



Economic Commission for Europe

Steering Committee on Trade Capacity and Standards

Working Party on Agricultural Quality Standards

Specialized Section on Standardization of Seed Potatoes

Fiftieth session

Geneva, 16–17 March 2023

Item 3 of the provisional agenda

Revision of the Standard for Seed Potatoes

Preliminary proposals for revisions to the Standard for Seed Potatoes: comparison to the original

Submitted by the secretariat

Summary

As noted in document ECE/CTCS/WP.7/GE.6/2023/3, at its 2022 session the Specialized Section decided to undertake a review of the entire Standard S-1 concerning the marketing and commercial quality control of seed potatoes. This document complements document ECE/CTCS/WP.7/GE.6/2023/3 by showing in track change the proposals for changes discussed so far by the working group.

Introduction

[Note: As part of the ongoing revision of the United Nations Economic Commission for Europe (UNECE) Standard for seed potatoes, the working group proposed to remove the text that refers to the history of UNECE, the Working Party and the history of the standard, and to make it available in a separate document.]

III. ~~History,~~ **Goals and scope of the United Nations Economic Commission for Europe UNECE Standard for seed potatoes**

The goal of the Standard is to act as a world reference intended to facilitate fair ~~international~~ trade ~~of seed potatoes~~ by:

- ~~Creating~~defining harmonized quality requirements
- creating a harmonized commercial quality certification system
- ~~Promoting its use~~
- ~~Defining harmonized quality requirements for seed potatoes.~~
- promoting the adoption of the Standard into national or regional seed schemes.

To reach this goal the Standard covers the following requirements controlled by certification:

- Varietal identity and varietal purity
- Genealogy and traceability
- ~~Diseases~~Pests, diseases and pests~~defects~~ affecting commercial quality or yield
- External quality and physiology
- Sizing ~~and labelling.~~
- Labelling.

[As a consequence, the Standard considers issues falling under the World Trade Organization Technical Barriers to Trade (WTO-TBT ~~agreement.~~) Agreement.]

— IV [To add a definition of pest, in annex of definitions, e.g. ISPM 5 – Pest – any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products (FAO, 1990; revised FAO, 1995; IPPC, 1997).]

II. Application of the Standard

The UNECE Standard ~~adopted by the Working Party~~ is recommended to countries intended for application ~~as defined below.~~

~~Certifying Authorities applying this Standard should notify the UNECE secretariat.~~

Application means the use of the UNECE Standard for export and import ~~of seed potatoes.~~
This means for

Export: All seed potatoes certified and labelled for export by the ~~DA~~Certifying Authority (CA) meet at least the requirements of the Standard.

Import: Seed potatoes certified and labelled according to the UNECE Standard are accepted as meeting national standards or technical regulations for seed potato quality. Where a country establishes more stringent quality requirements, these should be technically justified and the same requirements should be applied to domestic production. ~~The CA shall notify the UNECE secretariat of each additional or more stringent quality requirement, together with technical or scientific justification for it.~~

The ~~responsibility of the CA~~ is to ensure the application of ~~responsible for ensuring that the provisions and conditions as specified in the Standard~~ are applied. ~~The CA is not responsible~~

for the quality of the seed lot. The responsibility for the quality of the lot remains with the seed owner. [Include definition of seed owner in annex of definitions.]

The application of the Standard is without prejudice ~~to~~ any other legislation concerning plant health and the health of persons and animals, industrial or commercial property, including intellectual property rights. [To check with legal services.]

The UNECE secretariat will maintain a list of certifying authorities of seed potatoes.

III. Seed potato certification

Seed potato certification is an official quality control procedure concerning the commercial quality, traceability and marketing of seed potatoes. The process of certification includes various critical control points which are summarized in the table below. Additional minimum requirements to achieve the certification of crops, and the health of persons and animals and tubers are listed throughout the Standard. The definition of terms applicable to the Standard are listed in Annex VII.

