

## Growing French Beans in the Alice Springs Region

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### VARIETIES

There are two types of beans, climbing (which require trellising) and dwarf (which require little or no staking). Both types have stringed and stringless varieties. For current varieties contact local nurseries.

### SOIL PREPARATION

Select an area that is sheltered from the wind.

Dig the soil to a sufficient depth to enable mixing the compost or animal manure a few weeks before planting. The depth should be adequate enough to allow good establishment, growth and action of healthy roots. That way, the organic matter added ahead of planting will have enough time to decay or decompose properly and will be ready with the needed nutrients for establishing plants. Firm and smooth the seed-bed by raking.

### FERTILISER

Depending on the current knowledge of the soil, assessed through proper testing, the plants can be provided with the required nutrients using either a single nutrient fertiliser, a combined nutrient fertiliser, or a mixed fertiliser starting from before planting to top dressing whenever required in the production season. Complete granular NPK (nitrogen: phosphorus: potassium) fertiliser may be an option for an easy start. However, there is a whole range of different types of fertiliser in the market and the choice depends on the objectives of either conventional, minimal or complete organic, or biological farming. Always follow the manufacturer's recommendations when applying fertilisers.

### PLANTING

Beans are affected by frost. Thus planting can take place from September to February for dwarf varieties and from September to January for climbing varieties. Climbing varieties are probably best planted in November and December to allow them to produce as the weather gets cooler.

For dwarf varieties, row spacing should be from 40 to 60 cm apart with plants 10 cm apart in the rows. Climbers should be planted in rows 1 m apart with plants 10 cm apart. Seed is sown 3 to 4 cm deep. For a continuous supply, it is suggested that 4 to 5 m of row be planted every three weeks.

### WATERING

The seedbed should be moist at sowing time. After planting, watering should be delayed for two to three days. Over-watering before plant establishment can cause seed rotting and seedling damping off. Water should be applied at 12 mm (12 L/m<sup>2</sup>) every three days in September, increasing to 70 mm (70 L/m<sup>2</sup>) every seven days in midsummer.

Beans are sensitive to salt and should be irrigated only with water that is below 500 mg/L total dissolved solids. Alice Springs town water is suitable in most cases. Beans should not be grown in saline soil. Beans respond to

high humidity. Therefore, if water quality is suitable, use sprinkler irrigation. Hot dry weather can cause poor pollination and dropping of young pods. Overhead watering at night can improve production.

## **MANAGEMENT**

On top of the management aspects described above, the area should be kept weed-free and well-mulched.

## **INSECT CONTROL**

A good start with proper nutrition would see the plants growing healthy and eventually lead to very minimum insect infestation. The main pests of beans in and around Alice Springs are the red spider mites (two-spotted mites), which thrive under hot dry conditions, and caterpillars. The two-spotted mite is a sap-sucking insect that is very active on the dorsal side of leaves, causing them to go yellow (a washed-out look) and to dry off. It is a very small insect, which can be seen with the aid of a magnifying glass. Insecticidal soap applied to both sides of leaves should control it. Spray late in the afternoon to avoid burning the foliage. Caterpillars can be controlled by hand picking them from plants.

The use of pesticides is restricted. Check with the Entomology Section of the Department of Primary Industry and Fisheries for appropriate chemical control, or refer to [www.pestinfo.nt.gov.au](http://www.pestinfo.nt.gov.au).

## **HARVESTING**

Beans are usually harvested semi-mature while still young, green and tender. The stage of harvest is by personal preference, making a compromise between size and tenderness. Picking will need to be done twice a week at least in Alice Springs to maintain good quality. Early harvest prolongs flowering and production.

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