

## Green Manures No. TGM20

Mung bean, *Vigna radiata*

*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'.*

*Vigna radiata* is also known as green gram or golden gram



### Growing conditions

- Annual rainfall: 300mm to 1000mm, may be grown in areas which receive up to 4000mm. It is drought resistant.
- Altitude: It will grow at altitudes up to 1850m.
- Temperature: It is not frost resistant and requires temperatures of 7° C to 28° C.
- Soil type: It withstands loamy to clay soils from pH 4.3 to 8.0. It does not tolerate saline conditions or waterlogging.

### Nitrogen fixation

Mung 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

Broadcast sow the seeds at a rate of 10-17kg/ha onto prepared soil. In dry areas a couple of irrigations may be necessary, but not during flowering.

### Growth form

Mung bean is an annual shrubby plant, with a tendency to twin at the tips, reaching 30-120cm tall.

## **Recommended application**

It can be used as an annual green manure and dug in prior to flowering to increase soil fertility and suppress weeds. It can also be intercropped with taller, longer-aged crops like sorghum or used in rotation with rice.

## **Human food**

Mung bean is widely used in India where the seeds are eaten spilt, whole, boiled or roasted. Green pods are eaten as a vegetable. Seeds can be sprouted providing a very nutritious vegetable.

## **Animal food**

Mung beans can be grown for hay or forage. Husks are soaked and used for cattle feed.

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