

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of  
the United Nations



World Health  
Organization

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Agenda Item 7

CX/FFV 14/18/9  
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## JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FRESH FRUITS AND VEGETABLES

18<sup>th</sup> Session  
Phuket, Thailand, 24 – 28 February 2014

### PROPOSAL FOR NEW WORK ON A CODEX STANDARD FOR WARE POTATO

(Prepared by India)

#### BACKGROUND

1. Following the discussion on new work on a Codex Standard for Ware Potato at the 17<sup>th</sup> session of the Codex Committee on Fresh Fruits and Vegetables (September 2012) and the decision of the 36<sup>th</sup> Session of the Codex Alimentarius Commission (July 2013) to request the Codex Secretariat to issue a circular letter in the format of a project document where Codex members and observers can provide comments that would allow the CCFFV to submit a clear project document with a well-defined scope for consideration by the Executive Committee and the Codex Alimentarius Commission in 2014, the delegation of India prepared a revised project document based on the one presented at the 17<sup>th</sup> Session of the CCFFV and the comments submitted in reply to CL 2013/21-FFV.
2. Comments submitted in reply to this circular letter are compiled in working document CX/FFV 14/18/9-Add.1.
3. The background on the discussion of this item in the CCFFV, CCEXEC and CAC can be found in CL 2013/21-FFV<sup>1</sup>.
4. The Committee is invited to consider the proposed revised project document to aid in the consideration of this new work in order to present a project document in the terms requested by the Commission for consideration by the CCEXEC and the CAC in 2014.

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<sup>1</sup> Codex circular letters can be downloaded from the Codex website at: <http://www.codexalimentarius.org/circular-letters/>

## PROJECT DOCUMENT FOR A CODEX STANDARD FOR WARE POTATO

### Background

Ware potato (*Solanum tuberosum*) is a starchy, tuberous crop from the Solanaceae family. Ware potato is a native of the Andes region in South America and said to have been introduced in Europe in the 16th century. Ware potato is a short duration crop capable of producing high yield per unit area per unit time. They bear white, pink, red, blue, or purple flowers with yellow stamens. In general, the tubers of varieties with white flowers have white skins, while those of varieties with colored flowers tend to have pinkish skins. The major species grown worldwide is *Solanum tuberosum* commonly known as potato.

#### 1. Purpose and scope of the standard

The purpose of this work is to establish a worldwide quality standard to protect consumer's health and facilitate international trade of ware potatoes by addressing essential quality provisions such as minimum requirements, quality classes, sizing practices, quality and size tolerances, uniformity, packaging and labelling requirements. In addition, safety issues applicable to this product will be addressed by cross-referencing relevant Codex texts developed by the horizontal safety committees e.g. hygiene, contaminants, pesticides, etc. (see point 3 for further details).

The scope of the standard will cover ware potatoes obtained from commercial varieties of *Solanum tuberosum* to be supplied to the consumers after preparation and packaging. Ware potatoes for industrial processing are excluded.

#### 2. Relevance and timeliness

Ware potato is grown in many areas of the world. It is globally traded and is not limited to any particular region and hence justifies the elaboration of an international standard. Therefore, it is necessary to establish standards covering the quality, labeling and safety in order to have a reference that has been internationally agreed by consensus between the main trading countries.

#### 3. Main aspects to be covered

The most relevant items which will be considered are related to:

- Establish the minimum requirements of ware potato, which shall be complied with, independently from the quality class.
- Define the categories to classify ware potato in accordance with its characteristics.
- Consider the sizing classes to commercialize ware potato depending on its size.
- Establish the tolerance limits as regards quality and size that may be permitted in ware potato contained in a package.
- Include the provisions to be considered relating to the uniformity of the packaged product and the package used.
- Include provisions for the labeling and marking of the product in accordance with / in addition to the *General Standard for the Labelling of Prepackaged Foods*.
- Include provisions for contaminants with reference to the *General Standard for Contaminants and Toxins in Food and Feed*.
- Include provisions for hygiene and handling with reference to the Code of Practice for Hygiene - General Principles of Food Hygiene and other codes as appropriate.

#### 4. Assessment against the Criteria for the Establishment of Work Priorities

##### General criterion

The elaboration of a standard for ware potato would be beneficial for developing countries in particular, because they are the major producers, exporters and consumers of ware potato. It is necessary that the quality of the produce meets marketing and trading practices worldwide to take account of consumers' needs across the world as well as minimum requirements of food safety.

##### Criteria applicable to commodities

##### (a) Volume of production and consumption in individual countries and volume and pattern of trade between countries

According to FAO data, the production and trade at a worldwide level has been variable. For 2010, China was the country with the largest cultivated area and production (74.8 million MT), followed by India, Russian Federation, Ukraine, United States of America, Germany and Poland. The production and trade data for last three years is in Annex-I and II respectively. It may be seen from the data that ware potato is produced and traded across the world.

