JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX ALIMENTARIUS COMMISSION
45th Session
21 - 25 November and 12 - 13 December 2022

REPORT OF THE 22nd SESSION OF THE
CODEX COMMITTEE ON FRESH FRUITS AND VEGETABLES
Virtual
25-29 April and 4 May 2022
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INTRODUCTION
1. The Codex Committee on Fresh Fruits and Vegetables (CCFFV) held its twenty-second Session (CCFFV22) virtually on 25-29 April and 4 May 2022, at the kind invitation of the Government of Mexico. Mr Alfonso Guati-Rojo Sánchez, Director General, General Bureau of Standards, Ministry of Economy of Mexico, chaired the session, which was attended by 83 Member countries, one Member organisation, four Observer organisations and Palestine. The list of participants is included in Appendix I.

OPENING OF THE SESSION
2. The Chairperson welcomed the delegates and recalled the great achievements of the Committee since its establishment. He also emphasized the important mandate of the Committee in terms of ensuring that food is safe, nutritious and of good quality, facilitating the harmonization of international trade and thereby making food more inclusive and less expensive, and thus contributing to food security.
3. Mr Steve Wearne, the Chairperson of the Codex Alimentarius Commission (CAC), delivered opening remarks, highlighting that food systems were evolving, and Codex could and had to play a role in supporting the transition to sustainable food systems. Mr Tom Heilandt, Codex Secretary, also addressed the Committee.
4. CCFFV22 noted that the proceedings would be recorded solely for the purposes of preparing the report of the session.

Division of Competence
5. CCFFV22 noted the division of competence¹ between the European Union and its Member States, according to paragraph 5, Rule II of the Procedure of the Codex Alimentarius Commission.

ADOPTION OF THE AGENDA (Agenda Item 1)²
6. CCFFV22 adopted the provisional agenda as the agenda of the CCFFV22.
7. CCFFV22 also agreed to establish an In-session Working Group (IWG), co-chaired by the United States of America (USA) and Ghana, working in English, French and Spanish, to consider the following issues and prepare recommendations for the plenary:
   • Glossary of terms used in the layout for Codex standards for fresh fruits and vegetables (FFV) (Agenda item 6); and
   • Amendments to the layout for Codex standards for FFV due to the adoption of the General Standard for the Labelling of Non-retail Containers of Foods (CXS 346-2021) and other pertinent updates.

MATTERS ARISING FROM THE CODEX ALIMENTARIUS COMMISSION AND OTHER SUBSIDIARY BODIES (Agenda Item 2a)³
8. CCFFV22 noted the matters that were for information only, and agreed that the following matters for actions would be addressed under the relevant agenda items:
   (i) matters from CAC43 regarding adoption of the General Standard for the Labelling of Non-retail Containers of Foods (CXS 346-2021) and consequential requirements under agenda items 6 and 7; and
   (ii) matters from CCPFV29 regarding the differentiation between the products covered by the proposed draft standard for dates and the existing Standard for Dates (CXS 143-1985) under agenda item 5.

Matters from CAC43 regarding the development of a standard for cashew kernels
9. CCFFV22 recalled that, CAC43 had adjourned the Codex Committee on Processed Fruits and Vegetables (CCPFV) sine die and requested CCFFV to consider the feasibility of taking up the task related to the development of a standard for cashew kernels.

¹ CRD1
² CX/FFV 22/22/1
³ CX/FFV 22/22/2; CRD6 (India); CRD13 (Codex Secretariat)
10. One delegation, explaining that cashew kernels were traded internationally and thus the need to develop a standard for this product, highlighted that similar arrangements had been followed in the past. For example, during the elaboration of the sampling plan for histamine in fishery products, the work was transferred from the Codex Committee on Fish and Fishery Products (CCFFP), adjourned sine die, to the Codex Committee on Food Hygiene (CCFH). Therefore, CCFFV should consider taking up the work. Another delegation supported this position noting that in their country cashew kernels were traded as fresh i.e., after peeling and drying.

