Summary

Between April 1991 and May 1994, a seed production trial was conducted with *Brachiaria brizantha* cv. La Libertad and *B. dictyoneura* cv. Llanero at the ICA-CIAT Research Center in Carimagua, using different levels of fertilization. The Center is located at 4° 37' N and 71° 13' W, with 2,400 mm of rainfall and an average temperature of 26 °C. The trial was carried out in clay loam and sandy loam Oxisols.

The following treatments, consisting of different levels of fertilization (kg/ha), were applied at the beginning of the trial and every year in the clay loam soil and only once, at the beginning of the trial in the sandy loam soil: N = 0 and 50, P = 22 and 0, K = 25 and 0, Mg = 20 and 0, and S = 20 and 0. A randomized complete block design, arranged in split plots, was used with six replications. Main plots were the cultivars and subplots, the levels of fertilization. The size of subplots was 32 m^2 (8 m x 4 m).

Trial results indicate that the seed yields of *B. dictyoneura* cv. Llanero and *B. brizantha* cv. La Libertad differ significantly when grown at the Carimagua Research Center under similar management conditions. The importance of N for obtaining acceptable yields of pure seed was also highlighted, especially in the case of cv. Llanero. Pure seed yields of *B. dictyoneura* were 30% higher in the sandy loam soil compared to those obtained in the clay loam soil, while those of *B. brizantha* were similar in both types of soil.

Results indicate that it is possible to obtain good seed yields of *B. dictyoneura* cv. Llanero, but not of *B. brizantha* cv. La Libertad, in the Eastern Plains of Colombia.