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Specialized Section on Standardization of
Seed Potatoes

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Item 4(e) of the Provisional Agenda

CLARIFICATION OF THE DEFINITION OF VIRUSES IN THE GLOSSARY

Submitted by Germany

Note by the secretariat: In this paper Germany proposes possible amendments to annexes II, III and VII of the standard as a result of discussions on the pest list.

A. CLARIFICATION OF THE DEFINITION OF VIRUSES

1. Introduction

When discussing the pest list prepared by France TRADE/WP.7/GE.6/2003/10/Add.1 at the extended bureau meeting in Edinburgh there were different interpretations and definitions concerning virus diseases.

The UNECE Standard does not mention individual viruses in Annexes II and IV.

But in Annex I, point 2, it is required that certified initial stock has to be free of viruses X, Y, S, M, A as well as leaf roll.

In the EU Directive 2002/56/EC for seed potatoes there are no minimum requirements to be satisfied by the crop. It contains only requirements for the progeny.

The UNECE Standard contains in Annex II minimum requirements for the crop of different classes and categories.

Under point 3, mention is made of “the proportion of growing plants showing symptoms of (severe) virus diseases”. In the requirements for the progeny in Annex IV mention is made of “the proportion, in direct progeny, of plants showing symptoms of mild or severe virus diseases.”

To clarify the different definitions and interpretations the terms should be defined in Annex VII.

2. Proposals

Include into Annex VII of the standard the following terms:

Severe virus diseases manifest themselves through deformations with or without discolorations of the foliage with or without tuber necrosis. Deformation can be rugosity, crinkle, rolling and rigidity of the leaves or dwarfing of plant as with the severe mosaic or the leaf roll disease. Severe virus disease can result in significant yield reduction.

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.

Mild virus diseases manifest themselves only through leaf discolorations as mosaic and leaf marks (mild mosaic). They hardly influence the yield. The following viruses are usually the causes of mild virus diseases: PVX or PVS.

Latent Viruses

Leaves or tubers can contain potato viruses which do not cause symptoms on leaves or tuber necrosis (which are latent) but can nevertheless be detected with help of a diagnostic method (ELISA, PCR etc.).

Tuber necrosis

Under special conditions the PVY-strain PVY^{NTN} can cause ring shaped or surface necrosis which extend only to 0.7 cm into the tuber. Similar symptoms can be caused by the tobacco rattle virus or MOP- TOP virus. The presence of these viruses can be shown through the appropriate laboratory diagnostic or through cutting samples of the tubers.

B. Possible Amendments To Annex II And III With regard To Pests And Diseases

Introduction

The list of pests and diseases of seed potatoes (TRADE/WP.7/GE.6/2003/10/Add.1) contains pests and diseases, for which a zero tolerance is applied in most countries producing seed potatoes. In the EU these are regulated as quarantine diseases.

In terms of the Standard being a global framework the meeting considered that these diseases should be included in UNECE Standard, especially in Annex II (Minimum conditions to be satisfied by the crop) and Annex III (Minimum quality conditions for lots of seed potatoes).

The diseases/pests which were identified were:

- Brown rot (*Ralstonia solanacearum*),
- Potato spindle tuber (*Potato spindle tuber viroid*)
- Stolbur (*tomato stolbur*) and
- Root knot nematodes (*Meloidogyne chitwoodi and fallax*).

Proposals

under Annex II P. 5	add	c) <i>Ralstonia solanacearum</i> d) <i>Potato spindle tuber viroid</i> and e) <i>Tomato Stolbur</i>
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under Annex III P. B	delete “and” in front of <i>Ralstonia</i> ... and add at the end of sentence ...Smith “, <i>Potato spindle tuber viroid</i> , <i>Tomato Stolbur</i> and <i>Meloidogyne chitwoodi and fallax</i> ”.
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