11. Other delegations, while not objecting to the development of a standard for cashew kernels, stated that: (i) there were no serious concerns related to trade in cashew kernels, therefore the proposal was not a priority and it could be kept on the list of topics for future consideration by CCFFV, once reactivated; (ii) the mandate of CCFFV did not include cashew kernels as they were not traded as fresh produce; and (iii) CCFFV could be reactivated for taking up some specific items including cashew kernels.

**Conclusion**

12. CCFFV22 agreed to reply to the Executive Committee of the Codex Alimentarius Commission (CCEXEC) and CAC that the proposed work on cashew kernels did not fall under the purview of CCFFV and CCFFV could not take up the task.

**MATTERS ARISING FROM OTHER INTERNATIONAL ORGANIZATIONS ON THE STANDARDIZATION OF FRESH FRUITS AND VEGETABLES (Agenda Item 2b)**

13. The United Nations Economic Commission for Europe (UNECE) and the Organisation for Economic Cooperation and Development (OECD) presented on their activities relevant to the work of CCFFV.

14. CCFFV22 noted the activities of the two organisations and underscored the importance of collaboration with UNECE and OECD for better development of international standards for fresh fruits and vegetables.

**PROPOSED DRAFT STANDARD FOR ONIONS AND SHALLOTS (AT STEP 4) (Agenda item 3)**

15. Iran, as Chair of both the Electronic Working Group (EWG) and the Virtual Working Group (VWG), speaking also on behalf of the co-Chairs Indonesia and India, introduced the item and explained the process followed by the EWG to prepare the proposed draft standard for onions and shallots. It was further clarified that based on the comments submitted on the proposed draft, a VWG was organised to address the outstanding issues as set out in CRD3.

16. CCFFV22 agreed to consider CRD3 as the basis for discussion of this item.

**Discussion**

17. CCFFV22 considered the proposed draft standard section by section, introduced editorial corrections, and made the following comments and decisions on respective sections.

   **Section 1 – Scope**

18. CCFFV22 considered the proposal by a delegation to include the term “fresh” in the title, the scope, and other sections of the standard (i.e., “fresh onions and fresh shallots”), and to merge the scope with section 2 – “Definition of produce” as this would ensure more specificity in the document and ease its application.

19. The following broad issues were pointed out by delegations on the above proposed changes:

   (i) The standard should ensure clarity to the user and absence of the term “fresh” may lead to confusion during its application by the inspectors. Alternatively, a footnote could be added to clarify that the standard concerned fresh onions and shallots.

   (ii) The concept of fresh was already included in the proposed draft standard under section 2 - Definition of the produce, where it was clearly stated that “Onion bulbs and shallot bulbs shall be supplied fresh to the consumer” and there was no need to include the proposed term.

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4 CX/FFV 22/22/3
5 CX/FFV 22/22/4; CX/FFV 22/22/4 Add.1 (Argentina, Egypt, European Union, India, Kenya, Republic of Korea, Rwanda, Thailand, Uganda, United Republic of Tanzania, Uruguay and USA); CRD3 (Report of the virtual working group on onions and shallots); CRD7 (Republic of Korea); CRD11 (Uganda)
(iii) The title and scope of the standard, and the section on definitions were in conformity with the layout for FFV standards and that CCFFV had adopted these provisions in other standards after several rounds of discussions. The proposed changes would have implications not only to the labelling provisions of the draft but also to other approved FFV standards which would have to be re-aligned appropriately.

(iv) Onions and shallots were traded fresh, and as such they were not labelled as “fresh”. Dried and/or dehydrated onions/shallots fell outside the purview of CCFFV, and such products had clear labelling requirements in order not to mislead consumers.

20. CCFFV22 agreed:
   (i) not to include the term “fresh” in the title, the scope and other parts of the proposed draft standard as it did not substantially affect the application of the standard;
   (ii) that comments or proposed changes to the layout for FFV standards should be submitted as proposals for new work; and
   (iii) to endorse the proposed draft scope together with other editorial changes and alignment to the scope of standard with the layout for FFV standards.

