

# Summary

The effect of stocking rate (2 and 3 AU/ha) on available DM (ADM), residual DM in leaves (RDML), residual leaf area index (RLAI), and N, P, Ca, Mg, and K concentrations was evaluated in *Paspalum atratum* BRA-009610. The trial, conducted at the experimental field of the Brazilian Agricultural Research Enterprise (Embrapa-Rondônia) located in Porto Velho, Brazil, covered both rainy and dry seasons (December 1995-March 1998). Soils were yellow Latosols (clayey Oxisols) with pH = 4.9, P = 2 mg/kg, Al = 1.15 cmol/dm<sup>3</sup>, Ca + Mg = 1.98 cmol/dm<sup>3</sup>, K = 19.5 mg/kg, and 4.43% OM. Treatments were arranged in randomized complete block design with two replicates. At planting, 50 kg/ha of P<sub>2</sub>O<sub>5</sub> were applied, and the pasture was submitted to 7 days of occupation and then 21 days of

rest. ADM and RDML decreased during both rainy and dry seasons ( $P < 0.05$ ) with increasing stocking rate. The highest LAI (2.78) and RLAI (0.69) occurred with the low stocking rate during the rainy season. P, Ca, Mg and K concentrations were not affected by stocking rate. Liveweight gains in animals were 0.398 kg/animal per day and 146.4 kg/ha during the rainy season, and 0.242 kg/animal per day and 18.8 kg/ha during the dry season.