Summary of critical control points of seed potato certification

<i>Critical control point</i>	<i>Description</i>	<i>Relevant sections of the Standard</i>	<i>Supporting reference</i>
<u>Initial stock*</u>	<u>Seed potatoes to be certified using initial stock must be originally derived from pathogen-free microplants that have a known variety identity.</u>	<u>Annex I: Minimum conditions to be satisfied in the production of Pre-basic Tissue Culture (TC) seed potatoes</u>	<u>UNECE Minituber Guide (in development)</u>
<u>Field inspection</u>	<u>All seed potato crops to be certified under the Standard must be inspected during the growth of the crop.</u>	<u>Annex II: Minimum conditions to be satisfied by the crop; field inspection procedures</u>	<u>UNECE Guide to Seed Potato Field Inspection: Recommended Practices</u> <u>UNECE Guide to Seed Potato Diseases, Pests and Defects</u>
<u>Tuber inspection</u>	<u>All seed potato lots to be certified under the Standard must be inspected before marketing.</u>	<u>Annex III: Minimum quality conditions for lots of seed potatoes</u>	<u>UNECE Guide to Seed Potato Lot Inspection: Recommended Practices</u> <u>UNECE Guide to Seed Potato Diseases, Pests and Defects</u> <u>Annex VIII: Assessment key for percentage tuber surface area coverage of blemish diseases [to consider moving out of standard into a separate supporting document]</u>
<u>Direct progeny/post-harvest evaluation procedures</u>	<u>The incidence of the virus and/or other pathogens in the direct progeny may be determined by inspection and/or testing of tubers or plants</u>	<u>Annex IV: Minimum conditions to be satisfied by direct progeny of seed potatoes; post-harvest evaluation procedures</u>	<u>UNECE Guide to Seed Potato Diseases, Pests and Defects</u>

<u>Critical control point</u>	<u>Description</u>	<u>Relevant sections of the Standard</u>	<u>Supporting reference</u>
	<u>derived from a sample of tubers from the crop, i.e. post-harvest evaluation.</u>		
<u>Closing or sealing</u>	<u>Containers of seed potatoes shall be closed officially or under official control.</u>	<u>Section VI B Closing of containers</u>	<u>UNECE Guide on Operating a Seed Potato Certification Service</u> <u>UNECE Guide to Seed Potato Lot Inspection: Recommended Practices</u>
<u>Labelling</u>	<u>All seed that is determined to meet the Standard must be labelled with an official certification label.</u>	<u>Section VII Provisions concerning marking</u> <u>Annex V: Label</u>	<u>UNECE Guide on Operating a Seed Potato Certification Service</u> <u>UNECE Guide to Seed Potato Lot Inspection: Recommended Practices</u>

* Seed potato may also be derived from clonal selection.

IV. Standards and regulations adopted by other international and regional organizations

A. European Union

There are a range of other international standards and regulations that may apply to seed potatoes. Examples include:

- European UnionIn July 1966, the Council of the European Union adopted a Council Directive on the marketing of seed potatoes, applicable to the production with a view to marketing, and to (EU): EU legislation on the marketing of seed potatoes within the Community (Directive 2002/56/EC OJ L 193, 20.07.2002 former 66/403/EEC)-and plant health

It was stated in the proceedings that "It is desirable to establish a uniform certification scheme for the Community based on the experience gained in the application of schemes in the Member States and that of the Economic Commission for Europe".

The above Directive envisaged that provisions should be made for authorizing the marketing within the Community of seed potatoes harvested in a third country where they afford the same assurances as seed potatoes officially certified within the Community and complying with the Community rules. The last Council Decision (Council Decision 95/513/EC, OJ L 296, 9.12.1995, p. 31) on the equivalence of seed potatoes produced in third countries established that seed potatoes harvested in those countries, as specified and officially controlled by the relevant Authorities, and which belong to the categories specified therein, are equivalent to seed potatoes harvested within the Community. Seed potatoes shall be certified and their containers officially marked and sealed in accordance with the UNECE Standard for Seed Potatoes recommended by the Working Party on Standardization of Perishable Produce and Quality Development of the UNECE. The Decision does not affect the requirements which Member States establish under Council Directive 2000/29/EC (former 77/93/EEC) on protective measures against the introduction into the Member States of organisms harmful to plants or plant products (OJ L 169, 10.7.2000, p.1).

