

Summary

Three experiments were carried out between May and November, 1983, at the Department of Veterinary Medicine and Zootechnology of the Universidad Autónoma de Yucatán, Mexico, to evaluate the effect of planting density and method of establishment on the rate of establishment of signal grass (*Brachiaria decumbens*) and buffel grass (*Cenchrus ciliaris*). In the first experiment, the pastures were planted at distances of 20, 30, 50, and 60 cm in a design of random blocks with three replicates. In the second experiment, the grasses were planted at random and by 'espeque' (spiking a hole in the ground and throwing in the seed), at distances of 30 x 30 cm, with the application of 80 kg/ha of N and 40 kg/ha of P on a design of split plots with four replicates. In the third experiment, the establishment of *C. ciliaris* mixed with maize with four-month and six-month yield cycles, in a random-block design with four replicates, was evaluated.

In the first experiment, the best planting distance was at 60 cm. Dry-matter production and covering, five months after planting, were 3.3 t/ha and 82% for *B. decumbens* and 0.83 t/ha and 48% for *C. ciliaris*. In the second

experiment, random planting gave better results with *C. ciliaris* than with *B. decumbens* and the application of N and P only provided significant results with *B. decumbens* planted by 'espeque.' In the third experiment, it was discovered that the associated maize, especially the variety with a six-month yield cycle, affected the establishment and DM production of *C. ciliaris*.