

FLEMINGIA

Flemingia macrophylla

Fabaceae

ECHO® PLANT INFORMATION SHEET

Description

Flemingia is a woody, leguminous, deep-rooted shrub native to Asia but now found in Sub-Saharan Africa and Malaysia.

syn. *F. congesta*

Uses

Flemingia is useful in erosion control, for shade or shelter, for soil improvement and as a windbreak. Flemingia's leaves are very slow to decompose, which serves to prevent germination of weed seeds and maintain a higher level of soil moisture than other mulches. It also has potential as a live fence. This plant is used in "alley farming" as it helps protect and supply nutrients to intercropped plants, particularly maize. It is used in Cote d'Ivoire's pineapple plantations to control nematode infestation. *F. macrophylla* forms root nodules and fixes atmospheric nitrogen in symbiosis with *Bradyrhizobium* strains. It also has value as fodder. In some areas, such as Ghana, *F. macrophylla* remains green throughout the year and retains most of its leaves during the dry season, making it suitable as a dry-season browse species. Fuelwood is another valuable byproduct. Dried pods produce a powder that is used as an orange dye for silks. The roots are used for medicinal purposes against ulcers or swelling. The plant makes a sturdy climbing post for intercropped creeping plants. A resin that is the base for shellac is produced by the loc insect which feeds primarily on Flemingia.

Common Names

Cultivation

- Elevation: 0-2000 m (6500 ft)
- Rainfall: 1000-2850 mm (40-112 in)
- Soil: clay or lateritic soil, even slightly acidic conditions; will tolerate some water-logging
- Light: Light shading and fire (to some extent) are tolerated. It grows to about 2.5 m in height and produces seed pods which usually contain 2 black, shiny seeds.

Good weed control is required during the first 6 months of sowing since the plants are relatively slow to establish; once established, they require little attention.

Harvesting and Seed Production

F. macrophylla is propagated by seed. Standard hot-water treatment ensures good germination. Scarification of the seed is usually required to increase the germination percentage. The plant is grown primarily for its leaves and their ability to provide mulch, weed control and soil protection. The crop also has value as a dry season browse for cattle though the crude protein values are only in the 17% range. Leaves may be cut at 14-week intervals when the protein value is greatest.

Pests and Diseases

Insect pests such as the fly *Agromyza spp.* reduce seed production by laying eggs in green pods. *F. macrophylla* is an off-season host for the pod fly *Melanagromyza obtusa*, a major pest of pigeon pea, especially in central and northern India.

References

http://www.tropicalforages.info/key/forages/Media/Html/entities/flemingia_macrophylla.htm

<http://ecocrop.fao.org/ecocrop/srv/en/cropView?id=1104>

Getinet, A. and S.M. Sharma.(1996). Niger. *Guizotia Abyssinica*(L.f.) Cass. Promoting the conservation and use of underutilized and neglected crops. 5. Institute of Plant Genetics and Crop Plant Research, Gatersleben/International Plant Genetic Resources Institute, Rome