

## EFFECT OF MANAGING PLANT PARASITIC NEMATODES ON GROWTH OF WHEAT VARIETIES IN EAST MEDITERRANEAN REGION OF TURKEY

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### Abstract

The study was conducted to investigate the effect of plant parasitic nematodes viz., *Pratylenchus thornei* and *Heterodera avenae* on agronomic characters and yield of some wheat varieties in East Mediterranean region of Turkey, during two consecutive growing seasons. Reproduction rate of *Pratylenchus thornei* and *Heterodera avenae* were also determined. Monthly population dynamics of *P. thornei* was observed in treated and untreated plots in both growing seasons of wheat. Nematode populations decreased following nematicide applications, before and after sowing.

During the first year (1998-99) at Dogankent, nematicide treatments showed 19.9 % yield increase of Seyhan 95 variety whereas the yield increase in Panda, Ceyhan 99, Genc 99 and Adana 99 varieties were – 2.6, 1.2, 4.7 and 7.1 % respectively. At Haciali 29 % yield increase was observed of Genc 99 variety whereas the yield increase in Adana 99, Seyhan 95, Panda and Ceyhan 99 varieties were 6.8, 10.2, 23 and 23.5 %, respectively. In Tasci treatments resulted 32.4 % yield increase on Genc 99 variety whereas the yield increase in Adana 99, Panda, Ceyhan 99 and Seyhan 95 varieties were 7.1, 16.4, 22.6 and 28.8 %, respectively.

In the second year (1999-2000), the yield of the variety Ceyhan 99 decreased in nematicide treated plots. The highest yield increase was 14.7 % in Adana 99, whereas the yield increase of Dogankent 1, Genc 88, Genc 99, Golia, Lirasa, Ozdemirbey, Panda, Seyhan 95, were 1.1, 8.3, 7.1, 7.3, 14, 7.4, 7.7, 13.3 and 0.6 %, respectively. About 1.3 % higher yield was obtained in control plot than treated plots in Ceyhan 99 variety.