**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.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Gene</th>
<th>P0</th>
<th>P1</th>
<th>P1-2</th>
<th>P1-2-3</th>
<th>P1-2-3-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamu, Early Calwonder</td>
<td></td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Tisana, Yolo Wonder</td>
<td>$L1$</td>
<td>R</td>
<td>S</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Tabasco</td>
<td>$L2$</td>
<td>R</td>
<td>R</td>
<td>S</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Solario F1, Novi 3, PI159236</td>
<td>$L3$</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>S</td>
<td>S</td>
</tr>
<tr>
<td>Tom4, PI260429</td>
<td>$L4$</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>S</td>
</tr>
</tbody>
</table>

S = susceptible; R = resistant;

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

References


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

NOTE: ISF has done its best to provide information that is up-to-date and published in refereed journals, and therefore accepts no liability for the use of this information.