

Working Party on Agricultural Quality Standards

Specialized Section on Standardization of Seed Potatoes

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Item 8 of the provisional agenda

Combination of mild and severe virus symptoms into one field tolerance

Combining Virus Symptoms

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The definitions in Annexe VII on “severe mosaic” and “severe virus diseases” are below. The word “severe” has become less relevant since ntn- and no- or wilga- strains of PVY have become mild, but are still a virus to be controlled by certification.

UNECE Standard: Annexe VII

“Severe Mosaic:

Disease symptom caused by a virus, characterized by discolouration and distortion of foliage, and easily discernible by visual inspection.

Severe virus diseases: Manifest themselves by deformations of the foliage with or without discolouration. Symptoms can be rugosity, crinkle, rolling and brittleness of the leaves or dwarfing of the plant, as with the severe mosaic or/and the potato leaf roll disease.

The following viruses or virus combinations are usually the origin of severe virus diseases:

- PLRV, PVY, PVA or PVM,
- PVY + PVX, PVA + PVX or PVX + PVS”.

(SUGGESTION:) WHEN PVY IS CONFIRMED TOLERANCES FOR SEVERE MOSAIC APPLY REGARDLESS OF SEVERITY OF SYMPTOMS.

Speaking for North America, the PLRV, PVA, PVM, and PVX are of minor importance, because their occurrence is rare or regional. PVS is generally symptomless.

I doubt whether any seed potato area would be served by changing the tolerances for viruses (PVX, PVS) with mild symptoms to the tolerances of viruses with severe symptoms

In North Dakota, during inspection we consider any visible mosaic symptom to be caused by “PVY”, unless proven otherwise and we maintain the tolerance for severe virus. Generally: mild, but still visible symptoms are confirmed as PVY. There are areas in North America where PVA, or PVM has been found. Rarely is a mild symptom actually only PVS.

The one virus that is of major concern is PVY. Would it be acceptable to add to the definition of “severe mosaic”: “caused by PVY” regardless of symptom expression?

I would expect that there may be a better solution, but I haven’t been able to find one. Please consider and/or suggest alternatives.
