

# Summary

The establishment of *Brachiaria brizantha* CIAT 6780 and the effectivity of different chemical weed control treatments in degraded pastures and nonmechanizable soils were studied at the INIFAP experimental field, located in the Henequenera Zone of Yucatán, Mexico (20° 06' N and 89° 27' W; 860 mm; 6 m.a.s.l.; 26 °C). The herbicides used and the rates applied (g/ha a.i. within parenthesis) were as follows: (a) glyphosate (960); (b) 2,4-D ester (800); (c) picloram/2,4-D amine (128/480A); (d) dicamba/2,4-D amine (240/280); (e) picloram/triclopyr (120/240); (f) fluazifop-butyl (250); and (g) haloxyfop-methyl (120). Treatments tested were (a) and (b) applied separately; (a) + (c); (c) + (f); (c) + (g); (d) + (f); (d) + (g); (e) + (f); and (e) + (g), all applied as mixtures. Also included were hand weeding and an unweeded check.

All chemical treatments reduced weed incidence during the first 30 days, but 90 days after application only those treatments containing

glyphosate and the check had a weed incidence less than 1 t/ha DM; the amount of DM in the remaining treatments ranged between 2.5 and 3.7 t. Grass development at 12 weeks was more vigorous under those treatments containing glyphosate; these treatments also proved least expensive and reduced weed coverage in grasses the most.

One year after planting, *B. brizantha* establishment was similar in all herbicide treatments, suggesting that in degraded pastures the competitiveness of *B. brizantha* and the strategic use of fertilizers and burning complement weed control treatments showing low effectivity.