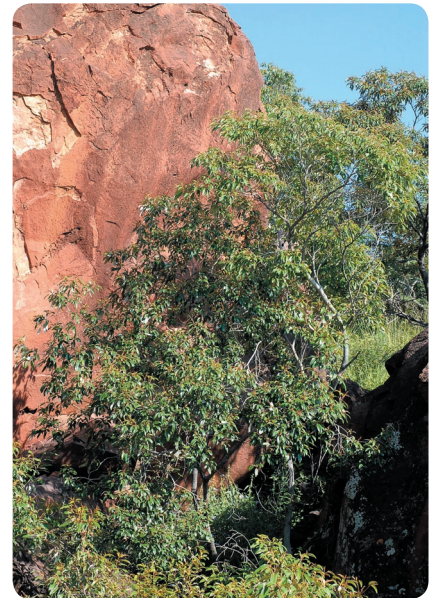


Tree of the Year 2010

Croton gratissimus



Photos: top left - F. Kayofa; all others - C. Mannheimer. Poster and booklet design: Alice Jarvis.



National Arbor Day

8th October 2010



Plant trees to enhance biodiversity

Croton gratissimus

COMMON NAMES

- Koorsbessie (Afrikaans)
- ||gameb (Damara)
- Lavender croton (English)
- Lavendelbusch (German)
- Omumbango (Otjiherero)
- !abu||uresa (Khoe-Khoegowab)
- Omumbango (Oshiwambo)
- Mubangu (Sifwe)
- Mukena (Silozi)
- Mwango (Mbukushu)

BACKGROUND

Croton is a large genus within the family Euphorbiaceae. The genus name "croton" comes from the Greek "kroton", which means "tick", because the seed resembles a tick. The species name "*gratissimus*" is Latin meaning "most pleasing", probably referring to the natural beauty of the plant itself or the attractive fragrance from the bark and leaves.

Croton species are fairly abundant in Africa. About 66 *Croton* species occur in sub-Saharan Africa, with 14 species occurring in southern Africa, 10 of which are found in Namibia. Two varieties of *C. gratissimus* occur in Namibia: variety *gratissimus*, which tends to occur in woodland and thicket in higher rainfall areas, and has completely smooth upper leaf surfaces; and variety *subgratissimus*, which occurs on rocky hillslopes and in grasslands in drier areas, and has rough upper leaf surfaces due to the diagnostic presence of star-shaped hairs.

DISTRIBUTION: *Croton gratissimus* Burch. has a widespread distribution and is generally common throughout northern Namibia, north of 23°S, except in the Namib Desert. It is common to abundant in places in the Cuvelai, Karstveld and the north-east, but less common in the west.

Variety *gratissimus* is more common and widespread, occurring over the whole range. Variety *subgratissimus* extends over most of the range, but is more common in the north-west than variety *gratissimus*.

Variety *gratissimus* also occurs in Botswana, South Africa, Swaziland, Zambia and Zimbabwe, while variety *subgratissimus* is found in Botswana, South Africa, Zambia and Zimbabwe.

HABITAT: The species occurs over a wide range of altitudes, in a variety of woodland types and is often associated with rocky outcrops and sandy areas.

DESCRIPTION

Croton gratissimus is a shrub or tree that may reach 6 m in height, but can grow up to 20 m elsewhere in Africa. The tree has a slender shape with fine, drooping foliage and a crown that spreads upward in a V-shape with drooping terminal branches.

The bark is dark to pale grey and is rough at the base of the tree. The petioles and young branches are yellowish to brown at times and are often covered with silvery hairs and rust brown scales.

The simple leaves are beautiful with striking silvery undersurfaces, which are often dotted with cinnamon-coloured glands. The leaves are very aromatic when crushed. The leaves are lanceolate to elliptic in shape, 70-80 x 20-40 mm in size. They are single veined from the base, with 8-17 pairs of lateral veins hardly visible. Petioles are 0.5-7 cm long with two glands at the base. Leaves can be found on some individuals all year, but the highest number of bare trees is from August to October. New leaves are produced from August to December. As the leaves mature, they turn a warm, orange colour.