Section 2 – Definition of Produce

21. CCFFV22 recognised that for onions and shallots, the colour of the skin was characteristic of the variety and that within similar varieties, slight skin colour variations existed. To encompass all known colour variations normally found in trade, the provision should be broad to facilitate inspection at boarder points. The second bullet (indent) was therefore amended to read as follows:

   “Onions and shallots shall have skin colour characteristics of the variety, including white, purple, cream, pink, red, grey, yellow or brown”.

Section 3 – Provisions concerning quality

3.1 Minimum requirements

22. CCFFV22 endorsed the proposed provision and made the following clarifications and/or changes on the different quality requirements:
   • On the proposal to include both quality attributes “compact” and “firm”, it was clarified that according to the definition of terms for application in the layout for FFV standards, the term “firm” included compactness and there was no need to include the term “compact”. Based on this clarification, only the term “firm” was retained.
   • Concerning whether the provision on “free of damage caused by low and/or high temperature” should be merged with the provision for “free of damage caused by frost or sun”, since these two provisions related to the effect of temperature on the produce. It was explained that the provision on “low and/or high temperature” related to post-harvest handling processes (i.e., transportation; storage and etc.) while “frost or sun” concerned climatic conditions in the field. It was noted that in the definition of terms for application in the layout for FFV standards, these two defects were covered under the term “Damage caused by low and/or high temperatures”. Noting that both provisions concerned temperatures (high or low), CCFFV22 agreed to merge the two provisions and align them with the definition in the layout for FFV standards (“free from damage caused by low and/or high temperatures”).

3.1.1 Minimum maturity requirements

23. CCFFV22 aligned the title of the provision to the layout for FFV standards, and further clarified that the onions and shallots: i) should be sufficiently developed; and ii) should present outer layers of “skin” instead of “scales”.

3.2 Classification

24. CCFFV22 took the following decisions in relation to defects:

3.2.1 “Extra” Class
   • Retained the following defects that had been proposed for deletion: “a very slight defect in shape”; “very slight defects in colouring” and “very light staining, provided it does not cover more than one fifth of the bulb’s surface”.


• Noting the explanation that there were varieties of shallots with doubles, triples or more bulbs, as a characteristic of the variety, a proposed provision requiring shallot to be free of doubles or triples bulbs was amended to indicate that for shallots, double or triples bulbs were not considered as a defect. It was agreed that this provision would also apply to Class I and Class II.

• Clarified that the provision for the defect on root tufts applied to “grey shallots” and to “onions and other shallots harvested before complete maturity”, and further agreed that this provision would also apply to Class I.

3.2.2 Class I

• Inserted a provision “Practically free of sprouted onions” in addition to the amendments as indicated above (see the second and third bullets of paragraph 24)

3.2.3 Class II

• Inserted a provision “Practically free of sprouted onions” in addition to the amendments as indicated above (see the second bullet of paragraph 24).

25. The Chairperson of CCFFV noted the limited progress made in the plenary and proposed that an IWG be convened to review Sections 3, 4, 5, 6 and 7 to address unresolved issues and help reach consensus. CCFFV22 agreed to this proposal and continued discussions in the IWG.

26. CCFFV22 considered the outcome of the IWG, discussed the proposed amendments, made editorial changes where appropriate, and noted the following decisions on the respective sections.

27. Regarding Section 3, CCFFV22 confirmed the decisions as highlighted in paragraph 24 i.e., inclusion of the relevant provisions to “Extra” Class, Class I and Class II.

Section 5 - Provisions concerning tolerances

28. A delegation proposed that, with reference to the Standard for Kiwifruits (CXS 338-2020) and as onions and shallots were not very perishable produces, the wording to read “only applies beyond the export control point” be inserted to further define the tolerance for decay in “Extra” Class if the tolerance for decay in this Class was not deleted.

29. CCFFV22 endorsed all the proposed provisions for quality tolerances in “Extra” Class, Class I and Class II noting that the values were justified by trade practices.

30. CCFFV22 further noted the following positions expressed by delegations:

• Colombia expressed a reservation for inclusion of tolerances for decay in all classes noting that such tolerances were part of the commercial agreements between the client and the supplier and therefore in their view they were outside the scope of a quality and safety standards and hence decay should not be mentioned in the standard.

