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INFLUENCE OF WEED (*SORGHUM BICOLOR* (L.) MOENCH) INTERFERENCE DURATION ON SUBSEQUENT SEED GERMINATION AND VIGOR OF SOYBEAN (*GLYCINE MAX* (L.) MERRILL)

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ABSTRACT

The effect of weed (*Sorghum bicolor* (L.) Moench) interference on germination and seed vigor of soybean [*Glycine max* (L.) Merrill] was evaluated in several experiments in 1999 and 2000.Weed-infested periods of 0 ,2,4,6,8,10 and 18(full season) weeks after emergence were subjected to the soybean plots. Soybean seeds produced at different weed interference durations were harvested at the end of the growing season and subjected to germination and vigor tests. Soybean seed germination, germination index, germination rate index, rate of germination and percent of normal seedlings decreased with an increase in weed interference duration. An increase in weed interference duration also caused an increase in abnormal seedlings, mean germination time and un-germinated seeds. The threshold of weed infestation for 10% loss comparing to control in GI, NS and GR were 4.5, 3.0 and 4.7 WAE, respectively.

Keywords: Soybean , sorghum , seed germination, weed interference.