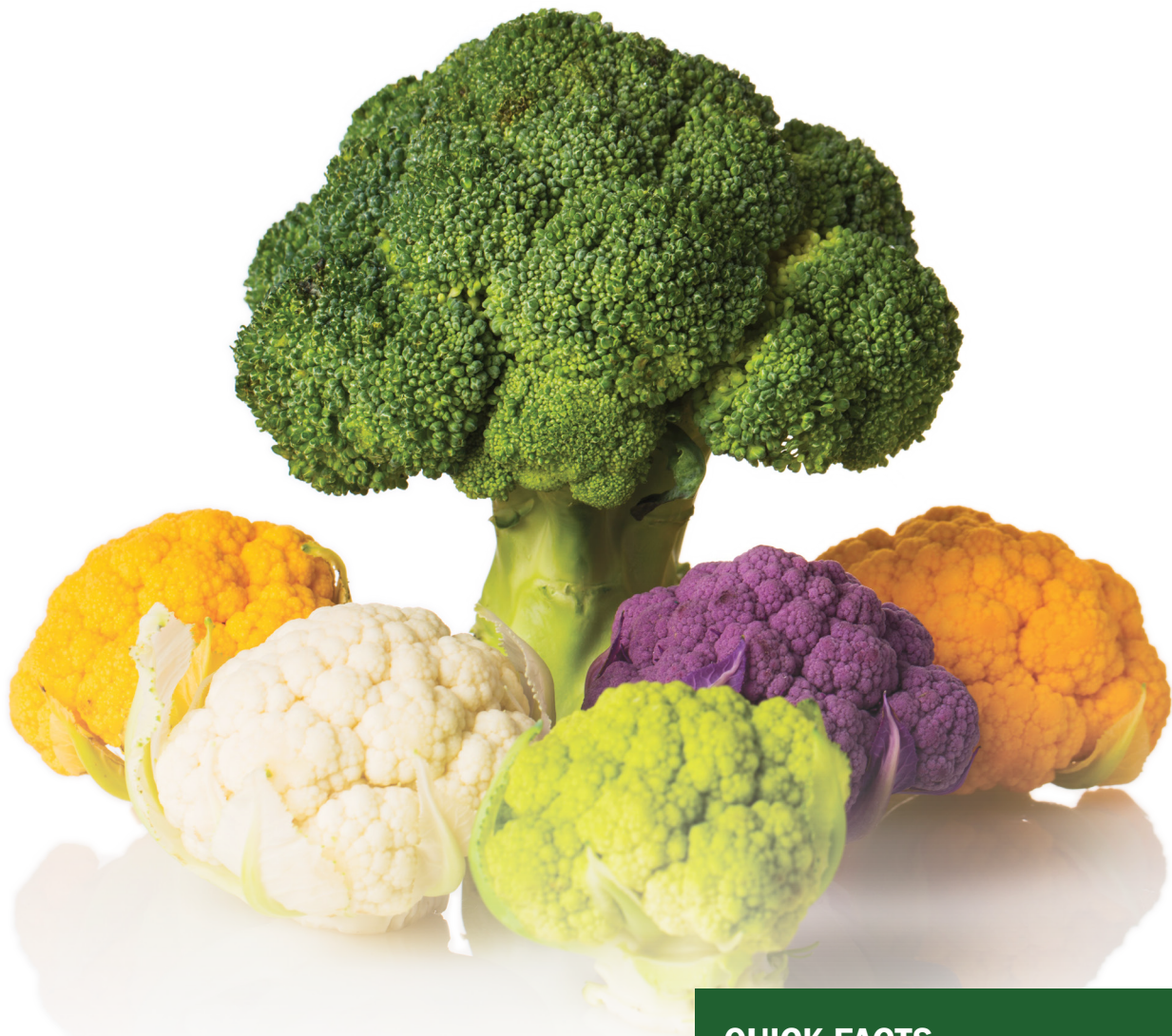


SUSTAINABLE GARDENING

FOR SCHOOL AND HOME GARDENS

Broccoli & Cauliflower

Brassica oleraceae



QUICK FACTS

- Plant family: *Brassicaceae* or *Cruciferae* (Mustard, Crucifers, Cabbage)
- Season: Cool
- Life cycle: Biennial, but grown as an annual
- Transplant to first harvest: 75-90 days



Create a Sustainable Garden by improving soil health, relying on locally available materials and resources, and practicing environmentally sound horticultural practices

History

Broccoli and cauliflower are herbaceous plants (meaning they have nonwoody stems) and are widely adapted throughout temperate and subtropical regions of the world. They are closely related members of the Brassicaceae family, also known as the cabbage family, which includes other cool-season cole crops like cabbages, Brussels sprouts, kale, kohlrabi, collards and radishes (see Figure 1). Cole crops can tolerate frost, are generally hardy and mature in cool weather. The name broccoli came from the Italian word “brocco,” meaning “shoot,” which refers to sprouting broccoli. The name cauliflower is believed to have been derived from the Italian word “cavolfiore,” meaning “cabbage flower.”

The Romans grew sprouting broccoli in the 1st century in areas around the Mediterranean Sea. It is believed that heading broccoli was derived from leafy cole crops during the 6th century in the northern Mediterranean region. Around 1720, broccoli was introduced to England and then to the U.S. in the early 1800s by an immigrant from southern Europe. It wasn't until the early 1900s that broccoli became popular in the U.S. Today, the U.S. is the largest world producer of broccoli (see Figure 2).

