

Leucaena diversifolia

Fabaceae (Mimosaceae)

Central America**COMMON NAMES:** English: Leucaena, Pink leucaena.

DESCRIPTION: A shrub about 2 m or a tree to 20 m—as the name suggests, very variable. Usually upright with light open branching. **LEAVES:** Bipinnate, the minute leaflets only 3–6 mm with large glands on the leaf stalk. **FLOWERS:** Flower heads like ‘balls’, 6–15 mm across, pink-purple with red anthers, over 40 flowers in the head. **FRUIT:** Small straight pods 5–15 cm long, 5–12 mm wide, deep red-purple when young, later brown. Many pods may hang together in heavy drooping clusters. Each pod contains 18–26 very small seeds, taking a month to mature.

ECOLOGY: This species is the 2nd most widely cultivated *Leucaena* species in tropical highlands. It grows naturally in the highlands of Central America, often as an understory tree in pine forests. Can tolerate acid soils. It grows faster than *L. leucocephala* at higher altitudes and has shown better tolerance to the leucaena psyllid. Agroclimatic Zones I–II.

USES: Firewood fodder (leaves), bee forage, mulch, green manure, nitrogen-fixing, soil conservation and improvement, tannin, dye.

PROPAGATION: Direct sowing at site, seedlings.

SEED: Obtained from mature pods; the seeds are the smallest of all *Leucaena* and very hard. About 26,000 seeds per kg.

treatment: Soaking seeds in boiling water for 10 seconds, followed by soaking overnight in cold water will improve the germination rate. An alternative is to nick the seed at the distal (cotyledon) end with a knife or a nail clipper.

storage: Properly dried seed can be stored for long periods in airtight containers at room temperature.

MANAGEMENT: Fast growing; coppicing and pruning.

REMARKS: *Leucaena* spp. have been tried in agroforestry systems with intensive management. Falling leaves and loppings add organic matter to the soil and the species fix nitrogen. *Leucaena* are highly valued for their fast growth and many uses. The leaves contain mimosine, which can cause hair loss, infertility and stomach problems for non-ruminant livestock. Livestock feed should therefore not contain more than 20% leucaena. The genus *Leucaena*, with close to 2 dozen species, is American in origin with members distributed from the southern United States to Peru. They are known for their quality livestock fodder and as a source of firewood. The species often hybridize with one another.

FURTHER READING: <http://www.worldagroforestrycentre.org/Sites/TreeDBS/AFT/AFT.htm>; Albrecht, 1993; Katende et al., 1995.

