

LOCAL NAMES

English (ivy tree); Lao (Sino-Tibetan) (ko tan); Vietnamese (nam s[aa]m)

BOTANIC DESCRIPTION

Schefflera heptaphylla is a small to medium-sized, semi-deciduous or evergreen tree up to 25 m tall, bole up to 80 cm in diameter.

Leaves palmately 6-8(-11)-foliolate, polymorphic, petiole 8-35 cm long, leaflets elliptical to ovate-elliptical, 7-20 cm x 3-6 cm, base attenuate, apex narrowly pointed, margin entire, glabrous, petiolules unequal, 1-5 cm long.

Inflorescence a well-developed panicle with hairy branches; flowers in many-flowered umbellules or sometimes solitary at the top of secondary axes; flowers 5-merous, ovary 5-8(-10)-locular.

Fruit globular, 3-4 mm in diameter, black.

In the light of recent taxonomical insight, the species known almost universally since the 1890s as *Schefflera octophylla* (Lour.) Harms should be called *S. heptaphylla* (L.) Frodin. It is a renowned medicinal plant from Indo-China, southern China, Taiwan and the Ryukyu Islands.

BIOLOGY

Flowers bloom from fall to early winter followed by round blueish black berries.

ECOLOGY

S. heptaphylla is found in relatively open forest and forest edges. In southernmost Japan it occurs near sea-level; in the Ryukyu Islands up to 600 m elevation. Southward in the tropics its maximum altitude rises to 1200(-1400) m, or it even becomes entirely montane. Its distribution corresponds with the 20 deg. C average January isotherm. Exploited from wild sources as well as from cultivation, this species can probably be grown easily at higher elevations in the Malesian region.

BIOPHYSICAL LIMITS

Altitude: Up to 1200(-1400) m.

Soil types: Sandy Loam to Clay Loam

DOCUMENTED SPECIES DISTRIBUTION

Native: China, India, Malaysia, Taiwan, Province of China

Exotic:



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

Timber and Fibre: The wood of *S. heptaphylla* is soft, light and easy to work, and can be used for paper, musical instruments and matchboxes.

Medicine: The bark is widely used in folk medicine for its diuretic properties and as a tonic. The ashes are sometimes used to treat dropsy. In Hong Kong the fresh branchlets are used as a wash to soothe itching of the skin.

Adulterations and substitutes: Asiatic acid and asiaticoside have also been reported in extracts of *Centella asiatica* (L.) Urb., which is a pantropical species extending into some subtropical regions. Asiatic acid has also been found in ether extracts from the wood of *Terminalia brassii* Exell and *T. complanata* K. Schumann.

SERVICES

Ornamental: In Vietnam, *S. heptaphylla* is reported to be cultivated as ornamentals and pot plants.

Soil improver: The leaves and young branches are used as green manure.

Schefflera heptaphylla

(L.) Frodin

Araliaceae

TREE MANAGEMENT

GERMPLASM MANAGEMENT

PESTS AND DISEASES

FURTHER READING

Frodin, DG. 1990. Studies in Schefflera (Araliaceae), IV. The identity of *Vitis heptaphylla* L., a long-misplaced Linnean ivy tree. *Botanical Journal of the Linnean Society* 104: 309-424.

Maeda C, Ohtani K, Kasai R, Yamasaki K, Nguyen MD, Nguyen TN & Nguyen KQ. 1994. Oleanane and ursane glycosides from *Schefflera octophylla*. *Phytochemistry*. 37(4): 1131-1137.

Nguyen Tap & Sosef MSM. 1999. *Schefflera* J.R. Forster & J.G. Forster. In de Padua, L.S., et al. (Eds.): *Plant Resources of South-East Asia*. No. 12(1): Medicinal and poisonous plants 1. Prosea Foundation, Bogor, Indonesia. pp. 433-434, 437.

Nguyen Van Duong. 1993. *Medicinal plants of Vietnam, Cambodia and Laos*. Mekong Printing, Santa Ana, California, United States. 528pp.

Ohashi h. 1993. Araliaceae. In: Huang TC. (Eds): *Flora of Taiwan*. 2nd Edition. Vol. 3. Editorial Committee of the Flora of Taiwan, Taipei, Taiwan, Republic of China. pp. 986-1009.

Perry LM. 1980. *Medicinal plants of East and South East Asia : attributed properties and uses*. MIT Press. South East Asia.

Sung TV, Adam G. 1991. A sulphated triterpenoid saponin from *Schefflera octophylla*. *Phytochemistry*. 30(8): 2712-2720.

Sung TV, Lavaud C, Porzel A, Steglich W, Adam G. 1992. Triterpenoids and their glycosides from the bark of *Schefflera octophylla*. *Phytochemistry*. 31(1): 227-231.

Sung TV, Peter-Katalinic J, Adam G. 1991. A bidesmosidic triterpenoid saponin from *Schefflera octophylla*. *Phytochemistry* 30(11): 3717-3720.

Sung TV, Steglich, W, Adam, G. 1991. Triterpene glycosides from *Schefflera octophylla*. *Phytochemistry* 30(7): 2349-2356.

SUGGESTED CITATION

Orwa C, A Mutua, Kindt R, Jamnadass R, S Anthony. 2009 *Agroforestry Database: a tree reference and selection guide version 4.0* (<http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp>)