

Annona muricata**Annonaceae****West Indies, Tropical America**

COMMON NAMES: **English:** Soursop; **Kamba:** Mutumoko, Mtumoko; **Swahili:** Mstafeli.

DESCRIPTION: A slender evergreen tree 5–7 m in height, usually less, with a bole that may be 30 cm in diameter, the **branches very low** and wide, giving an open shady crown. In drought conditions it may lose all its leaves. **BARK:** Grey with a pattern of shallow grooves. **LEAVES:** Alternate, **dark green, shiny** and leathery, 8–15 cm long, **oval with a sharp tip**, dull or yellowish below where there are **small pits in vein axils**. Crushed leaves have a strong, unpleasant smell. **FLOWERS:** **Solitary and large**, 2–5 cm across, often opposite leaves and hanging down, **3 outer fleshy petals**, curved, almost triangular, **3 inner yellow-green petals**, thinner and rounded, edges overlapping. **FRUIT:** Kidney- or **heart-shaped to 25 cm long**, the leathery dark green skin covered with **soft curved spines**. Inside **woolly white fibrous pulp** covers many large brown-black seeds. The flesh and fruit walls are edible and have a distinctive acid-sweet taste. (Single fruits grown together making one 'compound' fruit, but the outline of individual fruits can be seen on the skin, each with its own spine. As pollination is often incomplete the fruit may have a distorted shape.) It has large 'fruit' of 0.5–5 kg in weight.

ECOLOGY: An exotic fruit tree planted throughout the warm tropical lowlands. In Kenya, it is grown in semi-arid and arid lowland areas of Eastern Province (mainly Ukambani) and at the coast, where it is grown along water courses through irrigation. When young, it requires frequent watering of about 5 litres per week but becomes tolerant to drought once it establishes. Agroclimatic Zones I–III.

USES: Fruit, drink, flavouring, medicine, ornamental, insecticide, fish poison.

PROPAGATION: Seedlings (sow seed in pots), grafting and budding.

SEED:

treatment: Not necessary.

storage: Seed can be stored for long periods.

MANAGEMENT: Slow growing. Application of manure may be necessary in the early stages. Mulching will reduce weeds. Bud or graft. Manage crown above 1 m height to encourage branching. Protect fruit from birds.

REMARKS: One of several *Annona*, this species has the largest fruit. The flesh is highly acid. This is a desirable tree in home gardens as the delicious fruit can earn good cash and can be used for juice and ice cream. However, one tree rarely produces more than a dozen fruits, which take 3 months to ripen, and are often attacked by birds such as mousebirds. All parts have insecticidal properties and can also be used to kill fish—a fruit can be used as bait. A powder or oil from the seeds has been used to kill lice and bedbugs. Contact with the eyes causes great irritation. It may be attacked by mealybugs and scale insects, resulting in a reduction of yield or even com-

plete failure. In Machakos and Makueni Districts yields are reliable and make a large contribution to farmers' incomes.

FURTHER READING: <http://www.worldagroforestrycentre.org/Sites/TreeDBS/AFT/AFT.htm>; Bein et al., 1996; Bekele-Tesemma et al., 1993; Jensen, 1999; Katende et al., 1995; Lötschert and Beese, 1983; Mbuya et al., 1994; Verheij and Coronel, 1993.