**(b) Diversification of national legislation and apparent resultant or potential impediments to international trade**

The International Standard Organization (ISO) has developed a basic general guideline standard for storage of ware potato (ISO 2165:1974). Work has also been undertaken by other organizations, such as the United Nations Economic Commission for Europe (UNECE). This shows the relevance of the produce for trade hence, harmonization of certain aspects, such as storage and quality, have already been harmonized at international and regional levels. Therefore, these aspects can be taken into consideration while developing Codex standard for ware potato.

Due to lack of a worldwide standard for ware potato, international trade has been widely affected. Importers and exporters usually prefer to trade fresh fruits and vegetables based on a Codex standard. Therefore, the new work would provide an internationally harmonized quality standard in order to enhance international trade and to accommodate the importer's and exporter's requirements.

**(c) International or regional market potential**

As shown in Annexes I and II, production & trade of ware potato is increasing worldwide. Ware potato comes in different varieties, sizes and colour. Generally, size is the only criteria taken into consideration. Therefore, development of a quality standard for ware potato will help to enhance trade by identifying common quality factors and harmonizing them across regions, which are relevant to consumers' health protection and trade facilitation.

**(d) Amenability of commodity to standardization**

The characteristics of ware potato, from its cultivation to harvest, cultivar varieties, composition, quality and packaging all lead to adequate parameters for the standardization of the product.

Taking into account that technical information is available and certain degree of harmonization at regional / international levels has already been achieved on certain aspects relevant to consumer's protection and trade facilitation as mentioned in point (b), complementary work to come up with an inclusive standard on this worldwide traded produce should be amenable and necessary to protect consumers' health and ensure fair trade practices. The CCFV provides the global forum for such work.

**(e) Coverage of the main consumer protection and trade issues by existing or proposed general standards**

There is no a commodity standard covering essential quality factors specific to ware potato. The proposed standard will address issues relating to minimum requirements, classes, size, colour, uniformity, packaging etc. Issues relating to safety will be addressed by cross-referencing relevant Codex safety texts.

**(f) Number of commodities which would need separate standards including whether raw, semi-processed or processed**

A single standard for ware potato will cover all varieties of ware potato traded worldwide.

**(g) Work already undertaken by other international organizations in this field and/or suggested by the relevant international intergovernmental body(ies)**

There is no other international organization that has undertaken international standard for ware potato inclusive to all countries / regions and covering those essential quality and safety provisions to protect consumers' health and ensure fair trade practices. However, national standards have been developed by countries e.g. Philippines and India. The existing relevant standards, which may be considered while developing the Codex Standard for Ware Potato are:

- a. UNECE Standard concerning the marketing and commercial quality control of early and ware potatoes, 2011(FFV-52: Early and Ware Potatoes-2011)
- b. OECD International Standards for fresh Fruits and Vegetables: Early and Ware Potatoes
- c. ISO 2165:1974 ware potatoes-Guide to storage

**5. Relevance to the Codex strategic objectives**

The elaboration of a Codex Standard for Ware Potato is in line with the Strategic Objective to promote the maximum application of codex standards by countries in their national legislation and to facilitate international trade. This proposal is relevant to Strategic Goal 1 – *Establish international food standards that address current and emerging food issues* and its corresponding Objectives of the Strategic Plan 2014-2019. The proposal is based on scientific considerations and contributes to state the minimum quality requirements for fresh ware potato for human consumption, with the purpose of protecting the consumer's health and achieving fair practices in the food trade.

**6. Information on the relation between the proposal and other existing Codex documents**

The proposal for elaboration of a Codex Standard for Ware Potato is part of the Terms of Reference of the Codex Committee on Fresh Fruits and Vegetables.

**7. Identification of any requirement for and availability of expert scientific advice**

There is no need foreseen for expert scientific advice.

**8. Identification of any need for technical input to the standard from external bodies**

The existing UNECE, OECD and ISO standards would be considered while developing the standard for ware potatoes including the expertise available in other importing / exporting countries participating in the standardization of this product in the CCFFV.

**9. Proposed timeline for completion of the new work**

<b>DATE</b>	<b>PROCEDURES</b>
<b>February, 2014 CCFFV</b>	<b>India</b> - Presentation of the proposal <b>CCFFV</b> - Agreement to start new work on a proposed draft Codex Standard for ware potato
<b>June/July 2014 CCEXEC/CAC</b>	<b>CCEXEC</b> - Critical Review Process: Recommendation to start new work on a proposed draft Standard for ware potato <b>CAC</b> - Approval of New work. Circulation of draft standard for comments at Step 3
<b>September, 2015</b>	<b>CCFFV</b> – Consideration of the proposed draft Standard at Step 4.
<b>June/July 2015 CCEXEC/CAC</b>	<b>CCEXEC</b> – Critical Review Process: Recommendation for adoption at Step 5. <b>CAC</b> – Adoption at Step 5. Circulation for comments at Step 6. <u>Effort will be made for adoption of the standard at Step 5/8 in June/July 2015 depending upon relevant inputs from members.</u>
<b>May, 2017 CCFFV</b>	<b>CCFFV</b> – Consideration of the draft Standard at Step 7.
<b>June/July 2017 CCEXEC/CAC</b>	<b>CCEXEC</b> – Critical Review Process: Recommendation for adoption at Step 8. <b>CAC</b> – Adoption at Step 8 (Codex Standard for ware potato)

A proposed Codex Standard for Ware Potato has also been prepared and is presented in Annex III.