• European Union and its Member States (EUMS) expressed reservation to the provision allowing a tolerance for decay in “Extra” Class. The EUMS recalled that CAC41 had confirmed that the provision for decay in “Extra” class was optional; and depending on the nature of the produce, the tolerance may not be applicable or necessary. The EUMS maintained their view that a tolerance for decay in “Extra” Class was not in conformance with the requirements for “Extra” Class, which was a special status granted to products of exceptionally high quality. “Extra” Class produce required more careful production, packing, transportation as well as minimal delays in shipment and dispatch to preserve the high quality of the produce with consequent higher production and shipping costs; and investments in these efforts should be rewarded. The EUMS would continue to apply a zero tolerance for decay in “Extra Class”.

31. CCFFV22 also agreed to remove the square brackets included in Sections 5.1.2 and 5.1.3.

Section 6 – Provisions concerning presentation

32. CCFFV22 agreed to move the sentence in square brackets to read “Onions and shallots may be presented with tops braided or interlaced on strings” from this Section 6.1 Uniformity to Section 6.2 Packaging and deleted the square brackets.
Section 7.2.1 – Non-retail containers

33. CCFFV22 agreed to revise the provision based on the request from CAC43 following the adoption of the *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021), and in line with the layout for CCFFV standards.

Section 8 – Food additives

34. CCFFV22 agreed: to insert a new Section on food additive (i.e., Section 8) reading “No food additives are permitted in onions and shallots” to align the section with the layout for CCFFV standards.

Conclusion

35. CCFFV22 agreed to forward the proposed draft standard for onions and shallots to CAC45 for adoption at Step 5/8, noting that the provisions on food labelling and food additives would be forwarded for endorsement to the Codex Committee on Food Labelling (CCFL) and Codex Committee on Food Additives (CCFA) respectively (Appendix II).

PROPOSED DRAFT STANDARD FOR BERRY FRUITS (Agenda item 4)⁶

36. Mexico, as Chair of both the EWG and the VWG, speaking also on behalf of the co-Chair Argentina, introduced the report of the VWG as contained in CRD4 rev.1, and explained that the list of varieties of berries in the table had been further reviewed to remove duplication and include missing varieties; the provisions concerning quality had been aligned with the layout for FFV standards; and that the provisions concerning marking or labelling had been further checked against the *General Standard for the Labelling of Non-retail Containers of Foods* (CXS 346-2021) adopted by CAC44 to ensure consistency.

37. CCFFV22 agreed to consider CRD4 rev.1 as the basis for its discussion.

Discussion

38. CCFFV22 endorsed most of the revisions in CRD4 rev.1 and made some further editorial amendments for purposes of clarity, noting that translation issues would be addressed during the final translation of the standard.

Section 1 – Scope

39. CCFFV22 made editorial changes and aligned the text with the layout for FFV standards.

Section 2 – Definition of produce

40. CCFFV22 agreed to make the following changes to the list of berries:

- to replace the terms “Commercial varieties” with “Common names” in the heading of the table as their inclusion would limit the application of the standard to farmed berries only;
- to include: i) “Pushgay” and “Mortiño” in addition to Colombian blueberry as common names for *Vaccinium floribundum* Kunth; and ii) Camu-camu, in addition to Camu, as a common name for *Myrciaria dubia* Mc Vaugh.

Section 3.1 - Minimum requirements

41. CCFFV22 agreed to keep the terms “whole” and “intact” together, consistent with the term used in the definition of terms (see agenda item 6). For the same reason, the term “hard” was replaced with the term “firm” in Section 3.1.1 Minimum Maturity Requirements.

Section 3.2 - Classification

42. CCFFV22 agreed to the inclusion of the terms “twins or doubles” together with the term “agglomerated”, only for bilberries and blueberries, noting the explanation that the term “agglomerated” referred to berries composed by many smaller berries.

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⁶ CX/FFV 22/22/5; CX/FFV 22/22/5 Add.1 (Argentina, Brazil, Canada, Cuba, Egypt, European Union, Ghana, India, Kenya, Thailand, Uganda and Uruguay); CRD4 rev.1 (Report of the virtual working group on berry fruits); CRD7 (Republic of Korea); CRD11 (Uganda); CRD12 (African Union).
Section 3.2.3 – Class II

43. CCFFV22 clarified that the term “higher classes” as used in this provision referred to “Extra” Class and Class I; and for clarity, added the two classes in parenthesis following “higher classes”.

