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### **Economic Commission for Europe**

Steering Committee on Trade Capacity and Standards

**Working Party on Agricultural Quality Standards**

Specialized Section on Standardization  
of Seed Potatoes

**Forty-third session**

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Item 6 of the provisional agenda

**Guide on tissue culture and minituber production**

### **Discussion paper on the need for a guide on tissues culture and minituber production**

The following document contains a proposal to develop a guide on tissues culture and minituber production with particular reference to ISPM 33, as proposed at the 2016 Bureau and Rapporteurs' meeting. It was prepared by the Rapporteur (New Zealand) together with Australia, South Africa, the United Kingdom and the United States, and is presented to the Specialized Section for review.

## **I. The need for a guide on tissue culture and minituber production with particular reference to ISPM 33**

### **A. Background**

At the Bureau and Rapporteurs Meeting held in Kimberley, South Africa, 14 - 18 March 2016, it was proposed that a guide for tissue culture and minituber production be added to the work programme. The delegate of the Netherlands suggested that the current International Standard for Phytosanitary Measures (ISPM 33: Pest free potato (*Solanum* spp.) micropropagative material and minitubers for international trade) already covered the requirements for operation of these facilities.

The meeting agreed that a discussion paper be prepared for the next meeting reviewing the need for a separate UNECE Guide. The paper was prepared by New Zealand (rapporteur), USA, Australia, South Africa, and UK.

ISPM 33 is available in several languages at <https://www.ippc.int/en/publications/616/>.

### **B. Review of ISPM 33 and the UNECE Standard**

ISPM 33, as indicated in the title, provides guidelines for the production of pest free material for international trade. It focusses on the regulated pests (quarantine pests or regulated non-quarantine pests) specified by importing countries. The facilities for production of material are required to be of a high standard to prevent contamination with these pests (e.g., where they occur in the country of production) through measures such as HEPA-filtered air. The ISPM does not address the requirement for traceability to ensure the parent material is true-to-type for the variety.

The range of quarantine pests indicated through the ISPM 33 process may be beyond the scope of the UNECE Standard, and some of the measures may be more restrictive than required for the UNECE Standard. In particular some requirements may be more restrictive than needed for production of material for domestic use or regional trade (e.g., trade of seed potatoes between DA jurisdictions within the European or North American regions).

The UNECE Standard (Annex 1) already describes the minimum conditions to be satisfied in the production of Pre-basic TC seed potatoes. While it is acknowledged that these are “minimum conditions” they are far less onerous than ISPM 33. For example the list of “zero tolerance” pests is small (Annex 1):

- Potato Spindle Tuber Viroid
- *Clavibacter michiganensis* spp. *sepedonicus* (ring rot)
- *Ralstonia solanacearum* (brown rot)
- *Pectobacterium* spp. and *Dickeya* spp. (syn. *Erwinia* spp.)
- Potato viruses X, Y, S, M and A
- Potato Leaf Roll Virus

ISPM 33 is an excellent technical document and most DAs should be able to adapt the standard to their needs. However some countries may find it difficult to distinguish between phytosanitary requirements and commercial quality requirements, or to determine the minimum requirements for certification of minitubers/micropropagative material for inclusion in a Certification Scheme. The requirement of ISPM 33 that facilities should be authorized or operated directly by the National Plant Protection Organization (NPPO) of

the exporting country may also cause confusion between DAs and NPPOs. Ad hoc adoption of ISPM 33 may also lead to differences in the level of adoption, or loss of standardization.

### **C. Recommendation**

That the Specialized Section develops a guide for tissue culture and minituber production facilities that utilises the content of ISPM 33, but specifically addresses the needs of seed potato quality certification.

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