

LOCAL NAMES

English (olivo,milktree)

BOTANIC DESCRIPTION

An evergreen or briefly deciduous canopy tree, 15-20 m tall and a d.b.h of up to 40 cm with a thin crown and prominently fissured, commonly cylindrical, though not usually very straight bole. Branches and twigs are fat and relatively few.

Leaves 15 cm by 3.5 cm, simple, alternate, finely serrate, with petioles about 2 cm long and arranged in whorls. Blade shape is elliptical with short, stubby drip-tips thickened and partially folded. Two pointed glands protrude from the petiole – reddish in young plants - near the base of the blade. Foliage is completely shed in March, and then renewed almost immediately as the tree enters the growth portion of its annual cycle.

Flowers monoecious, reddish-purple and appear on stalks at end of. Male blossoms, more numerous and smaller, are composed of discreet clumps of red stamens and arranged along the distal three quarters of the spike. Female blossoms - green globular (4 mm) topped by three-part, divided pistils - occupy the spike's proximal end.

Fruits are capsules (1.5 cm) that develop from the ovaries of the female flowers, are 3 or 4 per spike, each capsule with three sections each with a red-ripled, spongy seed suspended at ends of small stalks inside the capsule and containing a sweet-smelling, milky liquid.

Bark is boldly patterned by dark, deep fissures that meander vertically up the bole and cut its lighter gray surface into narrow strips. Often, the trunk is further textured by prominent branch scars manifest as raised and horizontally-stretched knobs that are periodically spaced along its length. It is referred to as "alligator bark" due to the deep fissures that create rectangular plates of a regular size.

Broken leaves or cut bark produces thick, rapidly flowing white latex.

BIOLOGY

In fall and winter, the small, white or pink blooms appear at the same time the previous-year's fruits are ripening. Flowers are produced from late March to July. The flowers are pollinated by bees and other flying insects after which the male end of the flower spike dies and drops off, leaving only the female flowers to develop into fruiting capsules.

Fruiting occurs from late July to October. Seeds germinate soon (within a week or two) after coming into contact with the moist forest floor. Birds and monkeys also harvest the fruit and expel the seeds in droppings after consumption and thus dispersed a good distance from the parent tree.

ECOLOGY

S. glandulosum is adapted to the secondary forest, open areas and in coastal lowlands, where light levels are high, soils are droughty and rocky. It grows best in part or full sun and is drought tolerant once established. Often it is found growing on dry slopes and hillsides associated with immature oak woods.

BIOPHYSICAL LIMITS

Altitude: 0-400 m

Temperature: mean annual temperature of 24°C

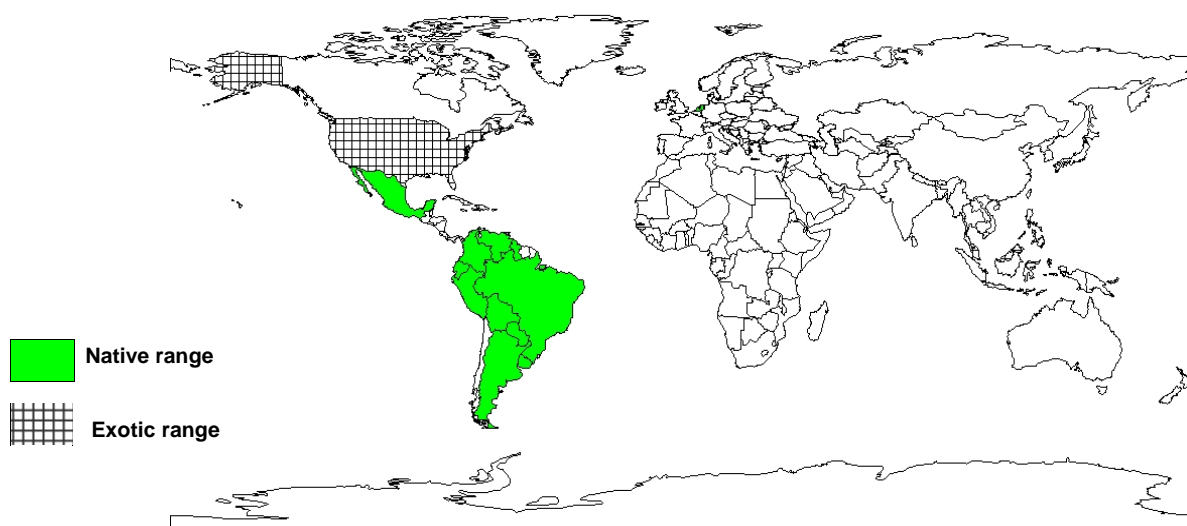
Rainfall: mean of 3500-4000 mm

Soil type: prevalent where soil conditions are thin and xeric. It prefers ultisol and inceptisol orders and can grow in clay, loam, and sand, acidic, alkaline and well-drained soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Argentina, Bolivia, Brazil, Colombia, Dominica, Ecuador, Guadeloupe, Guyana, Martinique, Mexico, Montserrat, Netherlands, Netherlands Antilles, Paraguay, Peru, St Lucia, St Vincent and the Grenadines, Trinidad and Tobago, Uruguay, Venezuela

Exotic: Malaysia, Singapore, US



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

Latex: The latex is used for making rubber and glue. It has been planted as a source of rubber that is of high quality, comparable and in some properties even superior to Hevea rubber, but is difficult to harvest; therefore it has never become commercially important. The latex has also been used by Indians to catch birds.

Medicine: the latex has been reportedly used against warts.

SERVICES

Reclamation: *S. glandulosum* has the potential for use in the reclamation of storm-ravaged land or where there has been human destruction of forests. Since the trees and saplings are sturdy and resistant to drought and excessive sunlight they are thus good pioneer plants or for use in reforestation programs, where poor, droughty soils in sunny locations are to be reclaimed. This secondary species is capable of improving and stabilizing the environment so that other, more sensitive but longer lived forest trees can gain a foothold. Saplings one meter tall have been observed in storm-damaged sites after only two years of regeneration.

Forage: Once mature the fruits become a food source for animals - especially birds like the Pale-vented Pigeons and the white-faced monkeys.

TREE MANAGEMENT

Requires pruning to develop a strong structure.

GERMPLASM MANAGEMENT

Little is known about seed behaviour and management.

PESTS AND DISEASES

No pests or diseases are of major concern, though it can occasionally get aphids and fungal spotting on older leaves if grown in very poor soil. Foliage and flowers may be damaged in extremely cold winters.

FURTHER READNG

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SUGGESTED CITATION

Orwa C, Mutua A , Kindt R , Jamnadass R, Simons A. 2009. Agroforestry Database:a tree reference and selection guide version 4.0 (<http://www.worldagroforestry.org/af/treedb/>)