

# How to grow beans

Beans add nitrogen to soil with high proteins and dietary benefits. Their growth requires a few steps since they are directly planted in field.

They require full sun and well drained warm soil for proper growth. It is recommended to improve soil pH to 5.5-5.8 by applying lime since beans are sensitive to acidic soils. Furthermore soil temperature should be 60-70 F for proper growth, however space beans at 10-15 cm apart with 45cm between rows and they should be soaked for 24 hours to help speed up germination rate.

## Steps considered

Start by preparing soil earlier, fill holes with aged manure for better plant growth.

Also create a compost trench 30cm deep where beans are to be grown and fill in animal manure to boost growth. Additionally, plant fresh seeds and apply recommended fertilizers rates .

When beans are 1 month apply gypsum at 50kg/ acre to help pods set and nitrogen to help break down the materials.

Then dig planting holes 2.5-5 cm deep and drop in 2-3 seeds per hole. Thereafter water plants in the morning so that plants easily dry thus fungal disease control, irrigation must stop when 25% of bean pods turn yellow.

Also intercrop beans with maize to protect bean flowers during rain. At flowering stage apply gypsum at rate of 200kg/ hectare or animal manure to increase yields.

Always hand weed to avoid damaging plant roots and harvest at proper time depending on variety.

Also timely apply neem or copper to prevent fungal diseases

and practice crop rotation to break root borne disease cycle. Avoid working in field when foliage is wet to prevent spread of fungal and bacterial diseases.

Lastly, constantly inspect the garden to check for disease outbreak.

## **Bean varieties**

Bush beans, these are shorter, they grow to about 60cm in height and do not require trellises.

Pow beans, these grow to about 2.4- 3 metres in height, require a trellis, easy to harvest and give high yields. Other types of beans include runner beans, Lima beans, cow peas and soy beans.