

Summary

A trial was conducted on a sandy loam Alfisol in the Laberinto Zone of Zulia state, Venezuela (10° 32' N, 72° 12' W; annual mean rainfall of 971 mm; and average annual temperature of 28 °C). The trial held from August 1990 to September 1992, evaluated 10 Venezuelan accessions of *Centrosema pubescens* for adaptation, green dry matter (GDM), seed production, crude protein (CP), in vitro organic matter digestibility (IVOMD), growth, and pest tolerance. The accessions were planted in a randomized completed block design, with 3 replications. Evaluations were made every 12 weeks during both rainy and dry seasons.

Centrosema pubescens CIAT 15160 had the total highest GDM production at 12.9 t/ha, followed by *C. pubescens* CIAT 5169 with 12.6, CIAT 5627 with 11.4 and CIAT 15133 with 11.3. The least productive accessions were *C. pubescens* CIAT 5631 (7.2 t/ha) and 15875 (7.5 t/ha). *Centrosema pubescens* CIAT 5189, 5169, and 15160 had the highest annual pure seed production (468, 391, and 268 kg/ha, respectively). Crude protein in the dry season was 18.8%, whereas in the rainy season it was 21.3%. Inversely, IVMOD was higher during the dry season (57%) than in the rainy season (46.6%). The accessions were not attacked by pest. These results indicate that *C. pubescens* CIAT 15160, 15133, 5627, and 5169 are the most promising accessions for the Laberinto Zone, Venezuela.