**Annex I****Production of Ware Potato**

Qty. (in MT)

<b>Country - (Free) Zone / Area – etc.</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
China	73,281,890	74,799,084	88,350,220
India	34,390,900	36,577,300	42,339,400
Russian Federation	0	0	32,681,500
Ukraine	0	0	24,248,000
United States of America	0	0	19,361,500
Germany	11,617,500	10,201,900	11,800,000
Bangladesh	5,268,000	7,930,000	8,326,390
Poland	0	0	8,196,700
France	7,174,560	7,216,210	8,016,230
Belarus	7,124,980	7,831,110	7,721,040
Netherlands	7,180,980	6,843,530	7,333,470
United Kingdom	0	0	6,115,000
Iran	4,107,630	4,054,490	4,822,140
Turkey	0	0	4,613,070
Egypt	3,659,280	3,643,220	4,338,430
Canada	4,581,120	4,421,770	4,168,180
Belgium	3,296,080	3,455,800	4,128,670
Romania	0	0	4,076,570
Peru	0	0	4,073,600
Algeria	2,636,060	3,290,000	3,993,400
Brazil	3,443,710	3,547,510	3,917,230
Pakistan	0	0	3,491,800
Malawi	3,427,760	3,673,540	3,123,980
Kazakhstan	2,755,600	2,554,600	3,076,100
Nepal	2,424,050	2,517,700	2,508,040
Kenya	400,000	450,000	2,365,260
Spain	0	0	2,360,700
Japan	2,459,000	2,450,000	2,349,130
South Africa	0	0	2,195,400
Rwanda	0	0	2,171,520
Argentina	1,950,000	2,001,400	2,126,790
Colombia	2,272,770	2,121,880	1,998,250
Morocco	1,234,470	1,604,620	1,947,690
Uzbekistan	0	0	1,824,000
Democratic People's Republic of Korea	1,560,000	1,708,000	1,756,000
Chile	924,555	1,081,350	1,676,440
Denmark	1,617,700	1,357,800	1,620,000
Tanzania	0	0	1,555,520
Italy	1,773,920	1,558,030	1,547,050
Mexico	1,501,230	1,536,620	1,433,240
Kyrgyzstan	1,393,140	1,339,400	1,379,220
Australia	1,178,530	1,278,120	1,128,210

Country - (Free) Zone / Area – etc.	2009	2010	2011
Bolivia	0	0	966,413
Nigeria	0	0	950,000
Azerbaijan	982,979	953,710	938,517
Serbia	0	0	891,513
Sweden	0	0	878,400
Indonesia	1,176,300	1,060,810	863,680
Tajikistan	0	0	863,100
Angola	823,266	841,279	841,252
Austria	722,098	671,722	816,070
Czech Republic	752,539	665,200	805,331
Greece	848,000	791,500	757,820
Syria	0	0	715,276
Finland	755,300	659,100	673,300
Uganda	0	0	625,451
Republic of Korea	0	0	622,230
Israel	608,832	548,650	621,106
Hungary	560,615	439,897	600,000
Saudi Arabia	0	0	594,366
Lithuania	662,500	474,700	587,700
Myanmar	548,000	508,000	573,000
Iraq	223,147	204,697	557,401
Armenia	593,551	481,956	557,322
Venezuela	0	0	544,434
New Zealand	0	0	521,852
Switzerland	0	0	512,000
Latvia	525,400	484,000	499,000
Guatemala	460,429	480,994	493,019
Vietnam	0	0	448,710
Ethiopia	384,046	572,332	447,333
Bosnia and Herzegovina	413,658	378,707	412,696
Portugal	0	0	389,800
Yemen	0	0	368,242
Tunisia	0	0	367,000
Ireland	361,300	330,500	357,760
Libya	311,332	290,000	352,002
Moldova	0	0	350,822
Ecuador	286,790	386,798	339,038
Norway	0	0	297,600
Lebanon	515,000	574,100	275,000
Georgia	216,800	228,800	273,900
Turkmenistan	0	0	273,542
Bulgaria	231,745	251,100	232,300
Albania	200,000	208,000	230,100
Slovak Republic	0	0	217,252
Jordan	118,705	174,931	216,483

