



# INK-BERRY

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Ink-berry (*Cestrum laevigatum* Schlecht.; family Solanaceae) is an exotic South American shrub, the young leafy shoots and green berries of which are toxic and are suspected to be responsible for the death of sheep, goats and cattle. Moreover, the ingestion of the green fruit by children has resulted in fatalities.

The plant is sometimes called poisenberry. The Afrikaans name is "inkbessie".

## Morphology

Ink-berry is a glossy green perennial evergreen plant which usually remains a shrub of 1 to 2 m in the Transvaal and the Free State. In the coastal areas of Natal and the Cape Province, it takes on the form of a tree, reaching a height of about 5 m.

It branches from the base to form numerous stems. The bark is thin with a light brownish-grey colour and is easily bruised. When bruised it shows green beneath and emits a pungent odour. The glabrous, light green or dark green leaves are usually concentrated towards the tips of the branches. They are alternate, ovoid, about 8 cm long and 2 cm wide,

with smooth edges. Like the stems, the leaves also bruise easily and emit the same pungent smell.

During summer long cylindrical, tubular flowers are produced in small groups in the axils of the apical leaves. The flowers are light green with creamy-yellow corolla lobes and are slightly sweet-scented. They close at night. The fruit is a fleshy, ovoid, purplish-black berry, about 1 cm in diameter, containing six irregularly flattened brown seeds. The berries are produced during winter.

Several other toxic *Cestrum* species are grown as ornamentals in gardens in South Africa from where they are being dispersed to the surrounding veld to hybridise with the ink-berry. In Zimbabwe and East Africa cases of poisoning by still another species of ink-berry, *Cestrum aurantiacum*, are often reported. However, *C. laevigatum* can easily be recognised by its long, tubular yellow-greenish flowers.

## Distribution

This weed, which is a native of Brazil, was imported to South Africa for cultivation as a hedge



FIG. 1 - Ink-berry is a glossy green perennial evergreen plant

plant and windbreak. It has since spread into the veld and presently occurs in the districts of Knysna and East London in the Cape Province; Lusikisiki and Port St Johns in Transkei; Howick, Pietermaritzburg, Durban and the South Coast of Natal; Northern Free State; central and Southern Transvaal as well as Swaziland and Western Zimbabwe.

The ink-berry is usually found in the moist eastern parts of the country where it forms part of the undergrowth of plantations or grows on the fringes of indigenous forests. In the drier inland areas it usually grows near streams and rivers.

### **Dangers**

The fruit, leaves and bark of the ink-berry contain the toxins saponin and cestrinid which are concentrated mainly in the young leafy shoots as well as the freshly-formed green berries. Therefore ink-berry poisoning is most prevalent during June and July when the berries are still green and grazing is poor, or during spring, which is the early part of the growing season. Plants with ripe berries have been found to be harmless when fed to cattle.

Chase Valley disease, a cattle disease regularly occurring in the Chase Valley near Pietermaritzburg,

has been ascribed to poisoning by ink-berry.

In sheep and goats the symptoms appear more suddenly and severely than in cattle. After the consumption of large quantities of ink-berries animals usually die suddenly and without any warning symptoms. Acute poisoning is characterised by abdominal pain, grinding of teeth, attempts to kick or horn the abdomen, drivelling, running eyes, a staggering gait, arched back, accelerated respiration, weak pulse and increasing weakness, sometimes accompanied with yellowish conjunctivas and mucosae. Immediately before dying the struggling grows stronger and death usually follows after 4 to 12 hours. In a chronic form the symptoms are less severe and the animal may recover within 3 or 4 days.

### **Legislation**

Ink-berry has been declared a noxious weed under the Conservation of Agricultural Resources Act 1983 (Act 43 of 1983). This Act states that the plant may not be distributed or allowed to be distributed: It may not occur on land within an urban area, and if it occurs on any farm unit in the Republic, it must be controlled effectively.