

Growing Beans

Beans are one of the oldest and versatile crops. Not only are they yummy to eat, whether it's raw, steamed or stir-fried, they also put valuable nitrogen back into depleted soil. For us, beans are a rich source of folic acid, calcium, fibre, vitamins A, C and K.

The humble bean *Phaseolus vulgaris*, is a member of the Fabaceae family alongside peas and legumes. Beans are easy to grow as long as you follow the directions for the variety chosen.

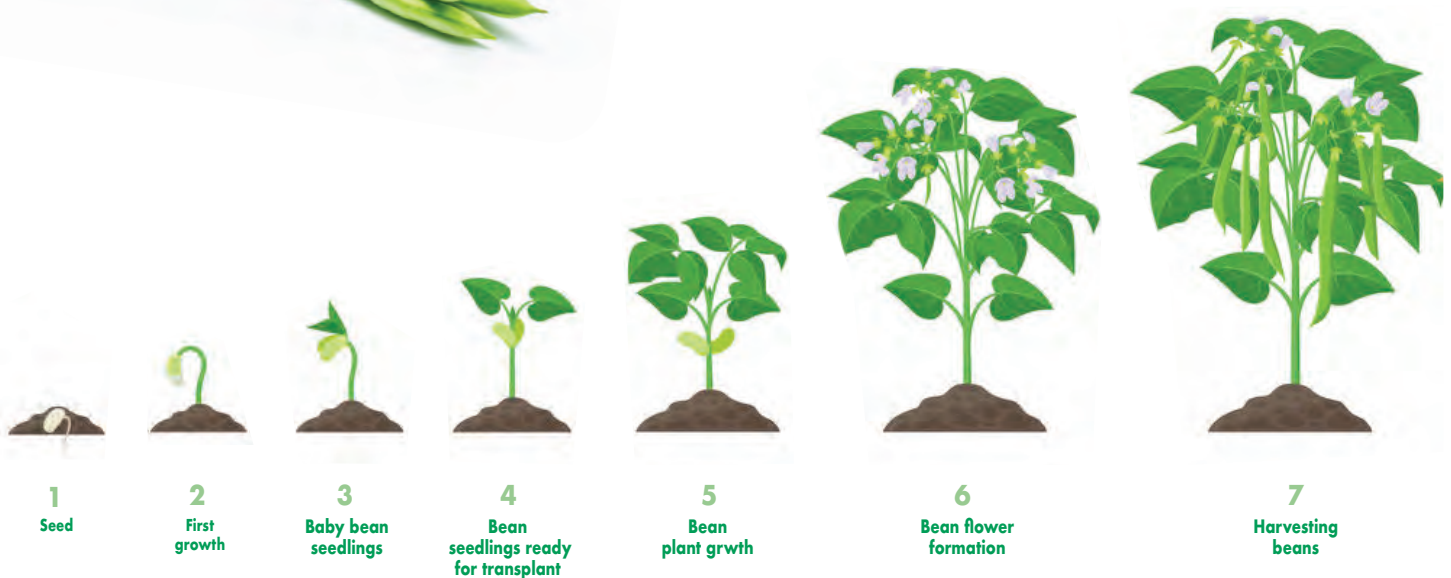
Beans can be divided in two categories, bush beans and climbing beans. Bush beans are quicker to grow and harvest occurs around 50 to 60 days. They are ideal for pots and generally do not need support.

Climbing or pole beans utilise space as they grow upwards supported by poles or trellis. They may take a bit longer to harvest, around 60 to 90 days, but you get more beans from each plant.

Beans can be further subdivided via their pod. Green beans also known as string, snap or French beans have smooth slender pods, whereas runner beans have slightly coarser pods and tend to crop longer. Finally, there are the exclusive warmer climate crops such as soya or lima beans.



LIFE CYCLE OF BEANS



When to plant

1. In warmer regions, seeds and seedlings can be planted all year round.
2. In temperate and cooler regions plant seeds and seedlings from Spring through Summer. Check with hardware or garden centre to see what varieties can be planted in your area.

Location

- Bush beans are self-supporting whereas climbing beans need support as they climb. Consider a fence, trellis or wire about 2m high. For a simple support bind three poles together to form a tepee. Ensure the support is in the ground before planting seeds or seedlings.
- Beans grow in full sun, so choose a sunny spot in the garden with at least six hours of sun a day. Use a temporary shade cover to protect them on hot or windy days.
- Companion plants for beans include nasturtium, marigolds, cucumber, eggplants and corn.

Soil

Beans prefer a deep, rich, well-draining soil.

Loosen the soil to a depth of around 30cm and add plenty of compost and organic manure to keep the soil friable. For a no-dig option, consider Seasol Liquid Compost.

