

ABSTRACTTHE EFFECT OF TIMING OF WEED REMOVAL ONGROWTH 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 soyabeans 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 soyabeans was found to range between 28 and 35 days after planting.

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