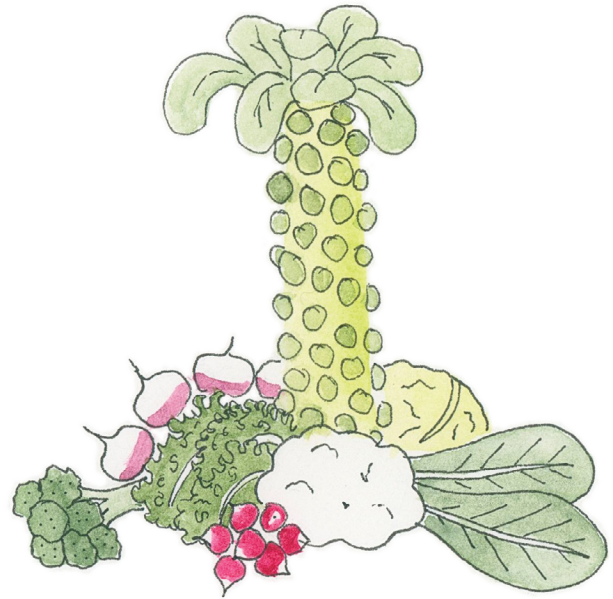


Figure 1. Broccoli and cauliflower belong to the Brassicaceae plant family, along with cabbage, Brussels sprouts, kale, collards, radishes and many more.

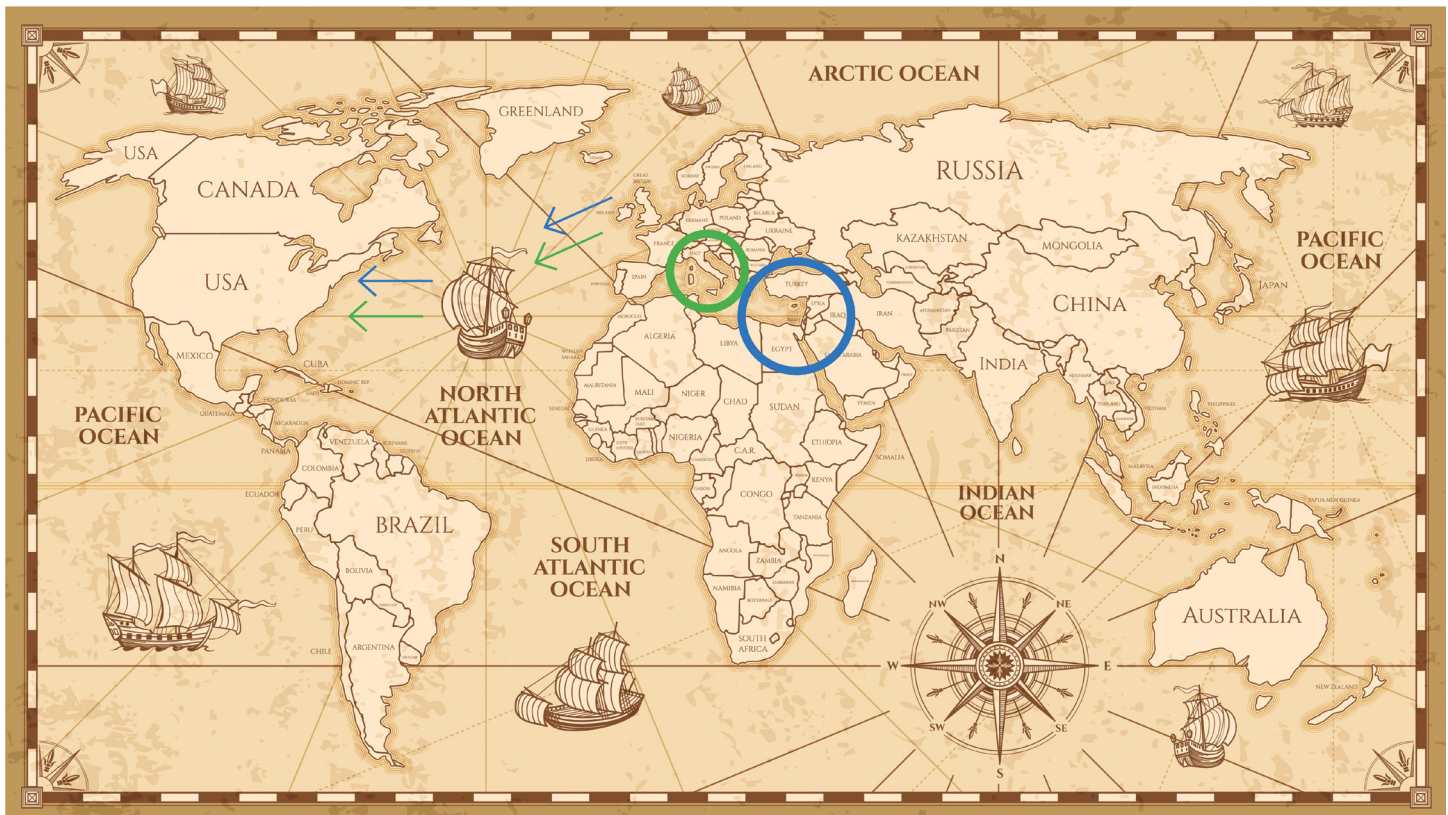


Figure 2. Map showing the origin and migration of broccoli (green) and cauliflower (blue) to the U.S.

Cauliflower likely originated in the eastern Mediterranean region from a genetic mutation of wild leafy cabbage resulting in a heading flowerlike growth (cauliflower) rather than a single bud (cabbage). The earliest records of this crop date to the 6th century B.C. There is documentation that cauliflower was grown in Turkey and Egypt during the 16th century before being introduced to England and France in the 17th century. As with broccoli, cauliflower was likely brought to the U.S. in the early 1800s, with popularity rising in the 1900s. Heat-tolerant forms of cauliflower have been developed in India over the past 200 years using European varieties (see Figure 2). Most types of broccoli

tend to be annuals (one life cycle per year) that do not require a cold period (vernalization) for head formation or flowering. The part that is consumed is a flower structure (inflorescence) with many closely spaced flower buds clustered in a head. The tender portion of the stem is also eaten.