~~B. International Plant Protection Convention~~

~~The purpose of the International Plant Protection Convention (IPPC) is to secure a common and effective action to prevent the spread and introduction of pests of plants and plant products, and to promote appropriate measures for their control. It is managed by the IPPC Secretariat in the FAO Plant Protection Service and is recognized by the WTO-SPS agreement as the standard setting body on phytosanitary issues.~~

- ~~• The International Standards for Phytosanitary Measures (ISPMs) established under the Convention provide, *inter alia*, guidelines for the establishment of phytosanitary import regulations and the provision of phytosanitary certification. Phytosanitary certificates, in the case of seed potatoes, facilitate international trade by confirming compliance with the phytosanitary requirements of the importing country.~~

~~ISPM No. 33 provides guidance for the production, maintenance and phytosanitary certification of pest free potato (*Solanum* spp.) micropropagative material and minitubers for international trade.~~

- ~~• National Plant Protection Organizations (NPPOs) and Regional Plant Protection Organizations (RPPOs) such as the European and Mediterranean Plant Protection Organization (EPPO) (see B.1) and the North American Plant Protection Organization (NAPPO) (see B.2) work together to help contracting parties meet their IPPC obligations.~~

~~1. European and Mediterranean Plant Protection Organization~~

- ~~• In 1999, EPPO published a recommended certification scheme for seed potatoes. This scheme focused on micropropagation as the recommended method of initial seed production (nuclear stock) and detailed the organisms, which should be tested for and the appropriate test procedures. Conditions and tolerances for the production of Pre-basic TC (mini tubers) were also defined. The requirements for the certification of Pre-basic, Basic and Certified category seed potatoes were aligned, as far as possible, with those of the UNECE Standard for Seed Potatoes.~~

~~2. North American Plant Protection Organization~~

- ~~• In 1995, (NAPPO approved a potato standard): NAPPO Regional Standard for Phytosanitary Measures (RSPM#3), "Requirements for the importation of potatoes into a NAPPO member country". It is regularly reviewed and is available at: <http://www.nappo.org>.~~

~~The standard identifies a number of pest risk management measures, including federal or state seed potato certification systems. Also, it established common criteria for limited generation certification systems and diagnostics. It includes lists of quarantine and regulated non-quarantine pests for the three NAPPO countries. The pest lists in the standard are reviewed on an annual basis to verify the technical justifications for these pests to remain on quarantine lists and to incorporate new terminology from the IPPC, e.g. regulated non-quarantine pests.~~

~~[The Standard considers issues falling under the WTO-TBT Agreement.]~~

United Nations Economic Commission for Europe Standard S-1 concerning the certification and commercial quality control of seed potatoes

I. Definition of produce

Produce is seed potatoes. Seed potatoes are tubers (including minitubers) and potato micropropagative material of cultivated tuber-forming *Solanum* spp. for planting¹ ~~and~~ which are certified by the CA as meeting the specific requirements of this Standard.

This Standard does not apply to potatoes intended for planting for:

- Trials or scientific purposes
- Selection work.

These, however, ~~shall always~~ may be covered by documentary confirmation of quality by the CA.

[True potato seeds + potato plantlets, consider for future]

II. Provisions concerning the variety²

Varieties shall be accepted for certification under the Standard if an official description and a reference sample can be made available to the CA.

The variety should be distinct, uniform and stable according to the guidelines of the International Union for the Protection of New Varieties of Plants (UPOV) and have a denomination allowing its identification.

III. Provisions concerning quality

The purpose of the Standard is to define the quality requirements of seed potatoes ~~at the export control point, after preparation and/~~ packaging- and before marketing.

A. Minimum requirements

Seed potatoes shall be substantially free from injurious diseases and pests and from any defects likely to impair their quality as seed. They shall be substantially dry outside and, in general, of normal shape for the variety. [current text, to check to which degree these formulations can be changed as this part is similar to what is in other UNECE standards]

~~These requirements shall be observed in conjunction with the standards and tolerances set out under B on Classification.~~

OR [draft new formulation]:

Seed potatoes shall be within the classification tolerances for diseases, pests and other defects likely to impair their quality as seed (annexes I-IV). The skin of seed potatoes shall be substantially dry and the tubers of normal shape for the variety.

