LOCAL NAMES
English (caracas rattlebox); Thai (hinghai); Vietnamese (s[uj]c s[aj]c soc,s[uj]c s[aj]c cao)

BOTANIC DESCRIPTION
Crotalaria micans is a shrub up to 4 m tall; young branches angular, appressed pubescent.

Leaves trifoliolate; petiole 3-5 cm long, longitudinally grooved above; stipules linear, 0.5-7 mm long, caducous; leaflets oblong-lanceolate to narrowly elliptic, 4-10 cm x 1-4.5 cm, apex acute to acuminate or obtuse, base cuneate, lower surface and midrib above puberulous, upper surface glabrous, lateral leaflets slightly smaller than terminal one.

Inflorescence a rather dense, 15-30 flowered, terminal raceme, 15-30 cm long, often leaf opposed; bracts linear, about 1 cm long, very early caducous; pedicel 5-9 mm long; bracteoles similar to bracts but smaller, inserted just above the middle part of the pedicel, flowers bisexual, 5-merous, 12-18 mm long; calyx 8-13 mm long, appressed puberulous, tube campanulate, 5-6 mm long, bilabiate and 5-lobed, lobes longer than the tube, upper lobes triangular-acuminate, often coherent at the tips with the lateral lobes and woolly on the inside of the margins; corolla 14-18 mm long, yellow, purplish-veined.

Fruit an inflated, short-stipitate pod, sub-cylindrical, 3-4 cm x 1 cm, appressed puberulous, brown, dehiscent, with 16-20 seeds.

Seed unequal-sided heart-shaped, about 4.5 mm x 3.5 mm, fine papillate, yellowish-brown.

The genus name ‘Crotalaria’, meaning rattle, is describes the noise made by the seeds shaking in mature pods. The specific epithet means gleaming or with a slight metallic luster.

BIOLOGY
Flowers bisexual. Seeds mature 7 months after sowing for instance in Indonesia.

ECOLOGY
C. micans is a species of savannas and other open places. The shrub tolerates a wide range of climatic and soil conditions. It grows in lowland areas generally and requires full sunlight. In high elevations, seed production is poor.

BIOPHYSICAL LIMITS
Altitude: 0-2 600 m
Soil type: C. micans is suited to damp places.

DOCUMENTED SPECIES DISTRIBUTION

Native: Colombia, Mexico, Panama
Exotic: Democratic Republic of Congo, Indonesia, Madagascar, Malaysia, Sri Lanka, Thailand, US, Vietnam

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.

PRODUCTS
Fodder: Young shoots and leaves are used as fodder for cattle; unlike many other Crotalaria spp., it is reported to be highly palatable and non-toxic. Young vegetative material contains 23% crude protein.

SERVICES
Erosion control: The shrub can be grown for erosion control.

Nitrogen fixing: C. micans forms root nodules with Bradyrhizobium spp. and fixes nitrogen.

Soil improver: The shrub is grown as a green manure and cover crop in plantations of coffee, tea, tobacco and rice. It is easily incorporated into the soil and decomposition is rapid.

Ornamental: Characterized by terminal inflorescences on which the large flowers are grouped tightly with prominent, long curled bracts and bracteoles, it is widely grown as an ornamental.

TREE MANAGEMENT
Early growth of C. micans is fast and can cover soil in 3 weeks after germination and reach 2.5 m after 3 months. It reseeds itself once established. C. micans can be cut repeatedly provided it is not cut too low and a few leaves per stem are left. Yields of 40 t/ha fresh material 4 months after planting have been reported from Java, containing about 150 kg nitrogen.

GERMPLASM MANAGEMENT
There are 55 000 seeds/kg.

PESTS AND DISEASES
Fungal diseases caused by Corticium salmonicolor and Sclerotium rolfsii have been reported in Java. It is a host to Lasiodiplodia theobromae affecting both cacao and tea. The Crotalaria bug (Ragmus importunatas) living on the underside of leaves and branch tips causes yellowing of leaves, which can be serious. The dadap fungus (Septobasidium bogoriense) grows on the base of the stem, making it susceptible to other diseases.

FURTHER READNG

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