

Olea europaea ssp. africana

kau, kao, brown olive

(Mill.) P. Green.

Oleaceae

LOCAL NAMES

Afrikaans (olyfboom,olienhout,swartolienhout); Amharic (weira); Arabic (zeitun bari); English (brown olive,wild olive,Indian olive,African wild olive,olive); German (Ölbaum); Hindi (bair banj,zaitoon,kan,kau,kahu,kao); Ndebele (umnquma); Shona (mupfungo); Somali (wera); Tigrigna (awliie); Trade name (kao,brown olive,kau); Zulu (umNqumo)

BOTANIC DESCRIPTION

Olea europaea ssp. africana is a shrub or a small to medium sized tree 5-10 m in height, occasionally reaching 18 m. Bark is grey to brownish-blackish, smooth to rough when old.

Leaves narrowly oblong-elliptic, 2-10 cm x 7-17 mm, grey-green to shiny dark green above, greyish or yellowish with a dense covering of silvery, golden or brown scales on the under surface; apex and base narrowly tapering, apex sharp tipped; margin entire, rolled under and curved back from the midrib, petiole slender, up to 10 mm long, so the leaves tend to droop.

Flowers greenish-white or cream, 6-10 mm long, sweetly scented, in loose axillary or occasionally terminal heads, 5-6 cm long.

Fruit ovoid, thinly fleshy, about 10 x 8 mm tapering to a sharp tip, dark brown or black when mature.

Ssp. africana (Mill.) P.S. Green is the only subspecies that occurs south of the Zambezi River.

BIOLOGY

In its native range the fruits typically ripen in September, towards the end of the rainy season. Usually only 1 ovule is fertilized.



Typical growth form of the wild olive in the Pretoria area - dense, rounded crown with spreading branches. This tree occurs throughout South Africa in a variety of habitats and displays a number of growth forms from multi-stemmed shrubs to stately trees up to 18m tall. (Ellis RP)



The unusual branching pattern as seen from inside the canopy. (Ellis RP)



The longitudinally ridged, rough, grey to brown bark of the wild olive. (Ellis RP)

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ECOLOGY

O. europaea ssp. africana is widely distributed in its native range of southern Africa occurring in a variety of habitats, usually near water, on stream banks, in riverine fringes, but also in open woodland, among rocks and in mountain ravines. It is resistant to both frost and drought. Dry upland evergreen forest (edges, remnants) often associated with *Juniperus*; may be co dominant; also in woodland on lava flows.

BIOPHYSICAL LIMITS

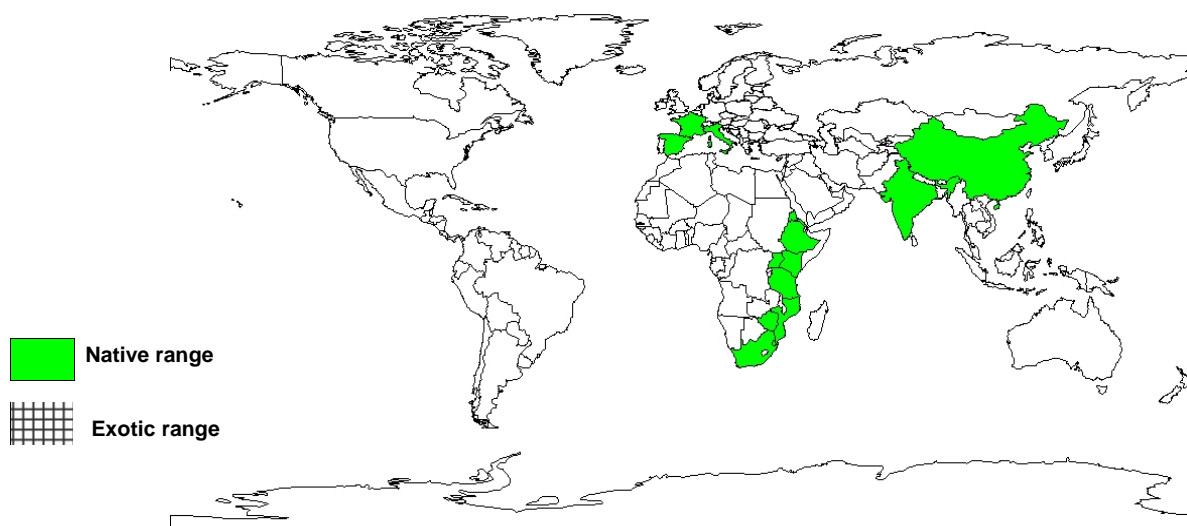
Altitude: 800-2 500 m

Soil type: Acid soils are not a problem for it.

DOCUMENTED SPECIES DISTRIBUTION

Native: China, Eritrea, Ethiopia, France, India, Italy, Kenya, Mozambique, South Africa, Spain, Swaziland, Tanzania, Uganda, 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.

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PRODUCTS

Food: The main olive products are olive oil and edible olives. The fleshy, oil-bearing mesocarp used in commercial olive growing is absent in the much smaller fruits of *O. europaea ssp. africana*.

Fodder: The plants are much browsed on by livestock.

Fuel: In Eritrea the villagers use wild olive extensively to provide fuelwood.

Timber: Wood is hard and heavy, weighing approximately 1 140 kg/cubic m. Sapwood is light brown while the heartwood is red-brown to yellow, with dark figuring. The wood is fine-textured and finishes well, and is often used to make ornaments such as wall clocks and vases. Jewellery items such as beads, brooches and bangles are also made from wild olive wood. Although the tree does not produce sawable logs or branches, there are still several furniture-makers that, with great effort produce furniture from the limited quantities of timber.

Medicine: The Wandorobo and Kipsigis of Kenya use a root or bark decoction as a remedy for malaria.

SERVICES

Reclamation: The high drought tolerance of *O. europaea ssp. africana* suggests that it is a good candidate for reforestation in semi-arid zones of Africa such as Rora Habab, Eritrea.

Ornamental: Olive plantations have the capacity to beautify the landscape.

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TREE MANAGEMENT

Unfertilized seedlings show drought tolerance whilst fertilized seedlings do not. Fertilization with adequate watering results in greatly increased shoot growth but little change in root growth. In summary, plants need adequate nutrition and water to grow, and irrigation or fertilizing plants usually increases their growth where water or nutrients are deficient. Fertilization and irrigation need to be carefully managed to ensure optimal growth is consistent with post-transplant survival.

GERMPLASM MANAGEMENT

Seed storage behaviour is orthodox. Viability can be maintained for several years in hermetic storage at 3 deg. C with 6-10% mc. The seeds can be stored at dry room temperature for a few years. There are approximately 13 800 seeds/kg.

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FURTHER READING

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