

The study of weed hosts of sugarbeet cyst nematode in West Azarbaijan

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ABSTRACT

During the years of 1991-94 extensive survey were carried out to collect and identify weed hosts of sugarbeet cyst nematode in sugarbeet fields of Oroumieh, Miandoab, Khoy and Shahindej cities. In this work, 60 weed species belonging to 15 families were identified. Weed seeds were planted in clay pots containing 250 ml. nematode infested soil (25 J2 and eggs/gr.) and put under greenhouse conditions. The experiments showed that 19 weed species belonging to 3 plant families of Chenopodiaceae, Cruciferae and Polygonaceae were hosts of the nematode. It was concluded that elimination of weed hosts in combination with crop rotation using nonhost plants are important factors in effective integrated nematode management programme.

References

- ESHTIAGHI, H. and S. BAROOTI 1992. A review on the sugarbeet cyst nematode problem in Iran. *Zeitune* 107: 12-15.
- GRIFFIN, G. D. 1980. Effect of nonhost cultivars on *Heterodera schachtii* population dynamics. *J. of Nematology* 12 (1): 53-57.
- KALALI, G. H. and FARIVAR-MAHIN 1979. Some studies on sugarbeet nematode in Khorassan. *Applied Entomol. and Phytopath.* 47 (1): 1-21.
- KHAIRY, M. 1988. A list of sugarbeet pests in Iran. *Applied Entomol. and Phytopath.* 56 (1,2): 75-91.

- KHAIRY, M. 1991. The important pests of Sugarbeet in Iran and their control method. Agricultural extension organization, 126 pp.
- PARVIZI, R. 1992. Studies on the pathogenicity of sugarbeet cyst nematode in west Azarbaijan. An M. S. Thesis submitted to University of Tehran. 109 pp.
- PARVIZI, R. and ESHTIAGHI, H. 1992. Distribution areas of *Heterodera schachtii* in west Azarbaijan. Applied Entomol. and Phytopath. 60 (1,2): 73-79.
- SABETI, H. 1960. Weeds of Iran and their control methods. University of Tehran Press. 206 pp.
- SASSER, J. N. 1989. Plant-parasitic nematodes: The farmer's hidden enemy. North Carolina State University, Raleigh, N. C. 115 pp.
- SCHAFFER, R. and ESMAILPOUR M. H. 1969. The sugarbeet cyst nematode in Iran. Applied Entomol. and phytopath. 29: 7-10.
- STEELE, A. E. 1965. The host range of the sugarbeet nematode, *Heterodera schachtii* schmidt. J. of American Society of sugarbeet technology 13: 573-603.
- STEELE, A. E. 1986. Nematode parasites of sugarbeet. pp: 33-36 in: Compendium of beet diseases and insects, by: E. D. Whitney and J. E. Duffus (eds.) Aps Press, 76 pp.
- TALACHIAN, P.; A. AKHIANI; Z. GRAYELI; M. SHAHMOHAMMADI and F. TAYMURI 1976. A survey on cyst forming nematodes in Iran in 1975 and their importance. Iranian J. of plant Path 12 (3,4): 73-78.

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