

# Summary

Dry matter (DM) production and the nutritive value of *Leucaena leucocephala* (Lam) de Wit cv. Peru, cut at 98 and 143 days, were determined at the Santa Rita experiment station of the Empresa de Pesquisa Agropecuaria de Minas Gerais (EPA-MIG), and in the animal-nutrition laboratory of the School of Veterinary Science at the Universidad Federal de Minas Gerais, Brazil.

Intake and apparent digestibility of the forage were determined in sheep fed in metabolic crates. Crude protein (CP), cellulose, hemicellulose, lignin, metabolized and raw energy, and mimosine content were determined in forage on offer. Animals were evaluated for toxic effects of mimosine by measuring the concentration of thyroxine and triiodothyroxine in their blood serum.

Significant differences were not found in DM production between the two cutting dates of the plant. Nevertheless, when plant parts were analyzed, higher DM production was found in leaves of plants cut at 98 days and in stems of plants cut at 143 days. Dry matter intake did not vary between cutting dates, although apparent DM digestibility was higher (64.4%) at 98 days than at 143 days

**(55.2%). Alternatively, digestible DM intake was higher at 98 days. Crude protein contents were high (19%) at both cutting dates and did not vary between dates, as occurred with cellulose and lignin. Metabolized and digestible energy intake was highest in forages harvested at 98 days. Raw energy intake did not vary between cutting dates. Mimosine content in leaves was 20% higher at 98 days than at 143 days. The intake levels of this amino-acid did not significantly decrease the thyroxine and triiodothyroxine contents of blood serum.**