

Beans

Planting

In general, beans are very sensitive to frost. (The exception is favas, which require a long, cool growing season; sow them at the same time you plant peas.) Most beans grow best in air temperatures of 70° to 80°F, and soil temperature should be at least 60°F. Soggy, cold soil will cause the seeds to rot. Beans need a sunny, well-drained area rich in organic matter. Lighten heavy soils with extra compost to help seedlings emerge.

Plan on roughly 10 to 15 bush bean plants or 3 to 5 hills of pole beans per person. A 100-foot row produces about 50 quarts of beans. Beans are self-pollinating, so you can grow cultivars side by side with little danger of cross-pollination. If you plan to save seed from your plants, though, separate cultivars by at least 50 feet.

Bean seeds usually show about 70 percent germination, and the seeds can remain viable for 3 years. Don't soak or presprout seeds before sowing. If you plant in an area where beans haven't grown before, help ensure that your bean crop will fix nitrogen in the soil by dusting the seeds with a bacterial inoculant powder for beans and peas (inoculants are available from garden centers and seed suppliers).

Plant your first crop of beans a week or two after the date of the last expected frost. Sow the seeds 1 inch deep in heavy soil and 1 1/2 inches deep in light soil. Firm the earth over them to ensure soil contact.

Plant most bush cultivars 3 to 6 inches apart in rows 2 to 2 1/2 feet apart. They produce the bulk of their crop over a 2-week period. For a continuous harvest, stagger plantings at 2-week intervals until about 2 months before the first killing frost is expected.

Bush beans usually don't need any support unless planted in a windy area. In that case, prop them up with brushy twigs or a strong cord around stakes set at the row ends or in each corner of the bed. Pole beans are even more sensitive to cold than bush beans. They also take longer to mature (10 to 11 weeks), but they produce about three times the yield of bush beans in the same garden space and keep on bearing until the first frost. In the North, plant pole beans at the beginning of the season—usually in May. If your area has longer seasons, you may be able to harvest two crops. To calculate if two crops are possible, note the number of days to maturity for a particular cultivar, and count back from fall frost date, adding a week or so to be on the safe side.

Plant pole beans in single rows 3 to 4 feet apart or double rows spaced 1 foot apart. Sow seeds 2 inches deep and 10 inches apart. Provide a trellis or other vertical support at planting or as soon as the first two leaves of the seedlings open. Planting pole beans around a tepee support is a fun project to try if you're gardening with children, but it will be more difficult to harvest the beans than from a simple vertical trellis.

Growing guidelines

Bush beans germinate in about 7 days, pole beans in about 14. It's important to maintain even soil moisture during this period and also when the plants are about to blossom. If the soil dries out at these times, your harvest may be drastically reduced. Water deeply at least once a week when there is no rain, being careful not to hose off any of the blossoms on bush beans when you water. Apply several inches of mulch (after the seedlings emerge) to conserve moisture, reduce weeds, and keep the soil cool during hot spells (high heat can cause blossoms to drop off).

Beans generally don't need extra nitrogen for good growth because the beneficial bacteria that live in nodules on bean roots help to provide nitrogen for the plants. To speed up growth, give beans—particularly long-bearing pole beans or heavy-feeding limas—a midseason side-dressing of compost or kelp extract solution.

Problems

Soybeans, adzuki, and mung beans are fairly resistant to pests. Insect pests that attack other beans include aphids, cabbage loopers, corn earworms, European corn borers, Japanese beetles, and—the most destructive of all—Mexican bean beetles.

Leaf miners are tiny yellowish fly larvae that tunnel inside leaves and damage stems below the soil. To reduce leaf miner problems, pick off and destroy affected leaves.

Striped cucumber beetles are ¼-inch-long yellowish orange bugs with black heads and three black stripes down their backs. These pests can spread bacterial blight and cucumber mosaic. Apply a thick layer of mulch to discourage them from laying their orange eggs in the soil near the plants. Cover plants with row covers to prevent beetles from feeding; hand pick adults from plants that aren't covered. Plant later in the season to help avoid infestations of this pest.

Spider mites are tiny red or yellow creatures that generally live on the undersides of leaves; their feeding causes yellow stippling on leaf surfaces. Discourage spider mites with garlic or soap sprays. Using a strong blast of water from the hose will wash mites off plants, but avoid this method at blossom time or you may knock the blossoms off.

To minimize disease problems, buy disease-free seeds and disease-resistant cultivars, rotate bean crops every one or two years, and space plants far enough apart to provide airflow. Don't harvest or cultivate beans when the foliage is wet, or you may spread disease spores. Here are some common diseases to watch for:

- Anthracnose causes black, egg-shaped, sunken cankers on pods, stems, and seeds and black marks on leaf veins.
- Bacterial blight starts with large, brown blotches on the leaves; the foliage may fall off and the plant will die.
- Mosaic symptoms include yellow leaves and stunted growth. Control aphids and cucumber beetles, which spread the virus.
- Rust causes reddish brown spots on leaves, stems, and pods.
- Downy mildew causes fuzzy white patches on pods, especially of lima beans.

If disease strikes, destroy infested plants immediately, don't touch other plants with unwashed hands or clippers, and don't sow beans in that area again for 3 to 5 years.

Harvesting

Pick green beans when they are pencil size, tender, and before the seeds inside form bumps on the pod. Harvest almost daily to encourage production; if you allow pods to ripen fully, the plants will stop producing and die. Pulling directly on the pods may uproot the plants. Instead, pinch off bush beans using your thumbnail and fingers; use scissors on pole and runner beans. Also cut off and discard any overly mature beans you missed in previous pickings. Serve, freeze, can, or pickle the beans the day you harvest them to preserve the fresh, delicious, homegrown flavor.

Pick shell beans for fresh eating when the pods are plump but still tender. The more you pick, the more the vines will produce. Consume or preserve them as soon as possible. Unshelled, both they and green beans will keep for up to a week in the refrigerator.

To dry beans, leave the pods on the plants until they are brown and the seeds rattle inside them. Seeds should be so hard you can barely dent them with your teeth. If the pods have yellowed and a rainy spell is forecast, cut the plants off near the ground and hang them upside down indoors to dry. Put the shelled beans in airtight, lidded containers. Add a packet of dried milk to absorb moisture, and store the beans in a cool, dry place. They will keep for 10 to 12 months.