

**INTERFERENCE OF SIMULATED WEED (*SORGHUM BICOLOR L.*)
WITH SOYBEAN (*GLYCINE MAX L.*)**

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ABSTRACT

In order to study the effects of simulated weed (*Sorghum bicolor Var. Sudanense*) interference with soybean (*Glycine max L.*), experiments were conducted at the research station of Faculty of Agriculture, Tabriz University. Maximum weed -infested and weed-free periods of 0 to 18 weeks after soybean emergence were imposed by hand-weeding. The critical period for sorghum control was determined to be between 2.2 and 5 weeks after soybean emergence to avoid losses above 5% of yield produced by full-season weed-free soybean. Soybean biomass, number of pods, branches and nodes per plant and specific leaf weight (SLW) decreased as duration of interference increased. Percentage of empty podes per plant increased as weed- infested period lasted beyond 8 week and weed - free period was less than 4 weeks. Soybean after 5 - 6 three - leaflet leaf growth stage could adequately compete with newly emerged sorghums. Full - season sorghum infestation decreased soybean yield 63 %. Five weeks of weed - free maintenance was sufficient to provide soybean yields comparable to plots kept weed - free all seasons.

KEY WORDS

Maximum weed - infested period, minimum weed - free period, interference, competition.