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EVALUATION OF FIELD RESISTANCE OF ALFALFA CULTIVARS TO ALFALFA STEM NEMATODE¹

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SUMMARY

Field resistance of five alfalfa cultivars to alfalfa stem nematode, *Ditylenchus dipsaci* (Lucerne Race) was evaluated in three successive years (1984-1986). The results showed that on the basis of resistance to the nematode alfalfa cultivars fell into three groups : Sechine Hamedan and Mohajeran Hamedan were highly resistant, Ranger showed intermediate resistance and Moapa and local cultivars were susceptible.

Crop yield was directly correlated with the degree of resistance except for Moapa which had a high nematode population with intermediate yield and could be regarded as tolerant. The average yield (dry hay) was 11.30, 11.17, 7.96, 7.90 and 5.06 tons per hectare for Sechine Hamedan, Mohajeran Hamedan, Moapa, Ranger and local cultivars respectively.

REFERENCES

ABIVARDI, C., MOKHTARZADEH, A and SHARAFEH, M., 1975 -

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- 1 - Received for publication, July 1, 1987
 - 2 - Eng. Manoochehr Sharafteh, Plant Pests and Diseases Research Laboratory, P. O. Box 73415 - 121, Zarghan, Shiraz, Iran.
 - 3 - Eng. Javad Esmailzadeh, Extension Service, P. O. Box 71365 - 365, Shiraz, Iran.

- Evaluation of some varieties of alfalfa (*Medicago sativa*) for their resistance to the alfalfa stem borer nematode, *Ditylenchus dipsaci* (Kühn, 1857) Filipjev 1936, under laboratory conditions. Nemat. Medit. 3 : 55 - 63.
- GOODEY, J. B., 1963- Laboratory methods for work with plant and soil nematodes. Tech. Bull. 2. Min. Agr., London, H. M. S. O., 3rd Ed. of Goodey, 72 pp.
- HEATH, M. E., METCALF, D. S. and BARNES, R. F., 1975- Forages, Iowa State Univ. Ames., Iowa, U. S. A. Third Ed. 755 pp.
- SHARAFEH, M., 1983- Distribution of alfalfa stem nematode *Ditylenchus dipsaci* in Fars Province, 7th Plant Congress of Iran.
- SMITH, O. F., 1951- Biological races of *Ditylenchus dipsaci* on alfalfa, Phyto-pathology 41 : 189 - 190.
- STEEL, R. G. D. and TORRIE, J. H., 1960- Principles and procedures of statistics, McGraw Hill Book Comp., Inc., New York.

REFERENCES

- ABIVARDI, G., MOKHTARABADI, A. and SHARAFEH, M., 1975 -
 1 - Received for publication, July 1, 1987
 2 - Ent. Manoochehr Sharfeh, Plant Pest and Diseases Research
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