

## Acacia tortilis

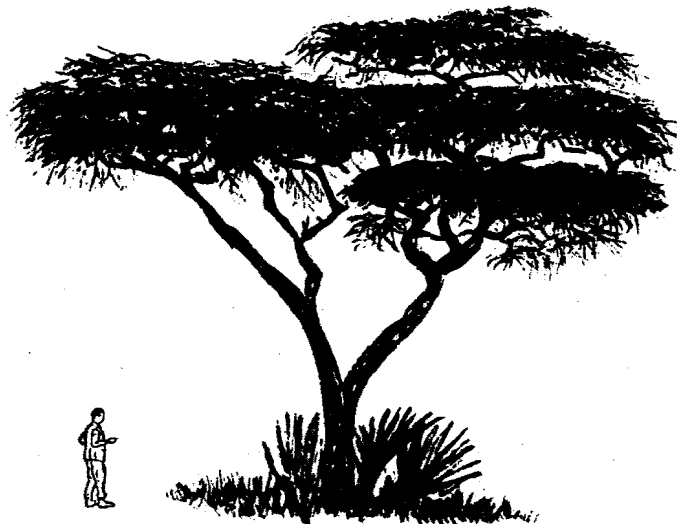
### Indigenous

**COMMON NAMES:** **Boran:** Dadach, Dadacha; **Daasanach:** Seechgeebe, Sies-geebe (plural); **English:** Umbrella thorn; **Gabra:** Daddach, Diaddaca; **Ilchamus:** Lkunyi, Ltepes; **Kamba:** Muaa, Mulaa; **Kipsigis:** Chebitet; **Luo:** Otiep; **Maasai:** Oltepesi, Sagararam (fruit); **Malakote:** Dadacha; **Marakwet:** Ses; **Mbeere:** Mugaa; **Nandi:** Sesya; **Orma:** Dabaso, Dadech, Gudis (young); **Pokot:** Ses, Sesoy (plural); **Rendille:** Dahar, Gahar; **Samburu:** Ltepes; **Somali:** Abaa, Abak, Qura; **Swahili:** Mgunga, Munga; **Tharaka:** Mugaa; **Tugen:** Sesya, Sesiet, Sisiet; **Turkana:** Ewoi, Etir (young); **Wardei:** Abaq.

**DESCRIPTION:** A spiny acacia, usually 5–8 m high in dry land but attaining a height of up to 20 m in riverine vegetation. Crown narrow when young, spreading, flat-topped or umbrella-like at maturity. **BARK:** Longitudinally fissured, dark grey. **THORNS:** Pairs of small hooked thorns, also pairs of long white thorns to 8 cm, sometimes mixed pairs. **FLOWERS:** In white-to-cream heads, fragrant. **FRUIT:** Greenish yellow to yellow-brown pods, each containing up to 10 brown seeds, hang in dense bunches spirally twisted, sometimes in rings. Seeds smooth, greenish grey.

**ECOLOGY:** A common acacia in most of dry Africa from North and West Africa to South Africa. Widespread in lowland arid and semi-arid areas of Kenya, particularly in the northern and eastern parts. Dry bushland, bushed grassland, wooded grassland, riverine vegetation, along luggas, and in arid scrub. Tolerates a wide range of soils, from sandy, silty to black-cotton soils. May be dominant on dry red soils and prefers slightly alkaline conditions. Often in stands along rivers, 0–1,650 m. Can grow in shallow soils. Among the most drought-resistant of the acacias in Kenya, it produces enormous, deep roots (up to 35 m deep) penetrating a wide area to collect water. Rainfall 150–900 mm. Agroclimatic Zones IV–VII. Flowers in February (Mwingi); fruits in September–October (Machakos, Kajiado, Kitui, Tharaka).

**USES:** Firewood, charcoal, timber, poles, edible pods, medicine, fodder (pods and leaves, especially for goats and camels), bee forage, shade (meeting place for Turkana), ornamental, dune fixation, nitrogen-fixing, soil conservation, fibre (strings made from bark), live fence, tannin, dye, thorn used as pins or needles, veterinary medicine.



