Summary

A grazing trial was conducted in Marajo Island, located at the mouth of the Amazon River in Brazil, to compare the productivity of native pastures (mainly *Axonopus afinis*) with that of *Brachiaria humidicola* under two stocking rates.

During the first year, animal gains of 115 and 354 kg/ha were obtained for native and *B. humidicola* pastures, respectively. Native and *B. humidicola* pastures efficiently supported stocking rates as high as 1.0 and 2.7 steers/ha, respectively. As a result of pasture management, the native legume population increased considerably in native pastures. Native grass protein content (7%) was higher than that of *B. humidicola* (4%).

Results suggest that Marajo Island grasslands have great potential for low-cost cattle production and that their productivity potential has been underestimated.