ABSTRACT

THE EFFECT OF TIMING OF WEED REMOVAL ON
GROWTH AND YIELD IN SOYABEAN

(Glycine max (L.) Merrill)

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An experiment to determine the critical period
for removal of natural weed populations in soyabean
(Variety TGX-849-294) was carried out on a St. Augustine
loam at the University Campus, St. Augustine, during the
period June 10th to October 15th 1988.

A randomized complete block design with three
replications of eight treatments was used in conducting
the trial. Hand weeding treatments included weed
infestation of soyabean plots for 0, 2, 4 and 6 WAP
(Weeks After Planting) with continuous weed removal
thereafter and weedfree maintenance for 0, 2, 4 and 6
WAP with no further weed control until harvest. Individual
plots were 2 x 3m and consisted of five rows of soyabean
spaced 20cm apart within rows and 50cm between rows. The
effect of timing of weed removal on various growth and
yield parameters was evaluated.
Soyabean plant stand, number of pod-bearing branches, pod numbers, pod weight, 100-seed weight and seed yield were all significantly influenced by timing of weed control. Seed yield was highly positively correlated with all these parameters except pod weight. Soyabean yield components were significantly negatively correlated with weed dry matter yield rather than weed density. The critical period for removing weeds to prevent yield reductions in soyabees was found to range between 28 and 35 days after planting.