

# Summary

*Leucaena leucocephala* (L.) is native to Mexico, Central America, and the Caribbean. In semiarid southern Puerto Rico, soil fertility is adequate but rainfall distribution is limiting for forage production and quality. Twenty cultivars and

accessions of *Leucaena* were evaluated for forage (DM) production and nutritive value at Lajas in that region in 1986-1987. The plots were seeded during the rainy season and fertilized with P, K, S, and Mg; they were cut every 60 days for the next two years during the dry and rainy seasons. *L. leucocephala* cv. Cunningham and K-28 were the most productive, with 14.3 and 14.3 t/ha, and 18.9 and 17.5 t/ha of dry forage, during the first and second year, respectively. Accession *L. leucocephala* CIAT 7984 and 17474, with 17.7 and 18.6 t/ha of DM, respectively, were among the most productive ones the second year. DM production during the dry season accounted for about 10% and 37% of total forage production during the first and second year, respectively.

Mean IVDMD of forage samples during the dry season was 51.1%; CP, 25.7%; mimosine, 3.5%; P, 0.19%; and Ca, 2.88%. Varieties *L. leucocephala* K-28 and cv. Cunningham, and accessions *L. leucocephala* CIAT 17476 and 17477, were among the best producers of good-quality forage with mimosine content less than 3.0%, which is not considered detrimental to ruminants grazing native or cultivated pastures.