

Differential Sets

Fusarium oxysporum f. sp. *lycopersici* (Fol) – Tomato

Fusarium oxysporum f. sp. *lycopersici* is an important pathogen of tomato. This soil-borne vascular pathogen causes yellowing and wilting of plants. Affected plants show brown vessels. Several resistance genes have been introgressed into commercial varieties. The gene *I* confers resistance to race US 1/EU 0, *I2* confers resistance to race US 2/EU 1, *I3* confers resistance to race US 3/EU 2 while *I4*, *I5* and *I6* confer a nearly complete partial resistance to race US 2/EU 1. Several varieties combine different resistance genes.

Differential hosts	Races		
	US 1/EU 0	US 2/EU 1	US 3/EU 2
Bonny Best, Early Pak 7, uc 82, Marmande verte, Marmande, Resal	S	S	S
VFN8, Pakmor, Marporum, Larissa	R	S	S
Florida MH-1, Walter, Motelle	R	R	S
Florida 7547, Florida 7481	R	R	R

S = susceptible; R = resistant

References

- G. Cai, L. Rosewich Gale, R. W. Schneider, H. C. Kistler, R. M. Davis, K. S. Elias, and E. M. Miyao 2003. Origin of race 3 of *Fusarium oxysporum* f. sp. *lycopersici* at a single site in California. *Phytopathology* Vol 93 (8): 1014 – 1022
- Scott J. W. and J. P. Jones 1994. Fla 7547 and Fla 7481 tomato breeding lines resistant to *Fusarium* races 1, 2 and 3. Florida Agricultural Extension Circular.
- Sela-Buurlage M., O. Budai-Hadrian, Q. Pan, L. Carmel-Goren, R. Vunsch, D. Zamir, R. Fluhr 2001. Genome-wide dissection of *Fusarium* resistance in tomato reveals multiple complex loci. *Molecular Genetic and Genomics* 265: 1104-1111.
- CPVO. See <http://www.cpvo.europa.eu/> for a protocol on disease resistance testing

For more information contact the ISF Secretariat at isf@worldseed.org

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