

Summary

A grazing experiment in *Brachiaria decumbens* with cows was conducted in an Ultisol region of Pucallpa, Peru, (25°C mean temperature and 1770 mm annual rainfall). The pasture was established in 1979 and annually received 260 kg/ha of N and 100 kg/ha of P. Grazing management included a rotational system of 4 days of occupation and 24 days of rest with a stocking rate which varied between 3.0-3.3 animals per hectare (340 kg live weight) during the dry and wet seasons, respectively. Measurements done between April and July 1984 included forage on offer, plant part composition, quality and intake.

The results indicated that the leaf-to-stem proportion, crude protein and *in situ* dry matter disappearance were significantly affected ($P < 0.01$) by season of the year and days of occupation. In general, forage selected by esophageal fistulated animals was better than forage on offer.

In spite of continuous nitrogen fertilization the pasture showed signs of degradation and infestation by less desirable grasses.