

Broccoli

Brassica oleracea



Broccoli thrives in cool weather and rich soils. It is best to grow multiple varieties from transplants. Broccoli is a member of the brassica family and should be planted in an area that has not grown other brassicas (arugula, cabbage, kale, radishes, choy etc) for at least one year for optimum pest prevention. Fall plantings tend to have fewer pest problems and bigger heads.

SITE REQUIREMENTS

Broccoli does best in full sun (at least six hours of direct sun). It thrives in rich well drained soil with a pH between 6.0-7.5. Mix in a shovel full of composted manure, granular all purpose fertilizer and lime to each planting hole.

PLANTING

Planting broccoli from starts usually yields greater success than direct seeding. You can start seeds indoors under lights 6-8 weeks before last frost. In Portland the seeding window is mid February through March. 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.

Prepare planting area as described above in the site requirements section. Transplants can go into the garden as early as two weeks before the last frost date (April 15th in Portland). Plant seedlings 1-2' 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 broccoli.

Broccoli can be directly sown in your garden April through July in the Portland area. Be sure to amend planting area with 4" of composted manure before sowing seeds. Plant seeds ¼ " deep in rows 24-36" apart. Seedlings should be thinned 18-24" apart when they have at least two true leaves.

Seeds for a fall harvest should be started in flats in July and early August. Seedlings can go in the ground once they have 2-3 sets of true leaves. Broccoli is very sensitive to heat, so plant in the shade of larger summer crops such as cucumbers or potatoes. Transplants can go in the ground through the end of August.

Broccoli can also be grown in containers. Choose a pot at least 12" wide and deep. The soil mix should be 1/3 planting compost and 2/3 potting soil. Varieties such as DeCicco and Packman produce good for pots.

WATER REQUIREMENTS

Broccoli needs average evenly moist soil. Do not use overhead irrigation.

FERTILIZING

Broccoli is a heavy feeder and benefits from a side dressing of composted manure or all purpose granular fertilizer two weeks after transplanting and when the main head begins to form.

HARVESTING & STORAGE

There are two types of broccoli. One is the standard with single, large, compact heads commonly seen at markets. The other is the oldest variety called sprouting broccoli that produces many small, shoots. On standard spring planted broccoli, when the central head reaches 1 inch across it should be ready to harvest in about a week depending on weather. Heads should be dark green. If they start to turn yellow they are past their prime.

However, fall planted broccoli is slower to mature and yields larger heads. If day time temperatures are in the 50s or below, you can leave the heads on the plants through the winter and trim off the side shoots. Be sure to cover plants in extremely cold weather.

PESTS & DISEASES

Many problems that can occur with broccoli are due to weather and cultural conditions. Plants will bolt in reaction to hot weather and drought. They form tiny button like heads if planted when it is too cold. Correct planting time, moderate, consistent moisture, soil amending and row covers are all strategies to maximize broccoli growing conditions.

*Damping-off occurs in cool wet weather and prevents seedling 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. 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 broccoli 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.

*Root rot may appear as pale or yellowing leaves and stunted plants. Roots will be dry and black at the center. It is caused by a soil fungus initiated by overwatering and/or very heavy soil. There is no recovery from root rot. Amend soil with at least 2" of compost and allow the area to become slightly dry between waterings to avoid root rot.

*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.

VARIETIES

- *Blue Wind** Compared to Packman, Blue Wind is a day earlier, much more attractive, a little easier to harvest and more uniform. Medium size heads. Good for spring and summer plantings. 49 days to maturity.
- *De Cicco** A flavorful Italian variety. Main head 3" across good side shoot production. Long harvest period. Good for spring and fall planting. 48 days to maturity.
- *Early Dividend** Earliest variety, bears medium-size heads, then quickly produces 3-4" secondary heads. 46 days to maturity.
- *Green Comet** Deep green, 6-7" heads with small, tight buds. Good heat and disease resistance. 55 days to maturity.
- *Packman** Dark green, 9" wide, tight, uniform heads w/large beads. 27" tall. Delicious and excellent for freezing. Early & dependable. A good variety for spring planting. Produces good side shoots. 55 days to maturity.
- *Premium Crop** Blue-green, long-lasting, tight heads. 8" tall. Excellent quality. 65 days to maturity.
- *Marathon** Great variety for fall and winter production. 68 days to maturity.
- Raab** Broccoli Raab is an Italian vegetable also savored for its leaves and stems. Not a true broccoli but produces many tiny broccoli like edible flower heads. A great early crop, sow outdoors in February and March. 60 days to maturity.