

**Project Title** : Investigatons on Cultivar Reactions of Tomato Cultivars to Pith Necrosis and Possibilities for Disease

**Start /End Date** : 2001-2004

**Supporting Body** : GDAR

**Leader** : Nursen ÜSTÜN

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**Summary** : In this study reactions of 31 tomato cultivars, 3 rootstock and some wild *Lycopersicon* (*L. peruvianum* var. *humifusum*, *L. peruvianum* f. *glandulosum*, *L.hirsutum*, *L. pimpinellifolium*, *L. esculentum* var. *cerasiforme*, *L.chilense*) species to tomato pith necrosis caused by *Pseudomonas corrugata*, *Pseudomonas viridiflava*, *Pseudomonas cichori* and *E.carotovora* subsp . *carotovora* were determined. None of the cultivars tested proved to be resistant to the *P. corrugata*, *P. viridiflava*, *P. cichori*, but tomato cultivars ACE 55 VF ve Nun 2048 were resistant to *E.carotovora* subsp *carotovora*. Rootstocks showed different reactions to the isolates. He-Mann ve Vigomax F 1 rootstoks were resistant to some isolates. Some wild spesies were found to be resistant to some isolates, but *L. peruvianum* f. *glandulosum* and *L. peruvianum* var *humifusum* were resistant to three isolates and modarately resistant to another one.

In the experiments carried out in plastic greenhouse of our Institute copper hydroxide (Champion), copper salts combined with mancozeb (Tri-Miltox), copper salts of oil and rozin acids (Tenn-copp), plant and yeast extracts (ISR 2000) and harpin protein(Messenger) showed 72.22 %, 25.93 %, 8.79 %, 43.06%, 20.37% effect, respectively in 2001. In 2002 no results from experiments were obtained. In 2003 the effect of copper hydroxide(Champion), copper penta hydroxide (Mastercop), acibenzolar-S-methyl (Bion), plant and yeast extracts (ISR 2000) and treatment with plant and yeast extracts (ISR 2000) prior inoculation and copper hydroxide (Champion) in the day of inoculation was 66.33 %, 36.98%, 57.96%, 47.52% and 68.85% respectively.