Neither growing crops of seed potatoes nor seed potatoes shall be treated with sprout inhibitors.

¹ As defined in International Standard for Phytosanitary Measures 33 (ISPM 33, 2010).

² ~~Reservation from the United States to allow for further consultation.~~

B. Classification

Seed potatoes shall be classified ~~by the CA~~ according to ~~variety and~~ the standards given below ~~and the number of field generations (FG)~~. Their classification shall be subject to official control in the producing country. ~~The CA is responsible for the maintenance of all classification data to provide traceability.~~ Seed potatoes ~~shall~~can be placed in ~~two~~ classes within each of three categories as defined below:

Category 1 ~~—~~: Pre-basic ~~category~~ seed potatoes

These are seed potatoes of generations prior to ~~basic~~Basic seed:

- (a) Pre-basic ~~TC~~ (tissue culture (PBTC)) class seed potatoes (FG0) shall be minitubers directly derived ~~by micropropagation from initial stock~~, and ~~may be tissue culture plantlets or tubers of the first generation meeting~~ shall be produced in accordance with the requirements specified in annexes I, II, III and IV³. The certification of PBTC seed potatoes is restricted to one generation.
- (b) Pre-basic class seed potatoes shall be generations of seed ~~multiplied in the field prior~~, meeting the requirements specified in annexes II, III and IV. ~~[to Basic seed]~~ check text in Annex I and possibly include additional information for plant.

Plantlets for field planting

- (a) Plantlets for field planting class seed potatoes shall be directly derived from initial stock or true potato seed, shall be produced in accordance with the requirements specified in annexes I, II, III and IV.
- (b) Plantlets for field planting class seed potatoes shall be generations of seed, meeting the requirements specified in annexes II, III and IV.

Category 2 ~~—~~: Basic ~~category~~ seed

These are seed potatoes descended directly from Pre-basic or Basic category seed ~~or produced under the special provisions of a national certification scheme~~ and are mainly intended for the production of certified seed potatoes.³

Seed shall be classified as either Basic I or Basic II, according to the minimum requirements given in annexes II, III and IV.

Category 3 ~~—~~: Certified ~~category~~ seed

These are seed potatoes descended directly from Pre-basic, Basic or Certified category seed and are mainly intended for the production of potatoes other than seed potatoes.

Seed shall be classified as either Certified I or Certified II, according to the minimum requirements given in annexes II, III and IV.

4. Derogation from classification

Producing countries are, however, free to create within the categories and classes provided for in Section III B Classification, classes which are subject to specific requirements.

Field generation

Each class may be additionally classified according to the number of generations (FG1, FG2 etc.). The final designation of a class will therefore contain a class name and may contain a field generation record (e.g. Basic I FG3, Certified I FG3).

³ ~~The Representatives of the European Commission and France reserved their position on this issue.~~

~~C. Derogation from classification~~

~~Producing countries are, however, free to create within the categories and classes provided for in subsection B, classes which are subject to specific requirements.~~

~~D. Sampling for lot inspection~~

~~Sampling of seed potatoes for inspection and certification purposes shall be carried out officially or under official supervision. To assess compliance with Annex III, tuber samples, representative of the lot, shall be taken at a minimum rate of 20 kg for each 10 000 kg and may be collected either during grading or from at least two containers. More samples may be taken if one of the initial samples is close to tolerance. Cutting of tubers may be part of the inspection process.~~

~~E. Comparative trials~~

~~It is recommended that comparative trials be established by the CA to ascertain the condition of seed potatoes certified according to the Standard, taking into account statistical variability outlined in annex IX. The guidelines for organizing such trials, set out in annex VI, should be followed.~~

~~The results of such trials shall be treated in confidence, but on request the results relating to individual consignments may be exchanged between the CA of the importing and exporting countries concerned.~~

IV. Provisions concerning inspections

[Comparative trials? Draft text to be provided]

V. Provisions concerning sizing

Pre-basic TC are exempt from the minimum sizing requirements.

