

MOTH BEAN

Mat Bean, Mother Bean

Vigna aconitifolia

Fabaceae

ECHO® PLANT INFORMATION SHEET

Origin

This bean is indigenous to semi-arid regions of India where it is known as the most drought-tolerant legume grown in the country. It is a seed crop in parts of China, Thailand, southern Africa and a fodder crop in the USA.

Uses

As a food for humans it is high in protein (22% - 24%). Because of its low-growing, mat-forming habit, it protects the soil from moisture loss and erosion by water or wind. As a legume used as a green manure, it improves the crop, which follows.

Cultivation

Moth Bean is adapted to dry soils because of its well-developed taproot and its thick growth, which shades out weeds and retains soil moisture. It can tolerate very little rainfall, as little as 500 mm or less if it comes in 3 - 4 different showers during its growing season. It can be successfully intercropped with sorghum, millet or cotton, requires little fertilization, and tolerates some salinity but not waterlogging.

Harvesting and Seed Production

Leaving space between rows, yet planting seeds densely encourages the plant to carry its pods on top of the mat of stems, making them easier to harvest. Pods are rounded 1 in - 2 in length, ½ in wide and contain 4-8 seeds. If pods mature over a long space of time, it will be necessary to pick several times. The pods should be yellowish-brown with firm seeds. Shelled beans should be dried in a well-ventilated room with air temperature not exceeding 35° C (95° F).

Cooking and Nutrition

Immature Moth Bean seeds and pods may be cooked as vegetables. A common use in India and Pakistan is to use the seed in the form of “dhal” (a sprouted bean paste) or “bhujia” (a salted snack). It is a satisfactory alternative to rice or is ground into flour. The seed has 22% - 31% crude protein. Soaking seeds for 12 hours begins the germination process and the resultant chemical changes increase nutritive value.

References

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=2524>