

# Green Bean

## Grow

Greens beans are a vegetable of the Fabaceae family. Their scientific name is *Phaseolus vulgaris*, but they are more widely known as green beans, snap beans, string beans or wax beans. Although they are called green beans and are typically green in color, they can also be golden, purple/red or streaked. The beans inside the pod are always green. Common green varieties include Yardlong, Blue Lake, Haricot Verts, Burpee's Stringless, Roma II, Kentucky Blue/Wonder and Contender. Yellow include Golden Wax, Rocdor, and Cherokee Wax. Purple Red include Purple King and Red Swan. Streaked include Dragon's Tongue and Rattlesnake.<sup>1-4</sup>

**Fun Fact:** In North Carolina, green beans are in season June through September.<sup>5</sup>

Green beans are edible pod beans that thrive in most parts of the U.S. due to their ability to tolerate a wide range of soils. They are an above ground vegetable that can be grown as pole beans, which need a trellis or pole for support, or bush beans. Bush beans should be planted 1-2 inches apart in rows with 2½-3 feet of separation. Plant pole beans in hills 3 feet apart, and in rows 3-4 feet apart, with a tall stake at the center of each hill. Green beans are sensitive to cold. When planting in spring, check the frost-freeze date in your area to ensure there is no more danger of frost. If planting in the fall, do so 10-12 weeks before the first expected frost. Once planted, green beans can be ready for harvest in 65-70 days.<sup>2,6</sup>

**Fun Fact:** Pole green beans can grow up to 15 feet tall.<sup>7</sup>

## Choose

Green beans range in size from thin "filet" type to the wide "romano" type. Beans are harvested by hand before seeds in the pod are fully developed and pods become brittle. Pods with a slight or no bulge at all indicate tender young seeds, which are best to eat. Look for long, straight beans of a vibrant color that snap easily when bent. Watch out for beans with wilting, decay or blemishes.<sup>3-4,8</sup>



**Fun Fact:** Green beans are referred to as string beans due to a fibrous string that ran along the seam of the pod. Today's varieties have been bred to not have the string. Another nickname is snap beans because of the snapping sound they make when snapping off the ends of the pods.<sup>4</sup>

## Store

Store green beans in the coolest part of dry storage or the warmest part of the refrigerator. Ideal conditions are 45-50°F, 85-95% humidity, which will help maintain quality for 1½ weeks. If kept too cold, green beans will have obvious surface pitting. Store beans in a plastic bag or container.<sup>2,8</sup>

**Fun Fact:** "Full of beans" describes someone with a lot of energy. "Bean-fed" is used to describe a high-spirited person. "Spill the beans" means to share a secret.<sup>3</sup>

## Use

Green beans can be eaten raw, steamed, roasted or dried. They can be added to a salad, stir fry, casserole or stew. Eat them fresh as a snack paired with dip, like hummus, low fat dressing, salsa or yogurt. When preparing green beans, you can cut or snap off their ends. Wash beans under clean, running water prior to preparing or eating.

# Green Bean

## Teach

Fresh beans are classified into two different categories - edible bean pods and shell beans. Green beans are the most popular type of edible bean pods in the U.S. Green beans originated in Peru and were carried throughout South, Central and North America by migrating Native Americans. Together, corn, beans, and squash provided balanced nutrition in the Native American diet.<sup>1,3-4,6</sup>

### Class Activity - Green Bean Parts

#### Materials Needed:

- Diagram of a sprouted green bean seed

#### Steps:

1. Share plant diagram with students. Review plant parts.
- Once, planted the seed's ovary develops into the pod. The pod contains the seeds.
- The seed has a coat containing two *cotyledons* (where food is stored), a *hypocotyl* (the lower portion that develops into the root), and an *epicotyl* (the young stem from which the *plumule*, primary leaf bud, forms).<sup>4</sup>

**Fun Fact:** Green, navy, kidney and black beans are called common beans.<sup>3</sup>

### Class Activity - Fresh, Frozen and Canned

#### Materials Needed:

- Fresh green beans, washed
- Frozen and canned green beans
- Nutrition labels for fresh, frozen, canned green beans
- Small paper cups

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

1. Give each student a paper cup with one of each form of green bean (1 frozen, 1 fresh, 1 canned).
2. Instruct the students to examine the beans, breaking off one end of each bean and peeling the beans apart.
3. Discuss how the beans feel, sound, smell, and look.
4. If you can prepare the frozen and canned beans using proper food safety procedures, offer the option to taste. Compare the frozen, canned and fresh beans.
5. Compare nutrition info. Discuss green bean benefits.
6. Ask students to record their observations.<sup>4</sup>

## Eat

### Green Beans are Great!

One cup of cooked green beans has about 44 calories. Green beans are cholesterol free and low in sodium and fat. They are an excellent source of vitamin K and a good source of vitamin C, manganese and fiber. They also offer lutein and zeaxanthin.<sup>1,4,9</sup>

**Fun Fact:** Green beans are one of the few varieties of beans that are eaten fresh.<sup>1</sup>

Vitamin K helps our body to clot blood and make proteins needed for our blood, bones and kidneys. Vitamin C helps form collagen to hold muscles, bones and tissues together, protects us from infections and bruising, keeps our gums healthy, aids in healing, helps our body absorb iron and folate from plants, and acts as an antioxidant to prevent cell damage. Manganese plays a role in forming bone and converting carbohydrate, protein and fat into energy. Soluble fiber helps lower blood cholesterol. Insoluble fiber aids digestion. Lutein and zeaxanthin may help maintain healthy vision.<sup>10</sup>

**Fun Fact:** Green beans are the third most commonly home grown vegetable in the United States, behind tomatoes and peppers.<sup>1</sup>

## Find

For more green bean facts and resources, visit:

1. Arizona State College of Agriculture and Life Science, <https://cals.arizona.edu>
2. North Carolina State Extension, [www.ces.ncsu.edu](http://www.ces.ncsu.edu)
3. Wisconsin Department of Public Instruction, School Nutrition, <https://dpi.wi.gov/school-nutrition/programs/fresh-fruit-vegetable>
4. California Harvest of the Month, <http://harvestofthemonth.cdph.ca.gov>
5. N.C. Department of Agriculture & Consumer Services, [www.ncagr.gov](http://www.ncagr.gov)
6. Texas A & M Agrilife Extension, <http://aggie-horticulture.tamu.edu>
7. Old Farmers Almanac, [www.almanac.com](http://www.almanac.com)
8. U.S. Department of Agriculture, Food and Nutrition Service, [www.fns.usda.gov](http://www.fns.usda.gov)
9. USDA Food Composition Databases, <http://ndb.nal.usda.gov>
10. Academy of Nutrition and Dietetics, [www.eatright.org](http://www.eatright.org)