Cauliflower may be either annual or biennial (the plant's life cycle from seed to flower takes one or two years, respectively) based on variety, but is most commonly grown as an annual crop. The white flowering head of a cauliflower is botanically an undifferentiated flower along with stem tissue and is referred to as a curd.

Growing

Varieties

Broccoli and cauliflower are cool-season crops that are also fairly heat and cold tolerant. The broccoli head or cauliflower curd are the parts harvested and are typically green for broccoli and white for cauliflower,

although other color variations exist (see Figure 3). Broccoli raab (or rapini, *B. rapa*), is an early maturing brassica crop that is related to turnips and produces tender leaves, shoots and small florets in much smaller heads (see Figure 3).



Figure 3. Compare broccoli (top left), broccoli raab or rapini (top right) and cauliflower (bottom).

Broccoli is considered the easier to grow of the two crops, and after the main head is harvested it produces side shoots for extended production. Broccoli is also more heat tolerant and can be grown in subtropical climates. Most varieties of broccoli are grouped into three maturity types: early, medium or late. Select varieties for the growing season when the crop will be produced. Fall and winter plantings (September to January) have the potential to be damaged by hard freezes. In general, for an early spring crop select early and midseason varieties; for a fall crop use mid- or late-season varieties. Broccoli varieties differ in disease resistance, days to maturity and weather tolerance; most varieties are green, domed and similar in size.

Most cauliflower varieties produce white, domed curds that are similar in size and that do not produce side shoots. In general, cauliflower is more susceptible to weather extremes and may require additional maintenance to blanch curds a white color. However, there are also some colorful varieties recommended for Louisiana that don't require blanching: Cheddar (orange

curd), Graffiti (purple curd) and Veronica Romanesco (green, pointed, spiral curd).

Broccoli and cauliflower have either open-pollinated (including heirloom) or hybrid varieties. There are two recommended heirloom varieties for Louisiana: Calabrese and De Cicco Italian broccoli. These seeds have been saved for at least 50 years, can be saved each season and replanted, and are open-pollinated.

Brassica crops have perfect, self-pollinating flowers (containing both male and female parts) but easily cross-pollinate with other brassicas. If saving seed, different varieties of brassicas must be separated by a distance of 1/8-1/2 mile to avoid cross-pollination. Generally, it is not recommended to save seed for future planting with hybrid varieties as they are usually not expressed properly in the next generation.

It is important to select varieties based on recommendations in Table 1 as these have been tested for suitability for Louisiana.

Table 1. Recommended Broccoli & Cauliflower Varieties for Louisiana

Variety Name (season)	Description	Days to Harvest	Resistance
Broccoli			
Arcadia (late)	Dark green, firm, domed heads; frosted appearance; cold tolerant; side shoot production; hybrid	63-65 days	Black rot, downy mildew
Bay Meadows (all seasons)	Large, dense, domed heads; heat-tolerant hybrid	68 days	Bolting
Broccoli Raab or Rapini (early)	Nonheading brassica crop with small florets and tender stems/shoots; mustardlike flavor; leafy, adaptable and early maturing; open-pollinated	45-55 days	
Calabrese or Italian Green Sprouting (all)	Vigorous and flavorful sprouting broccoli; side shoot production; Italian heirloom	85-90 days	
Castle Dome (early)	Medium green, domed heads; uniform; early maturing; good holding ability; heat and cold tolerant; hybrid	75 days	
De Cicco (all)	Small, blue-green 3" to 4" heads; multicut; tender stalks and leaves; prolific side shoot production; nonuniform, long harvest period; Italian heirloom	55-78 days	
Diplomat (late)	Medium-large, dark green heads; dense and uniform; recommended for more moderate summers; hybrid	68 days	Downy mildew
Emerald Crown (mid)	Large, domed, bright green heads; good for crown cut; tolerant to purpling in the cold; adaptable hybrid	59 days	
Emerald Pride (late)	Dark green, semi-domed heads; good for bunching; heat-tolerant hybrid	97 days	
	Domed heads; productive, vigorous and early maturing; heat-tolerant hybrid	65-75 days	
Green or Southern Comet (mid)	Deep green, large heads; flavorful and productive; side shoot production; hybrid	65-75 days	
Green Magic (all)	Blue-green, medium, domed heads; smooth and uniform; flavorful; good holding ability; hybrid	80-85 days	Bolting, downy mildew, powdery mildew
Gypsy (all)	Domed, uniform heads; side shoot production; good for bunching; heat tolerant hybrid	58-65 days	Downy mildew
Marathon (late)	Domed, large, blue-green heads; good for winter production, cold-tolerant hybrid	68-75 days	Bacterial leaf spot, black rot, downy mildew, hollow stem
Packman (early)	Large and uniform heads; productive and flavorful; adaptable hybrid	50-55 days	
Patron (mid)	Dark blue-green, domed heads; uniform and holds color well post-harvest; hybrid	94 days	Brown bead, hollow core
Premium Crop (mid)	Large heads; produces side shoots; good holding ability; hybrid	58 days	Downy mildew