Croton gratissimus bears small, cream to golden-yellow flowers in spikes of about 1-15 cm long and 6 mm in diameter. The buds are conspicuous and are on the tree for months before the flowers open. Different sexed flowers are contained within a spike, with one or two female flowers at the base and many male flowers above. The buds develop during the rainy season, remaining closed but conspicuous on the tree during the dry season. The flowers open with the first rains of the next season.

The fruit are present all year but are most abundant from February to March. They are slightly 3-lobed capsules that are about 10 mm in diameter, scurfy, and turn yellow with maturity. In late autumn, the capsules dry and explode, shooting the seeds through the air some distance from the mother tree.

USES

MEDICINAL USES: Leaves are crushed, mixed with those of another *Croton* species, placed on hot coals and the fumes inhaled for insomnia. Leaves are also used in steam baths for treating fever and are smoked to treat rheumatism. A leaf extract is used to treat coughs and chest ailments. The Himba feed the leaves to calves to help relieve constipation. Cold leaf infusions are used to treat eye ailments in animals. Powdered leaves are used with oil/fat to anoint the body.

The roots are used as purgatives and enemas

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for patients with fever. Roots are also taken for abdominal pains. In the Kavango, an extract is prepared from the roots and leaves; droplets are put in the nose for colds and also consumed for the treatment of coughs. The roots are regarded by the Himba as a remedy for chest ailments, coughs and fever. Adults chew the root, swallowing the juice and for children the roots are dried, pulverised and made into a tea. The San drink a decoction of the roots for the treatment of syphilis. The roots are also dried, powdered and mixed with vaseline to use as a skin cream. Grated roots are added to food as a tonic, particularly for girls at the onset of menstruation.

In Zulu communities, infusions from small pieces of bark, pulverised in milk or broth, are used as purgatives for severe abdominal disorders. Finely ground dry bark is rubbed into incisions on the skin to treat inflammation and pain in the chest. Charred, powdered bark is used to treat bleeding gums. The bark is also used for pleurisy, intercostal muscular pain, neuralgia, indigestion and dropsy. The bark is an effective blistering agent and is also used as a remedy for insomnia and restlessness. Owambo communities prepare an aqueous extract from the inner bark, and a few drops are administered for hearing difficulties or earache.

MATERIAL USES: The stems and branches are utilised for fencing, construction poles for huts, carvings, cooking utensils, weapons and tools, while the branches make excellent firewood.

ANIMAL FODDER: Although the bark is reputed to be very toxic, the plant is considered to be a valuable fodder for stock in Namibia.

COSMETIC USES: The Damara people dry the root and grind it into a powder to use as a perfume. The leaves are dried and crushed and also used as a perfume. The leaves are boiled to make a very fragrant soap. Ju|'hoan women in northern Namibia collect and crush the fruit and use the pleasant smelling powder as a cosmetic that is often mixed with other plant powders.

MYSTICAL USES: Unspecified parts of the tree are used in love charm emetics, for good luck and to perform all kinds of magic and rituals. In Zimbabwe, the roots are also traditionally used as protective charms.

SOCIAL USES: The San and Ju|'hoan people use the dried bark as a substitute for tobacco. Boys use the Y-shaped twigs for making catapults to hunt birds. Kwanyama girls use the wood to carve dolls, parts of which may be a mixture of clay and beeswax. The wood is also used to carve out 'knobkerries' that are used in special ceremonies. Ju|'hoan girls are considered 'impure' at the onset of menstruation and are not allowed to touch food. During this time they use special sticks made from the roots of

this species with which to eat. The roots are also used as an aphrodisiac by the San. In the Caprivi, the roots are boiled in water and added to dog food to make them more aggressive.

Horticultural uses: *Croton gratissimus* is a beautiful ornamental plant with a pale bark and attractive foliage. It makes an excellent hedge and has great potential when introduced in the garden. An excellent example of such a hedge can be seen at the National Botanical Garden in Windhoek. The tree is resilient and suitable for windbreaks and is used for this purpose in Kenya.

