose granular fertilizer and lime in the bottom of each planting row. Asian greens are also excellent in containers at least 8" deep.

## **PLANTING**

Start seeds for Pac choi and Chinese & Savoy cabbages indoors February through March, 6-8 weeks before desired transplanting date. Harden off seedlings to outdoor temperatures by setting them in a cold frame for a week before planting. If you do not have a cold frame, set seedlings outdoors in the day and indoors at night for a week before planting.

Transplants can go into the garden as early as two weeks before the last frost date (April 15<sup>th</sup> in Portland). Plant cabbage seedlings 12-18" apart in rows 18-36" apart, and water in with liquid seaweed or B1. Cover your new planting with floating row cover to prevent attacks from cabbage loopers, aphids and other chewing insects that love Asian greens.

Asian greens can be directly sown in your garden March through early June in the Portland area. Be sure to amend planting area with 2-3" of composted manure before sowing seeds. Plant seeds ¼" deep in rows 18-36" apart. Seedlings should be thinned 12-18" apart when they have at least two true leaves.

Seeds for a fall harvest should be started in flats in July and August. Seedlings can go in the ground once they have 2-3 sets of true leaves. Fall harvested greens can be directly seeded August through September. Asian greens are very sensitive to heat, so plant in the shade of larger summer crops such as cucumbers or potatoes. Transplants for leafy Asian greens can go in the ground through mid September.

# **WATER REQUIREMENTS**

How much to water your plants will require depends on the soil and weather. Water new transplants daily, or when the top 2" of the soil is dry. Once they reach 12" Asian greens need average, evenly moist soil. Avoid overhead irrigation, instead use drip or flood irrigation or hand watering. Mulch around plants to retain soil moisture.

### **FERTILIZING**

The cabbages are heavy feeders and benefit from a side dressing of composted manure or all purpose granular fertilizer two weeks after transplanting. Repeat side dressing once a month for the next two months. The leafier greens, Pac choi and mustard, benefit from a foliar spray of liquid fish emulsion every 3-4 weeks.

# **HARVESTING & STORAGE**

Chinese cabbages are ready to harvest when the head is firm. Start checking when the heads reach about 12". Leafy greens such as mustards and Pac choi are ready to harvest about one month after transplanting. You can pick outer leaves to maintain a continual harvest, or cut entire clump about 1" above the ground and wait another month for a second harvest of smaller clumps.

Heads of Chinese cabbage can be stored refrigerated for 7-14 days. Leafy greens are best eaten fresh, but will store 2-5 days refrigerated.

## **PESTS & DISEASES**

Some problems that can occur with Asian greens are due to weather and cultural conditions. Plants will bolt (go to flower) quickly in reaction to hot weather and drought. Correct planting time, moderate and consistent moisture, soil amending, and row covers are all strategies to improve growing conditions.

\*Damping-off occurs in cool, wet weather and prevents seedlings from emerging or causes seedlings to die off. Replant new seeds in an area with better drainage, or add more compost and wait for warmer weather.

\*Cutworms can often mow down all of your seedlings in one night. They can also eat holes into the leaves and stems. Spinosad is an organic control for cutworms. Nematodes can help control cutworms also.

\*Cabbage loopers and imported cabbage worms leave large irregular holes in leaves coupled with bits of green excrement. They can also burrow holes in cabbage heads. For prevention cover new seed beds with floating row cover. Spray with Bt to stop infestation.

\*Aphid damage often appears as curled, deformed, or yellow leaves. You may find colonies of green or grey aphids on the undersides of the leaves and growing tips. Also, sticky sap on leaves and stems and white aphid skeletons are quite prevalent. There are numerous sprays and control measures to help combat aphids.

\*Flea beetles chew dozens of tiny holes in the leaves. For prevention, cover new seed beds with floating row cover until plants are 8" tall. Dust with diatomaceous earth or spray with pyrethrin.

\*Mildews appear as white patches, preceded by reddish patches, on the leaves and stems. Both downy and powdery mildew are fungal issues. Downy mildew can also cause roots to be misshapen with rough, cracked skin. First remove as much of the infected areas as possible. There are numerous fungicides listed for edibles, such as Serenade, that can prevent the spread of powdery mildew.

\*Snails and slugs leave large holes in leaves or eat new transplants when they feed at night. They often leave iridescent trails on leaves and the ground. Slug baits and beer traps are just two ways to control them.

\*Club root is a soil fungus that stunts and deforms roots. It may kill seedlings or weaken older plants. Infected plants become stunted and wilt on warm days and leaves may turn slightly yellow. There is no cure for club root, and the fungus will persist in the soil for many years. Remove and destroy infected plants, including the soil ball around the roots. Plant new transplants in a different area of the garden. Do not plant brassica crops in an area that has had club root for at least 7 years.

\*Fusarium Wilt is also known as cabbage yellows. Leaves turn yellow and they may twist and eventually drop off. There is no cure, and the fungus will remain in the soil for many years. Remove and destroy infected plants. Start new plants in a different area.

### **VARIETIES**

Chinese Cabbage

- \*China Express- 62 days. Attractive green barrel-shaped heads of Chinese Cabbage. Good bolt resistance.
- \*Napa Blues-65 days to harvest. Slow to bolt. Tender green leaves. Disease resistant. Great for Kim Chee.
- \*Savoy Express- 55 days. The compact plant can be grown at close spacing about a foot apart in the garden. Small, round heads, about 1-1 ½ pounds. Recommended for planting as a spring or fall crop.

### Pac Choi

- \*Bonsai Dwarf 45 days. Compact plants yielding 6" heads. Delicious, tender and great for soups and stir fry. Green leaves and lighter green stems. Bolt resistant.
- \*Joi Choi-45 days. Dark green leaves with juicy white ribs. A large, fast growing variety. Mild flavor, slow bolting.
- \*Tah Tsai- 40-50 days. Flattened heads of glossy, green leaves and small mid ribs. Especially tender and great in salad or stir fry mixes. Available in Territorial Seed.
- \*Violetta- 50 days. Beautiful burgundy leaves and green ribs. Crisp, sweet flavor. Beautiful in containers! Territorial seeds.

#### Mustard

- \*Mizuna- 45-50 days. Tender, juicy, not spicy. Great for salads and sandwiches.
- \*Red Giant- 45 days. Rich purple leaves and spicy flavor. Great for spring, fall and winter harvest.
- \*Ruby Streaks- 45 days. Feathery maroon leaves adds great texture and spice to salads.

