Appl. Ent. & Phytopath. Vol. 59. Nos: 1&2, Feb. 1992

## THE ROLE OF SUGARBEET LEAFHOPPER IN CURLY-TOP VIRUS DISEASE IN FARS PROVINCE

A. MONSEF and M. KHEYRI

Agricultural Research Center of Fars and Plant Pests & Diseases Research Institute

## Summary

A five years research (1983 - 1987) in southern part of Fars Province, showed that the transfer of overwinterd sugarbeet leafhoppers to young plants occurs during the month of April. Winter is passed as mated adult females, being able to lay their eggs whenever climatic conditions are favourable for their activities.

Main peak of population takes place almost in June when the average temperature is 30°c and relative humidity amounts to 15%. The leafhopper vectors belong to *Neoalitorus genus*. *N. Haematoceps* and *N.temellus*, with average population density of 75% and 25% respectively. Damage is caused by transmission of virus by the beet leafhoppers, adults and nymphes. Virus spreads by feeding of the leafhopper on the diseased plants and moving to the healthy ones.

At the present time about 80% of sugarbeet plants, in some parts of the Fars Province, are infected with curly-top virus. The diseased plants, show the typical symptoms of vein swelling, vein distortion, leaf crinkling and small protuberances on the veins. The crop losses in 80% infected farms has been evaluated about 40% but the decrease of sugar content was not considerbale.

## References

- BENNETT, C.W. 1971. The Curly-top disease of sugarbeet and other plants. Monograph No. 7. Amer. Phyt. Soc., 81pp.
- KHEYRI, M. 1991. The important pests of sugarbeet in Iran and their control methods. Agricultural Extension Organization Publ.: 92-102. (In Farsi).
- KHEYRI, M. and I. ALIMORADI 1960. The leafhopper of sugar beet in Iran and their role in curly top virus disease (in Farsi).
- MONSEF, A. 1981. Life cycle and toxicogenic role of *Austeroasca lybica* in cotton fields in Fars province. Ent. Phyt. Appl. vol. 49: 11-17.
- MONSEF, A. 1987. Some bio-ecological features of cotton jassid in Fars Province. Ent. Phyt. Appl. Vol. 54: 153-158.

WESTCOTT, C. 1969. Plant Disease Handbook. 3rd edition, Washington D.C: 422.

Address of the authors:

Eng. ALI-AKBAR MONSEF. Plant Pests & Diseases Research Department, Agricultural Research Center of Fars, P.O.Box 121, Shiraz 73415, Iran. Dr. MOHAMMAD KHEYRI. Research Department of Harmful Insects to Plants, Plant Pests & Diseases Research Institute, P.O.Box 1454, Tehran 19395, Iran.