

Summary

In an Oxisol region of Rondônia, Brazil, latitude 6° 46' S and longitude 63° 51' W, behavior patterns during establishment and dry matter (DM) production of 11 forage legumes were evaluated. Testing was based on methodology proposed by the International Tropical Pastures Evaluation Network and considered two periods of maximum (11000 mm) and two periods of minimum (244 mm) precipitation. At the start of the experiment 22 kg/ha of P were applied.

Three weeks after planting the seeds, the forage legumes had complete soil coverage with the exception of *Codariocalyx gyroides* CIAT 3001, *Calopogonium mucunoides* cv. Common and *Aeschynomene histrix* CIAT 9690 which demonstrated little vigor and no persistence. After 48 weeks of evaluation the best average production of DM was obtained with *Stylosanthes capitata* CIAT 1097 and 1405, and *Desmodium ovalifolium* CIAT 350. *Zornia latifolia* CIAT 728 reached its best DM production during rainy periods; however, it displayed a high degree of defoliation during dry periods. *S. guianensis* CIAT 184 and 136, cv. Schofield and cv. Common had acceptable DM production but were strongly stricken by anthracnose (*Colletotrichum gloeosporioides*).

Centrosema pubescens CIAT 438 and cv. Common, and *Pueraria phaseoloides* were persistent but their DM production was inferior to that of other legumes included in the study.