

**LOCAL NAMES**

Arabic (hab al-zelim, fulful as-Sudan); English (negro pepper, grains of Selim, kani pepper, moor pepper, West African pepper tree, senegal pepper); French (noir de Guinée, poivre de Sénégal, graines de Selim); German (mohrenpfeffer, kanipfeffer, selimskörner, senegalpfeffer, negerpfeffer); Portuguese (pimenta-da-áfrica, pimenta-do-congo); Swahili (mchofu)

**BOTANIC DESCRIPTION**

*Xylopia aethiopica* is a slim, tall, evergreen, aromatic tree to 15–30 m high and about 60–70 cm in diameter with straight stem, many-branched crown and sometimes buttressed. Bark grey-brown, smooth or finely vertically fissured and peeling easily.

Leaves simple, alternate, oblong, elliptic to ovate, 8-16.5 by 2.8-6.5 cm, leathery, bluish-green and without hairs above, but with fine brownish hairs below, margin entire, and glabrous; petiole 0.3-0.6 cm, thickset and dark-coloured.

Flowers bisexual, solitary or in 3-5 flowered fascicles or in strange, sinuous, branched spikes, or cymes, up to 5.5 by 0.4 cm and creamy-green.

Fruits small, carpels 7-24, forming dense cluster, twisted bean-like pods, dark brown, cylindrical, 1.5-6 cm long and 4-7 mm thick; the contours of the seeds are visible from outside.

Seeds black, 5-8 per pod, kidney-shaped seeds of approximately 10 mm length with a yellow papery aril. The hull is aromatic, but not the seed itself.

*Xylopia* is Greek ('xylon pikron') for 'bitter wood', while *aethiopica* refers its Ethiopian origin.

**BIOLOGY**

In West Africa, the tree flowers twice annually (March-July and October-December) while fruiting occurs in December-March and June-September.

**ECOLOGY**

Xylopia is native to the lowland rainforest and moist fringe forest in the savanna zones of Africa, but largely found in West, Central and Southern Africa. These trees are widely distributed in the humid forest zones especially along rivers in the drier area of the region.

**BIOPHYSICAL LIMITS**

Altitude: 200-500 m

Mean annual temperature: 20-31°C

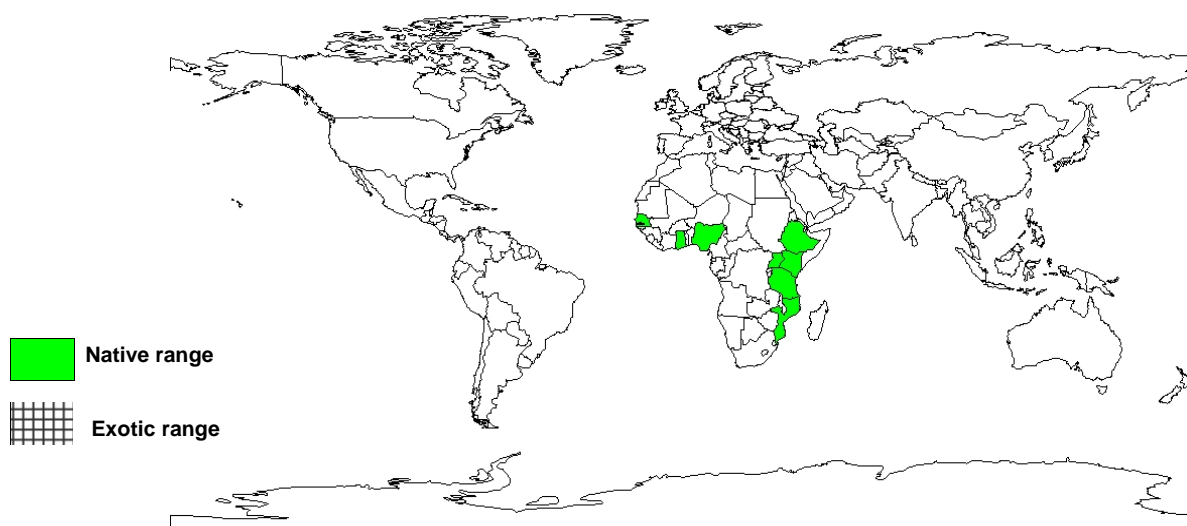
Mean annual rainfall: 1 500-2 500 mm

Soil type: Well-drained loamy and sandy loam soils

**DOCUMENTED SPECIES DISTRIBUTION**

Native: Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Mozambique, Nigeria, Senegal, Tanzania, Uganda

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:** Crushed powdered fruits and seeds are dried and used as pepper substitute. The seeds have an aromatic, pungent taste and were formerly sold under the name: Ethiopian pepper, Guinea pepper and Negro pepper. The dried fruits are important as flavorings to prepare local soups in West Africa.

**Fuel:** A good source of firewood

**Timber:** The wood is used as a general purpose timber in tool handles, beds, oxen yokes, knife sheaths and spear handles.

**Essential oil:** The essential oil yield varies from 2-4.5%. The bark oil consists mainly of pinene, trans-pinocarveol, verbenone and myrtenol whereas the leaf oil is mainly spathulenol, cryptone, beta-caryophyllene and limonene.

**Medicine:** Medicinally, the fruit is used against cough, stomachache, dizziness, amenorrhoea, bronchitis (when smoked and inhaled), dysentery, enema, bulimia (eating disorder), lumbago and neuralgia. It is also used as a calmate, purgative, repulsive to pain, and in the treatment of boils and skin eruptions. The odiferous roots of the plant are employed in tinctures, administered orally to expel worms and other parasitic animals from the intestines, or in teeth rinsing and mouth wash extracts against toothaches. The fruits mixed with its roots are used in the treatment of rheumatism.

**Other products:** The seeds of *X. aethiopica* are mixed with other spices, rubbed on the body as cosmetic and scent, and as perfume for clothing. The crushed, powdered fruit mixed with shea butter and coconut oil is used as creams, cosmetic products and perfumes.

**SERVICES**

**Shade or shelter:** The tree provides a good shade.

**Ornamental:** Sometimes used as ornamental species.

**Intercropping:** The plant is successfully intercropped with other staple food items in the first four years.

**TREE MANAGEMENT**

The plant grows rapidly during the first three years. Trees are planted eight meters apart. In Ghana, it has been successfully intercropped with other staple food items in the first four years.

**GERMPLASM MANAGEMENT**

In West Africa, harvesting time runs from February to May and again from August to October. The fruits are harvested with the inflorescence. After picking, the fruits are sun-dried for 4-7 days. After drying, the fruits are removed from the inflorescence stalks. Fruits should not be dried on the ground, but on a protective cloth, net, screen or shelving system to minimize any microbial contamination. Typical fruit yields are about two to three metric tons per annum per hectare. Seed storage behaviour is orthodox.

**FURTHER READNG**

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**SUGGESTED CITATION**

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