The PH of the soil should be 6.0 to 7.5. If the pH is below 6.0 add a handful of lime to the soil.

To enrich the soil add Seasol Plant + Soil Booster and a fertiliser rich in potassium such as PowerFeed Controlled Release for Tomatoes & Vegetables

Water in well and if possible, let the soil rest for a week or so.

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1. Sowing seeds



- Soak bean seeds overnight in a mixture of **Seasol** in water. Bean seeds have a hard coating, this helps to soften them and improves germination rates.
- Seeds can be sown directly into the ground or seed trays and later transferred.
- In the ground, sow 3 to 4 seed approx. 5cm deep at the base of the poles if using a tepee as support. If planting in rows, space them at around 80cm for climbers and 50cm for bush beans. Make a trench about 5cm deep and scatter seeds every 10-15cm. Cover lightly with soil.
- In seed trays, put 1 to 2 seeds in each single cell, to a depth of 3cm. Cover with seed-raising mix and water in.
- Don't water again until seeds germinate. Overwatering can cause seeds to rot.

2. First growth



- Seeds will start to emerge out of the soil within 4 to 10 days depending on temperature.
- Use a heating pad indoors for faster germination times.
- Check soil moisture daily, but don't overwater. Apply **Seasol** weekly (mix 30mL of concentrate per 9 litres of water) to promote strong root development and healthy growth.
- When beans sprout, they only have two leaves. These are the seedling leaves that look like two fat hearts on either side of the stem.

3. Baby bean seedlings



- About two weeks after the seed leaves have opened, the true leaves will appear, these are the first bean leaves.
- Beans have fragile roots, so thin them out early before they get a chance to entwine with each other.
- Use scissors or tweezers to thin out seedlings to avoid disturbing young roots.
- Bean seedlings need a lot of nutrients to produce a crunchy crop so liquid feed with **PowerFeed PRO SERIES for Tomatoes & Vegetables** (Mix 20mL of concentrate per 9 litres of water).

4. Bean seedlings ready for transplant



- Transplanting your own seedlings when they are about 10-15cm high. Be careful with young shoots and roots as they can be easily damaged. Plant to the depth of the bean plug.
- Transplanting purchased seedlings, plant to a depth of the punnet.
- When planting climbing beans, place support such as trellis or frames for young beans to climb on. Beans especially those that climb use shoots called tendrils that wrap around anything they come into contact with.
- Continue to apply **Seasol** regularly every week to the young seedlings to get them over the transplant shock.
- Once a week feed your beans with a liquid fertiliser such as **PowerFeed PRO SERIES for Tomatoes & Vegetables**.



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5. Bean plant growth



- The rate at which beans grow depend on the variety. Climbing beans start off slowly with abundant root development and little top growth, then they take off with vigorous top growth. Ensure there is enough support for the climbing beans to hold onto.
- Pinch the tip growth out of climbing beans once they reach the top of their support.
- Beans need a regular deep watering. The soil must be moist, but not over wet.
- Apply a layer of mulch such as sugar cane mulch or pea straw to keep the soil warm and the moisture within the soil.
- Remove weeds as they appear as they compete for space and nutrients.

7. Harvesting beans



Things to watch out for...

- Overwatering is a serious issue with beans as seeds can rot and leaves become yellow and growth is poor.
- Watch out for slugs, snails, caterpillars and aphids. Pick off as you see them, spray with the hose or use the appropriate pest oil.
- Fungal diseases such as powdery mildew or bean rust can occur. To prevent fungal diseases, water at ground level in the morning, rotate crops or remove diseased leaves and apply a fungicide once it appears.



6. Bean flower growth



- Beans set flowers about 5 to 8 weeks after planting depending on variety. Climbing bean flowers appear in the top half of growth. Bush beans will set flowers faster than climbing, generally over the whole bush.
- Every 6-8 weeks apply another application of **PowerFeed Controlled Release Tomatoes & Vegetables** to produce a bumper crop.
- Additionally, liquid feed beans weekly with a combination of **Seasol** and **PowerFeed**.



- Bush beans generally produce a crop of beans over about a 14-day period, about 7-8 weeks after planting. For a continual crop of beans, plant new seedlings every couple of weeks.
- Climbing bean have a longer period to harvest. Pick beans when they are young and tender to encourage new flowers and pods. Beans left on the plant too long become stringy and tough.
- Store beans in the fridge to ensure they stay crisp until they are ready to be eaten.
- Towards the end of the season, leave a few beans on the plant to dry out. Remove the dried pods and shell the beans. Let the seeds dry out further and then store them in an envelope for next year's crop.