Country - (Free) Zone / Area – etc.	2009	2010	2011
Madagascar	224,683	224,787	208,085
Afghanistan	302,400	246,000	205,000
Mongolia	151,211	167,956	201,639
Macedonia	0	0	193,858
Cameroon	147,000	150,900	189,000
Montenegro	156,380	149,252	180,126
Croatia	270,251	178,611	167,524
Cuba	278,600	191,500	165,600
Estonia	139,050	163,373	164,716
Thailand	0	0	145,898
Philippines	0	0	120,574
Cyprus	110,000	82,000	109,559
Lesotho	83,871	98,200	104,089
Mozambique	110,000	110,500	102,290
Slovenia	0	0	96,180
Democratic Republic of Congo	0	0	94,823
Uruguay	0	0	90,155
Mali	90,407	82,470	86,500
Sri Lanka	0	0	59,360
Zimbabwe	0	0	53,691
Dominican Republic	0	0	53,567
Costa Rica	74,608	55,711	52,484
Chad	50,000	50,200	50,000
Bhutan	48,513	44,014	49,653
Kuwait	25,229	26,500	44,622
Laos	42,115	40,000	33,018
Burundi	30,482	29,681	28,158
Niger	0	0	26,416
Nicaragua	0	0	26,232
Honduras	22,615	23,802	25,361
Panama	0	0	25,032
Mauritius	19,828	21,709	21,561
Zambia	0	0	21,235
Luxembourg	20,044	19,531	19,679
Jamaica	8,708	11,222	15,333
Malta	10,069	9,500	15,228
Namibia	12,136	12,500	13,000
Senegal	0	0	12,500
Guinea	10,717	10,800	11,000
United Arab Emirates	0	0	9,502
Oman	0	0	8,058
Swaziland	0	0	7,300
Iceland	9,500	12,500	7,222
Haiti	10,000	15,000	7,090
Reunion	0	0	5,885

Country - (Free) Zone / Area – etc.	2009	2010	2011
Congo	4,850	5,130	5,200
Cape Verde	3,701	4,700	4,750
El Salvador	5,326	5,326	3,730
Paraguay	0	0	3,500
Burkina Faso	1,656	2,100	2,030
Mauritania	2,015	2,200	1,833
New Caledonia	0	0	1,695
Faeroe Islands	1,500	1,400	1,438
Central African Republic	1,146	1,200	1,248
Belize	1,065	1,100	1,161
Bermuda	1,055	1,000	1,029
Papua New Guinea	0	0	958
East Timor	0	0	894
Comoros	760	800	741
French Polynesia	583	630	600
Montserrat	210	210	205
St. Kitts Nevis	0	0	162
Eritrea	102	150	139
Dominica	137	130	134
Bahrain	100	110	134
Fiji Islands	0	0	64
Benin	40	40	43
Qatar	0	0	18
<b>Total</b>	<b>210,400,410</b>	<b>215,960,912</b>	<b>374,333,722</b>

Source: Food and Agricultural Organization (FAO)



**Annex II****Pattern of International Trade in Ware potato**

Qty. (in MT)

Importing country - (free) zone / area - etc.	2010	2011	2012
Netherlands	1,157,069.88	18,016,48.72	1,936,623.17
Belgium	1,298,903.17	1,317,737.72	1,569,195.09
Russian Federation	641,334.01	1,428,137.93	437,453.76
Germany	503,274.90	577,905.49	676,033.53
Spain	721,773.60	584,331.64	637,605.20
Italy	634,976.79	531,857.73	594,420.80
United Kingdom	465,039.57	239,705.15	387,348.85
USA	692,114.31	412,562.88	281,185.24
France	385,514.10	376,802.90	369,773.14
Canada	222,389.22	247,691.78	303,559.77
Malaysia	124,489.66	174,022.43	181,919.54
Portugal	278,039.65	251,439.09	333,765.49
Greece	104,709.77	146,891.25	107,561.48
Norway	98,956.23	41,481.89	72,976.12
Oman	27,532.84	27,505.37	46,129.14
Mexico	96,672.90	86,547.37	89,667.63
Denmark	74,700.08	84,516.99	100,771.94
Ireland	58,125.89	52,484.76	64,690.62
Poland	210,894.97	219,327.98	106,346.45
Indonesia	24,203.56	78,418.91	46,587.88
Sri Lanka	129,878.50	130,513.58	110,829.88
Singapore	47,120.39	48,704.87	46,660.27
Austria	91,698.26	98,088.25	102,972.87
Czech Republic	298,025.91	158,880.21	111,151.90
Sweden	58,667.00	61,987.58	49,917.00
Thailand	23,603.28	42,711.57	38,546.83
Lebanon	79,360.36	70,100.81	51,815.44
Republic of Korea	43,398.01	28,580.82	27,175.58
Romania	59,090.43	80,382.40	155,360.89
Slovakia	83,075.96	69,051.72	40,122.04
Kazakhstan	121,485.15	162,588.65	74,675.67
Senegal	69,210.81	73,423.82	87,201.47
Namibia	19,881.89	18,527.64	21,332.63
Switzerland	21,295.44	22,624.83	12,265.93
El Salvador	106,703.18	67,930.25	74,420.87
Lithuania	14,151.91	21,993.88	16,241.47
Fiji	19,311.16	21,025.90	21,962.36
China, Hong Kong SAR	10,336.30	11,555.10	11,242.75
Japan	1,928.00	8,234.00	15,683.00
Qatar	23,890.54	0.00	36,658.46
Finland	12,593.76	19,484.69	15,777.26
Slovenia	13,525.74	22,875.51	17,158.08

