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ROLE OF AVIRULENCE GENE *AVRRPT2* ABOUT VIRULENCE OF *PSEUDOMONAS SYRINGAE* PV. *TOMATO* ON TOMATO

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Avirulence gene *avrRpt2* of *Pseudomonas syringae* pv. *tomato* (PST) encode an effector protein secreted into tomato plant cell by type III secretion system of the bacterium. This effector gene is a lot of diffused in PST populations and, recently, has been demonstrated that it contribute to virulence on tomato. In this work, the role of *avrRpt2* about virulence on tomato plants is further investigated by inoculation on three tomato cultivars of a mutant derivative of a virulent strains of PST that carries a disruption in *avrRpt2*. After two weak, the mutant gave significantly reduction of symptoms on all tomato cultivars with respect to virulent wild strain of PST, confirming the role of *avrRpt2* to reduction of symptoms on tomato. Nevertheless, inoculation of the mutant strain with *avrRpt2* reintroduced into bacterial cell by plasmid, gave slowly symptoms. It is possible that a different expression of *avrRpt2* from the plasmid with respect to expression from the bacterial chromosome is responsible for our inability to observe complementation. It is also possible that we introduced an additional modification during mutant construction. Further investigation is in progress.