Determining yield losses in rice cultivars resulting from rice white tip nematode *Aphelenchoides besseyi* in field condition

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Abstract

This study was carried out to determine the effects of rice white-tip nematode *Aphelenchoides besseyi* on yield and yield components in the experimental fields of the Thrace Agricultural Research Institute, Turkey in 2012. Four rice cultivars commonly grown in Turkey were used in trial. The experiment was conducted as split plot in a completely randomized block design with four replications with treatments (naturally infected seeds, artificially infected plots, 5000 *A. besseyi* m$^{-2}$ and non-infected) as a main plots, cultivars (Halilbey, Gala, Tunca and Edirne) as a sub-plots were evaluated. In nematode-contaminated plots where it was seen that decreases of yield and weight of 1000 seeds found statistically important at the level 0.01 (P < 0.01). Compared to the control treatment, in naturally infected treatment cultivars Halilbey, Edirne, Gala and Tunca exhibited 26.7%, 15.8%, 15.6% and 8.1% yield decrease, respectively. In the artificially infected treatment cv. Halilbey, Edirne, Gala and Tunca exhibited 29.6%, 14%, 13.5% and 5.1% yield decrease, respectively.