Azadirachta indica Meliaceae

North-east India, Burma

COMMON NAMES: **Digo:** Muarubaini; Mwarobaini, Mkilifi; **English:** Neem; **Giriama:** Mkilifi; **Luhya:** Mwarubaini; **Sanya:** Mklifi; **Somali:** Get kharerow; **Swahili:** Mkilifi, Mwarubaini.

DESCRIPTION: A fast-growing, medium-sized tree that may reach 20 m with a **dense, leafy**, usually **rounded canopy,** evergreen except in the driest areas. BARK: Pale grey-brown, grooved. LEAVES: Glossy green, crowded at the ends of branches; compound (divided once), to 40 cm long, each leaflet curved and long-pointed, **the edge roughly saw-toothed, leaf blades unequal,** a smaller leaflet at the leaf tip. FLOWERS: Small, fragrant, cream-white, hanging in long graceful sprays. FRUIT: **Oval yellow berries** when ripe, 2 cm long, thin skinned with oily pulp around 1–2 seeds.

ECOLOGY: A tree well known in its native land and now naturalized in the Old World tropics, where it is also widely planted. Extensively grown in tropical Africa, especially in arid and semi-arid regions. It is very drought resistant and does well on poor soils. Roots grow deep and wide; does not stand waterlogging. Long grown at the Kenya coast and widely naturalized there, now a common tree in homesteads, town alleys and avenues in the northern and eastern lowlands, 0–1,500 m. Introduced to Mandera in the late 1970s and now an important tree in that area. Agroclimatic Zones I–VI.

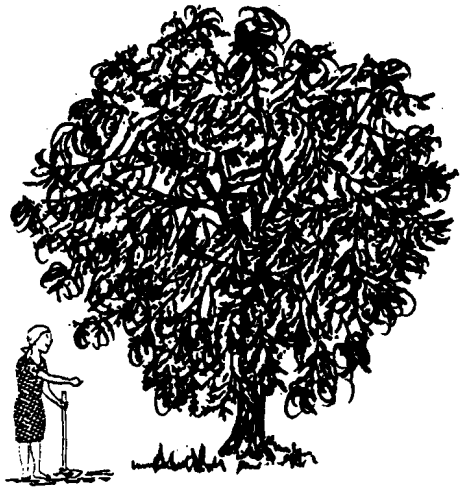
USES: Firewood, charcoal, timber, furniture, poles, utensils (pestles and mortars), medicine (leaves, bark, roots, fruit), fodder (goats eat leaves, oil-seed cake), bee forage, shade, ornamental, soil improvement, windbreak, veterinary medicine, oil (seed), a powerful insect antifeedant (azadirachtin from seeds and leaves), soap manufacturing.

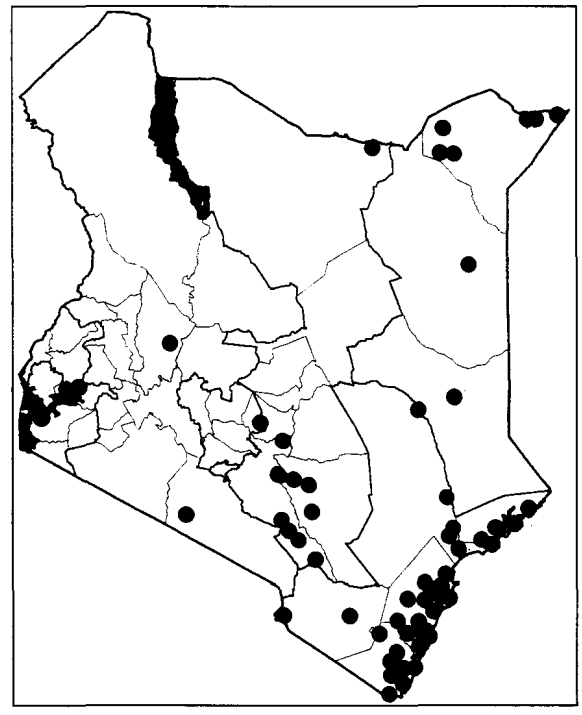
PROPAGATION: Seedlings, wildings, direct sowing at site, cuttings.

SEED: 4,000–6,000 seeds per kg. Germination rates 70–80%. Fresh seeds have best germination. Direct sowing at site or use of cuttings or truncheons (large cuttings) are cheaper and better options than raising seedlings.
treatment: Not necessary.
storage: Avoid storage for good results. Seeds can be stored for a week or two if kept cool but germination rate is reduced and they need dressing with fungicide. Complete drying kills the seed.

MANAGEMENT: Fast growing after the first year, lopping, pollarding, pruning. Thin out seedlings if too dense. Has turned into a weed in some areas.

REMARKS: The fruit is appreciated by birds, monkeys and baboons. Germination is enhanced by passage through their gut. The wood is tough and fairly resistant to decay





Azadirachta indica (cont)

and termites. In the face of diminishing availability of traditional wood-carving trees, particularly *Dalbergia melanoxylon* and *Brachylaena huillensis*, neem is being promoted as an alternative. Among the world's most valuable trees. Highly valued at the Kenyan coast and in the rest of Kenya for its medicinal uses. Reputed for the wide range of diseases it can treat and hence 'mwarubaini', the Swahili name for it, suggesting it can cure 40 diseases. A 24-hour infusion of green leaves diluted with water 1:4 results in a liquid that is very effective for control of insects. A plant of choice in dry lowland afforestation. Provides excellent shade. Frequently confused with *Melia azedarach*, whose leaves are similar but twice divided (bipinnate).

FURTHER READING : http://www.worldagroforestrycentre.org/Sites/TreeDBS/AFT/AFT.htm; Albrecht, 1993; Bein et al., 1996; Bekele-Tesemma et al., 1993; Dharani, 2002; Fichtl and Adi, 1994; ITDG and IIRR, 1996; Jensen, 1999; Katende et al., 1995; Mbuya et al., 1994; National Academy of Sciences, 1980; National Research Council, 1992; Noad and Birnie, 1989; von Maydell, 1990.