

EFFECT OF WEEDS CONTROL THROUGH INTERCROPPING WITH COWPEA. II. GRAIN YIELD OF MAIZE

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The intercropping technique allied to more competitive maize cultivars is a method of reducing the use of herbicides to control weeds. The decrease in weed incidence on maize by means of intercropping is dependent on several factors, such as maize cultivar, climate conditions, period of sowing, intercropped species and fertilizer rates. The objective of this work was to evaluate the effects of intercropping cowpea and maize, and hand-weeding, on the morphology and yield of maize cultivars. The experimental design was in randomized complete blocks, arranged in split-plots with five replications. The plots consisted of four maize cultivars (BA 8512, BA 9012, EX 4001, EX 6004) and the subplots, the following treatments: no-weeding; twice hand-weeding (20 and 40 days after sowing); and intercropping with cowpea ('Sempre Verde' cv, with indeterminate growth), both maize and cowpea seeded at the same time. Weeds were collected from a square area of 0.50 x 0.50 m, between the two central rows and the two central holes of maize plants, for floristic composition evaluation. Ten weed species predominated during the experiment, many of them from the gramineae family. Maize cultivars differed as to the grain yield response in relation to the weeded or intercropped treatments. Higher grain yields were obtained for 'BA 8512' in the hand-weeded plots; for 'BA 8512' and 'BA 9012', in the non-weeded plots; and for 'BA 8512' and 'EX 6004', in the plots intercropped with cowpea. This indicated different cultivar abilities to compete with weeds or cowpea.

Keywords: *Zea mays*, *Vigna unguiculata*, green corn.