

Investigating seed bank and weed population dynamics in corn fields

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ABSTRACT

The dynamics of seed bank is the qualitative and quantitative variation in density and combination of seed bank among time. The dynamics of seed bank and weed population and relations between them, was separately studied in 3 corn fields. Between 4 stages of sampling in every 3 fields, density of seed bank decreased. In the stage of corn stem elongation, number of weed seed in some points was zero. Chemical control prevented the seed production of weeds and decreased the density of weed seed bank. Plowing changed the density and combination of seed bank. Similarity index was 92% and correlation coefficient was significant. The results showed that the density and combination of weed flora related to density and combination of seed bank. Results of this research show that studying the variation of seed bank and weed flora and relations between them is beneficial to predict the pollution level of weed and selection the better and more effective management system for reducing of density of seed bank.

Key words: seed bank dynamic, weed population, corn fields

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