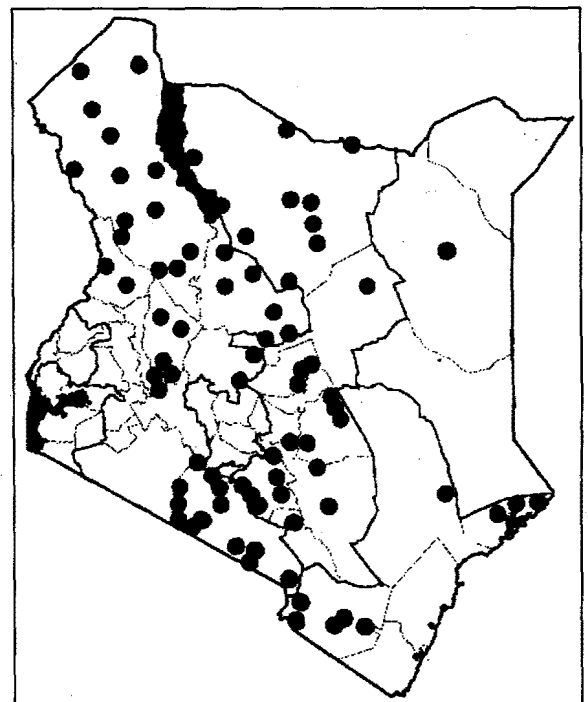
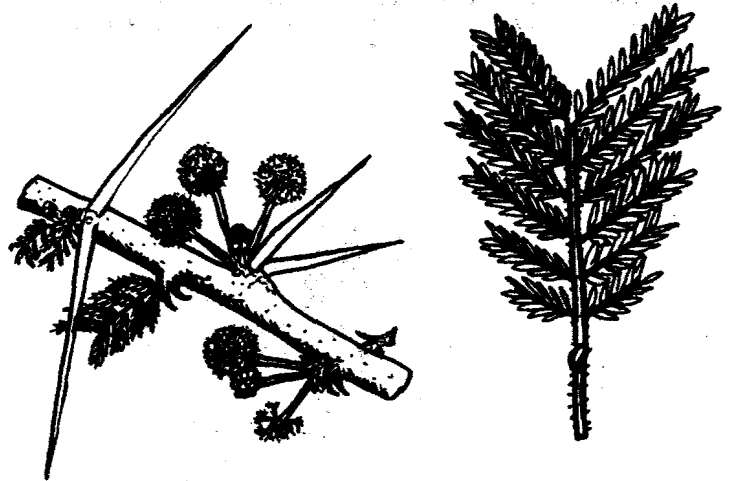
## Fabaceae (Mimosaceae)

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

Seeds taken straight from the pod seldom germinate due to seed dormancy.

**SEED:** Smooth, greenish; 21,000–31,000 seeds per kg.

Germination rates up to 80–90% if pre-treated but germination may be slow, within 30 days. Beetle infestation lowers germination rate.



## ***Acacia tortilis* (cont)**

**treatment:** Dormancy is broken when seeds pass through an animal gut or by bushfire or hot-water treatment. Immerse in hot water, allow to cool and leave to soak for 24 hours. Nicking the distal end of the seed is another option. Immersing in cold sulphuric acid for one hour or in hot sulphuric acid for 3–5 minutes is also very effective.

**storage:** Seed can be stored for long periods. Add ash to reduce insect damage.

**MANAGEMENT:** Slow growing but may grow relatively fast on dry sandy soils if weeding is done and goats are kept away. Withstands moderate lopping. Does not coppice well, prune when young.

**REMARKS:** Often indicates the tree limit into desert areas. Pods very popular feed for livestock. They are collected and stored for dry-season fodder and even sold in northern Kenya for livestock feed. Dry pods are edible (Turkana, Daasanach, Pokot, Maasai, Somali, Gabra). The gum is also eaten (Pokot, Turkana, Somali) but is of

inferior quality, sticky and may cause choking. Should not be planted near homes because of its thorns and the likelihood of attracting caterpillars that feed on the tree at certain seasons. Protection of some areas for some time to give young plants time to grow above the reach of goats may be the simplest way to propagate this useful tree. This is the most important acacia among the pastoral communities. Two subspecies occur in Kenya: subsp. *spirocarpa* (fruit rather hairy, most common) and subsp. *raddiana* (fruit non-hairy and non-glandular; coastal islands of Faza and Manda and along the Kenya coast, Somalia to North Africa).

**FURTHER READING:** <http://www.worldagroforestrycentre.org/Sites/TreeDBS/AFT/AFT.htm>; Albrecht, 1993; Beentje, 1994; Bein et al., 1996; Bekele-Tesemma et al., 1993; Dharani, 2002; Fichtl and Adi, 1994; ITDG and IIRR, 1996; Katende et al., 1995; Kokwaro, 1993; Maundu et al., 1999; Mbuya et al., 1994; National Academy of Sciences, 1979, 1980; Noad and Birnie, 1989; Palgrave and Palgrave, 2002; Storrs, 1979; van Wyk, 1998; von Maydell, 1990.

