

Ficus thonningii

Blume

Moraceae

LOCAL NAMES

Afrikaans (gewone wurgy); Arabic (jammeiz al abiad); English (strangler fig, common wild fig, bark-cloth fig); French (India-laurel fig); Fula (bikeshi); Hausa (chediya); Shona (gerina); Spanish (Laurel, álamo jagüey, Arbol de Washington); Swahili (mitschamwa, mumbapori); Tigrigna (shibaka); Yoruba (odan); Zulu (umBombe)

BOTANIC DESCRIPTION

Ficus thonningii is an evergreen tree 6-21 m, with a rounded to spreading and dense crown. Sometimes epiphytic, often a strangler; trunk fluted or multistemmed. Bark on young branches hairy, with a stipular cap covering the growth tip, but smooth and grey on older branches and stems, lenticellate, often with aerial roots hanging down from branches; the whole plant exudes a copious, milky latex often turning pinkish.

Leaves simple, glossy, dark green, thin and papery or slightly leathery, margin smooth, elliptic or obovate, sometimes rather elongated or slightly oblanceolate, grouped at ends of twigs, 3-20 x 1.5-10 cm, glabrous, puberulous or pubescent; with 6-12 pairs of upcurving main lateral veins; stalk rather slender, 1-7.5 cm; base cuneate or obtuse (sometimes subcordate); apex rounded or obtuse, sometimes shortly and bluntly acuminate. Stipules about 12 mm long, soon falling off.

Figs in leaf axils, sometimes below the leaves, enclosing many small flowers, mostly hairy and borne in the leaf axils, sessile or on peduncles to 10 mm long, yellow or red, globose or ellipsoid, 7-14 mm in diameter, smooth or warty, glabrous or pubescent, basal bracts 2-4 mm long, persistent.

The generic name is the classical Latin name for the cultivated fig derived from the Persian word 'fica', and the specific epithet is in honour of Danish plant collector Peter Thonning (1775-1848).

BIOLOGY

Flowers unisexual, pollinated by small wasps, which develop in some of the flowers and live symbiotically inside the syconium. Seed dispersal is achieved by bats. In southern Africa, flowering and fruiting are observed for most of the year with the peak period in October.



Ficus thonningii as an ornamental tree on ICRAF campus (AFT team)



Ficus thonningii in fruit (AFT team)



Ficus thonningii slash (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)

ECOLOGY

The species is widely distributed in upland forest, open grassland, riverine and rocky areas and sometimes in savannah. It occurs naturally from the Democratic Republic of Congo and Tanzania in the north to the Eastern Cape in South Africa. Trees are relatively drought resistant.

BIOPHYSICAL LIMITS

Altitude: 1000-2500 m, Mean annual rainfall: 750-2000 mm

Soil type: Occurs on a wide variety of soils but favours light, deep and well-drained soils with neutral to acidic reaction and humus-rich or deep loamy soil.

DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Benin, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, Cote d'Ivoire, Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Ghana, Guinea-Bissau, Kenya, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe

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

Food: A good jam can be made from the ripe fruits.

Fodder: Livestock eat the dry leaves on the ground and to a lesser degree fresh leaves. Leaves and twigs are eaten by bushbuck, dikdik, elephant, giraffe, impala, kudu and nyala. Dropped fruits are eaten by baboon, bushbuck, bushpig, civet, dikdik, grey duiker, rock and tree hyrax, impala, kudu, slender mongoose, samango and vervet monkeys, nyala, porcupine and warthog. The ripe fruits are eaten by bats, barbets, bulbuls, louries (turacos), parrots, pigeons and starlings.

Fuel: Branches are used for firewood.

Fibre: Bark cloth is obtained by cutting out a strip or cylinder of bark, which causes the tree to produce a fine, matted covering of red, slender roots over the wound. Bark fibre is used for making mats; the twined bark produces a strong rope, which is mostly used for fastening bundles of firewood before they are carried to the homestead for fastening slates onto a roof.

Timber: The wood is creamy brown, has a fairly uniform structure, is light (510 kg/cubic m), soft to moderately hard, with a rough texture, tough, strong, easy to work; it finishes smoothly and holds nails firmly. Its durability is low, and it is easily attacked by termites.

Latex or rubber: A considerable amount of useful latex is produced by the tree.

Medicine: The bark is important in local medicine, and it is used in treating colds, sore throat, dysentery, wounds, constipation, nosebleed and to stimulate lactation. Latex is used for wound fever, while an infusion of the root and fibre is taken orally to help prevent abortion. Powdered root is taken in porridge to stop nosebleed; the milky latex is dropped into the eye to treat cataracts.

Other products: The sticky juice from pounded roots is used to trap small animals like hares and birds.

SERVICES

Erosion control: Truncheons can be planted close to each other to help control erosion.

Shade or shelter: *F. thonningii* is often planted to offer cover from the scorching sun in recreational areas, market centres and schoolyards. It can also be planted to provide shelter during the cold winter months.

Soil improver: Leaf litter helps in the improvement of the nutrient status and water-holding capacity of the soil.

Intercropping: In Uganda, the tree is intercropped with coffee and bananas.

Ornamental: This tree has an aggressive root system and should not be planted in a small garden or near buildings, swimming pools or paths. It makes an ideal shade tree in a large garden or park, and it makes a successful container plant for the patio. It is also ideal for use as a bonsai specimen.

TREE MANAGEMENT

F. thonningii requires wide spacing because of its spreading crown. It should be protected from browsing at the initial stages of establishment. It is tolerant to pruning and lopping.

PESTS AND DISEASES

The larvae of several Lepidoptera and Coleoptera (long-horn beetles) make tunnels in the branches and sometimes the trunk. Many leaf-eating beetles (Coleoptera) and caterpillars (Lepidoptera) damage foliage. Branches, leaves and fruit may be attacked by scale insects and mealybugs (Homoptera), which suck the sap. The larvae of fruit flies *Dacus* spp. and *Ceratitis* spp. (Diptera) feed on the pulp of fruits, resulting in rotting and premature drops. Other pests include *Drosophila* spp., *Acrina* spp., *Aceria ficus* and a sawfly (Hymenoptera).

At least 30 species of fungi attack the genus *Ficus*. These include root rots, branch wilt and canker, leaf rusts, branch and foliage blights, fruit surface mould and spot rot, internal fruit rot, mould and smut and fruit souring. Most are of minor importance and can be controlled by chemical sprays. The tree is susceptible to nematodes, hence should not be planted in infested soils.

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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>)