Variety Name (season)	Description	Days to Harvest	Resistance
Triathlon (late)	Smooth, domed, dense heads; large and heavy; good for crown cut; hybrid	100 days	Downy mildew
Waltham (mid)	Dark blue-green heads; cold tolerant and sturdy; heat sensitive; adaptable, reliable and hardy; hybrid	74-85 days	
Cauliflower			
Bermeo	Medium, domed, white heads; excellent inner wrap; early maturing and heat-tolerant hybrid	65 days	
Candid Charm	Medium, dense, domed white heads; early maturing and uniform; consistent and adaptable hybrid	65 days	
Cheddar	Bright orange heads; early maturing; good holding ability; higher content of beta carotene; hybrid	58-68 days	
Flamenco	Bright white, domed heads with dense curds; good for summer and fall harvest; flavorful and good quality; hybrid	72 days	
Graffiti	Brilliant purple heads; large plants; high content of anthocyanins; hybrid	75-80 days	
Incline	Large, domed, white heads with large outer leaves; solid, dense curds; uniform and adaptable; best for fall harvest; hybrid	76 days	
Majestic	Medium, flat, domed head; early maturing; compact and uniform; heat-tolerant hybrid	50 days	
Snow Crown	Medium, good quality heads; early maturing and adaptable; vigorous; frost tolerant; hybrid	48-50 days	
Snowball	Large, white heads with self-wrapping leaves; solid and smooth; adaptable, compact plants; hybrid	68 days	
Symphony	Dense, domed white heads; good wrapper leaves; uniform and vigorous; hybrid	72-75 days	
Veronica Romanesco	Lime green, pointed and spiraled heads; large plants; nutty and flavorful; hybrid	78 days	Fusarium wilt, Fusarium yellows
Whistler	Bright white, domed heads; good quality; heat-tolerant hybrid	70 days	Tipburn
White Magic	Large, domed, white heads with upright leaves; heavy and uniform; vigorous hybrid	76 days	

Notes: Table varieties selected from recommendations from LSU AgCenter, UF Extension, Texas A&M Extension and Southeastern U.S. Vegetable Crop Handbook. Variety descriptions compiled from Southern Exposure Seed Exchange, High Mowing Organic Seeds, Johnny's Selected Seeds, Sow True Seed, Reimer Seeds, Willhite Seed, Sakata Seed America, All-America Selections, Jordan Seeds, Syngenta and Seedway.

Other recommended varieties for Louisiana include:

Broccoli: Bonanza, Early Dividend, Early Green, Everest, Patriot.

Cauliflower: Alverda, Cumberland, Freedom, Imperial, Violet Queen, Wentworth, White Passion.

When and How to Plant

It is recommended to start seeds inside for both crops approximately 5-7 weeks before the recommended planting dates (see Broccoli and Cauliflower Planting Guide, Table 2). Use seed germination trays with at least 1.5-inch diameter cells. Plant one seed per cell

unless the germination rate is low or conditions are less than ideal; then plant two seeds per cell. Plant the seed at a shallow depth of 1/8-1/4-inch, just deep enough to be covered with a thin layer of soilless potting mix (see Figure 4).

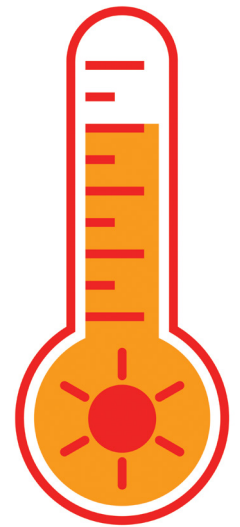


Figure 4. Planting seeds in a germination tray.

Make sure to keep the seed trays in a warm (optimal germination temperature is 85 degrees Fahrenheit), well-lit area and keep soil moist, which usually requires daily light watering. A seedling heat mat and plastic dome lid are helpful in maintaining ideal germination conditions. If multiple seeds were planted per cell, thin seedlings to one plant per cell after a few true leaves develop. Broccoli and cauliflower are generally transplant hardy and can be planted outside once 4-5 true leaves develop if soil temperature is between 65-75 F (minimum 50 F). The use of a soil temperature map

can help guide planting decisions. A few days before planting transplants outside, it is recommended to follow a hardening off process to transition seedlings to outdoor conditions.

Refer to the Broccoli and Cauliflower Planting Guide (Table 2) when transplanting seedlings outside. Planting broccoli plants closer will result in smaller heads, about 3-4 inches in diameter, while planting further apart will produce larger heads, about 8-12 inches in diameter.

Table 2. Broccoli & Cauliflower Planting Guide

Category	Transplant Outside Dates	Plant Spacing (inches)	Row Spacing (inches)	Bed Spacing (inches)	Days to Harvest*
Broccoli	North LA: Feb.-March 15, Aug.-Oct. South LA: Jan. 15-March 15, Aug.-Oct.	10-24	Double set 12-24 apart	24-36	75-100 day (50-70 days)
Cauliflower	North LA: Feb.-March 15, July 15-Oct. South LA: Jan 15-Feb 15, July-Oct. 15	18-24"	1 row per bed	24-36"	75-90 days (50-70 days)

*Days from seed to harvest; days in parentheses are transplant to harvest.

Note: Table adapted from LSU AgCenter and UF Extension Planting Guides and Southeastern U.S. Vegetable Production Handbook.

Both broccoli and cauliflower are cool-season, frost-tolerant crops preferring cool days between 55-75 F and cold nights between 40-55 F but are tolerant to heat and cold, depending on the variety. Optimal broccoli head development occurs between 54-68 F. Above 77 F, compact heads may not form, and bolting may occur. Low temperatures during early plant development can cause premature heading, and growth is slow at temperatures below 41 F. Broccoli heads are cold hardy to as low as 20 F for short periods if properly hardened, while cauliflower is sensitive to near freezing temperatures. In general, for both broccoli and cauliflower, young seedlings are less freeze tolerant than mature plants. For cauliflower, warm temperatures tend to inhibit or delay curd formation while promoting vegetative growth. Cooler temperatures favor curd formation with best curd quality at 61-64 F. Above 68 F, curd quality decreases for many varieties. Curd development in some tropical cauliflower cultivars can continue up to 86 F, but premature curd formation can sometimes be problem. For the best chance of success, plant in the fall and select early maturing varieties.

Where to Plant

Broccoli and cauliflower should be planted in deep, well-drained, fertilized soil with a soil pH of 6.0-7.5. These crops are less tolerant of acidic soil, so pH should be above 6.0. It is important to select a planting area in full sun (at least 6 hours per day) and preferably plant these crops in a sandy loam soil high in organic matter. It is recommended to plant broccoli and cauliflower in box beds or traditional raised garden rows that are about 12 inches tall to ensure good drainage. In all types of gardens, it is recommended to add a layer of compost, peat moss, rotted hay or other organic matter and mix into the soil to optimize plant health.

