

## Soil and seed-borne bacterial and fungal pathogens of potato in Fars province

B. Mansoori<sup>1</sup>, M. Pakniat, F.S. Khosrowfar

1. Plant Pests and Diseases Research Dept., Agricultural Research Center of Fars.

A variety of seed and soil-borne diseases are prevalent in potato fields of Fars province. In a survey conducted during 1999, 180 random plant and soil samples were collected from the main growing areas of the province; e.g. Daryon, Dehbid and Eghlid. Viral diseases were excluded from the samples. Seed-borne bacterial diseases incited by *Ralstonia solanacearum* and *Clavibacter michiganensis* subsp. *sepedonicus* were highly incidental and not included in the samples.

A more uniform occurrence of diseases were encountered for Black dot incited by *Colletotrichum coccodes* av. 5.3%; Blackleg and stem rot by *Erwinia* spp 7.3%; Fusarium wilt by *Fusarium* spp. 2.6%; and Rhizoctonia canker by *Rhizoctonia solani* 1.6%. However symptoms of Verticillium wilt (early dying) were more prevalent in the fields. In the assessment *Verticillium* spp. were isolated from 18.3% of the samples. However plants with sever wilt syndroms accompanied by other soil-borne pathogens as follows: *Fus.* + *Erw.* 3%; *Vert* + *Coll.* 14.6%; *Vert.* + *Erw.* 16.7%; *Ver.* + *Fus.* 12.3; *Vert.* + *Rhizoc.* 10%; *Vert.* + *Coll.* + *Erw.* + 2.6%; *Vert.* + *Fus.* + *Erw.* 3.3%; *Vert.* + *Rhizoc.* + *Fus.* + *Erw.* 1.6%; *Vert.* + *Coll.* + *Fus.* + *Erw.* 1%.

Soil samples and stained roots were examined for the presence of parasitic nematode. Low population (1-10/100 gr soil) of endoparasites; *Meloidogyne* spp. was assessed in 0.6%; and *Pratylenchus neglectus* in 11.6% of soil samples. The data indicate nematode diseases are not important in Fars province.