

PRICKLY SESBAN

Danchi

Sesbania bispinosa

Leguminosae

ECHO® PLANT INFORMATION SHEET

Origin

Native to North India, Pakistan, China and tropical Africa, this species of *Sesbania* is believed to have been originally cultivated on the continents of Africa and Asia. Because of its tolerance to many soil conditions, it has been naturalized in many other countries. It is a common weed in tropical Africa from Senegal to Cameroon.

Uses

Prickly Sesban is a rapid-growing, annual shrub of value for firewood, pulp fiber, seed gum, green manure, windbreaks and nitrogen fixation. The leaves, flowers and pods can be used as forage and the seeds are a good protein source for ruminants. The fibers in the stems are used for making fish nets (especially resistant to damage from salt water), sailcloth, bags or in rope making. The seeds contain a guar-like gum used for thickening and stabilizing solutions. Crushed seed can be an addition to chicken feed. The seeds of *Sesbania bispinosa* mixed with flour are medicinally valuable for applying to ringworm, wounds and skin diseases. The powdered root is given to snakebite victims. Because it grows so rapidly, this shrub can be used for erosion control on sloping ground and it improves the soil by fixing nitrogen on its roots. In Vietnam, this *Sesbania* species is often planted in a paddy with rice to suppress weeds, and then harvested for firewood before the rice is mature. Contradicting these valuable uses is the fact that some countries consider this *Sesbania* species to be a weed because of its tolerance of a variety of conditions and its rapid growth.

Cultivation

Sesbania bispinosa will grow in acid, alkaline, salty, wet, or heavy soils receiving annual precipitation of 5.5-22.1 dm (21.6-86 in). Little soil preparation is necessary and it does not require nitrogen fertilizer. In India, the seed is sowed in June-July before the monsoons. In the tropics, two crops can sometimes be harvested in one year. It thrives at elevations up to 1200 m (3937 ft). The broadcast rate is 20-60 kg/ha. It is often grown in rotation with rice. It can grow to be 7 m tall, resulting in a high value green manure crop that can add up to 80 kg N/ha when plowed in.

Harvesting and Seed Production

The plant is ready for cutting in 4 months and the seeds are ready in 5-6 months. If seeded thickly and harvested frequently, *Sesbania bispinosa* produces an abundance of fodder. It is also a prolific seed-producer with each pod containing many seeds. The pods do not shatter easily unless left on the plants through the winter. The crop can be handpicked and threshed or machine combined. The seeds are particularly prone to weevil and caterpillar damage during storage.

Pests and Diseases

Because the roots of this crop can be damaged by the presence of nematodes, sandy soil and planting in combination with other crops with weak resistance to nematodes are not recommended. The "rainforest mistletoe" plant (*Dendrophthoe falcate*) is a partial parasite.

Cooking and Nutrition

Humans can consume meal made from ground seeds.

References

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=9712>