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SUSCEPTIBILITY TO BACTERIAL SPECK OF TOMATO CULTIVARS HARBOURING RESISTANT GENE *PTO*: DIFFUSION OF *AVRPTO* IN *PSEUDOMONAS SYRINGAE* PV. *TOMATO* STRAINS ISOLATED FROM THESE CULTIVARS

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Resistance of tomato genotypes to the causal agent of bacterial speck (*Pseudomonas syringae* pv. tomato) (PST) is monogenic dominant and is due to *Pto* gene that interact with a "gene for gene" manner with the avirulence gene *avrPto*. *Pto* gene that originate from *Lycopersicon pimpinellifolium* is linked to *Fen* gene that confer susceptibility to the insecticide fenthion. The susceptibility to fenthion of tomato lines is used than inoculation with bacteria, when breeders sorting their materials for resistance to PST. A lot of PST resistant genotypes are commercially available. In the year 2002, heavy attack of bacterial speck were observed in an experimental field in Southern Italy. At least six out twenty resistant tomato genotypes showed spots of bacterial speck. From four resistant tomato cultivars (Coimbra, Talent, Fastel and Alange) resulted susceptible in the field, isolations of PST were made from single spots of the fruits and the presence of *avrPto* was investigated by PCR. The typical amplification product of *avrPto* was generally observed on agarose gel, confirming large presence of this effector gene in the natural infections of PST in the experimental field. The results strongly support the hypothesis that loss of resistance of these tomato cultivars was due to mutation or loss of *Pto* gene. Further investigation on these tomato genotypes are needed.