Summary

A trial was conducted on the Mata Negra farm (9° 26' N, 67° 33' W), in Guárico state, Venezuela, to determine the diet selection pattern of grazing cattle. The farm is located 140 m.a.s.l., has an average annual rainfall of 1398 mm, and clayey soils. Eighty feces samples of 24 heads of cattle grazing a 25-ha grass/legume pasture were submitted to microhistological analysis. Samples were collected during the dry (February) and rainy seasons (July). A completely randomized design was used with 10 replicates for the herd; a randomized block design with three replicates was used for the pasture survey. Data were analyzed by ANOVA and means compared by Tukey's test. Significant differences ($P < 0.01$) were found for relative important value (RIV). The grass with the highest RIV was *Cenchrus ciliaris* (33%), while the legume with the highest value was *Stylosanthes capitata* (15%). *Cenchrus ciliaris* was consumed more (41%) following by *S. capitata* (20%) and *B. humidicola* (20%). During the dry season, legumes formed 37% of total diet, decreasing to 11% during the rainy season. Animals were found to show a different diet selection pattern throughout the year.