

**Study on faunistic aspects of citrus aphids in west-Mazandaran**

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**ABSTRACT**

In order to study the faunistic aspects of population of citrus aphids, sampling has been done weekly on citrus trees in west-Mazandaran during 1991-1993. Seven species belonging to family Aphididae were collected on citrus trees. Among the citrus aphids, *Aphis citricola* was the dominant species with 77.02 to 90.8% of the total population and were present through the year. *Toxoptera aurantii* constituted 9.2 to 20.16% and the remaining species 4% of the aphids population respectively. Their population peaked three times a year.

Our observations showed that the young leaves and shoots were appropriate sources of food for population increase of aphids, but natural enemies (Nine species of insects) and old leaves were limiting factors.

**References**

- BLACKMAN, R. L. & V. F. EASTOP, 1989. Aphids on the world crops. An Identification Guide, Wiley & Sons. pp 466.
- BODENHEIMER, F. S. 1951. Citrus entomology in the middle East, with special references to Egypt, Iran, Irak, Palestin, Syria and Turkey. The Hague. pp. 175-185.
- CARVER, M. 1978. The black citrus aphids (Homoptera: Aphididae). J. Aust. Ent. Soc. 17: 263-270.
- DAVATCHI, A. & M. SHOJAI 1967. Entomophagous wasps of Iran. Tehran university. No. 107. (in Farsi)

- EBELING, W. 1959. Subtropical fruit pests. University of California, Div. Agri. Sci. Berkeley. pp. 169-233.
- ESMAILI, M. 1983. The important pests of fruit trees. Tehran University. pp. 368-377 (in Farsi).
- EASTOP, V. and S. H. HODJAT. 1978. List of aphids and their hosts in Khozestan. Agricultural Science Journal. No. 5: 1-25 (in Farsi)
- FARAHBAKHS, GH. 1961. List of agricultural pests in Iran. Plant protection organization. No. 1, 133 pp. (in Farsi)
- FRAZER, B. D. 1988. Predators. In: Minks, A. & P. Harrewijn (eds.) Aphids, their biology, natural enemies and control. Vol. B. Uni. of Amsterdam. pp. 217-248.
- HODJAT, S. H. & V. EASTOP. 1982. Green citrus aphid, a new species from Iran. Entomologie et Phytopathologie Appliquees. 50: 57-66. (in Farsi with English summary).
- HODJAT, S. H. & M. J. MORADESHAGHI, 1987. The citrus aphids of Iran. plant protection organization. 31: 1-40 (in Farsi).
- KOMAZAKI, S. 1993. Biology and transmission of citrus aphids. International symposium on the management of insect-born virus in temperate and subtropical Asia. 17 pp.
- NEW, T. R. 1988. Neuroptera. In: Minks, A. K. & P. Harrewijn (eds.) Aphids, their biology, natural enemies and control. Vol. B. Uni. of Amsterdam. pp. 249-256.
- RADJABI, GH. 1989. Insect attacking Rosaceae fruit trees in Iran. Third Vol. Homoptera. Plant Pests & Disease Research Institute. 256 pp. (in Farsi).
- REZWANI, A. 1983. The black citrus aphid from Iran. Entomologie et Phytopathologie Appliquees. 51: 23-28. (in Farsi with English Summary).
- REUTHER, W., E. C. CALAVAN, & G. E. CARMAN. 1989. The citrus industry. Vol. 5. University of California pp. 50-52.
- STARY, P. 1988. Aphidiidae. In: Minks, A. K. & P. Havrewijn (eds.) Aphids, their biology, natural enemies and control. Vol. B. Uni. of Amsterdam. pp. 171-188.
- TALHOUK, A. S. 1969. Insects and mites injurious to crops in middle Eastern countries, Verlag paul parey. Germany. pp. 91-124.
- TREMBLAY, E. 1984. The Parasitoid complex (Hym.: Ichneumonidae) of *Toxoptera aurantii* in Mediterranean area. Entomophaga 29(2): 203-209.

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