

EUROPEAN SEED ASSOCIATION - CODE FOR RESISTANCE HARMONIZATION

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final version

The ESA Code for resistance harmonisation has been designed by ESA to improve transparency to vegetable growers.

Vegetable seed companies are recommended to make use of the ESA Code in their catalogues, on their websites and in all other forms of product information

Tomato

Scientific name pathogen ISF	Abbreviation	Races/Strains	Level	Reference variety
Tomato marchitez virus / Tomato Apex Necrosis	ToMarV / ToANV		HR	Matias (Mon), Charliston (SG)
Tomato torrado virus	ToTV		HR	Matias (Mon), Charliston (SG)
Tomato mosaic virus	ToMV	0	HR	Moperou 161 (INRA)
Tomato mosaic virus	ToMV	1	HR	Moperou 161 (INRA)
Tomato mosaic virus	ToMV	2	HR	Momor (INRA)
Tomato spotted wilt virus	TSWV		HR	Mospomor (INRA)
Tomato yellow leaf curl virus	TYLCV		IR	
Alternaria alternata f.sp. lycopersici	Aal		HR	Florida 47
Fulvia fulva (ex Cladosporium fulvum)	Ff	A	HR	Vagabond (OP)
Fulvia fulva (ex Cladosporium fulvum)	Ff	B	HR	Stirling Castle (OP)
Fulvia fulva (ex Cladosporium fulvum)	Ff	C	HR	V121 (OP)
Fulvia fulva (ex Cladosporium fulvum)	Ff	D	HR	Purdue 135 (OP)
Fulvia fulva (ex Cladosporium fulvum)	Ff	E	HR	Ontario7818
Fusarium oxysporum f.sp. lycopersici	Fol	0 (US1)	HR	Marporum (INRA)
Fusarium oxysporum f.sp. lycopersici	Fol	1 (US2)	HR	Motelle (INRA), Walter (OP)
Fusarium oxysporum f.sp. lycopersici	Fol	2 (US3)	HR	Murdoch (Rijk Zwaan)
Fusarium oxysporum f.sp. radicles-lycopersici	For		HR	Momor (INRA)
Leveillula taurica (anamorph: Oidiopsis sicula)	Lt		HR / IR	IR: Laurica (OP)
Oidium neolycopersici (ex O. lycopersicum)	On		IR	
Phytophthora infestans	Pi		IR	Heline (INRA), Celzus (Mon)
Pyrenochaeta lycopersici	Pl		HR / IR	HR: Moboglan (INRA), Pyrella (INRA) IR: Celzus (Mon)
Stemphylium solani	Ss		HR	Motelle (INRA)
Stemphyllium botryosum f.sp. lycopersici	Sbl		HR	Motelle (INRA)
Stemphylium lycopersici (ex Stemphylium floridanum)	Sl		HR	Motelle (INRA)
Verticillium dahliae	Vd	0 (US1)	HR	Marmande VR, Monalbo (INRA)
Verticillium albo-atrum	Va	0 (US1)	HR	Motelle (INRA)
Pseudomonas syringae pv. tomato	Pst		HR	Ontario 7710 (OP)
Ralstonia solanacearum	Rs		HR / IR	HR: Shin Cheong Gang IR: Caraibo (Clause)
Xanthomonas campestris pv. vesicatoria	Xcv		IR	Ohio 9816
Meloidogyne arenaria	Ma		IR	Anahu
Meloidogyne incognita	Mi		IR	Anahu
Meloidogyne javanica	Mj		IR	Anahu
Silvering	Si		T	
Blosson End Rot	BER		T	
Blotching	Bl		T	
Cracking	Cr		T	