To determine compliance with tuber sizing, representative samples are collected during the lot inspection. The seed size should be assessed using the square gauge.

The lot shall conform to the distribution of tuber sizes of the harvested crop within the size specified on the label.

Unless the buyer and seller agree to deviate from the minimum size and/or maximum variation in size of tubers, the following will apply:

The minimum size of tubers must be such that they do not pass through a square gauge of 25 mm; for varieties having, on average, a length of at least twice the greatest width, the square gauge must not be less than 25 mm. ~~In the case of tubers, which are too large to pass through a square gauge of 35 mm, the difference between the maximum and minimum limits of size should be expressed in multiples of five.~~

The maximum variation in size between tubers in a lot must be such that the difference between the dimensions of the two square gauges used does not exceed ~~20 mm unless the buyer and seller agree to deviate from this requirement~~ 25 mm.

~~The lot shall conform to the distribution of tuber sizes of the harvested crop within the size specified on the label.~~

V. ~~Provisions concerning tolerances~~ Tolerances for sizing**Minimum size tolerances in per cent by weight of tubers*

10_%	With a maximum deviation of 5 mm from the minimum size indicated for lots with tubers having a length of at least twice their maximum width
------	---

3_%	For all other lots
-----	--------------------

Maximum size tolerances in per cent by weight of tubers

3_%	Larger than the maximum size indicated
-----	--

* [Note: table may need clearer headings.]**VI. Provisions concerning presentation****A. Condition of containers**

Bags must be new; other containers may be reused provided that they are clean.

B. Closing of containers

Containers shall be closed officially or under official control in such a manner that they cannot be opened without damaging the official sealing device or without leaving evidence of tampering on the official label provided for in ~~section~~Section VII (A)- Official label.

The official system of closing shall comprise either the incorporation into the system of the label mentioned above if it is without a string-hole, or, in all other cases, by the application of an official seal.

Re-closing shall be carried out only by the CA or under its control.

C. Nature of contents of containers

Each container shall contain tubers of the same variety, category, class, size and origin.

A lot should be sufficiently homogeneous which means that seed potatoes within different containers are as uniform as is practical and will not vary excessively in composition and appearance.

VII. Provisions concerning marking [to be revised]**A. Official label**

Each container shall bear on the outside an official label in accordance with ~~annex~~Annex V and which has not been previously used; the label shall be white with a diagonal purple line for ~~pre~~Pre-basic seed, white for ~~basic~~Basic seed, and blue for ~~certified~~Certified seed. Reference to the UNECE Standard may be included on the label.

B. Official statement

Each container shall have on the inside an official statement of the same colour and showing at least the particulars ~~indicated under~~ 3, 5 and 7 as indicated in ~~annex~~Annex V.- The statement shall be so worded that any confusion with the official label referred to in ~~paragraph~~Section VII A Official label shall be avoided.

This statement is not necessary when an adhesive label or a label of untearable material is used. ~~The particulars given on the label may be indelibly printed on each container in substitution for the official statement provided for above.~~

C. ~~Re~~-labelling

If a second check appears necessary, the authority~~;~~ which carried out the second check~~;~~ must be stated on the label, as well as the date of the re~~-~~closing.~~-~~ If a new label is necessary, this must show the particulars, which appeared on the old label, the date of the re~~-~~closing, and the authority concerned.

D. ~~Supplier's~~Supplier's label

Each container may be accompanied by a special label of the supplier.

E. Chemical treatment

The nature of the active substance of any chemical treatment of the seed potatoes shall be indicated on the outside of each container, on a tear~~-~~resistant or adhesive label being either the official label or a label provided by the supplier, or printed on each container. This information may also appear inside each container.

VIII. Provisions concerning traceability

[Text to be added]

Adopted ~~in~~ 1963, also as European Standard No. 19

Last revised 2021

[Note: As the working group undertaking the review has not yet reviewed the annexes, those are not included in this document]
