Summary

On an Ultisol in Presidente Medici, Porto Velho, Brazil (lat. 11° 17′ S, long. 61° 55′ W), the dry matter (DM) production of 15 grasses and eight legumes was evaluated during periods of maximum (1085 mm distributed over three 12-week periods) and minimum (173 mm distributed over three 12-week periods) precipitation. Evaluations followed RIEPT methodology.

Precipitation affected seasonal production of DM. The most productive grasses were *Andropogon gayanus* CIAT 621; *Panicum maximum* Comun, Tobiatá, Siempre Verde, and Makueni; *Brachiaria humidicola;* and *Setaria sphacelata* Nandi, S.O. Africa 1. Legumes with highest DM yields were *Desmodium ovalifolium* CIAT 350, *Stylosanthes capitata* CIAT 1405, *S. guianensis* Cook, *Leucaena leucocephala, Pueraria phaseoloides* CIAT 9900, and *Centrosema pubescens* CIAT 438. During the rainy period, *Brachiaria* species were severly attacked by *Deois incompleta,* and the legume species by *Diabrotica* spp.