

Green Manures No. TGM18

Faba bean, *Vicia faba*

Green manures are plants which are grown mainly for the benefit of the soil. They can be grown as part of a rotation or in an intercropping system to build soil fertility, or as a cover crop to protect bare soil from erosion. Full details on the benefits and practice of using green manures can be found in HDRA's booklet 'Green manures/Cover crops'.

Vicia faba is also known as broad bean, fava bean, horsebean, windsorbean.



Growing conditions

- Annual rainfall: Broad bean requires rainfall of 230mm to 2090mm. It is not drought resistant.
- Altitude: In the tropics, it prefers higher altitudes
- Temperature: 5° C to 27° C. It prefers cool conditions and temperature fluctuation.
- Soil type: It tolerates a wide range of soils from pH 4.5 to 8.3. It prefers rich loams but tolerates acid soils.

Nitrogen fixation

Broad bean is a legume. This means that it has nodules on its roots which contain bacteria. These bacteria take nitrogen from the air. This is known as nitrogen fixation. The plant uses this to grow and when the legume is dug into the soil, the extra nitrogen is made available to the next crop.

Cultivation

Sow seeds 15cm apart in rows 60cm apart or closer in favorable conditions.

Growth form

Broad beans are tall (up to 2m) erect plants if left to mature.

Recommended application

It can be treated as an annual green manure and dug in prior to flowering, although plants are slow to establish.

If left to mature and beans are collected the plant is woody and may take some time to break down in the soil.

Human food

Broad beans are cultivated as a vegetable for human consumption. They are usually cooked prior to consumption and can be stored either by drying or canning. The seeds are roasted in India and eaten like peanuts.

Animal food

Broad beans are fed to animals. Feeding value is high.

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