Summary

At the CIAT Quilichao Experiment Station (990 m.a.s.l., 23 °C, and 1700 mm rainfall), liveweight gain was measured in a suckling Brown Swiss x Zebu calves, with permanent access to *Brachiaria dictyoneura-B. decumbens-C. macrocarpum* pasture. The pasture was grazed in a 7/7 days alternate system.

Management of the calves included two periods of differing lengths. On the first period of 99 days, nine 41-day-old calves with an average weight of 65 kg, were allowed to suckle the milk produced in one quarter of the udder plus the residual milk in two milking per day. In the second period of 44 days, seven calves from the previous period (average initial age of 127 days and 120 kg liveweight) were only allowed to suckle the residual milk in the udder after two milking per day.

Growth of the male and female calves was determined by adjusting weight gain over time with linear regression, and regression coefficients were compared through an analysis of variance.

Weight gains were 562 g and 529 g in the first and second period, respectively.

Daily milk consumption in the first period was estimated to be 5.5 kg per calf. In the second period, milk consumption was limited to residual milk and, as a result, the calves depended more heavily on the pasture to fulfill their nutritional requirements. The sytem imposed allowed more milk for sale with no detrimental effect on the growth of the calves.