Senna spectabilis

(DC.) H. S. Irwin and R. C. Barneby

Fabaceae - Caesalpinioideae

LOCAL NAMES
English (calceolaria shower,pisabed,cassia,yellow shower); Spanish (frijolillo,bruscón,cañafístula bobo,cañafístula cimarró,cañafístula macho,canchín,candelillo,casse maron,algarrobilo,chucaro,libertad,mucuteno,mutuy,parica,pela burro,tarantán,velero,velillo,chiquichique); Swahili (mhoba)

BOTANIC DESCRIPTION
Senna spectabilis is a small, rounded deciduous tree, 7-10 m (max. 15) tall, and 30 cm in trunk diameter, with a spreading crown. Bole is short, tends to fork near the ground and is wide spreading with drooping, leafy branches. Bark smooth, grey with horizontal markings, many warts and short fissures, rougher with age with broad vertical bands of large lenticels (corky pores). Twigs stout, brown with light dots (lenticels), finely hairy; young parts softly pubescent.

Leaves alternate, up to 40 cm, compound (pinnate) with 4-15 (max. 19) pairs of leaflets, each up to 7.5 cm; petiole 3-4 cm; rachis 10-20 cm (max. 35); stipules paired, threadlike, linear falcate, early caducous, about 1 cm long, without glands; leaflets narrowly elliptic, 3-7 x 1-2 cm (the lowermost petal usually much smaller and early caducous); base rounded, apex acute, mucronate; margin entire, upper surface glabrous, dull green and almost hairless, with many slightly sunken side veins; lower surface dull light green and soft hairy, sometimes hairless; petiolule short, about 3 mm long.

Inflorescence large, terminal, lateral, leafy panicles, 15-30 cm (max. 90) long, which are branched and very large. Flowers many, fragrant, composed of 5 rounded hairy bracts, which are ovate, 4-5 mm long, caducous; pedicles 2-3 mm, velutinous. Sepals orange-yellow, unequal, ovate to suborbicular; 2 outer pubescent, 3 inner glabrous, larger, 5-7 mm long. Petals yellow, spathulate, unequal, broadly to narrowly obovate, 2-3.5 cm long, anthers opening by apical pores and a slit; stamens 7 large and 3 small sterile (staminodes). Pistil slender, curved, hairless; ovary glabrous, recurved; style and stigma inconspicuous.

Fruit cylindrical or flattened pods ending in a short, narrow point, hard, not splitting open or slightly on 1 side; pendulous, more or less terete or slightly compressed, glabrous, glossy, annulate-septate, 18-25 (max. 30) x 1 cm, turning from green to black; with many cross walls about 3 mm or less apart, the seeds in separate compartments. Seeds 2.5 cm each division, 50-70, suborbicular, flattened, brown, about 5 mm in diameter; septae papery.

BIOLOGY
In Zambia, flowering occurs from January to February, and fruits ripen in September or October. In the US, flowering occurs throughout the year.

Trees: Stand in secondary growth forest. (Rafael T. Cadiz)

Senna spectabilis branches. (Rafael T. Cadiz)

Senna spectabilis leaves. (Rafael T. Cadiz)

ECOLOGY
S. spectabilis is tolerant of cool conditions.

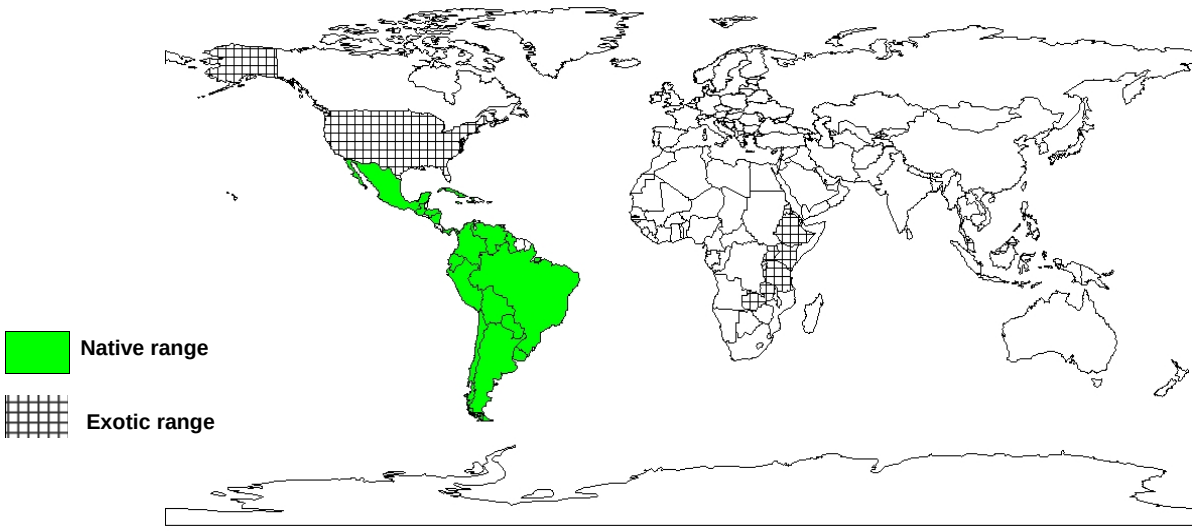
BIOPHYSICAL LIMITS
Altitude: up to 2 000 m, Mean annual temperature: 15-25 deg. C, Mean annual rainfall: 800-1 000 mm

Soil type: S. spectabilis grows in deep, moist, sandy or loamy soils but flourishes even in poor, black cotton soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Antigua and Barbuda, Argentina, Bahamas, Barbados, Bolivia, Brazil, Chile, Colombia, Cuba, Dominica, Dominican Republic, Ecuador, French Guiana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Surinam, Trinidad and Tobago, Uruguay, Venezuela

Exotic: Eritrea, Ethiopia, Kenya, Malaysia, Puerto Rico, Tanzania, Uganda, US, Zambia



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
Apiculture: Tree provides forage for bees.

Fuel: Tree provides firewood and is used to produce charcoal.

Timber: The sapwood is whitish and the heartwood is brown. It is described as hard, heavy, durable, termite resistant; it is used to make tool handles.

SERVICES
Shade or shelter: Tree casts a useful shade.

Soil improver: Tree provides mulch.

Ornamental: S. spectabilis is an attractive tree, suitable for planting along small roadsides and in between buildings.

Boundary or barrier or support: In Uganda, it is widely cultivated as a boundary marker.

TREE MANAGEMENT
S. spectabilis is fast growing on good sites and slow growing in dry sites. It has good coppicing ability and 50-year-old trees still coppice. As compared to S. siamea, it is easy to raise and less susceptible to pests and diseases.

GERMPLASM MANAGEMENT
Seed storage behaviour is orthodox; under cool dry conditions, seeds can be stored for up to 2 years. There are about 39 000 seeds/kg. Seeds are pretreated by immersing them in boiling water, allowing them to cool and soaking them for 24 hours.

FURTHER READNG

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SUGGESTED CITATION

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