

Department of Agricultural Research and Extension - Ministry of Agriculture  
P.O. Box 262 - Amman - Jordan

## PLANT-PARASITIC NEMATODES FROM VINEYARDS IN JORDAN

by  
Z. HASHIM

In Jordan, grapevines (*Vitis* spp.) are cultivated mainly in the hilly, northwestern regions under natural rainfall. Plantings in old and new irrigation schemes in the Jordan Valley (East Bank), Al-Hallabat and elsewhere are of less importance.

Soil samples collected in 1983 from the rhizosphere of grapevines in Jordan contained several species of phytoparasitic nematodes (Table I). *Helicotylenchus pseudorobustus* (Steiner) Golden was found in high numbers (> 1.070 nematodes/100 ml soil) in some of the irrigated vineyards but apparently without causing decline. Other *Helicotylenchus* spp. were less numerous and occurred solely in the drier, non-irrigated vineyards: *Xiphinema pachtaicum* (Tulaganov) Kirjanova was often found with these species. The occurrence of other species (Table I) was more erratic.

In addition to the nematodes found during this investigation, *Criconemella rustica* (Micol.) Luc *et* Raski, *Scutylenechus rugosus* (Siddiqi) Siddiqi, *Tylenchorhynchus clarus* Allen, *X. index* Thorne *et* Allen and *X. vuittenezi* Luc, Lima, Weischer *et* Flegg were previously reported from vineyards in Jordan (Bridge, 1978; Hashim, 1979). *X. index* is of particular importance in view of its role as vector of grapevine fanleaf virus; this virus infects grapevines in Jordan (Savino *et al.*, 1975) but its association with the nematode vector in this country has not yet been established.

Table I - *Plant-parasitic nematodes found associated with grapevine in Jordan during 1983.*

Nematodes	Localities
<i>Aphelenchus (Aphelenchus) avenae</i> Bastian	near Jerash; Soof.
<i>Basiria</i> sp.	Na'our.
<i>Criconemella antipolitana</i> (de Guiran) Luc <i>et</i> Raski	Anjarah.
<i>C. informis</i> (Micol.) Luc <i>et</i> Raski	Anjarah.
<i>Filenchus</i> sp.	Fuhais; Sakeb.
<i>Helicotylenchus digonicus</i> Perry in Perry, Darling <i>et</i> Thorne	Anjarah; Fuhais; Hisban; Soof; Wadi Seer.
<i>H. pseudorobustus</i> (Steiner) Golden	Al-Hallabat; Baq'a; central Jordan Valley.
<i>H. tunisiensis</i> Siddiqi	Fuhais; near Jerash; Soof.
<i>H. vulgaris</i> Yuen	Anjarah; Sakeb; Soof.
<i>Meloidogyne javanica</i> (Treub) Chitw.	central Jordan Valley.
<i>Merlinius brevidens</i> (Allen) Siddiqi	Wadi Seer.
<i>M. microdorus</i> (Geraert) Siddiqi	Anjarah; Kafranjah.
<i>Nothotylenchus</i> sp.	Wadi Dhulail.
<i>Pratylenchus jordanensis</i> Hashim	Wadi Dhulail.
<i>P. penetrans</i> (Cobb) Filipjev <i>et</i> Sch. Stek.	Baq'a; Na'our; Wadi Seer.
<i>Pratylenchus</i> spp.	Fuhais; Hisban; Kafranjah.
<i>Psilenchus</i> sp.	Kafranjah.
<i>Rotylenchus cypriensis</i> Antoniou	Na'our.
<i>Xiphinema pachtaicum</i> (Tulaganov) Kirjanova	Anjarah; Fuhais; Hisban; Na'our; Sakeb; Wadi Seer.

#### L I T E R A T U R E C I T E D

- BRIDGE J., 1978 - Plant nematology in Jordan. *ODM, Report of Liaison Officer*, 20 pp.
- HASHIM Z., 1979 - A preliminary report on the plant-parasitic nematodes in Jordan. *Nematol. medit.*, 7: 177-186.
- SAVINO V., QUACQUARELLI A., MARTELLI G. P. and KHUDAIR M. M. A., 1975 - Occurrence of Grapevine fanleaf virus in Jordan. *Phytopath. medit.*, 14: 132-133.

Accepted for publication on 7 February 1985.