

# CODEx ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of the  
United Nations



World Health  
Organization

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Agenda Item 6

CX/FFV 17/20/7

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## JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEx COMMITTEE ON FRESH FRUITS AND VEGETABLES

20<sup>th</sup> Session

Kampala, Uganda, 2 – 6 October, 2017

### PROPOSED DRAFT STANDARD FOR WARE POTATOES (Prepared by the Electronic Working Group chaired by India)

Codex Members and Observers wishing to submit comments at Step 3 on this draft should do so as instructed in CL 2017/15-FFV available at the Codex webpage/Circular letters 2017: <http://www.fao.org/fao-who-codexalimentarius/circular-letters/en/>. Comments will only be accepted through the online commenting system within the deadline indicated in the CL.

#### BACKGROUND

1. At the 17<sup>th</sup> session of the Codex Committee on Fresh Fruits and Vegetables (CCFFV) held in Mexico in September 2012, India introduced a new work proposal for the development of a Standard for Ware potatoes. CCFFV17 agreed to recommend to the Codex Alimentarius the approval of new work for the development of a Standard for Ware Potato, and in taking this decision, CCFFV17 acknowledged the views of several delegations that, while not opposing the development of the standard, indicated that more time was needed to consult with their stakeholders as the proposal was received late. However, CCFFV17 noted that the period between this session and the next session of the Executive Committee i.e. 10 months would allow for sufficient time for countries to consult with their stakeholders and bring any concerns to the Commission in relation to the approval of this new work<sup>1</sup>.
2. The 36<sup>th</sup> Session of the Codex Alimentarius (CAC) (July 2013) requested CCFFV to submit a clear project document with a well-defined scope for consideration at the next sessions of CCEXEC and CAC<sup>2</sup>.
3. CCFFV18 held in Phuket, Thailand in February 2014 agreed to request the Commission to approve new work on a Standard for Ware Potato and to forward the revised project document to the Executive Committee for critical review. CCFFV18 also agreed to establish an Electronic Working Group (EWG), led by India and co-chaired by France and working in English only, to prepare, subject to approval by the Commission, a proposed draft standard for circulation for comments at Step 3 and consideration at its next session<sup>3</sup>.
4. The CAC37 (July 2014) approved the new work proposal of a standard for Ware potatoes as proposed by the CCFFV<sup>4</sup>.
5. The EWG commenced its deliberations in November 2014. Based on the comments/suggestion received from EWG members, the document was revised and final report was submitted for consideration by CCFFV19 held in Ixtapa Zihuatanejo, Guerrero, Mexico in October, 2015.
6. CCFFV19<sup>5</sup> noted that the proposed draft standard still required considerable reviews and was not ready for advancement in the Step process. Further, due to the complexity of the unresolved issues, the Committee agreed to discuss the revised proposed draft Standard in general and made the following additional comments in relation to minimum requirements and quality classes:

<sup>1</sup>.REP13/FFV, paras 111-124 and Appendix VI

<sup>2</sup>.REP13/CAC, paras 107-117

<sup>3</sup>.REP14/FFV, paras 53-54

<sup>4</sup> REP14/CAC, Appendix VI

<sup>5</sup> REP16/FFV, paras 80-82

- Presence of rotting, sprouts and green coloration should be further examined, as they negatively impact on food safety (presence of high levels of solanins);
  - The allowance for the presence of soil in the quality classes should also be further examined.
7. It was agreed to establish an EWG, led by India, open to all Members and observers to consider the revised proposed draft Standard as contained in REP16/FFV-Appendix VI and comments submitted at Step 3 in reply to CL 2015/29-FFV in addition to those provided by the members of the EWG for further consideration by the next session of CCFFV.
  8. Nineteen member countries and one member organization nominated to participate in the work of this EWG. The list of participants is contained in Appendix II. The EWG began its work by circulating the first draft of the proposed Standard for Ware potatoes in May 2016. The 2nd revised draft was circulated in November 2016.
  9. Comments were received from Argentina, Canada, Costa Rica, European Union, Germany, Iran, New Zealand, Spain, Thailand, United Kingdom and United States of America.
  10. The draft has been revised and finalized in the light of comments received from the two rounds of consultation and it is now presented for comments by the Codex members and observers.