Reflective plastic mulch — or a plastic fabric/film — is recommended to deter aphids that transmit viruses, to increase soil temperature and to control weeds. Drip irrigation is also recommended when using plastic mulch to maintain ideal soil moisture and encourage productive plants.

It is recommended to rotate plant families — avoiding planting vegetables from the same plant family in the same area of the garden — to reduce disease and pests. It is recommended to rotate *Brassicaceae* crops on a longer 4-year cycle, and, if possible, rotate every year. Floating row covers may be used to keep flea beetles, root maggots and other insects from feeding on young transplants.

Plant Care

It is recommended to follow [sustainable gardening](#) principles.

Watering: Both crops have a relatively high water demand; be sure to keep soil moist and use mulch to aid in moisture retention. Provide adequate water after planting and during heading. Cauliflower is very sensitive to drought and water stress, and this could result in failure to develop a curd. Generally, these crops require 1-2 inches of rain or supplemental irrigation weekly.

Fertilization: Broccoli and cauliflower are considered heavy feeders and will benefit from the addition of organic matter to the soil. Cole crops especially benefit from soil testing for micronutrients, as they suffer from several nutrient deficiency disorders. Growing at a pH below 6 makes molybdenum unavailable for uptake and causes browning of leaf edges. Liming with dolomitic limestone should be done to raise pH, if recommended, following soil test recommendations. Adding sodium

molybdate may also help. Dolomitic limestone consists of calcium and magnesium and corrects magnesium deficiency, which often appears as interveinal chlorosis in cauliflower on low pH soils. Boron deficiency causes hollow stem, another common disorder, requiring the addition of boron to soil.

Organic fertilizers, such as compost, fish emulsion, composted poultry litter or manure, worm castings, and blood or bone meal, originate from living organisms. They are safer and far more environmentally sustainable than traditional synthetic fertilizers. They naturally release nutrients more slowly and over a longer period of time. When applying organic fertilizer, it is important to use in unison with compost, cover crops and crop rotation, which all work together to build soil health. Learn how to convert inorganic fertilizer recommendations to organic fertilizers [here](#).

Alternatively, a synthetic fertilizer may be used at the rate of about 1.25 pounds (2.5 cups) of 13-13-13 for every 25 feet of row or 75 square feet. Broadcast or sprinkle evenly over the soil before planting and then mix in about 3-6 inches deep using a rake. Supplemental side-dressing is recommended after 3-4 weeks and again 2-3 weeks later. Sprinkle a small amount around each plant, keeping it several inches away from the plant stem, and water into the soil. Because of their slow, steady release of nitrogen, crops fertilized with organic fertilizer do not usually need to be side-dressed, but fish emulsion can provide a quick release form of nitrogen for side-dressing heavy feeders like broccoli and cauliflower.

Blanching: Sunlight exposure to the heads of white cauliflower varieties causes them to turn light purple or yellow. Blanching is a technique that results in the creamy white heads. A simple method to blanch the head is to gather the outer leaves, pull them over the heads and secure them together with a rubber band, twine or clothespins. Another method is to

crack the midribs of the leaves and fold them over, completely covering the head. Begin blanching when the developing heads are just visible through the leaves, about 1-2 inches in diameter. Blanching is not actually necessary for cauliflower production, and this technique may cause increased humidity levels and susceptibility to diseases. Colored cauliflower varieties don't require blanching, but instead require light exposure for proper color development.

Weeds: Plastic mulch will control most of the weeds; hand pull weeds close to the plant, especially in the planting holes. Weed pressure may be lowered with crop rotation and timely cultivation or weeding early in the growing season.

Insect pests and diseases: Common insect pests for broccoli and cauliflower include aphids, caterpillars and whiteflies. It is recommended to cover transplants with row cover to reduce pest pressure. Broccoli and cauliflower are susceptible to some foliar and fungal diseases (e.g., anthracnose, leaf spot, root rot, Fusarium yellows or wilt, powdery and downy mildew), bacterial diseases (black rot, head rot), and physiological disorders (tipburn). There are a number of other physiological disorders possible with cauliflower, such as "buttoning" (small curd development), if temperatures are between 35-50 F for more than 10 continuous days, so take care to transplant during the recommended planting dates (Table 2). "Riceyness," or a velvetlike curd surface is caused by cold temperatures followed by warm temperatures. "Blindness," or no head formation, is caused by low temperature damage when the plant is young and tender. Generally recommended tools for disease prevention include using mulch, avoiding overhead irrigation, adequate plant spacing, crop rotation and weed control. See Table 3 to aid in diagnosis and management of some common broccoli and cauliflower insect pests and diseases.

Table 3. Organic and Natural Management for Common Insect Pests and Diseases of Broccoli & Cauliflower

Symptoms	Diagnosis	Organic and Natural Management
• Warm, humid conditions • Circular, water-soaked spots on foliage • Stunted seedlings • Plant death	Alternaria leaf spot	• Crop rotation • Plant resistant varieties • Avoid overhead irrigation • Avoid working in fields when plants are wet • Reduce plant stress • Copper-based fungicide sprays • Ensure proper blanching of cauliflower or avoid blanching altogether
• Curled and yellowed leaves • Stunted crops • Sticky honeydew on leaves	Aphids	• Timely planting and harvest • Reduce water stress • Weed control • Use water jet to dislodge • Reflective mulches; insect barrier fabric • Beneficial insects: lady bugs, lacewings, predatory stink bugs, syrphid flies • Insecticidal soap, neem oil, pyrethrin, Azera, garlic juice extracts
• Bacteria causes black veins and stem • Leaves with yellow margins • Leaf drop	Black rot	• Crop rotation (3 years) • Plant resistant varieties • Hot water seed treatment to eradicate bacteria • Increase plant spacing and soil drainage • Remove diseased plant debris • Weed control
• Late spring occurrence • Light green larvae with faint yellow stripes • Holes in leaves and partially eaten	Caterpillars (cabbage worm, cabbage looper)	• Row cover • Handpick caterpillars • Till under debris after harvest • Organic insecticide if many plants are infested (Dipel, Thuricide)
• Stunted plant roots and top growth • Roots unable to absorb water and nutrients	Clubroot	• Crop rotation • Raise soil pH to 7.2 • Maintain high nutrient level in soil • Improve soil drainage • Control weeds
• Yellow splotches on leaves • White downy growth on lower surfaces • Damp, cool conditions • Damping off	Downy mildew	• Crop rotation (2+ years) • Plant resistant varieties • Remove plant debris • Weed management • Plant during recommended dates • Reduce leaf moisture by improving air circulation, morning irrigation • Organic/natural fungicides

