

Differential Sets

Tobamoviruses (*Tobacco mosaic virus* (TMV), *Tomato mosaic virus* (ToMV), *Tobacco mild green mosaic virus* (TMGMV), *Paprika mild mottle virus* (PaMMV), *Pepper mild mottle virus* (PMMoV)) and *Bell pepper mottle virus* (BPMoV) - Pepper

Pepper mild mottle virus (PMMoV) was first described in Italy in 1984. Since then it has spread and become a significant pathogen of pepper crops worldwide. Resistance is governed by four different dominant single genes *L1*, *L2*, *L3* and *L4*, which are considered to be alleles at the locus L. The most common mechanism of resistance is mediated by a hypersensitive reaction manifested through the induction of necrotic local lesions. The tobamovirus strains isolated from pepper have been classified into four groups (P0, P1, P1-2, P1-2-3 and P1-2-3-4) on the basis of their interactions with the corresponding plant resistance genes.

Pathotype →	P0	P1	P1-2	P1-2-3	P1-2-3-4
ISF Code →	TMV: 0 ToMV: 0 TMGMV: 0 BPMoV: 0	TMV: 1 TMGMV: 1 PaMMV: 1	PMMoV: 1.2	PMMoV: 1.2.3	PMMoV: 1.2.3.4

Variety	Gene	P0	P1	P1-2	P1-2-3	P1-2-3-4
Lamu, Early Calwonder	-	S	S	S	S	S
Tisana, Yolo Wonder	<i>L1</i>	R	S	S	S	S
Tabasco	<i>L2</i>	R	R	S	S	S
Solario F1, Novi 3, PI159236	<i>L3</i>	R	R	R	S	S
Tom4, PI260429	<i>L4</i>	R	R	R	R	S

S = susceptible; R = resistant;

Note: The *L2* gene is overcome very rapidly and is not used in commercial varieties (A. Palloix, INRA (pers. com.))

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