Section 4 - Provisions concerning sizing

44. In response to a proposal on whether to include a text addressing the sizing methods for berries, CCFFV22 noted the explanation that there were no existing methods for sizing and in some countries volume was used as a measure for sizing berries.

45. CCFFV22 endorsed the proposed text, acknowledging that it reflected existing trade practices.

Section 5 – Provisions concerning tolerances

5.1.1 “Extra” Class

46. CCFFV22 discussed the proposed draft tolerances for “Extra” Class, noting the following views expressed by the delegations.

47. Delegations in favour of excluding the tolerance for soft rot, internal breakdown and decay in “Extra” Class noted that:

   (i) it was inappropriate to include such a provision in a standard that is meant to ensure the quality and safety of a product;

   (ii) tolerances for decay were part of agreements between the customer and the supplier and that such agreements were beyond the scope of Codex standards;

   (iii) “Extra” Class produce required more careful production, packing, transportation in order to preserve the high quality of the produce with the higher associated costs;

   (iv) UNECE standards do not allow decay in “Extra” Class; and

   (v) CAC41 considered the provision for decay in “Extra” Class as optional.

48. Delegations in favour of 1% tolerance in “Extra” Class noted that:

   (i) Codex standards are used in food trade at international level, while countries could still apply different provisions at national level and that the tolerance would be checked at the port of entry; and

   (ii) the proposed 1% tolerance was consistent with other FFV standards, including, *inter alia*, the Standard for Apples (CXS 299-2010) and the Standard for Aubergines (CXS 330-2018).

   (iii) considering the highly perishable nature of berry fruits, such a tolerance is needed.

49. Regarding the proposal to have 0.5% tolerance for decay, CCFFV22 noted that this requirement would be difficult to achieve.

50. CCFFV22 considered the following proposals put forward by delegations on tolerances for decay in “Extra” Class:

   - Include a text in “Extra” Class, similar to that in the *Standard for Kiwifruit* (CXS 338-2020), indicating that the tolerance only applies beyond the export control point. It was noted that provisions contained in other FFV standards may not necessarily apply to all products, and that berries were more susceptible to damage than kiwifruits.

   - Include a footnote i.e., “Tolerances established for international trade purposes. They do not apply to products intended for the final consumer”. It was recalled, that the VWG addressed such a footnote and agreed to delete it.

51. The Chairperson summarised the discussion noting that despite some divergent views expressed by delegations, there was consensus on the inclusion of 1% tolerance in “Extra” Class.

52. CCFFV22 noted the reservation of the EUMS related to quality tolerance in “Extra” Class as in paragraph 30 second bullet and EUMS would continue to apply a zero tolerance for decay in “Extra Class” of berry fruits as provided in the UNECE standard.

53. CCFFV22 also noted the reservation of Colombia related to inclusion of tolerances for decay in all classes.
Section 6 – Provisions concerning presentation

54. CCFFV22 agreed to the minor rearrangement of the Section by transferring the provision “Berry fruits in 'Extra' Class and Class I must be practically uniform in ripeness” from paragraph two to paragraph one under Section 6.1 Uniformity.

Section 7.2 - Non-Retail Containers

55. CCFFV22 agreed to revise the provision based on the request from CAC43 following the adoption of the General Standard for the Labelling of Non-Retail Containers of Foods (CXS 346-2021) and in line with the layout for FFV standards.

Conclusion

56. CCFFV22 agreed to forward the proposed draft standard for berry fruits to CAC45 for adoption at Step 5/8, noting that the provisions on food labelling and food additives would be forwarded for endorsement to CCFL and CCFA respectively (Appendix III).