Symptoms	Diagnosis	Organic and Natural Management
- Yellowing in lower leaves after transplanting - Wilted leaves, defoliation - Stunting and plant death - Warm weather	Fusarium yellows or wilt	- Plant resistant varieties - Bacterial rot in almost mature heads - Yellowing of individual flower buds - Dark brown sunken lesions - Leads to soft rot causing mushy heads and foul odor
- Leaf discoloration - High moisture and high temperature	Head rot	- Improve air circulation - Adequate calcium and boron in soil - Remove diseased plant debris - Control weeds - Crop rotation - Avoid overhead irrigation
- Soil deficient in boron - Plant spacing too wide - Curled leaves, deformed foliage - Brown curds or heads - Hollow stem centers	Hollow stem	- Plant resistant varieties - Maintain adequate boron levels in soil - Plant crops at recommended widths
- Fungus found in water-logged, compacted soil - Wet soil at plant base - Purple discoloration in older leaves - Purple stem canker - Late summer, early fall - Stunted plants; off-color - Plant wilt and death	Phytophthora root rot	- Reduce soil compaction - Improve soil drainage, add compost - Maintain soil fertility - Plant resistant varieties - Remove diseased plants - Phosphorus-containing fungicides
- Small, round white spots with fungal growth on older leaves with dark mottled underside - Leaves covered with talc-like powder; leaf yellows and dies - Hot, dry conditions	Powdery mildew	- Plant resistant varieties - Good soil health and air circulation - Increase plant spacing - Eliminate weeds - Fungicides containing sulfur
Edges of leaves turn brown or speckle	Tipburn	- Plant resistant varieties - Avoid over-fertilizing - Maintain uniform soil moisture
- Leaf discoloration and wilt - Tiny white flies flutter when plants are disturbed - Sticky honeydew on leaves - Black sooty mold fungus	Whiteflies	- Regular monitoring of plants - Crop rotation - Insect netting (50+ mesh) - Beneficial insects: lacewings, parasitic wasp, predatory mites - Insecticidal soap, neem oil, <i>Chromobacterium</i>, <i>Beauveria bassiana</i>

Note: Table adapted from Texas A&M AgriLife Extension, UMass Extension Vegetable Program, Alabama A&M and Auburn Universities Extension. The Louisiana Pesticide Law regulates the use of pesticides in schools to protect children and staff from harmful exposure to chemicals and is enforced by LDAF. The recommended alternative to routine pesticide use is integrated pest management (IPM), which combines pest control, disease management techniques and organic/natural alternatives, many of which are found in this table.

Harvest and Storage

Broccoli is harvested when the heads are about 7 inches tall from crown to base and the flower buds are still tight, but a few have begun to loosen. Be sure to harvest before many flower buds start opening, the flower head begins to turn yellow or the stem becomes woody. Cut the broccoli head with a sharp harvest knife, leaving about 6 inches of stem (see Figure 5). This will allow for additional harvests of side shoots (usually 2-3 more times). The broccoli head is the main part consumed, but stems and leaves are edible as well as flower stalks and flowers.

For white varieties of cauliflower, harvest when the heads have turned pure white from blanching. For all varieties of cauliflower, harvest before the curds become loose and ricey. Cut center heads using a sharp harvest knife about 1 inch down the stem (see Figure 6).

After harvest, the crop needs to be cooled down to remove field heat and placed in a refrigerator or cooler where there is high humidity. Removing field heat will avoid moisture loss and wilting and preserve quality and shelf life. At an ideal storage temperature of 32 F with high humidity (95-100%), broccoli will last approximately 10-14 days, and cauliflower will last 3-4 weeks.

Broccoli and cauliflower can be preserved by freezing after washing, either raw or cooked.

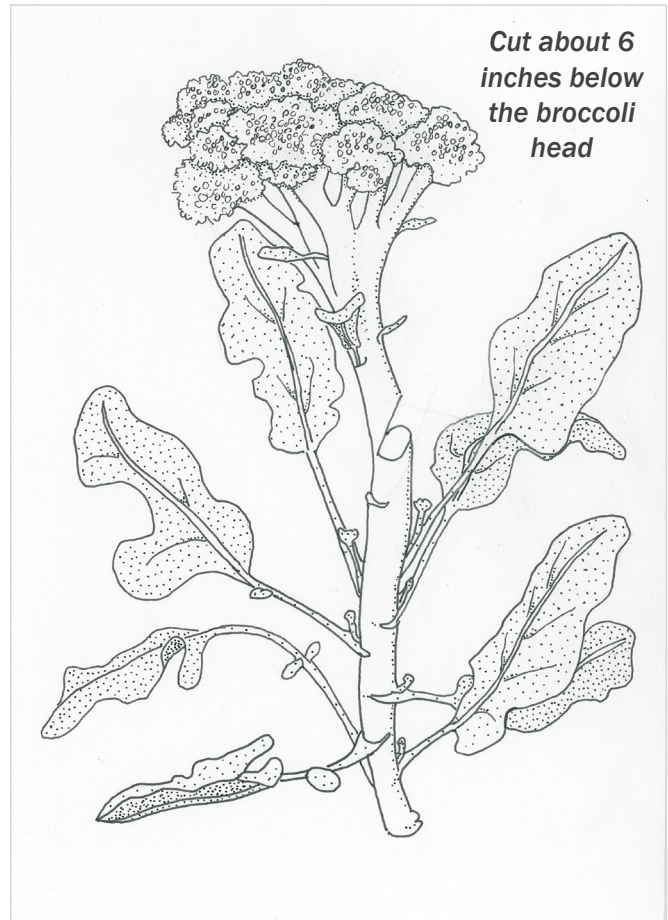


Figure 5. How to harvest broccoli.

