



# Nature & Nurture Seeds' Guide to Growing & Using Beans

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## Beans, Beans, the Magical Fruit

Beans are in the legume plant family (Fabaceae) along with peas. This plant family is unique because legume plants **improve soil fertility** through the process of nitrogen-fixation, which adds nitrogen to the soil for all plants. Edible beans are divided into several species: Fava Beans, Lima Beans, Mung Beans, Runner Beans, Soybeans and the beans we eat most of the time which are aptly named "Common Beans" (*Phaseolus vulgaris*).

**Each seed has a story to tell and we aim to tell it.** Common Beans (*Phaseolus vulgaris*) originated in Central and South America, where they were domesticated by indigenous people who transported beans, along with corn and squash, to North America, where many indigenous varieties were developed. Wisdom accumulated during the course of generations as native peoples grew and developed thousands of bean varieties. This wisdom included traditional foodways – how to grow, harvest, prepare and eat beans. Forced relocation of native peoples and boarding schools for children caused loss of traditional food and farming traditions. Consequently, having lost traditional healthy foodways, today native peoples in the U.S have the highest rates of diabetes and other diet related illnesses. In response, many indigenous people are working to restore and preserve traditional food and farming traditions including growing and eating beans. For more info, see <http://welrp.org/>. History teaches us to honor those who brought beans to the world, to support work to restore traditions, and to more fully appreciate the rich biodiversity of beans!

## Types of Beans

Beans are eaten three ways. "Snap beans" (aka "green beans"), dry beans, and "shelling beans".

1. **Snap Beans:** Snap beans are most commonly known as "green beans." They have tender pods that are picked and eaten whole when the pods are young and tender. Only certain bean varieties have tender pods that can be eaten fresh as snap beans. Snap bean pods come in green, yellow, red, purple or speckled colors. They can be eaten raw, pickled, or cooked.
2. **Dry beans:** Examples include pinto beans, kidney beans, and black beans. Dry beans are harvested at the end of the growing season after the pods and bean seeds have dried. Dry beans come in an incredible diversity of colors and patterns! Almost any bean can be eaten as a dry bean. They are soaked for a minimum of 8 hours and then cooked. Soaking is important for nutrition.
3. **Shelling beans:** Are harvested when the bean seeds have just grown to full size but have not begun to dry. Shelling beans have pods that are too tough to eat fresh as snap beans. The

beans are hand removed from the pods and typically cooked. An example of shelling beans includes Japanese edamame soybeans.

## How Do Beans Grow?

### Pole Beans

- Pole bean plants climb towards the sky like “Jack and the Beanstalk”. **Great for small gardens** - you can easily put up a trellis and utilize vertical garden space.
- Pole beans are ready a little later than bush beans but **produce more beans** overall than bush beans so you get more food for your effort

### Half-High Beans

- Half-high bean plants climb like pole beans but are not as vigorous to climb. They are the best types of beans to grow on corn because they will not overgrow the corn plants.

### Bush Beans

- Bush beans plants do not climb. They are great because they are **easier to grow, earlier starters**, and you can grow them in slightly shadier conditions. You can start these bean seeds a little later in the season.

## Why Grow Beans?

- There are so many interesting varieties and types of beans – black, kidney, navy, etc.
- They’re nutritious!
- They’re easy to grow – sow seeds directly outside into the soil!
- They’re full of protein and are a wonderful vegetarian alternative to meat
- Dried beans can last for years in storage!

## Tips for Growing Beans

### 1. Starting seeds:

- Sow bean seeds directly into garden soil outside:
  - o Sow Pole beans: 5/15-6/7 (after soil temperature has reached at least 60°)
  - o Sow Bush beans: 5/15-7/15 (after soil temperature has reached at least 60°)
  - o We don’t recommend planting bean “starts” because bean plants really don’t like their roots disturbed.
- Inoculant: Beans grow best when nitrogen-fixation bacteria are present in the soil. Many soils lack these beneficial microorganisms. For best success, inoculate bean seeds with a [“garden combination” inoculant](#). To inoculate, simply sprinkle a bit of the inoculant on the seeds before planting. Store your inoculant in the fridge and check the expiration date to make sure that your inoculant is fresh.

### 2. Planting Using the Three Sisters Method:

- Plant corn, beans, and squash in “patches” 4 feet apart.
- Week one: plant corn (5-6 seeds, 2-3” apart)
- Weeks 2-3 (when corn is at least 5” tall): plant pole beans (4-5 seeds encircling corn)
- Week 3: plant winter squash (5-6 seeds encircling beans).
- Thin seedlings to:
  - i. 2-3 corn plants
  - ii. 2 pole beans

- iii. 3-4 squash plants per patch
- 3. **Soil:** Adding compost to the soil will make your beans very happy! Ensure that your bean seeds are planted where there is good water drainage.
- 4. **Light:** Beans prefer full sun, but bush beans can handle part sun conditions.
- 5. **Spacing:** Pole beans are great for small garden spaces because they can grow up a trellis and utilize vertical space.
  - Sow bean seeds 1" deep, 3" apart.
  - Sow bush beans in rows 15" apart (pole beans will climb vertically instead of horizontally so they can be planted closer together)
- 6. **Water:** Beans need about 1" of water a week for optimal growth. This usually means watering 2-3 times per week for 30-45 minutes.
- 7. **Pests:**
  - Protect seeds and seedlings from slugs/snails (use "Sluggo")
  - Protect plants from groundhogs, rabbits & deer with repellants or fencing.

### Harvesting Beans:

- Snap beans: Harvest young pods frequently while still thin and tender. Pods left to mature will become tough.
- Dry beans: Allow beans to mature and pods become dry on the vine. Pick when dry. Beans can be removed from pods by hand. For a large amount of beans, place pods in a dehumidified environment until pods are crisp then step on the pods to release the beans. Use a fan to winnow the seeds to clean them.

### Seed Saving Instructions:

- Beans are an easy seed saving crop. They will not cross with other bean species and tend to self-pollinate.
- 10-20 ft between bean varieties is good enough for home gardeners. 50 feet isolation distance is ideal for commercial seed production.
- Minimum population size: 10 plants. Allow seeds to mature on the plants (pods will become tan and dry).
- Save seeds only from the best plants. Clean seed as a dry-seeded crop.

### Storing Dry Beans

- Snap beans: blanch and freeze or pickle your beans.
- Dry beans: Dry beans can be stored for many years if properly stored. Store in a dry environment.
- Long-term storage: Allow beans to dry in a dehumidified environment until they are dry enough that you can hit the beans with a hammer and the bean seeds shatter instead of smushing. Put them in an airtight container and into the freezer for 1 week to kill moth eggs that may be present.

### Pickled Bean Recipe

Not sure what to do with your bean harvest? Try our favorite [Pickled Beans recipe](#) ~ It's super good for your gut, not to mention delicious!

1 handful snap beans

1 qt water

2 tbsp sea salt

1 clove garlic

Yummy and great for the gut! Place a handful of tender snap beans in an empty quart jar and add 1 clove of garlic. Dissolve 2 tablespoons of sea salt in 1 quart of water to make brine. Pour brine over beans until jar is full and place jar on a tray or lipped plate to catch any spillover. Cover with a piece of cloth and secure with rubber band. Leave at room temp for 24 hours then install jar lid and place in fridge. Eat any time depending on your tastes. For more info about Live Fermentation, click [here](#).