

Artocarpus heterophyllus

Moraceae

India

COMMON NAMES: Digo: Mfenesi; **English:** Jackfruit; **Giriama:** Mfenesi; **Swahili:** Mfenesi; **Teso:** Efenesi.

DESCRIPTION: A medium-sized tree with thick branches, to 25 m. The **bole is short**, cylindrical and straight, up to 1 m in diameter in old specimens, branching less than 2 m from the ground. **BARK:** Rough bark on the bole, grey but smooth on the branches. **LEAVES:** **Glossy, oval to 15 cm long** and 10 cm wide. **FLOWERS:** Separate male and female, all very small but the female flowers have a stronger smell. The **flowers are borne on the trunk** or on large branches where the fruit—the largest known—develops. **FRUIT:** Massive and irregular 'cauliflowery', **yellow-green compound fruit with a spiky rind**, reaching a record 20 kg in weight and **1 m in length**. The flesh is sweet and edible but definitely an acquired taste. Seeds, up to 5 cm, are edible when roasted.

ECOLOGY: Originates from Asia, probably in the forests of the Western Ghats in India. Today it is widespread in other parts of the tropics and most popular in Sri Lanka. Introduced in East Africa and now widely planted in the coastal areas of Kenya and Tanzania in places. Grows in sandy soil but prefers well-drained and fertile soils and will not tolerate coral rag, shallow soil, drought or waterlogging. Agroclimatic Zones I–II. Flowers during rainy seasons, April–May and October–November at the coast.

USES: Firewood, charcoal, timber (carts, doors, etc.), furniture, edible fruit and seed, medicine (leaves and roots), fodder (leaves and rind), shade, gum.

PROPAGATION: Direct sowing at site, wildings. Vegetative propagation (bud grafting, air layering, root cuttings) to get good varieties. Direct sowing at site is better than to raise seedlings in a nursery due to early growth of the taproot. Seedlings do not tolerate root pruning well. Add ash around young seedlings and newly sown seeds to keep insects away.

SEED: Seeds are hand picked individually from the fruit flesh. Wash to remove the flesh and sow. About 400 seeds per kg. Germination starts within 10 days and 80–100% germination can be achieved within 35–40 days.
treatment: Not necessary.

storage: Seed should not be allowed to dry. Use fresh seed.

MANAGEMENT: For good fruit productivity, a spacing of 10–12 m is needed. Fast growing; most cultivars fruit in about 8 years. Cut back fruiting twigs after harvesting.

REMARKS: Suitable around homesteads as a shade tree or support for climbing crops like yams and passion fruit. The fruit may be especially important in times of drought and crop failure. A related species, *A. altalis* (**English:** Breadfruit) is probably of Malaysian origin. It grows to about 18 m, in other countries even taller, and has a round dense crown and ascending branches with large, deeply incised leaves. Flower spikes are inconspicuous. Fruit is globular, yellow-green with starchy flesh eaten after baking or boiling. The tree is grown at the coast. *Artocarpus* is a large genus of evergreen trees of tropical Asia. They exude a milky sap when damaged. Female flowers are crowded on short spikes that, after fertilization, develop into an aggregation of many fleshy fruits.

FURTHER READING: <http://www.worldagroforestrycentre.org/Sites/TreeDBS/AFT/AFT.htm>; Dharani, 2002; Jensen, 1999; Katende et al., 1995; Lötschert and Beese, 1983; Mbuya et al., 1994; Noad and Birnie, 1989; Verheij and Coronel, 1993.

