

Summary

The milk production system of Uruará, Transamazônica region, state of Pará, Brazil, due to the low level of technology used, presents low productivity indexes. The herd feeding is based mainly on a low-quality cv. Marandu or braquiaraõ grass [*Brachiaria brizantha* (Hochst ex. A Rich)] pasture. It was studied the soil-pasture complex in the milk production system of the milk farms. The field work was done from August 1998 to July 1999 in four farms, through two sampling campaigns, one in the dry season (soil and pasture) and other in the wet season (pasture). Thirty 1 m²-sampling quadrat at random were used in each paddock to evaluate the pasture. The forage samples were cut at 5 cm from the ground and the soil samples (four for each forage simple) were taken at 0-20 cm de depth. The forage laboratory analyses were done in the leaf fraction. The statistic analysis was done considering a completely randomized design. The studied variables were: (1) quantitative = total forage and leaf availability, percentage of leaf and pasture height; (2) pasture cover = restricted and integral pasture and weeds cover, and restricted and integral bare ground; (3) qualitative = crude protein (CP), in vitro organic matter digestibility (IVOMD), calcium (Ca), phosphorus (P), magnesium (Mg), and potassium (K) forage content; and (4) soil = pH, organic matter (OM), P, K, Ca, Mg, and aluminum (Al). The fertility of the soils under the studied pastures is low, mainly in available P. The total amount of available forage is satisfactory for the milking cows, however, the leaf availability (more nutritive fraction of

the pasture) may be reducing the animal performance, as well as the CP and the Ca, P content, and forage digestibility. The pasture cover is relatively low. The great diversity of pasture management among farms and along the year, impaired to show clearly the effect of season in quantitative and cover characteristics of the pastures. However, the qualitative attributes were higher in wet season.