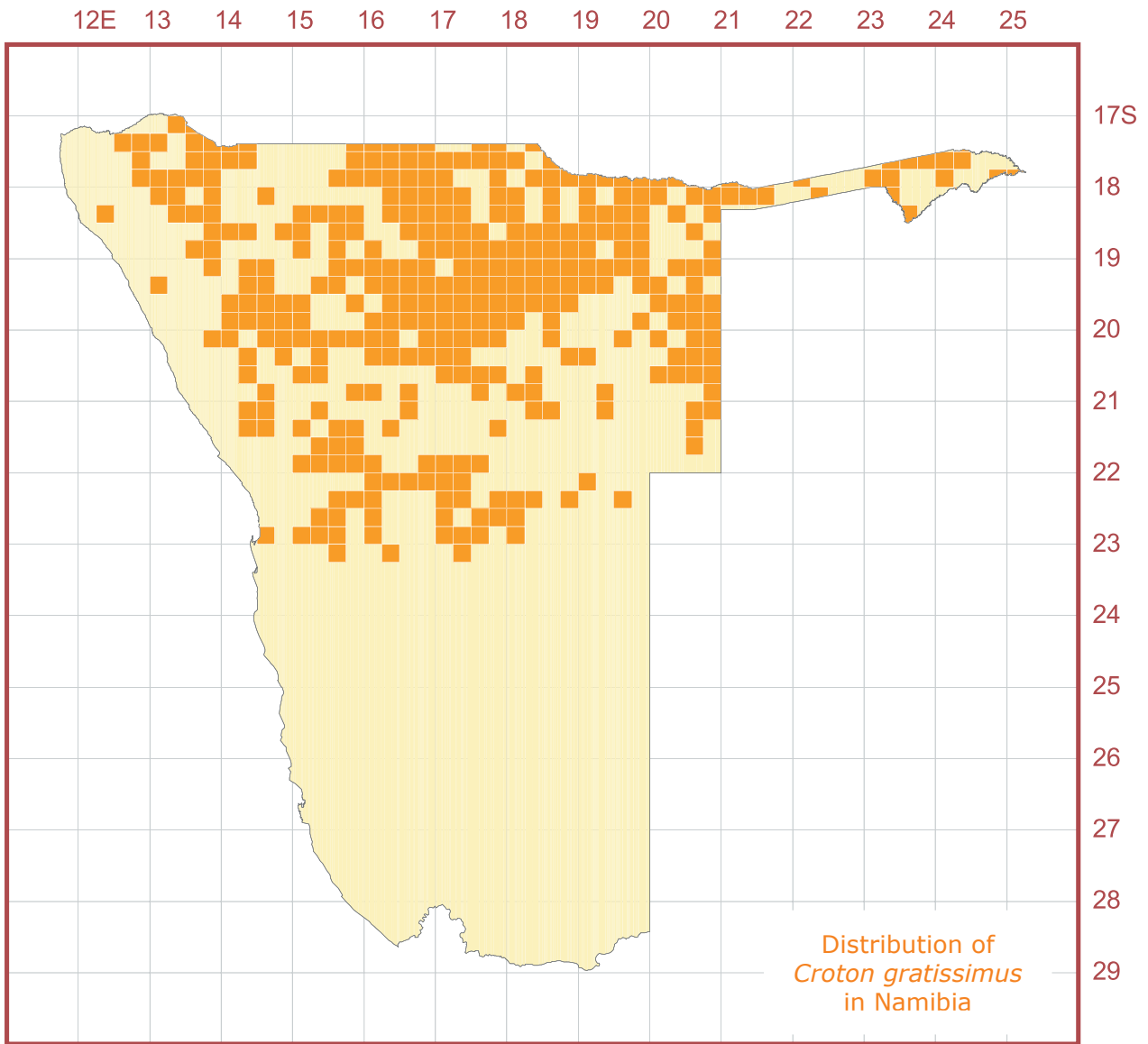
CULTIVATION

The seeds should be collected before they are dispersed and stored in dry, closed containers, where the capsules will open spontaneously. The seed should be sown in a well-drained, loose seedling mixture and covered lightly with the same mixture or fine sand.

The trays should be kept in a well-lit place and watered regularly but not kept too wet until germination takes place (usually 3 to 4 weeks). Once the seedlings have established, watering should be reduced and a fungicide may be applied to prevent damping-off. Seedlings should be allowed to grow to approximately 50 mm before being transplanted into individual containers. Saplings are slow growing at first but the rate increases as the plants get older. Plants may be planted out into the garden once they are 600 mm or higher.

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- Personal communication: Fillemon Kayofa, Jericho Mulofwa, John Niipale, John Shitundeni



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