Summary

A study was conducted to (1) evaluate the effect of nine fertilization treatments on pure seed (PS) yields of *Brachiaria dictyoneura* pastures, using technified manual harvesting methods (i.e., with certain technical adjustments to the cutting, stacking, moisture exudation, and light threshing of floral stems) and direct combine harvesting; and (2) establish the relationships between the number of inflorescences and PS yields by both harvesting systems. The study was carried out between 15 March and 7 July 1993 at the Matazul farm, which is located in the municipality of Puerto López, Meta Department, Eastern Plains of Colombia, at 4° 09' 4.9" N and 72° 38' 23" W, and 265 m.a.s.l. The average annual rainfall is 2568 mm, and the average temperature is 26 °C. Ungrazed pastures of *B. dictyoneura* CIAT 6133 (cv. Llanero), established in 1989, together with rice, were used. The soil, an Oxisol, had been prepared by two passes with a chisel plow, two cross-wise passes with a hoe, and a final pass with a polishing rake. Before seeding, 300 kg/ha of dolomitic

lime were applied and, subsequently, 250 (kg/ha) of triple superphosphate, 200 of KCl, 174 of urea, and 22 of $ZnSO_4$. Plots were scythed each year to an above-ground height of 10 cm. Technified manual harvesting can lead to a PS yield of *B. dictyoneura* that is double that from direct combine harvesting (132 versus 65 kg/ha, respectively). The maximum PS yield obtained with technified manual harvesting was 202 kg/ha. The nutrient constraint that most limited PS yields was N deficiency. Results indicated that levels of 70 kg/ha of N would give good yields. Levels of 92 kg/ha of N caused spikes to tilt, thus affecting the efficiency of mechanical harvesting. When rates of 44 kg/ha of N are used, other nutrients should be applied to guarantee a similar yield, which, in practice, can be uneconomical.