Importing country - (free) zone / area - etc.	2010	2011	2012
Luxembourg	10,794.12	11,008.20	10,068.64
Egypt	15,946.58	1,394.62	12,968.77
Croatia	19,218.42	15,392.16	15,450.60
Azerbaijan	47,478.26	66,371.22	59,401.28
Georgia	3400.03	49,871.03	28,578.51
Mauritania	25,291.49	23,899.20	36,488.92
Bulgaria	16,232.29	12,980.55	25,359.35
Sudan	0.00	0.00	6,118.12
Hungary	31,515.90	32,551.80	21,328.40
Mozambique	3,118.34	1,713.74	9,747.08
Moldova	69,852.60	14,732.91	17,894.14
Bahamas	509.30	582.49	631.29
Mauritius	5,802.46	6,248.74	6,712.68
Guyana	8,660.23	9,171.25	11,186.70
Algeria	0.00	0.00	5,625.00
Dominican Republic	7,033.69	4,860.39	0.00
Serbia	3,768.08	5,119.74	9,297.48
Paraguay	13,542.50	13,367.85	14,291.49
Maldives	4,407.08	4,692.22	4,473.59
Cape Verde	7,723.65	6,884.40	6,985.51
Ukraine	15,217.95	17,839.86	2,636.22
Mali	18,557.38	14,390.08	14,028.58
Albania	7,473.23	5,062.41	7,976.86
Bosnia and Herzegovina	7,899.33	7,598.86	7,636.17
Iceland	2,721.71	1,941.78	3,195.93
Malta	3,603.30	3,655.89	5,068.14
Latvia	5,246.08	13,130.31	7,314.39
Jamaica	8,559.32	4,611.29	3,913.80
French Polynesia	2,663.05	2,308.08	2,276.71
Tanzania	646.51	2,043.04	1,711.51
Turkey	1,335.68	6,281.50	4,086.53
Belarus	18,439.67	50,175.82	4,889.86
The Former Yugoslav Republic of Macedonia	861.91	3,522.91	5,425.41
Montenegro	6,097.95	6,951.54	7,822.75
Brunei Darussalam	0.00	0.00	2,373.25
Samoa	1,228.74	1,168.15	1,324.69
Cyprus	4,147.39	944.53	2,116.86
Estonia	4,250.45	4,990.46	1,795.64
Togo	8,966.99	2,867.09	3,690.63
China, Macao SAR	2,079.21	0.00	2,383.61
Aruba	1,052.02	1,188.86	1,151.41
Bermuda	3,814.68	1,531.14	0.00
Ghana	1,336.79	1,630.21	2,192.58
Costa Rica	2,657.21	4,498.96	1,200.71
Belize	1,391.02	3,595.89	1,477.40

Importing country - (free) zone / area - etc.	2010	2011	2012
Papua New Guinea	0.00	43.94	76.57
Saint Vincent and the Grenadines	1,446.16	1,261.71	561.29
New Caledonia	1,233.30	2,423.26	1,041.30
Guatemala	3,270.06	3,644.34	697.56
Turks and Caicos Islands	0.00	549.35	492.20
Armenia	729.22	6,013.76	1,551.27
Rwanda	0.00	3,226.76	5,323.51
Dominica	489.19	0.00	99.70
Yemen	9,965.42	1,278.45	986.50
Nicaragua	3,623.63	2,053.61	1,232.36
Pakistan	5,015.76	391.87	1,811.62
Nigeria	29.69	145.27	367.42
Argentina	599.83	312.10	556.80
Bolivia	33,315.07	20,434.28	5,476.99
Chile	572.20	3,430.33	1,045.88
Sao Tome and Principe	0.00	274.03	274.29
Israel	6,675.07	1,504.41	274.85
Uruguay	2,023.15	3,949.23	261.00
Tonga	58.91	107.52	109.51
Niger	498.29	1,347.45	1,235.15
Uganda	60.23	1,738.96	580.99
Brazil	14,696.24	1,150.66	113.00
Kyrgyzstan	481.49	617.32	106.59
New Zealand	0.00	0.00	5.76
Cambodia	147.35	23.50	6.95
South Africa	26.84	15.69	28.84
Saint Kitts and Nevis	604.56	528.41	0.00
Kenya	1,605.26	0.00	0.00
Malawi	42.35	96.44	0.00
Barbados	8,619.31	7,962.04	0.00
Zambia	2,897.40	2,227.79	0.00
Colombia	0.58	0.00	0.00
Bahrain	10,156.23	13,427.71	0.00
Benin	1,187.59	0.00	0.00
Burkina Faso	1,653.51	2,501.10	0.00
Côte d'Ivoire	27,126.36	21,173.87	0.00
Suriname	14,279.30	7,303.60	0.00
Vanuatu	416.08	346.12	0.00
Panama	987.30	1649.18	0.00
Nepal	81,539.68	128,576.99	0.00
Bhutan	7,920.04	5,190.02	0.00
Jordan	31,420.43	43,571.22	0.00
Ethiopia	0.00	0.16	0.00
Sudan	0.00	7,342.74	0.00
Syria	19,522.02	0.00	0.00