### **Discussion in the Working Group**

11. Based on the comments/ suggestions received from EWG members, the main amendments pertaining to minimum requirements, classification and quality tolerances have been made to the draft and will be presented to the CCFFV20.
12. The main modification and discussion points were:
  - 1) Members were of the view that green coloration is an important defect for potatoes and should be considered in codex standards. Further, it should be limited in all classes by indicating tolerance limits under the provision concerning tolerances. Accordingly provisions concerning to minimum requirements and provision concerning tolerances have been modified and limit is proposed for green colouration.
  - 2) One member country raised the issue of allowance of sprouts under the provision of minimum requirements. As Ware potato sprout is generally unacceptable for commercial trade, it was suggested by member country to delete the text referring to sprouts. In view of the above, it was proposed to include tolerance limits for all the classes under the provision concerning tolerance, since it is not practically possible to have zero tolerances for sprouts which were also agreed by EWG members.
  - 3) Presence of rotting was also one of the important concerns raised by members. To address this issue it is proposed to introduce following in the provision concerning minimum requirements:

“sound; produce affected by rotting or deterioration, which makes it unfit for consumption is excluded;”
  - 4) The EWG received comments on allowance for the presence of soil in the quality classes. There was no consensus on the issue. In order to address the concerns of members this has been included in quality tolerances for all classes under Soil and Extraneous matter
  - 5) Members highlighted that the existing proposal on classification is based on shape, colour and skin defects. This type of classification may be used for certain niche markets but it is not the rule for Ware potatoes. Therefore, they suggested to apply option 2 of the new Standard Layout for classification. In view of that, the text provided for classification and quality tolerances were replaced and all the provisions are presented in tabular form to make it more simple and concise.

### **Recommendation**

13. CCFFV is invited to consider Appendix I, the Proposed Draft Standards for Ware Potatoes.

**PROPOSED DRAFT STANDARD FOR WARE POTATOES**  
(For comments at Step 3 through <https://ocs.codexalimentarius.org/>)

## 1. SCOPE

The purpose of the standard is to define the quality requirements for ware potatoes at the export-control stage after preparation and packaging. However, if applied at stages following packaging, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- for ware potatoes graded in classes other than the “Extra” Class, a slight deterioration due to their development and their tendency to perish.

The holder/seller of products may not display such products or offer them for sale, or deliver or market them in any manner other than in conformity with this standard. The holder/seller shall be responsible for observing such conformity.

Due to varietal factors, ware potato tubers vary in:

Shape: from spherical to ovoid

External/skin color: from white through yellow to tan and from reddish through blue

Flesh Color: from white to yellow to blue.

## 2. DEFINITION OF PRODUCE

This Standard applies to commercial varieties<sup>1</sup> and hybrids of ware potato grown from *Solanum tuberosum* L., of the *Solanaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Ware potatoes for industrial processing and early potatoes are excluded.

## 3. PROVISIONS CONCERNING QUALITY

### 3.1 Minimum Requirements

In all classes, subject to the special provisions for each class and the tolerances allowed, the ware potatoes must be:

- intact;
- sound; produce affected by rotting or deterioration, which makes it unfit for consumption is excluded
- fresh in appearance;
- firm;
- clean and practically free of any visible foreign matter<sup>2</sup>;
- practically free from pests, and damage caused by pest affecting the general appearance of the produce;
- (Provisions for pests and damage caused by pests apply without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC)).
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell;
- free of damage caused by low or high temperature;
- practically unsprouted i.e. sprout may not be longer than 3 mm;
- free of external and internal defects affecting the appearance, keeping quality and presentation in the package, such as:

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<sup>1</sup>Varieties of ware potatoes are different in tuber shape, skin, flesh colour as well as depth and colour of the eye cavities

<sup>2</sup>Visible foreign matter excludes visual indicators of treatment with sprout inhibitors

- Green colouration; pale green flush not exceeding one eighth of the surface area and which can be removed by normal peeling does not constitute a defect;
  - brown stains due to heat;
  - cracks (including growth cracks), cuts, bites, bruises or roughness (only for varieties of which the skin is not normally rough) exceeding 4 mm in depth;
  - deformities<sup>3</sup>;
  - grey, blue or black sub-epidermal stains; exceeding 5 mm in depth;
  - rust stains, hollow or black hearts and other internal defects;
  - deep common potato scab and powdery potato scab, of a depth of 2 mm or more.
- superficial common potato scab, i.e. scab spot in all must not extend over more than a quarter of the surface of the tuber.

The development and condition of the ware potatoes must be such as to enable them to:

- withstand transportation and handling; and
- arrive in satisfactory condition at the place of destination.

### 3.1.1 *Minimum Maturity Requirements*

Ware potatoes must be sufficiently developed with cured skin, with account being taken of the characteristics of the variety<sup>1</sup> and/or commercial type and the area in which they are grown.

### 3.2 **Classification**

In accordance with Section 5 – Provisions concerning Tolerances, ware potatoes are classified into the following classes.

“Extra” Class, Class I and Class II.

## 4. **PROVISIONS CONCERNING SIZING**

Ware potatoes are sized by diameter, count or weight; or in accordance with trading practices. When sized in accordance with trading practices, the package must be labelled with the size and method used.

