

Cauliflower

Grow

Cauliflower is a cruciferous vegetable, that is a member of the mustard, *Brassicaceae* family. Cauliflower and broccoli are so similar that they are both designated as the botanical variety botrytis, which comes from a Greek word meaning a cluster like a bunch of grapes.¹⁻²

Cauliflower originated in Asia around the Mediterranean sea. It has been grown and eaten across Europe since the 1500s, but it was not grown in the U.S. until the 1900s.³

Fun Fact: In early England, cauliflower was referred to as “Cyprus coleworts”.¹

Cauliflower can be grown in all types of soil, but it prefers a high-moisture holding capacity soil with a neutral or slightly acidic pH. It is a cool season crop. If exposed to extreme temperatures, it will develop premature heads or curds. In North Carolina, cauliflower can be grown during the spring or fall, but the best quality cauliflower is grown in the fall. Plant the first crop in late February through April and again July through mid-August. Cauliflower is most often grown from transplants. Space transplants 18-24 inches apart with 30 inches between rows. The outer leaves of cauliflower should be tied to protect the head from sunlight, as exposure to the sun can cause discoloring and off-flavors. It can take 75-85 days from transplant for the cauliflower to be fully grown.¹⁻²

Fun Fact: Cauliflower is “cruciferous”, because its flowers have four petals that resemble a Greek cross.³

Choose

Cream of the Crop Cauliflower

Cauliflower has reached full maturity when the heads are compact and about 6 inches tall. Look for a consistent color throughout the head - white, orange or purple. The leaves should be bright green and firmly attached. Look for and remove any brown spots. Check the quality of any loose sections.¹⁻²



Store

Temperature fluctuations can cause rapid deterioration. Store fresh cauliflower in the coldest section of the refrigerator (32-36°F). The bag or container of cauliflower should be kept sealed until ready to use. Handle carefully to maintain an air-tight seal to maximize storage time.²

Fun Fact: The leaves of cauliflower shield the head from sunlight, preventing chlorophyll formation and transition to a green color.³

Use

Cauliflower can be prepared many different ways. Raw, roasted, pickled and steamed are potential options. Florets can be served with hummus, salsa or a low fat dressing for a dip. Cauliflower can also be mashed and baked, used in soup or salad, or even added to stir fry or curry. It can be grated or pulsed in a food processor to make “rice”. The leaves of cauliflower are also edible. The leaves have a stronger flavor than the florets, which may influence how they are used in preparation.

Separate the cauliflower head from the leaves. Cut florets into even sized pieces. Wash cauliflower under clean, running water.

Cauliflower

Teach

Calling for Cauliflower

The first record of cauliflower is from the 6th century BCE. The word “cauliflower” comes from the Latin terms *coulis* meaning “cabbage” and *floris* meaning “flower”.¹ It is actually a flower that has not yet fully developed.³

Although many think of cauliflower as a white colored vegetable, there are also orange and purple varieties. Purple cauliflower gets its color from the antioxidant anthocyanin. It is described as nutty tasting and less bitter than white cauliflower. Anthocyanidins may help with maintaining brain and healthy immune function. Orange cauliflower has been used by plant molecular biologists as a model for learning more about the biochemical and molecular basis of carotenoid production in crops. The carotenoid present in orange cauliflower is beta-carotene. Our bodies can turn beta carotene into vitamin A. Vitamin A protects us from infection, helps regulate the immune system, promotes normal vision, and supports the growth and health of cells and tissue.^{1,4-5,7}

Fun Fact: Cauliflower is related to broccoli, cabbage, kale, turnips, rutabaga and Brussels sprouts.³

Class Activity - Family Tree

Materials Needed:

- Different vegetables from the plant family *Brassica oleracea*: cauliflower, broccoli, Brussels sprouts, kale and/or cabbage

Steps: *Use food safety steps. Wash hands and produce.

1. Provide students with different combinations of vegetables chosen from the *Brassica oleracea* family.
2. Have students examine the vegetables they were given and record their observations.
3. Encourage students to break apart the vegetables to see and compare the insides.
4. Offer some washed and cut samples of the vegetables for the students to taste as part of the comparison.
5. Ask students make a Venn diagram of the similarities and differences among the vegetables.

Eat

Cauliflower is free of cholesterol and low in sodium and fat. For chopped cauliflower, one cup raw has 27 calories and ½ cup cooked has 29 calories. It is an excellent source of vitamin C and a good source of folate, pantothenic acid and vitamins B6 and K.

Vitamin C helps form collagen to hold muscles, bones and tissues together, protects us from infections and bruising, acts as an antioxidant to prevent cell damage, aids in healing, keeps our gums healthy, and helps our body absorb iron and folate from plants. Our body needs folate for blood cell, DNA and genetic development. Pantothenic acid helps produce energy in all cells of the body, metabolize proteins, carbohydrates and fats from food, and regulate hormone synthesis. B6 helps our body make protein building blocks (amino acids), turn tryptophan into niacin and serotonin (a brain messenger), and make insulin, hemoglobin and antibodies to fight infection. Vitamin K is important for blood clotting and it helps our body make proteins needed for our blood, bones and kidneys. Insoluble fiber helps with digestion. Soluble fiber helps lower blood cholesterol.^{3,4,6-7}

Fun Fact: Purple cauliflower takes less time to cook than white cauliflower. If cooked too long, it will turn green. Green cauliflower is produced when you cross cauliflower with broccoli.³

Find

For more cauliflower info and resources, visit:

1. Texas A & M Agrilife Extension, <http://aggie-horticulture.tamu.edu>
2. North Carolina State Extension, www.ces.ncsu.edu
3. Wisconsin Department of Public Instruction, School Nutrition, <https://dpi.wi.gov/school-nutrition/programs/fresh-fruit-vegetable>
4. Produce for Better Health Foundation, <https://fruitsandveggies.org>
5. USDA Agricultural Research Service, www.ars.usda.gov
6. U.S. Department of Agriculture, Food and Nutrition Service, www.fns.usda.gov
7. Academy of Nutrition and Dietetics, www.eatright.org