

EFFECT OF WEEDS CONTROL THROUGH INTERCROPPING WITH COWPEA. I. GREEN EARS YIELD OF MAIZE

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Green ears yield losses caused by weeds may reach up to 52 %. Reducing the use of herbicides is one of agriculture's major goals and several alternatives are currently being investigated. In the northeast of Brazil, maize intercropped with cowpea is an extensively used practice, although the goal has not been the weed control, but the better utilization of environmental resources. Hence, it is of great concern the evaluation of weed control in maize through the intercropping with cowpea. The intercropping allied to more competitive maize cultivars is a method of reducing the use of herbicides to control weeds. The objective of this work was to evaluate the effects of intercropping cowpea and maize, and hand-weeding, on the green ears 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. The green ear yield was evaluated by number and weight of marketable ears with and without husks. Weeds were collected from a square area of 0.50 x 0.50m, 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. There were no interactions between maize cultivars and treatments for most variables evaluated. On the overall, plants from hand-weeded plots were superior to the plants from the other plots. There were no differences between no-weeded and intercropped plots. Maize BA 8512 cultivar was best for fresh green ear yielding.

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