

TREES BEES USE

Bombax costatum

Usman H Dukku, Biological Sciences Programme, Abubakar Tafawa Balewa University, PMB 0248, Bauchi 740004, Nigeria

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Apicultural value

A savanna honey bee tree with multiple uses, *Bombax costatum* produces an abundant supply of nectar and is recommended for honey production.

Family Bombacaceae

Common names

English	Kapok tree red-flowered silk cotton tree
French	Kapokier
Hausa	Gurjiya
Fulfulde	Jooyehi, Joochi
Mandinka	Bunkungo
Wolof	Kattupa

Distribution

West Africa: widespread in savanna zones, from Senegal to Central African Republic

Flowering period

November to February

Description

Bombax costatum is a deciduous tree that can grow up to 25 m high. However in the Sahel it rarely reaches over 6 m. The crown structure of young trees is storeyed, becoming irregular and sturdy in older trees.

Bark thick, grey brown and corky, with typical conical, stout, sharp-pointed spines on the stem and branches.

Leaves are compound (digitate), with 5-7 leaflets, 8-15 cm long, on long petioles.

Leaflets are partly ovate, partly acuminate, at both ends, with 8-10 pairs of lateral nerves. Flowers are 5-6 cm long and solitary, deep red, orange or yellow, tulip-shaped, on long, glabrous peduncles and are calyx cup-shaped.

Fruit is a dark brown, ellipsoidal capsule, composed of five valves, dehiscent, 8-16 cm long and 3-6 cm wide, of variable shapes. The valves are furrowed for about one third the distance from the top to the middle. The fruit contains a white floss - kapok - and several small seeds.

Habitat

Bombax costatum grows in savannas and dry woodlands. It does well on cropland near settlements and on stony soils.

Cultural notes

Direct seeding is a preferred propagation mode, however wildlings may also be used. The seedlings are difficult to plant in spite of their vigorous rooting ability. Natural regeneration is easy and abundant when sufficiently protected against fire and livestock.

Association with bees

Bombax costatum flowers during the major dearth period. This underscores its importance in maintaining honey bee colonies, since beekeepers do not need to feed their colonies at all. The end of its flowering period overlaps with the beginning of the flowering of other

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Bombax costatum tree in full bloom

important bee forage plants, including *Parkia biglobosa* and *Vitellaria paradoxa*, with which it is often associated. Details on the seasons and nectar flow in this region may be found in Dukku (2003).

Honey bees forage for nectar on this tree throughout the day. Other foragers include ants, birds, flies, stingless bees *Trigona* spp and wasps. Honey bees have been observed foraging on fallen flowers.

Other uses

Bombax costatum is used as a shade and ornamental tree on farms and compounds. The kapok from the fruit is used in filling mattresses and pillows. The timber is used in making canoes, stools and serving bowls. The calyx is used in making soups and the leaves are a good fodder for livestock. The kapok tree is a source of herbal medicine in many communities.

References

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Usman Dukku has been studying honey bees and beekeeping in Nigeria since 1984. He teaches undergraduate students and trains beekeepers.



Flowers of *Bombax costatum*

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