PROPOSED DRAFT STANDARD FOR FRESH DATES (AT STEP 4) (Agenda item 5)7

57. India, as Chair of both the EWG and VWG, speaking also on behalf of the co-Chair Saudi Arabia, introduced the item, and recalled that CCFFV19 agreed to undertake the new work and that the proposed draft standard had been considered at CCFFV20 and CCFFV21. It was explained that based on comments in reply to CL 2021/86/OCS-FFV, the document (CX/FFV 22/22/6) had been revised as CRD2. At the VWG meeting held prior to CCFFV22, CRD2 had been considered and the critical issues relating to the provisions on three aspects (i.e. moisture content for tamer stage; percentages of defects in the quality tolerances; and the labelling for non-retail containers) had been thoroughly examined and well addressed. The report of the VWG was presented as CRD5.

58. CCFFV22 noted that informal discussions had also been held at the margins of CCFFV22 to facilitate reaching consensus by incorporating comments received and updating the requirements accordingly.

Discussion

59. CCFFV22 considered CRD5 section by section, endorsed most of the revisions in CRD5, and in addition to editorial corrections for the purposes of clarity, made the following comments and decisions.

Title

60. CCFFV22 considered whether the term “fresh” should be included in the title of the standard and noted the following views expressed by delegations:

(i) in international trade the term “dates” normally refers to “dried dehydrated or low moisture dates,” whereas the term “fresh dates” is not widely used nor is a commodity traded; it was therefore, necessary to include “fresh” in the title, though it was uncommon to include “fresh” in the titles of standards developed by CCFFV;

(ii) there was a need to make a distinction between the standard for fresh dates and the existing Standard for Dates (CXS 143-1985) developed by CCPFV; and

(iii) the wording “fresh” was included in the approved project document.

61. CCFFV22 agreed to the inclusion of the term “fresh” as a basis for making a distinction between the existing standard and the proposed draft standard. Algeria expressed its reservation for the inclusion of the word “fresh” in the title of the standard.

Section 1 - Scope

62. CCFFV22 aligned the language of the scope with that of the layout for FFV standards, and transferred the phrase that referred to processing requirements (i.e., “which have not undergone any intentional or artificial process to adjust the moisture content”) to Section 2 - Definition of Produce.

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7CX/FFV 22/22/6; CX/FFV 22/22/6 Add.1 (Algeria, Cuba, Egypt, European Union, Ghana, India, Kenya, Morocco, Thailand and Uganda); CRD2 (Proposed draft standard for fresh dates (Prepared by the Chairs of the EWG based on the comments received on CL 2021/86/OCS-FFV)); CRD5 (Report of the Virtual Working Group on Proposed Draft Standard for Fresh Dates); CRD8 (Algeria); CRD10 (Morocco); CRD11 (Uganda); CRD12 (African Union); CRD15 (Algeria)
Section 3.1 - Minimum requirements

63. A delegation proposed to delete the wording “living” associated to pests from the fourth bullet to be consistent with the requirements in International Plant Protection Convention (IPPC).

64. CCFFV22 noted that both living pest and their debris or excreta should be included in the requirements in view of the nature of the trade practice for fresh dates.

Section 3.1.1 - Minimum maturity requirements

65. CCFFV22 noted divergent views on the proposed provision relating to requirements for moisture content of fresh dates ("ranges from 30% - 85%")..

66. Delegations objecting the proposed minimum requirement for moisture content (i.e., 30%) indicated that most fresh dates for tamer stage would be excluded from the standard except if they were soft and had moisture content above 30%. In their views, the three stages of maturity (i.e., khalal stage, rutab stage and tamer stage) were important and should be retained in the standard due to the following reasons:

(i) the quality of dates (e.g., taste, colour, nutritional components, hardness) normally changes during their different stages of maturity and storage condition, and some cultivars were not marketable at the stages of pre-commercial maturity (or “Tamar” stage) due to their special biochemical components;

(ii) tamar stage was the result of the process in which dates had matured naturally and had not undergone any artificial ripening or drying. This corresponded to the definition of fresh fruit as contained in the document titled definition for terms (see agenda item 6) and freshness should not be related to moisture content;

(iii) differentiating the proposed draft standard with CXS 143-1985 should be based on whether the dates had been treated or not rather than the value for moisture content; and

(iv) consumers should have the right to be informed on the different stages of maturity in order to take informed decisions when purchasing.

