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## LEUCAENA

Leadtrees, Wild Tamarind, Jumbie Bean, Ipil-ipil or Bayani (Philippines),  
Lamtoro (Indonesia), Koa haole (Hawaii)

*Leucaena diversifolia*, *L. leucocephala*, *L. pallida* X *L. leucocephala*  
Mimosaceae - Mimosa family

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### ECHO PLANT INFORMATION SHEET

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**ORIGIN** – *Leucaena*, native to Mexico and Central America, is now abundant in the Philippines, West Africa, Nepal, Australia and Hawaii. Spanish sailing vessels reportedly introduced *Leucaena* to Asia four centuries ago. A total of thirteen species of *Leucaena*, mostly shrub species, are distributed within the New World tropics and subtropics.

**USES** – *Leucaena* is a multipurpose tree species. Its green pods and high-protein leaves are a source of livestock fodder or browse. Dried leaves also are processed as pellets for livestock and poultry. In its native regions the foliage also is eaten by humans in salads and soups or cooked as a vegetable. *Leucaena* is used as a shade tree in cacao, tea, coffee and teak plantations. It also is planted as a windbreak or as hedges and living fences. Because of its nitrogen-fixing capability, *leucaena* lends itself well to reforestation projects designed for soil nutrient improvement. *Leucaena* also has been used successfully in projects designed to retard soil erosion losses or to rejuvenate soil water-holding capacity. *Leucaena*'s rapid growth capability and its relatively dense wood make it a good choice for paper pulp and fuelwood uses.

**VARIETIES** – According to the 1998-99 Agroforester Tropical Seeds Catalog,

- *Leucaena leucocephala* is, “the model multipurpose tree for fodder, organic matter, fuel, and post wood, food, shade and soil improvement.”
- *L. diversifolia* is, “similar in use and habit to *L. leucocephala*, but more tolerant of acid soils and cooler temperatures.” *L. diversifolia* is suitable at elevations up to 2500m. It is more resistant to psyllid attack than *L. leucocephala*, but about 10% lower in fodder digestibility.”
- The hybrid cross of *L. pallida* with *L. leucocephala* has, “excellent psyllid resistance and was selected for forage production in tropical low to mid-elevation (0-1000 m/0-3,000 ft) environments.” Also has improved cold-tolerance over *L. leucocephala* K636.

**CULTIVATION** – Seeds fresh from the pods may be planted without pre-treatment. Stored seeds need to be nicked with a knife to break the seed coat or given a hot water treatment to break seed dormancy. Add boiling water for 3-5 minutes and then allow the seeds to stand for 24 hours in cool water. In regions where *leucaena* has not been previously grown, the treated seed should be inoculated with a suitable nitrogen-fixing bacterium species. Inoculate the seeds by mixing the seeds in a plastic bag with a small amount of a sticker substance (60 mL/¼ cup sugar dissolved in 120 mL/½ cup water) to make the inoculum adhere to the seed. Add commercially prepared *Leucaena* inoculum powder to the treatment bag, inflate the bag, and gently mix the contents. Spread treated seeds on a clean surface to air-dry. Plant immediately after treatment, or store treated seeds under refrigeration until planting. Unused amounts of sticker substance or inoculum powder may be stored under refrigeration.

**HARVESTING AND SEED PRODUCTION** – *Leucaena* seeds itself readily, and it may become a weed in environments favorable to its growth. Seed weevils may eat seeds in the pods.

**PESTS AND DISEASES** – Extensive *Leucaena* stands have been decimated by an insect pest called “*Leucaena* psyllid” or “jumping plant louse.” In psyllid-infested regions, use the K-636 psyllid-resistant *leucaena* strain or other psyllid-resistant strains. Seed weevils may eat seeds in the pods.

**COOKING AND NUTRITION** – Unripe green seeds sometimes are eaten raw or added to salsa. Ripe seeds may be used as a coffee substitute or parched like popcorn. *Leucaena* plant parts contain the amino acid, mimosene, that causes animal hair loss, goiter, and reduced reproduction if *leucaena* plant parts are a significant component of the diet. Non-ruminant animals are particularly susceptible to the above-mentioned effects. *Leucaena* plant parts should not be fed to horses or sheep. Cattle and goats usually tolerate up to a 50% *leucaena* diet. Pigs may be fed up to a 10% *leucaena* diet, poultry only to 5%.

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