

Broccoli

(*Brassica oleracea*)

Recommended Varieties

Green Comet
Premium Crop
Green Goliath
Green Duke
Green Valiant
Emperor
Packman

Disease Resistance

AAS, H
AAS

BR, DM, HS

Broccoli matures in 60 to 90 days, depending on the time of year and the variety planted. Late season varieties (those that overwinter) are not suitable for planting in the home garden. Broccoli grows in most of the cooler areas of the state throughout the year. In the warmer interior valleys, you can grow a fall crop and, sometimes, an early spring crop. If temperatures get too high, broccoli will "bolt" into premature flower stalks that will bloom and go to seed.

The immature flower heads, parts of the attached small leaves, and a considerable portion of the stem -- 4 to 8 inches -- are edible. Harvest before the flower buds open. One planting may produce for as long as 3 months in the late fall or winter because of production from axillary shoots that produce small heads after the main one is removed.

It is best not to plant Brassica family crops (cole crops, such as cabbage, broccoli, cauliflower, brussels sprouts, turnips, collard and mustard greens,) in the same spot year after year, since diseases and insect pests will build up. Rotate crops in your garden.

Nutritional Value

| Serving size: | 1/2 cup, chopped, boiled | <u>Primary Nutrients</u> | <u>%RDA(m)</u> | <u>%RDA(f)</u> | |
|-------------------|--------------------------|--------------------------|----------------|----------------|---------------------------|
| Calories | 22 | Vitamin C | 58 mg | 97 | 97 |
| Fat | 0.3 g | Folic acid | 39 mcg | 20 | 22 |
| Calories from fat | 11% | Vitamin A | 108 RE | 1.1 | 14 |
| Cholesterol | 0 | Iron | 0.65 mg | 6.5 | 4.3 |
| Sodium | 20 mg | Vitamin B6 | 0.11 mg | 5.5 | 7 |
| Protein | 23 g | Magnesium | 19 mg | 5 | 7 |
| Carbohydrate | 4.0 g | Riboflavin | 0.09 mg | 5 | 7 |
| Dietary fiber | 2.0 g | | | | |
| | | | | | <u>% Min. Requirement</u> |
| | | Potassium | 228 mg | | 11 |

Problem Diagnosis for Broccoli

| What the Problem Looks Like | Probable Cause | Comments |
|--|--|---|
| Irregular holes in leaves. Chewed leaves. Small seedling plants destroyed. | Caterpillars (cabbage loopers, armyworms) Snails, slugs | <i>Bacillus thuringiensis</i> is very effective. |
| Small holes in leaves Chewed growing points in young plants. Loose cocoon about 1/3 inch long on leaves. | Diamondback moth caterpillar | <i>Bacillus thuringiensis</i> is very effective. Older plants not damaged. Destroy weeds (mustard type) before planting. |
| Deformed, curled leaves. Colonies of gray-green insects on leaves. Sticky honeydew. | Aphids | Use insecticidal soap spray. Control ants with sticky barrier or insecticide Encourage beneficials. |
| Distorted leaves turning brown. Wilted plants. | Harlequin bug | insects suck fluids from plant tissue. Hand-pick bugs and egg masses. Remove old, nonproductive cole crops -- wild radish, mustard -- since they're alternate hosts. |
| Tunnels through roots. Plants fail to grow, may wilt, die. Feeding tunnels in germinating seedlings, which fail to produce plants. | Cabbage maggot | Prevent infestation. No practical control when maggots occur on growing crop. Seep. 5 1. |
| Stunted, wilted plants. Leaves yellowish-colored. Small, glistening white specks on roots. | Cyst nematode | Rotate. Do not plant cole crops on same site year after year. |
| Wilted plants. Swollen, misshapen roots. Roots rot; plant dies in later stages. | Clubroot Caused by the fungus <i>Plasmodiophora brassicae</i> | Common in acid soils. Add lime if pH is below 7.2. Rotate out of crucifer crops for at least 2 years. |
| Irregular, yellowish areas on upper leaf surface; greyish powder on undersides. | Downy mildew | Improve air circulation. Tolerate it. Plant resistant varieties. |
| Heads suddenly split | Improper watering | Do not allow soil to get too dry. If it does get too dry, apply water slowly at first. |
| Bolting | Physiological disorder | Plant at right time. |

| What the Problem Looks Like | Probable Cause | Comments |
|------------------------------------|-----------------------|---|
| Heads soft and rotted | Bacterial soft rot | Rotate; plant in well-drained soil. |
| Leaves riddled with shotholes | Flea beetles | Control weeds. Use rotenone with insecticidal soap. |