(v) Dates with a water content above 30% are already scientifically and conventionally classified as soft dates and this term clearly indicates their freshness.

67. CCFFV22 also noted the proposals to reduce the minimum moisture content of fresh dates to 20% or 25%; to set different values for moisture content requirements according to different cultivation types; and to revise the scope of the standard.

68. Delegations in support of having a minimum moisture content requirement of 30% in the provision pointed out that:

(i) there should be a clear distinction between fresh dates and dried dates and that dates cannot simultaneously meet the requirements of being fresh and dry in relation to Codex standards, and freshly picked produce did not necessarily mean they would be fresh produce;

(ii) in many countries, dates at tamer stage were not referred to as fresh dates;

(iii) there was a clear distinction between the terms of reference for CCFFV and CCPFV. The recommendation from CCPFV clearly stated that the proposed draft standard for fresh dates should include those unprocessed fresh dates which had moisture levels greater than the levels specified in the Standard for Dates (CXS 143-1985).

69. In response to a suggestion to revise CXS 143-1985, the Codex Secretariat clarified that CCPFV had recently revised the standard and incorporated it as Annex B in the General Standard for Dried Fruits, in which the moisture content for dates retained the original values. The General Standard for Dried Fruits had been adopted by CAC43 and would be published once the food additive provisions were endorsed by CCFA.

Conclusion

70. CCFFV22 agreed to retain the ranges for moisture content to 30 - 85%", noting the reservations of Algeria and Morocco to this decision for the reasons stated in paragraph 66.
Section 5.1 - Quality tolerances

71. CCFFV22 considered the proposal by a delegation to change the proposed values for: total tolerance in Class II, damage by pest in Class II and the additional tolerance in Class I in order to differentiate the requirements for Class I and Class II.

72. Noting that Class I and Class II had been distinguished by different parameters in the pertinent provisions under “individual tolerance” and “additional tolerance”, and in order to adhere to the layout for FFV standards, CCFFV22 agreed to retain the proposed values.

73. Colombia reiterated their reservation regarding the inclusion of tolerance for decay in the quality tolerances (see paragraph 30 bullet 1)

Section 7 - Provisions concerning marking or labelling

74. CCFFV22 agreed to change “genotype” to “type” in Section 7.1.1 as it would be difficult for consumers to understand the meaning of genotype on the labelling.

75. CCFFV22 noted the following proposals by delegations:
   (i) to set up a weight limitation of 5 or 6 kg since dates were sensitive and fragile and the weight limitation might prevent dates from crushing and degrading; and
   (ii) to include a new section 7.1.3 titled “Commercial identification characteristics” as this information could help consumers make their choices.

76. Noting that the standard should comply with the requirements in the General Standard for the Labelling of Pre-packaged Foods (CXS 1-1985) and that these additional provisions were unnecessary, CCFFV22 agreed not to include them.

Section 7 - Non-retail containers

77. CCFFV22 agreed to revise the provision based on the request from CAC43 following the adoption of the General Standard for the Labelling of Non-Retail Containers of Foods (CXS 346-2021), and in line with the layout for FFV standards.

Conclusion

78. CCFFV22 agreed to forward the proposed draft standard for fresh dates to CAC45 for adoption at Step 5/8, noting that the provisions on food labelling and food additives would be forwarded for endorsement to CCFL and CCFA, respectively (Appendix IV).

DISCUSSION PAPER ON GLOSSARY OF TERMS USED IN THE LAYOUT FOR CODEX STANDARDS FOR FRESH FRUITS AND VEGETABLES (Agenda item 6)\(^8\)

79. CCFFV22 noted that the IWG chaired by USA and co-chaired by Ghana had thoroughly considered the definition of terms as well as necessary updates to the layout for FFV standards.

80. CCFFV22 agreed to publish the following two documents on the Codex website as information documents and to inform CCEXEC and CAC accordingly:
   - the proposed layout for Codex standards for fresh fruits and vegetables (Appendix VII)
   - the definition of terms for application in the layout for Codex standards for fresh fruits and vegetables (Appendix VIII)

81. CCFFV22 also noted these two information documents were mainly for internal use by CCFFV and would be revised should needs arise.