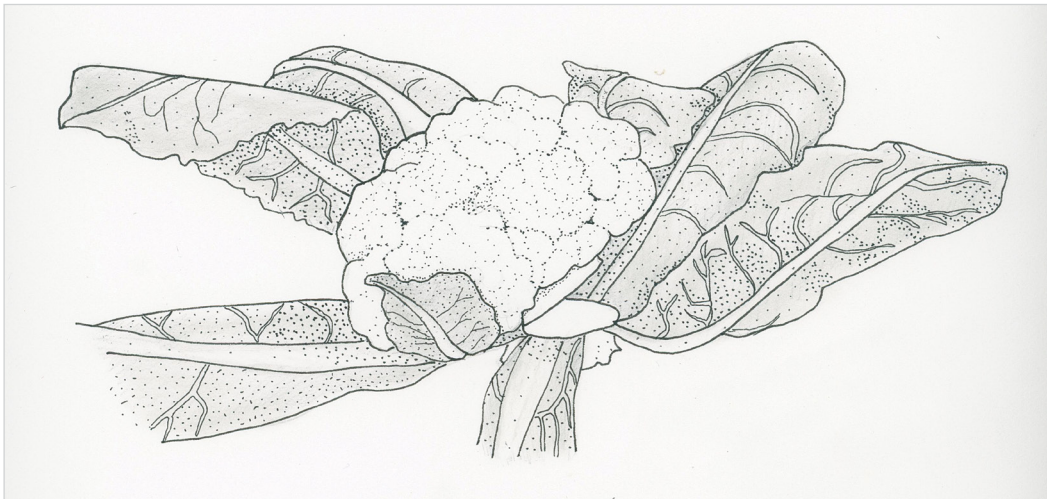


Figure 6. How to harvest cauliflower.

Nutrition

Broccoli and Cauliflower Are Nutritious and Good for You

Very high in vitamin A

Important for eye health, a strong immune system and cell growth.

High in potassium

Essential for body function, especially the heart, kidney, nerves, bones and muscles.

Rich in vitamin C, B2 and B6

Important for bones, skin, blood vessels; converts food into energy; supports immune system and brain health.

Provides calcium, iron and magnesium

Bone health; produces red blood cells; important in muscle and nerve function.

Good source of dietary fiber

Important for bowel health, lowering cholesterol, controlling blood sugar and maintaining a healthy weight.

Recipes

Basics of cooking with broccoli and cauliflower:

Broccoli: extension.purdue.edu/foodlink/food.php?food=broccoli

Cauliflower: extension.purdue.edu/foodlink/food.php?food=cauliflower

General information on selecting, pairing, preparing and storing. Also includes a list of recipes.

Video on how to prepare broccoli and cauliflower: youtu.be/YMebFlauhXY

Broccoli: youtu.be/dvUyfx-hMT4

Cauliflower: youtu.be/YZic_eQKJ90

Ever wonder about the basics of how to prepare broccoli and cauliflower? Chef Allison Kingery shows a couple of options for preparing these vegetables.

Taste Test Ideas



Roasted Broccoli



Roasted Cauliflower



Cauliflower Tots

Other websites with many broccoli and cauliflower recipes:

Oregon State University's Food Hero

Broccoli: foodhero.org/recipes/categories/1315

Recipes include broccoli everything salad, veggie skillet eggs and more.

Cauliflower: foodhero.org/recipes/categories/1317

Recipes include baked cauliflower tots, Indian vegetable and rice skillet, and more.

USDA MyPlate Kitchen

Visit www.myplate.gov/myplate-kitchen/recipes and search for broccoli and cauliflower recipes.

Recipes include broccoli baked potatoes, broccoli rice casserole, roasted cauliflower and more.

California's Eat Fresh

Visit eatfresh.org and search for broccoli recipes.

Visit eatfresh.org and search for cauliflower recipes.

Produce for Better Health Foundation

Broccoli: fruitsandveggies.org/fruits-and-veggies/broccoli/?view=recipes

Recipes include crunchy rainbow broccoli slaw, pesto pasta salad, penne shrimp and broccoli, and more.

Cauliflower: fruitsandveggies.org/fruits-and-veggies/cauliflower/?view=recipes

Recipes include shrimp cauliflower fried rice, cauliflower hummus and more.

Louisiana Harvest of the Month Program recipe: Roasted Broccoli

The Louisiana Harvest of the Month program is designed to bring fresh local agricultural products into participating schools and communities. Each month, one Louisiana agricultural product is highlighted throughout the school. All Louisiana Farm to School recipes are developed, tasted, and rated by the LSU College of Agriculture School of Nutrition and Food Sciences. In addition to being tested for overall flavor, color and texture, we strive for recipes that have low-cost and easy-to-find ingredients, easy-to-follow instructions and a reasonable preparation time.