Importing country - (free) zone / area - etc.	2010	2011	2012
Kiribati	41.69	11.39	0.00
China	0.10	99.18	0.00
Congo	1,193.61	0.00	0.00
Gambia	0.00	1,492.46	0.00
Philippines	6,982.58	8,300.66	0.00
Tunisia	3,101.00	6,594.75	0.00
Venezuela	9417.79	22,647.25	0.00
Viet Nam	12,662.16	18,749.24	0.00
Zimbabwe	8,616.37	3,397.82	0.00
Trinidad and Tobago	42,625.84	0.00	0.00
Montserrat	0.00	54.21	0.00
Greenland	1,625.29	1,648.24	0.00
Botswana	1,4342.18	12,818.02	0.00
Burundi	1,029.20	7,369.46	0.00
Cameroon	11.02	6.76	0.00
Saudi Arabia	60,590.00	24,856.00	0.00
Australia	0.01	0.00	0.00
Morocco	229.85	4.12	0.00
<b>Total</b>	<b>10,050,893.46</b>	<b>10,768,939.98</b>	<b>9,907,402.58</b>

Source: UN Comtrade, as reported by the importing countries

Exporting country - (free) zone / area – etc.	2010	2011	2012
France	2,716,202.97	2,422,075.09	2,624,343.14
Germany	1,349,660.37	1,892,126.60	2,138,548.69
Netherlands	1,130,027.51	1,164,131.89	1,034,173.07
United States of America	393,874.44	410,754.31	477,246.50
Egypt	371,824.45	519,302.34	322,405.08
Canada	739,980.10	477,476.58	300,825.18
Israel	297,310.01	273,600.15	223,414.32
Belgium	579,965.26	553,163.64	624,366.09
Spain	225,102.34	248,954.33	298,997.22
China	163,813.95	263,427.76	228,589.48
United Kingdom	219,938.12	225,276.55	145,475.08
Cyprus	70,086.38	160,726.76	70,563.62
Saudi Arabia	128,393.04	137,321.01	108,174.59
Denmark	103,707.93	111,482.84	93,038.91
Italy	87,337.45	84,138.78	62,999.64
Azerbaijan	63,320.66	91,102.73	59,375.02
Pakistan	108,877.67	270,100.35	121,724.39
Australia	37,650.67	33,994.09	33,376.62
Portugal	28,615.04	41,729.50	54,703.26
United Arab Emirates	5,187.99	5,186.18	11,200.00
South Africa	48,212.44	38,447.44	31,239.25
Poland	48,627.25	66,654.65	125,467.00
Lebanon	80,288.13	41,022.72	8,095.72
Morocco	31,611.28	26,925.72	25,723.29
Kyrgyzstan	70,952.00	94,856.31	68,009.96
New Zealand	27,887.98	32,403.97	27,875.82
Czech Republic	40,868.52	34,077.17	53,570.97
Austria	49,175.92	33,297.57	46,237.43
India	158,636.18	246,731.96	31,322.69
Guatemala	105,238.55	67,201.47	73,758.74
Finland	54,801.96	35,566.66	26,522.40
Iran	24,363.45	48,422.59	39,399.01
Sweden	14,677.60	15,248.03	15,799.30
Greece	25,422.52	18,966.54	16,219.12
Turkey	7,362.49	61,605.61	31,789.64
Bangladesh	17,185.95	54,484.42	24,651.46
Ireland	57,088.17	81,312.39	16,849.82
Indonesia	7,319.55	6,139.56	6,521.77
Slovakia	12,422.80	12,074.84	17,913.88
Other Europe, nes	2,077.71	2,095.60	3,469.68
Serbia	12,341.26	11,812.34	13,792.32
Malta	3,833.35	6,852.85	5,590.04
Argentina	31,904.35	19,743.83	15,218.46
Lithuania	12,333.56	15,860.43	9,812.49
Moldova	15,915.27	24,833.16	7,688.35

