Broccoli

Our cool Cache Valley spring and fall seasons are perfectly adapted to growing broccoli – it's the heat of summer that makes broccoli go bitter and flower prematurely. Among Cole crops (cabbage and its other close relatives), broccoli is arguably the best all around choice for the home gardener: it bears over a long season and is not difficult to grow. Plants reach 2-3 feet tall and send up a central stalk that bears a cluster of dark or light green flower buds. When that central cluster is removed, side branches will lengthen and produce smaller clusters, increasing the harvest. Broccoli is an excellent 2-season (spring and fall planting) crop to enjoy in your garden.

SOIL PREPARATION

Broccoli prefer a sandy soil, rich in organic matter, well drained, and not too heavy. They also need full sun exposure. Before planting, incorporate 1-2 inches of well composted organic matter, Humic, and 1 lb. of all-purpose fertilizer (we recommend "That's all it Takes" complete fertilizer or Happy Frog Organic Tomato & Vegetable Food) per 100 square feet and work them in to a depth of 4-6 inches. Heavy, clay-based soils must be amended with compost and organic matter to encourage and allow for good root development. For best results, add 2-4 inches of a variety of different types of organic matter and 50 lbs. of Zeolite soil conditioner per 100 square feet each fall for multiple years to increase drainage and nutrient availability. By doing this yearly, over time you can create a better growing environment for your garden plants to thrive in and produce. Please consult our Soil Preparation Guide in the attached appendix.

PLANTING

Like other Cole crops, broccoli tends to bolt when temperatures are high so plant in cool weather (March & April). Young plants can resist a light frost but not a hard freeze, but don't wait until May. Heat can stunt the early development of your crop. When planting starts, place seeds or transplants 1.5-2 feet apart in the row, with 3 feet between rows. Planting into plastic or fabric mulches will accelerate early growth and encourage higher yields as well as suppress weed development. For best results, water immediately after transplanting with Kangaroots rooting solution and again for the first 2-3 waterings. This will prevent transplant shock and give your transplants the best possible opportunity to thrive. When planting seed, plant 2 seeds every 12-18" and about $\frac{1}{4} - \frac{3}{4}$ inch deep, and thin the sprouts when plants have 3-4 true leaves.



First Harvest

VARIETIES

There are many great varieties offered that grow well in Utah such as Imperial (50 days), Premium Crop (65 days), Destiny (really large heads, 65 days), and Waltham. Artwork, a new variety of Broccolini, resists heat and produces asparagus-like stems with small heads that are very popular in gourmet restaurants. Artwork will produce a continuous harvest of literally dozens of delicious heads in one season. When the heads are about 2 inches in diameter cut the stem 4-6 inches from the head and 3-5 more heads will quickly develop. Very heat tolerant, and can produce from May to October in cooler climates

WATER

Water broccoli deep and infrequently while trying to maintain even soil moisture. Broccoli needs consistent watering for high quality and quantity production. Water stress during growth and bud production will result in premature flowering, bitter taste, and poor quality. Use a soaker hose for uniform water distribution and water deep every 5-7 days to maintain soil moisture during these essential growth stages. A light compost mulch can help as well if daytime temperatures start to climb over 80 degrees. Moisture is essential, but too much water can result in root rot diseases and slow plant growth. Be consistent!

FERTILIZER

Apply ½ cup per 10 feet of row of "That's All it Takes" complete fertilizer or Happy Frog Organic Tomato & Vegetable Food 4 weeks after transplanting or thinning to encourage vigorous plant growth. Apply an additional ¼ cup of nitrogen-based fertilizer when the broccoli head is the size of a quarter. Fertilize again after main head is harvested to encourage side shoot growth. Place the fertilizer 6 inches to the side of the plant and work it lightly into the soil before watering.

We also recommend treating your broccoli seed or plants with beneficial microbes and mycorrhizae (Kangaroots or Myke). These added helpers bring nutrients and water directly to the plants that host them, making them stronger, more resistant to insects and diseases, and



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<u>CCOLI</u>		
Group A, E		
Rows		
18-24″		
2-3' 1/4" 50-75 Days		
		1/2", 3x weekly
		Direct
Weeds Cabbage Loopers, Leaf Miners, Flea Beetles, Aphids Heat causes bolting		

COMMON PROBLEMS

Keep the weeds to a minimum with the use of plastic and organic mulches. We prefer the Dewitt Pro 5 weed barrier as it allows water and nutrients to pass through, but stops even the most difficult weeds as they germinate. Treflan and Corn Gluten weed preventative herbicides are also very effective ways to stop weeds before they start, saving you hours and hours of weeding. Be sure to control weeds when they are small to ensure damage is not done to broccoli root systems when weeds are removed. Practice good crop rotation to discourage pest problems. Broccoli is subject to aphids, cabbage loopers, imported cabbage worms, and cabbage root maggots. Row covers will help protect plants from all of these pests early. All of the caterpillars may also be controlled using Bacillus thuringiensis (B.T.), spinosad, or pyrethrin. We prefer to spray Spinosad (since it is bacterial, it has no effect on people or pets) early or late in the day for best caterpillar control. Aphids can be controlled with an insecticide like Ferti-lome Spinosad Soap or Ferti-lome Triple Action.

HARVESTING

Broccoli should be harvested when the heads are compact but before the flower buds open. Mature heads are 6-12 inches in diameter and should be cut with stems 8-10 inches long. With additional water and fertilizer, broccoli will produce many 4-6 inch long side-shoots. Broccoli can be stored for 1-2 weeks at 35 degrees Fahrenheit and 95% relative humidity in the refrigerator. Blanch and flash freeze for long-term freezer storage.

