Ficus sycomorus

L.

Moraceae

LOCAL NAMES
Afrikaans (sycomorusvy,rivierwildevy); Amharic (shola,bamba); Arabic (subula); Bemba (mkunyu); English (wild fig,strangler-fig,Sycamore,sycamore fig,bush fig,common cluster fig); French (figuier sycomore,Sykomore); Lozi (mukuyu,katema); Luganda (mukunyu); Lunda (mukuyu); Nyanja (mkuyu); Somali (barda); Spanish (sicomoro); Swahili (mukuyu,mkuyu,chivuzi); Tigrigna (saghla,sagla,shegla); Tongan (mukuyu); Zulu (umKhiwane)

(Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)

Ficus sycomorus bark (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)

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BOTANIC DESCRIPTION
Ficus sycomorus is a large, semi-deciduous spreading savannah tree, up to 21 (max. 46) m, occasionally buttressed. Bark on young stems pale green with a soft powdery covering; on older stems, grey-green, fairly smooth, with scattered grey scales and pale brown patches where scales have fallen off. Slash pale pink with heavy latex flow.

Leaves broadly (ob)ovate or elliptic, base (sub)cordate, apex rounded or obtuse, margin entire or slightly repand -dentate, 2.5-13 (max. 21) x 2-10 (max. 16) cm, scabrous above, petiole 1-5 cm, 5-7 pairs of yellow lateral veins, lowest pair originating at the leaf base.

Flowers, unisexual, cyclic and greenish.

Figs in leaf axils or on up to 10 cm leafless branches on old wood, solitary or paired, globose or (ob)ovoid, yellow-red to reddish-purple when ripe, up to 3.5 x 5 cm, pubescent or almost glabrous. Seeds, numerous, round and very tiny.

Ficus is the Latin for fig, derived from the Persian ‘fica’. In Greek ‘syka’ means fig. The species name comes from the Greek ‘sykamorea’ (sycamore), used in the Gospel according to St. Luke; it was such a tree that Jesus cursed because it was barren. But the word ‘sykomorom’ had been used to denote the fruit a century before Christ. It has since been applied as a popular name to many sorts of tree, including Acer pseudoplatanus and Platanus ocidentalis.

BIOLOGY
In southern Africa, flowering and fruiting occur throughout the year, with a peak from July to December. Small wasps (Ceratosolen arabicus), which develop in some of the flowers and live symbiotically inside the syconium, pollinate the unisexual flowers. Bats achieve seed dispersal.

ECOLOGY
A common savannah tree that grows in high water table areas. Often found along watercourses such as streams and rivers, swamps and waterholes. The sycamore fig is sensitive to frost but can withstand some cold. It is found in afro-montane rain forests and undifferentiated afro-montane forests, especially along edges and in clearings, riverine forests, riparian woodland, secondary evergreen bushland; left as single trees in farmland and occasionally seen as single trees on rocky outcrops.

BIOPHYSICAL LIMITS
Altitude: 0-2000 m, Mean annual temperature: 0-40 deg. C, Mean annual rainfall: 500-1800 (max. 2200) mm

Soil type: Prefers deep, well-drained loam to clay soil rich in nutrients. Sandy soils with a shallow groundwater level may also be suitable.

DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Benin, Botswana, Burundi, Cameroon, Congo, Cote d'Ivoire, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Israel, Kenya, Lesotho, Madagascar, Mozambique, Namibia, Nigeria, Rwanda, Saudi Arabia, Senegal, Somalia, South Africa, Sudan, Swaziland, Syrian Arab Republic, Tanzania, 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: Mature fruits are eaten fresh, stewed, or dried and stored for later use. Fruit can also be used for the preparation of an alcoholic beverage. Leaves are used in soups and groundnut dishes. The bark is chewed together with kola nut. In Ghana, the wood ash is commonly used as a salt substitute.

Fodder: Leaves are a much-sought fodder with fairly high nutritive value (9% crude protein and 7 mJ/kg net energy dry matter); they are valuable fodder in overstocked semi-arid areas where the trees occur naturally. Fruits are eaten by livestock, wild animals and birds.

Fuel: Can be used as firewood and for making charcoal; various peoples throughout Africa use a piece of dry wood from this tree as the base block when starting a fire by the friction method.

Fibre: Inner part of the root used as weaving fibre, and a strong rope can be made from the inner bark.

Timber: The wood is creamy brown, has a fairly uniform structure, is very light (air-dry 510 kg/m^3), soft to moderately hard, tough, strong, easy to work, finishes smoothly and holds nails firmly. It is not very durable and is easily attacked by termites. Mainly used for making mortars and pestles, drums, stools, doors, beehives, dugout canoes, carvings and for house building.

Medicine: The bark is used for the treatment of scrofula, coughs, and throat and chest diseases. The milky latex is used for treatment of dysentery and chest diseases, or is applied to inflamed areas, while ringworm is treated with the bark and milky latex. Leaves are said to be effective against jaundice and as an antidote for snakebite, while the roots have laxative and anthelmintic properties.

SERVICES
Erosion control: Wild fig can be used for sand-dune fixation and riverbank stabilization.

Shade or shelter: The tree gives useful shade and is common at marketplaces, where people gather under it for many social functions.

Soil improver: Shed leaves form a valuable litter improving the nutrient status, infiltration rate and water-holding capacity of the soil.

Ornamental: An important tree planted for ornamental purposes near temples, roadsides, wells and community places such market centres in rural areas. The yellowish bark shows at an early stage, contrasting well with the green leaves. A popular species to grow as a bonsai.

Intercropping: Usually intercropped with bananas as an understorey.

Other services: The sycamore fig is widely valued for spiritual and sacred purposes. Such use can be traced back to ancient Egypt, and it is often mentioned in the Holy Bible.

TREE MANAGEMENT
The sycamore fig is large, spreading and very shady, and therefore requires considerable spacing. It tolerates lopping. Continuous and adequate water supply is necessary for high yields, but rainfall during fruiting may cause fruits to split and favour growth of fungal rots. The best site for trees is next to drainage lines, streams, rivers, springs or dams. A tree can bear several crops of fruit a year. The invasive root system should be borne in mind when positioning trees. Wild fig does well in a container if pruned once or twice a year. Growth rate is fairly fast at 1-1.5 m/year in frost-free areas.

GERMPLASM MANAGEMENT
Viable seed is difficult to obtain.

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. Scale insects and mealybugs (Homoptera), which suck the sap, may attack fruits, branches and leaves. The larvae of fruit flies of 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 fungus 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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