Exporting country - (free) zone / area – etc.	2010	2011	2012
Belarus	5,088.03	2,436.14	13,310.80
Malaysia	2,919.82	3,506.50	3,172.61
China, Hong Kong SAR	374.55	1,250.38	3,206.02
Hungary	5,173.18	5,755.93	7,949.28
Croatia	1,110.51	6,277.62	5,792.94
Ukraine	7,827.08	11,670.18	6,824.29
Rwanda	1,197.14	9,299.20	763.64
Russian Federation	70,711.39	34,047.60	29,617.05
Japan	303.16	641.71	392.25
Bosnia and Herzegovina	6,196.34	4,960.19	3,599.02
Tunisia	10,086.95	13,530.52	2,375.93
Singapore	335.92	588.65	804.61
Bulgaria	594.94	5,094.50	3,892.05
The Former Yugoslav Republic of Macedonia	2,724.28	4,835.78	1,986.21
Estonia	4,766.67	7,094.98	1,866.72
Syria	22,228.41	25,759.97	3,504.20
Slovenia	997.46	1,998.72	1,782.87
Areas, nes	4,096.82	4,137.29	3,485.51
Mexico	1,392.54	3,516.77	1,450.18
Albania	76.00	1,259.25	2,753.68
Jordan	4,097.76	265.20	2,397.80
Latvia	4,631.63	8,910.86	1,696.46
Senegal	9,220.95	8,393.14	2,970.57
Switzerland	362.50	28.38	1,001.89
Honduras	13.04	34.37	388.27
Uganda	62.50	3,233.50	5,145.91
Other Asia, nes	650.49	2,419.34	473.34
Romania	33,153.43	6,358.45	1,533.23
Peru	31,129.04	19,930.85	5,504.33
Costa Rica	458.76	225.88	905.49
Sri Lanka	132.21	73.15	224.27
Chile	806.33	230.93	478.30
Free Zones	2,251.11	986.76	295.12
Thailand	2,062.75	278.92	197.68
Iceland	393.74	325.04	214.22
Mauritania	855.00	1,032.17	1,143.51
Afghanistan	4,471.47	51,919.13	1,252.88
Viet Nam	252.74	572.10	339.76
Kenya	467.60	1,736.94	1,389.39
Armenia	2,283.45	863.10	1,101.89
Brazil	652.54	3,116.57	492.37
Curaçao	0.00	650.06	282.97
Suriname	0.01	0.55	404.82
Republic of Korea	28.18	131.52	29.75
Mauritius	0.00	0.00	100.50

Exporting country - (free) zone / area – etc.	2010	2011	2012
Luxembourg	166.48	1,567.95	127.66
Nigeria	529.81	1241.10	1192.24
Gabon	0.00	0.00	66.51
Swaziland	0.00	4.70	53.69
Ecuador	4,728.55	14,619.29	14.72
Côte d'Ivoire	911.13	807.72	153.06
FS Micronesia	0.00	0.00	332.59
Seychelles	0.00	0.00	94.40
Trinidad and Tobago	38.63	75.48	16.52
Burkina Faso	45.28	104.14	50.94
Qatar	2.70	0.00	25.00
Democratic Republic of Congo	0.00	29.50	181.46
Colombia	75.73	4621.29	5.08
Iraq	0.00	0.00	25.00
Montenegro	53.20	21.04	52.66
Norway	14.70	3.39	42.61
Tajikistan	108.30	149.90	26.67
Nicaragua	0.20	122.73	45.45
Oman	50.66	0.00	67.24
Georgia	7,956.45	659.06	21.30
Saint Vincent and the Grenadines	0.00	0.00	1.00
Panama	0.00	209.70	85.56
Madagascar	0.85	0.00	8.85
Dominican Republic	7.51	16.36	8.17
Ghana	69.81	231.26	29.13
El Salvador	0.00	10.69	3.16
Togo	61.35	147.75	7.00
Yemen	0.00	14.50	9.60
China, Macao SAR	0.00	2.78	5.54
Burundi	0.00	2.05	15.07
Benin	0.00	56.50	28.40
Botswana	1.31	1.54	1.10
Uruguay	56.61	5.96	1.11
Tanzania	1,600.00	19.97	6.51
Nepal	0.48	0.31	0.33
Faeroe Islands	0.00	0.00	0.56
Philippines	56.00	0.00	21.98
Bahrain	0.00	0.00	0.92
Venezuela	9.76	2.52	0.24
Zambia	49.78	14.99	0.35
Niger	0.00	30.00	0.00
Kuwait	44.88	0.00	0.00
Turkmenistan	5.00	187.87	0.00
Namibia	0.00	3.23	0.00
Lao People's Democratic Republic	25.77	0.00	0.00

Exporting country - (free) zone / area – etc.	2010	2011	2012
Neth. Antilles	196.58	0.00	0.00
Fiji	0.01	0.00	0.00
Mali	3.62	117.40	0.00
Zimbabwe	44.00	10.00	0.00
Cambodia	9.37	0.00	0.00
Brunei Darussalam	0.00	1.50	0.00
Cameroon	0.14	0.00	0.00
Algeria	16.53	138.72	0.00
Guyana	0.01	0.00	0.00
Tonga	0.00	0.00	0.01
Guinea	250.00	140.00	0.00
Andorra	90.40	28.44	0.00
Sierra Leone	0.00	48.88	0.00
Ethiopia	537.30	233.50	0.00
Jamaica	0.00	0.54	0.00
Bolivia	3.50	0.00	0.00
Libya	3,202.96	320.00	0.00
Saint Maarten	0.00	1.36	0.00
Myanmar	0.00	0.07	0.00
State of Palestine	0.00	127.90	0.00
Mongolia	0.02	0.01	0.04
Barbados	0.02	27.63	0.03
British Virgin Islands	0.04	0.00	0.00
Haiti	112.82	0.38	0.00
Uzbekistan	0.00	63.58	0.00
Paraguay	9.00	60.07	0.00
Kazakhstan	770.00	0.00	0.00
Antigua and Barbuda	10.00	0.00	0.00
Malawi	903.30	546.63	0.00
<b>Total</b>	<b>10,050,893.56</b>	<b>10,768,939.98</b>	<b>9,907,402.55</b>

