Senna didymobotrya

LOCAL NAMES
English (African wild sensitive); Filipino (wild senna)

BOTANIC DESCRIPTION
Senna didymobotrya is usually a several-stemmed shrub or small tree, 0.5-5(-9) m tall. Branches terete, striate, pubescent to villous, rarely subglabrous.

Leaves simply paripinnate, narrowly oblong-elliptical in outline, 10-50 cm long; stipules broadly ovate-cordate, 6-17 mm x 8-10 mm, acuminate, palmately veined, reflexed, tardily caducous; petiole terete, 1-8 cm long, rachis up to 40 cm long, both pubescent and eglandular; petiolules up to 3 mm long; leaflets in 8-18 pairs, chartaceous, elliptical-oblong, 2-6.5 cm x 0.5-2.5 cm, 2-3 times longer than wide, base oblique, apex rounded but mucronate, pubescent to glabrescent, marginal vein distinct.

Inflorescence an erect, axillary, 20-30 flowered, spike-like raceme, 10-50 cm long; peduncle terete, 5-8 cm long, pubescent; bracts broadly ovate, 8-27 mm x 5-15 mm, black green, at first imbricate and enclosing the flower buds; bracteoles absent; pedicel slender, 3-10 mm long, densely pubescent; sepals 5, subequal, oblong-obovate, 9-14 mm long, puberulous, green; petals 5, slightly unequal, at first incurved, later on more spreading, ovate to obovate, 17-27 mm x 10-16 mm, with a slender, about 1 mm long claw, glabrous, bright yellow, delicately veined; stamens 10, filaments shorter than anthers, anthers of 2 lower stamens 9-11 mm long, 3 upper stamens staminodial, anthers of 5 median stamens about 5 mm long; ovary and stipe velvety pubescent; style slender, glabrous, recurved, about 1 cm long; stigma punctiform.

Fruit a flat, 9-16 seeded pod, linear-oblong, 7-12 cm x 1.5-2.5 cm, glabrescent, short beaked, dehiscent or indehiscent when dry, depressed between the seeds, sutures raised, blackish-brown.

Seed flattened, oblongoid, apiculate, 8-9 mm x 4-5 mm x 2.5 mm, smooth, pale brown; areole elliptical, 3-4 mm x 0.7-1.5 mm.

In the older literature, this species is best known as Cassia didymobotrya. Until the beginning of the 1980s, Cassia L. was considered to be a genus with over 500 species.

BIOLOGY
S. didymobotrya flowers profusely twice a year; in temperate regions it flowers throughout the summer.
ECOLOGY
In its natural habitat S. didymobotrya is often ruderal in riparian montane wooded grassland or evergreen bushland. It tolerates light frost.

BIOPHYSICAL LIMITS
Altitude: 900-2400 m.

DOCUMENTED SPECIES DISTRIBUTION
Native: Angola, Ethiopia, Kenya, Mozambique, Sudan, Uganda
Exotic: India, Indonesia, Malaysia, Sri Lanka

The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.
Senna didymobotrya

(Fresenius) Irwin & Barneby
Fabaceae - Caesalpinioideae

PRODUCTS
Medicine: It is widely used as a purgative and an anti-malaria medicine. A decoction of the leaves is used against stomach complaints. Leaves and roots contain a number of anthraquinones, choline, and the trisaccharide raffinose.

Poison: In Africa, it is commonly used as a stupefacent poison for fishing.

SERVICES
Ornamental: It is now popular as an ornamental plant owing to its bright yellow flowers and black-green bracts. It is used as ornamental plant in Africa.

Shade or shelter: It has been used as a shade tree in tea plantations.

Soil improver: The aboveground biomass of S. didymobotrya grown as ground cover in Sri Lanka was found to contain 0.7 g N per 100 g fresh material. It was introduced as a green manure in India, Sri Lanka, Peninsular Malaysia and Java. It was introduced as a cover crop in India, Sri Lanka, Peninsular Malaysia and Java.

Other services: In sites where Erythrina spp. do not grow well, S. didymobotrya may be a valuable substitute.
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(Fresenius) Irwin & Barneby
Fabaceae - Caesalpinioideae

TREE MANAGEMENT
Plantation: When seedling planted as a small shade tree in tea it is spaced at about 5 m x 5 m.

Husbandry: The plants can be lopped several times per year to provide green manure. Lopping is preferably done when the plants are in flower, when the nutrient content in the leaves is high. The plant yields a fairly large amount of lopping. About 5 t of green material provides 35.5 kg nitrogen. In temperate areas, potted ornamental plants are overwintered in greenhouses.

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PESTS AND DISEASES
It is hardy and quite free from diseases and pests.
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Fabaceae - Caesalpinioideae

FURTHER READING


de Wit HCD. 1956. The Genus Cassia in Malaysia. Webbia; raccolta di scritti botanici. 11: 197-292 (241-242)


SUGGESTED CITATION