When size is determined by the equatorial diameter (means the maximum distance taken from the right angle on the largest axis of the tuber) of the ware potato (in mm) in accordance with the following table that can be used as a guide in an optional way:

<b>Size Code</b>	<b>Equatorial Diameter in mm</b>
A (Small Potato)	18-24
B (long varieties )	25-75
C (round varieties )	35-80
D	more than 80

## 5. **PROVISIONS CONCERNING TOLERANCES**

At all marketing stages, tolerances in respect of quality and size shall be allowed in each lot for produce not satisfying the requirements of the class indicated. Produce that fail conformity assessment, may be allowed to be resorted and brought into conformity in accordance with the *Guidelines for Food Import Control Systems* (CAC/GL 47-2003) paras 9, 10 and 27.

## 5.1 Quality Tolerances

Quality Tolerances	Tolerances allowed, percentage of defective produce, by number or weight		
	Extra Class	Class I	Class II
<b>Total Tolerances for ware potatoes</b> not satisfying the minimum requirements of which no more than:	<b>5</b>	<b>10</b>	<b>10</b>
Skin Defects: <ul style="list-style-type: none"> <li>• Brown stains, cuts, bites</li> <li>• Bruises or roughness</li> <li>• Late blight, bacterial wilt and ring rot</li> <li>• Grey, blue or black sub-epidermal stains; &gt; 5 mm deep</li> <li>• Deep common potato scab and powdery potato scab, &gt; 2 mm deep.</li> <li>• superficial common potato scab &gt; 25% of surface</li> <li>• Sprouts &gt; 3mm</li> </ul>			
Green coloration > 1/8 of the surface area; skinning- skin missing or "feathered"; internal defects including blackheart	5	10	10
Belonging to other varieties <sup>4</sup> than Indicated	2	2	2
Frozen, decay, soft rot and or internal breakdown	1	1	2
Soil and Extraneous matter	0.25	0.5	0.5
Off size	10	10	10

## 6. PROVISIONS CONCERNING PRESENTATION

### 6.1 Uniformity

The contents of each package (or lot for produce presented in the bulk transport vehicle) must be uniform and contain only ware potatoes of the same origin, variety or commercial type, quality and size (if sized).

The visible part of the contents of the package (or lot for produce presented in the bulk transport vehicle) must be representative of the entire contents.

However, a mixture of distinctly different ware potatoes of different colours (except green) may be packed together in a sales package, provided they are uniform in quality and, for each variety concerned, in origin.

### 6.2 Packaging

Ware potatoes must be packed in such a way as to protect the produce properly. The materials used inside the package must be of food grade quality, clean and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Ware potatoes shall be packed in each package in compliance with the appropriate sections of the *Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables* (CAC/RCP 44-1995).

#### 6.2.1 Description of Containers

The packages shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the ware potatoes. Packages must be free of all foreign matter and smell.

## **7. PROVISIONS CONCERNING MARKING OR LABELLING**

### **7.1 Consumer Packages**

In addition to the requirements of the *General Standard for the Labelling of Prepackaged Foods* (CODEX STAN 1-1985), the following specific provisions apply:

#### **7.1.1 Nature of Produce**

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce "Ware Potato" and should be labelled as to name of the variety and/or commercial type.

#### **7.1.2 Origin of Produce**

Country of origin<sup>3</sup> and, optionally, district where grown, or national, regional or local place name.

In case of a mixture of distinctly different varieties of ware potatoes of different origins, the indication of each country of origin shall appear next to the name of the variety concerned.

### **7.2 Non-Retail Containers**

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, either printed on the package itself or on a label secured to the fastening (if the labels are placed inside the packages (string bag), this should be done in such a way that the indications concerning marking are readable from the outside); or in the documents accompanying the shipment and attached in a visible position inside the transport vehicle.

#### **7.2.1 Identification**

Name and address of exporter, packer and/or dispatcher. Identification code (optional)<sup>4</sup>.

#### **7.2.2 Nature of Produce**

Name of the produce "Ware Potato" if the contents are not visible from the outside. Name of the Variety and/or commercial type (optional). The shape of the tuber may be marked (optional) on the label such as oval, round and long.

#### **7.2.3 Origin of Produce**

Country of origin and, optionally, district where grown or national, regional or local place name.

In the case of a mixture of distinctly different varieties of ware potatoes of different origins, the indication of each country of origin shall appear next to the name of the variety concerned.

#### **7.2.4 Commercial Identification**

- class
- size (if sized)

#### **7.2.5 Official Inspection Mark (optional)**

## **8 CONTAMINANTS**

**8.1** The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission and where there is no relevant Codex MRLs recognition of destination country MRLs is an alternative.

**8.2** The produce covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CODEX STAN 193-1995).

## **9. HYGIENE**

**9.1** It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CAC/RCP 1-1969), *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CAC/RCP 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

**9.2** The produce should comply with any microbiological criteria established in accordance with the *Principles for the Establishment and Application of Microbiological Criteria for Foods* (CAC/GL 21-1997).

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<sup>3</sup> The full or a commonly used name should be indicated.

<sup>4</sup> The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark.

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