

Leucaena leucocephala* (L. glauca, L. latisiliqua)*Fabaceae (Mimosaceae)****Central America**

COMMON NAMES: **English:** Leucaena, Lead tree; **Luo:** Lusina; **Swahili:** Lusina.

DESCRIPTION: An evergreen shrub or tree 5–20 m, depending on the variety and site, medium leafy canopy, develops a deep taproot even as a seedling. **LEAVES:** Compound alternate with many leaflets, each thin and pointed, to 1.5 cm. Leaves and leaflets fold up with heat, cold or lack of water. There is a conspicuous round mark on the leaf stalk just before the leaflets. **FLOWERS:** White, round heads, about 2 cm across on a long stalk from the leaf axil. **FRUIT:** Numerous bunches of thin, dry pods 10–15 cm, persisting on the tree, releasing 12–25 hard, shiny brown seeds.

ECOLOGY: Widely introduced in the tropics over the last 100 years, reaching Africa in 1950. Grows best at altitudes of 0–1,600 m, in full sunlight and in well-drained neutral or calcareous soil. It does not tolerate acidic soils. Needs more than 600 mm rainfall. It is naturalized and to some extent invasive in some parts of Kenya, especially in the humid coastal lowlands and in other areas where there is moisture in the ground and a warm climate. It is recognized as an invasive species and it is replacing indigenous forests in the Hawaiian Islands. A psyllid insect pest, *Heteropsylla cubana*, causes defoliation. The insect spread by chance from Central America to Hawaii in 1984, and has more recently spread through Asia and into eastern Africa. In Kenya, the psyllid defoliates the leucaena, resulting in severely reduced production of fodder as well as wood, but without killing the leucaena. Agroclimatic Zones II–V.

USES: Firewood, poles, medicine (roots), fodder (leaves and shoots), bee forage, shade, mulch, nitrogen-fixing, soil conservation and improvement, windbreak, tannin, dye.

PROPAGATION: Seedlings, direct sowing at site.

SEED: The species yields plenty of viable seed. About 20,000 seeds per kg; germination rate 50–85%.

treatment: Soak in hot water for 2 minutes or nick the seed coat at the distal (cotyledon) end using a nail clipper or a knife.

storage: Properly dried seed can be stored for long periods.

MANAGEMENT: Very fast growing on suitable sites; pollarding, lopping, coppicing. Can become a weed.

REMARKS: This species exhibits great variation. The mimosine in the leaves can cause hair loss, infertility and stomach problems in livestock, especially non-ruminants, e.g. donkeys. Livestock feed should not contain more than 20% *Leucaena*.

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; Jensen, 1999; Katende et al., 1995; Kokwaro, 1993; Mbuya et al., 1994; National Academy of Sciences, 1979, 1980; Noad and Birnie, 1989; von Maydell, 1990.