Roasted Broccoli

Home Recipe

Serves: 4

Prep Time: 10 minutes

Ingredients

Dressing

- 1 pound broccoli (about 1 small bunch), cut into florets, stems peeled and sliced or diced
- 2 Tbsp olive oil
- 3 cloves garlic, sliced
- ½ tsp salt
- ¼ tsp ground black pepper

Nutrients Per ½ Cup Serving

• Calories	86
• Total Fat	7 g
• Saturated Fat	1 g
• Cholesterol	0 mg
• Sodium	320 mg
• Carbohydrates	6 g
• Dietary Fiber	2 g
• Protein	1 g
• Calcium	59 mg
• Iron	1 mg
• Potassium	236 mg
• Vitamin C	11 mg
• Vitamin A	280 mcg

Cooking Instructions

1. Preheat oven to 450 F.
2. Toss the broccoli florets with olive oil, garlic, salt, and pepper on a baking sheet.
3. Spread out over baking sheet and roast for about 20 minutes or until edges are crispy and stems are crisp tender. Serve warm.



For More Information

louisianafarmtoschool@agcenter.lsu.edu

www.SeedstoSuccess.com

This Institution is an equal opportunity provider.



THE LOUISIANA FARM TO SCHOOL PROGRAM

Sources

- Southeastern Vegetable Extension Workers, 2020 Southeastern U.S. Vegetable Crop Handbook content.ces.ncsu.edu/southeastern-us-vegetable-crop-handbook
- LSU AgCenter, Louisiana Commercial Vegetable Production Recommendations www.lsuagcenter.com/~media/system/3/4/3/1/3431c847fdf6d4cd4dce689cb358b397/pub2433commvegetablebwlowres.pdf
- LSU AgCenter Louisiana Vegetable Planting Guide www.lsuagcenter.com/~media/system/d/e/3/e/de3e7516e68dfee4a21a84b38caa4df8/pub1980%20vegetable%20planting%20guide%20rev%2001%2017pdf.pdf
- LSU AgCenter, Vegetable Gardening Tips: Cole Crops www.lsuagcenter.com/~media/system/1/6/b/9/16b95e8d5bb4a8f348b76c03e3c080cc/pub%202310%20cole%20crops%20rev%204-17pdf.pdf
- UF Extension Planting Guide edis.ifas.ufl.edu/pdffiles/VH/VH02100.pdf
- Vegetable Production Handbook of Florida edis.ifas.ufl.edu/pdffiles/cv/cv29200.pdf
- Texas A&M AgriLife Extension Vegetable Varieties for Central Texas aggie-horticulture.tamu.edu/travis/wp-content/uploads/2015/09/VegetableVarieties2015.pdf
- Texas A&M AgriLife Extension Easy Gardening: Cole Crops aggie-horticulture.tamu.edu/vegetable/files/2013/09/EHT-067.pdf
- Texas A&M AgriLife Extension Commercial Crop Guide: Broccoli aggie-horticulture.tamu.edu/vegetable/files/2011/10/broccoli.pdf
- Texas A&M AgriLife Extension Commercial Crop Guide: Cauliflower aggie-horticulture.tamu.edu/vegetable/files/2011/10/cauliflower3.pdf
- Swiader, John M & Ware, George W (2002). Producing Vegetable Crops (5th edition). Interstate Publishers Inc.
- Maynard, Donald N & Hochmuth, George J (2007). Knott's Handbook for Vegetable Growers (5th edition). John Wiley & Sons Inc.
- Decoteau, Dennis R (2000). Vegetable Crops. Prentice-Hall Inc.
- Sukprakarn, S, Juntakool, S, Huang, R, and Kalb, T (2005). Saving your own vegetable seeds—a guide for farmers. AVRDC publication number 05-647. AVRDC—The World Vegetable Center, Shanhua, Taiwan. 25 pp.
- Alabama A&M & Auburn Universities Extension, Crop Production www.aces.edu/blog/category/farming/crop-production
- UMass Extension Vegetable Program: Disease, Insect, and Mites Fact Sheets ag.umass.edu/vegetable/fact-sheets
- Purdue Extension FoodLink: Broccoli extension.purdue.edu/foodlink/food.php?food=broccoli
- Purdue Extension FoodLink: Cauliflower extension.purdue.edu/foodlink/food.php?food=cauliflower
- Seed Savers Exchange, Seed Saving: A Guide to Isolation Distances www.seedsavers.org/isolation-distances
- University of Georgia Extension, How to Convert an Inorganic Fertilizer Recommendation to an Organic One, Circular 853. extension.uga.edu/publications/detail.cfm?number=C853
- Michigan State University Cooperative Extension Service, Disorders of Cole Crops archive.lib.msu.edu/DMC/Ag.Ext.2007-Chelsie/PDF/e1668-1983.pdf

Authors:

Johannah Frelier, M.P.H.

JFrelier@agcenter.lsu.edu

Louisiana Farm to School Program Manager
Louisiana State University Agricultural Center

Denyse Cummins, M.S.

DCummins@agcenter.lsu.edu

Extension Horticulturist
Louisiana State University Agricultural Center

Carl Motsenbocker, Ph.D.

CMotsenbocker@agcenter.lsu.edu

Louisiana Farm to School Executive Director
Professor of Horticulture and Sustainable Agriculture
Louisiana State University Agricultural Center

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, sex, disability, age, or reprisal or retaliation for prior civil rights activity in any program or activity conducted or funded by USDA.

Persons with disabilities who require alternative means of communication for program information (e.g. Braille, large print, audiotape, American Sign Language, etc.), should contact the Agency (State or local) where they applied for benefits. Individuals who are deaf, hard of hearing or have speech disabilities may contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, (AD-3027) found online at: How to File a Complaint, and at any USDA office, or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by:

1. Mail: U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410;
2. Fax: (202) 690-7442; or
3. Email: program.intake@usda.gov.

This institution is an equal opportunity provider.



Visit our website: www.LSUAgCenter.com

Luke Laborde, Interim LSU Vice President for Agriculture
Louisiana State University Agricultural Center
Louisiana Agricultural Experiment Station
Louisiana Cooperative Extension Service
LSU College of Agriculture

PUB3761-I (online) 11/21

The LSU AgCenter and LSU provide equal opportunities
in programs and employment.