



BEAN BLISS - ELEVATE YOUR COOKING WITH BUTTER BEANS

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Introduction

Lima bean or Butter Bean (*Phaseolus lunatus* L) is a legume plus protein rich crop, which belongs to popular plant family Leguminaceae. Its place of origin is located close to Guatemala. Originally from Central America, it has become a common native in tropical regions and goes by the names butter bean and double bean. It can be found in warm temperate climates as well as humid, sub humid, and semiarid tropical climates. *Phaseolus lunatus* comes in two varieties: the wild variety, *Phaseolus lunatus* var. *silvester* Baudet, and the cultivated variety, *Phaseolus lunatus* var. *lunatus*. Green seeds, young pods, leaves, and sprouts from lima beans can all be consumed as vegetables. Tender annuals, lima beans are grown for their flat, oval-shaped, round seeds. Lima beans come in two varieties: bush and pole or vine. Bush varieties bear more quickly than pole lima bean varieties; they reach a height of around two feet and typically have smaller

seeds. Pole lima beans can reach heights of 10 to 12 feet and have large seeds. Also known as butter beans, sieve beans, Burma beans, Madagascar beans, Carolina beans, and "baby limas," small seeded limas are typically bush varieties. Sometimes lima beans with large seeds are referred to as potato limas. The pale green pods of lima beans can range in length from 3 to 4 inches to 5 to 8 inches, depending on the variety. You eat the seeds of lima beans, not the pods.

SOIL:

The most suitable soil has a loose texture and is well-drained. Poor stands are the result of easily crusting or caked soils. The optimum range of pH for the soil is 5.8 to 6.0, but 5.5 to 6.5 is also acceptable. Use a rotation that lasts at least three years to reduce soil-borne diseases. If root rots are a problem, use a 4- to 5-year rotation.

SEASON:

The ideal time to grow butter beans is around March to April or May to June. Lima beans will not tolerate frost and will grow poorly in cold soil conditions. Soil temperatures should be above 60° F at planting.

SEEDS:

Ensure use of high-quality seed obtained from nearby farmers or commercial sources. A large number of cultivators will store their own seeds. When preserving seed, set away a specific section of the field for seed production. Let the plant's pods dry out before harvesting them to prevent them from splitting open. Only save seeds that is free of flaws, mold, or insect damage. Keep in a cool location with 50% humidity and 50°F.

SEED TREATMENT:

Treat the seeds with Trichoderma 4 g/kg or Thiram or Carbandazim @ 2 g/kg of seed 24 hours before sowing to control fungal



diseases. If the crop is raised for the first time it should be treated with Rhizobium as in cluster beans.

LAND PREPARATION:

Till soils should be loose and allow for sufficient rooting depth. Use raised beds or ridges if root rots have previously occurred in the past and If drainage is a problem. Hills thoroughly till the ground, add FYM, and create beds that are the right size. Plains After two ploughing, form ridges and furrows

SPACING:

Butter beans seeds were sown on both sides of ridges at a spacing of 30 cm X 20 cm. In one inch depth.

DIRECT SEEDING:

Treat an insecticide and fungicide to the seed. One inch deep, sow two seeds in each hole.

TRANSPLANTS:

Large-seeded pole lima beans are frequently started in a greenhouse or cold frame then transplanted to the field. In this manner, earlier crops are produced along with higher germination percentages. Place seeds in pots or plug flats with a minimum diameter of 1.5 inches and a minimum depth of 2 inches down. Sow one seed at a depth of one inch in each cell. Use a commercial greenhouse medium that is

sterile. Transplants will grow more quickly and develop in bottom heat. When plants have their first true leaves, transplant them into the field. Keep from letting it get

totally root bound. Stunting may occur if roots are disturbed during the transplanting process.

MULCHING:

Drip irrigation combined with black plastic mulch grows butter beans well. When growing on plastic, early growth is frequently more favorable. Straw and other mulching materials can help suppress weed growth and improve the soil's ability to retain water.

IRRIGATION:

Immediately after sowing, third day and thereafter once a week. Adequate moisture (1.5 to 2.5 inches per week) is extremely important during pod development. Hot, dry weather after flowering begins will result in flower drop, reduced pod set, and fewer seeds per pod. Irrigation is the best insurance you have against dry weather damage.

FERTILIZER:

Follow soil test recommendations. Apply FYM 25 t/ha at the last ploughing. and 40 kg N, 50 kg P and 50 kg K/ha.

STAKING:

Fifteen days after seeding, weeding needs to be done. Weddings afterward should be carried out as needed. After 30 days of sowing, stake the plants. Bean supports should be put up before the bean

plants begin producing "runners" and falling over.



significantly reduced below these levels due to flower and pod abortion.

CONCLUSION:

Overall, there is a global shift towards more sustainable and environment friendly agricultural practices. It's essential to note that the specifics of butter beans production technology may vary based on geographical location, climate, and local farming practices. Tackling the challenges associated with butter bean cultivation requires a comprehensive and collaborative strategy that considers agronomic, environmental, and socio-economic factors. So, the adoption of agro-ecological approaches, promotes responsible and sustainable butter beans production.

PLANT PROTECTION:

PESTS:

PODBORER

Spray Azadirachtin 0.03% (300ppm) thrice at fortnightly intervals.

APHIDS

Spray Methyl demeton 25 EC or Dimethoate 30 EC @ 1 ml/l of water or Cyantraniliprole 10.26 OD @ 0.6 ml/l of water.

DISEASES:

POWDERY

Spray wettable sulphur @ 2 g/l or dinocap @ 1 ml/l or dust sulphur @ 25 kg/ha thrice at 15 days interval.

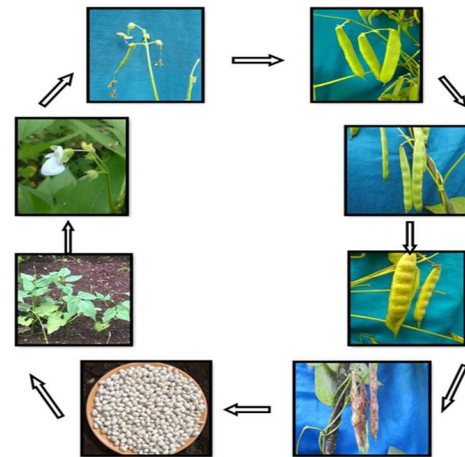
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HARVEST:

80 to 90 days are required from field planting to first harvest. Butter bean is usually harvested at least 2 times and may be harvested as many as 5 times. The harvest will continue up to 140 days.

YIELD:

The yields will 3 to 4 tonnes of ripe pod per hectare in three to four pickings. In very hot summers, yields can be



Different stages of butter beans