Source: UN Comtrade, as reported by the importing countries



**PROPOSED DRAFT CODEX STANDARD FOR WARE POTATO****1. DEFINITION OF PRODUCE**

This Standard applies to commercial varieties of ware potato grown from *Solanum tuberosum*, of the *Solanaece* family, to be supplied fresh to the consumer, after preparation and packaging. Ware potatoes for industrial processing are excluded.

**2. PROVISIONS CONCERNING QUALITY****2.1 MINIMUM REQUIREMENTS**

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

- firm, fresh in appearance and whole;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, free of dirt, mud and practically free of any visible foreign matter;
- practically free of insects, worms, pests and damage caused by them affecting the general appearance of the produce;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- free of internal blackening;
- free of bruising;
- free of damage caused by low or high temperature;
- free of slug holes penetrating into the flesh
- free of sprouting
- free of scab, soft rot and wet breakdown.

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

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

**2.2 CLASSIFICATION**

Ware potatoes are classified in three classes defined below:

**2.2.1 "Extra" Class**

Ware potatoes in this class must be of superior quality. They must be well developed and must have the characteristics of the variety as regards shape, appearance and development.

They must be free of defects including bruises, cuts, russet scab, rhizoctonia, green colorations and practically free of soil, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package.

**2.2.2 Class I**

Ware potatoes in this class must be of good quality. They must be characteristic of the variety as regards shape, appearance and development.

The following slight defects, however, may be allowed, provided these do not affect the general appearance of the produce, the quality, the keeping quality and presentation in the package:

- slight defects in shape and colour;
- slight skin defects such as scratches, scars, scrapes and blemishes not exceeding 5% of the total surface area;
- soil and extraneous matter should not exceed 0.25%.
- greening shall not be on more than 1% by number and should not cover more than 10 % of the total surface area.

The defects must not, in any case, affect the flesh of the produce.

### 2.2.3 Class II

This class includes ware potatoes which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above.

The following defects, however, may be allowed, provided the ware potatoes retain their essential characteristics as regards the quality, the keeping quality and presentation:

- defects in shape and colour;
- skin defects such as scratches, scars, scrapes, bruises and blemishes not exceeding 10% of the total surface area.
- soil and extraneous matter shall not exceed 0.5%.
- greening should not be on more than 1% by number and should not cover more than 12.5 % of the total surface area.

The defects must not, in any case, affect the flesh of the produce.

### 3. PROVISIONS CONCERNING SIZING

Size is determined by the equatorial diameter (means the greatest dimension at right angle to the longitudinal axis with regards to the position of the stem end) of the ware potato (in mm) in accordance with the following table:

Size Code	Equatorial Diameter in mm
A (Baby Potato)	18.1-28.0
B	28.1-45.0
C	45.1-65.0
D	65.1-80.0
E	More than 80

### 4. PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

#### 4.1 QUALITY TOLERANCES

##### 4.1.1 "Extra" Class

Five percent by number or weight of ware potatoes not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class.

##### 4.1.2 Class I

Ten percent by number or weight of ware potatoes not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class.

##### 4.1.3 Class II

Ten percent by number or weight of ware potatoes satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting, marked bruising or any other deterioration rendering it unfit for consumption.

#### 4.2 SIZE TOLERANCES

For all classes or forms of presentation, 10% by number or weight of ware potatoes corresponding to the size immediately above or below that indicated on the package.

### 5. PROVISIONS CONCERNING PRESENTATION

#### 5.1 UNIFORMITY

The contents of each package 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 must be representative of the entire contents.

## 5.2 PACKAGING

Ware potatoes must be packed in such a way as to protect the produce properly. The materials used inside the package must be new<sup>1</sup>, 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 container in compliance with the appropriate sections of the *Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CAC/RCP 44-1995)*.

### 5.2.1 Description of Containers

The containers 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.

## 6. MARKING OR LABELLING

### 6.1 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:

#### 6.1.1 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 may be labelled as to name of the variety and/or commercial type.

### 6.2 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, or in the documents accompanying the shipment.

#### 6.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional)<sup>2</sup>.

#### 6.2.2 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 ware potato may be marked on the label such as oval, round and long.

#### 6.2.3 Origin of Produce

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

#### 6.2.4 Commercial Identification

– Class;

#### 6.2.5 Official Inspection Mark (optional)

## 7. CONTAMINANTS

7.1 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)*.

7.2 The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

## 8. HYGIENE

8.1 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.

8.2 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>1</sup> For the purposes of this Standard, this includes recycled material of food-grade quality.

<sup>2</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.