WILTING DISEASE OF YOUNG AVOCADO TREES CAUSED BY *Neonectria radicicola* IN ISRAEL

M. Zilberstein [1], M. Noy[1], E. Levy[2], G. Elkind[2], M. Zeidan[2], E. Teverovski[2] and I. Ben Ze'ev[2]

[1] Extension Service, Ministry of Agriculture and Rural Development Bet Dagan 50250, Israel
[2] Plant Protection and Inspection Services (PPIS), Ministry of Agriculture and Rural Development, POB 78 Bet Dagan 50250, Israel

Blighting and wilting of young avocado (*Persea americana* Mill.) trees accompanied by root rot were observed in the last three years in a few locations in Israel. Symptomatic trees were mostly vars. Pinkerton and Ardit, 2 – 5 years after planting in the orchard, heavily loaded with fruit. Isolations revealed a *Cylindrocarpon* sp. A survey was initiated in avocado nurseries for fungi, and *Cylindrocarpon* sp. was isolated from the roots of 10%-100% of the seedlings in all the surveyed nurseries, although the seedlings showed no wilting symptoms.

Fungicides efficacy experiments in seedlings showed good control results only with Prochloraz formulations "Merag" and Sportak".

Perithecia of the fungus were observed in the lab, first on roots and later on PDA medium. Single-conidium and single-ascospore isolates were obtained for morphological identification of this *Cylindrocarpon / Neonectria* species. Sequences of the small subunit mitochondrial rDNA, β-tubulin, and ITS region revealed homologies of 99.8%, 100%, and 94% respectively with *Neonectria radicicola* / *Cylindrocarpon destructans* complex.

N. radicicola / C. destructans is a known agent of root rot disease in nurseries of raspberry, grapevine, ginseng and forest trees.

This is the first report of *Neonectria radicicola* in *Persea americana*.

The questions to discuss are: is this a new soil-borne pathogen in Israel, or an indigenous one. Have changes in avocado horticulture management, (water salinity, fertigation, heavy yield on young trees etc') increased the pathogenicity of the fungus?