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\(^8\) CX/FFV 22/22/7; CX/FFV 22/22/7 Add.1 (Chile, Cuba, European Union, India, Kenya, Saudi Arabia, Thailand, ICUMSA and PRRI); CX/FFV 22/22/INF; CRD12 (African Union); CRD18 (The report of the in-session working group (Definition of terms for application in the layout for FFV standards)); CRD19 (The report of the in-session working group (revisions to the proposed layout for FFV standards))
CONSIDERATION OF THE PROPOSALS FOR NEW WORK (replies to CL 2021/79-FFV) (Agenda item 7)\(^9\)

82. Upon invitation from the Chairperson, each of the submitters briefly introduced their respective proposals.

**Development of a standard for Castilla lulo**

83. While broad support for the proposal was noted, one delegation requested further information on the production and export from other countries as the document submitted contain this data only from Colombia. This delegation also indicated that the proposal as submitted will not need other requirements listed in the work priorities/criteria applicable to commodities as required in the Codex Procedural Manual (PM). Another delegation pointed out the difficulties collecting trade date for some tropical produces.

**Conclusion**

84. CCFFV22 agreed:

(i) to recommend approval of new work on Castilla lulo by CAC45 and to request Colombia to revise the proposal by providing more trade information from other producing countries, and submit it directly to CCEXEC through the Codex Secretariat;

(ii) to establish an EWG chaired by Colombia and co-chaired by Mexico and working in English and Spanish, to prepare, subject to the approval of the new work, a proposed draft standard for Castilla lulo for circulation for comments at Step 3 and consideration at CCFFV23; and

(iii) to request the EWG submit the report at least three months before CCFFV23.

**Amendment to the Standard for Bananas (CXS 205-1997)**

85. CCFFV22 noted broad support for the editorial amendment of CXS 205-1997 to align the Scope of the Standard to correctly reflect the list of varieties covered by its Annex, providing better guidance to Members and the banana industry.

86. Some delegations requested that further amendments of CXS 205-1997 be included in the work such as on the provisions for labelling of non-retail containers, deletion I of the last sentence of Section 1 as well as the Annex as the Annex did not cover all commercial cultivars currently traded internationally, and other issues like sizing requirements.

87. As the inclusion of other amendment would require a new project document, and the new work proposal on review of existing standards (see paragraph 91) would include identification of needs for revision of CXS 205-1997, CCFFV22 agreed that it was more efficient to proceed with the request for approval of the proposed editorial amendment by CAC45 and evaluate at a later stage the need for submitting a project document requesting a revision of the standard.

**Conclusion**

88. CCFFV22:

(i) agreed to forward for adoption by CAC45 the proposed amendment to the *Standard for Bananas* (CXS 205-1997) (Appendix V); and

(ii) encouraged interested Members to submit a proposal for further revision of CXS 205-1997, taking into account the issues raised above.

**Review of existing standards**

89. There was broad CCFFV support for the European Union proposal to be led by Germany to review existing pre2017 standards in order to ensure their alignment with the layout for FFV standards and consider necessary updates. However, there were questions regarding the lack of a specific timeline and whether the work was supposed to entail revisions of standards which could contain substantial changes.

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\(^9\) CX/FFV 22/22/8; CRD9 (Thailand)
90. It was clarified that the review to first identify possible needs for revision of individual standards by an EWG. The EWG would evaluate the relevance of the provisions of each standard to the production and trade practices, and whether only an alignment with the layout for FFV standards or a complete revision is needed. Based on the results, the EWG will develop proposals for consideration by CCFFV accordingly. It was recommended that an update on the progress of the work would be presented at next CCFFV session, as it was difficult to estimate the extent of the workload in advance.

91. It was emphasized that the EWG would first concentrate on the editorial changes for consistency with the layout for FFV standards, and afterwards identify those areas needing technical updates. CCFFV could then discuss possible new work proposals for revision of the standards identified as not being up to date.

92. The Codex Secretariat informed CCFFV of the necessity for this proposal as all Codex committees were requested to periodically review the standards under their purviews.

Conclusion

93. CCFFV22 agreed to establish an EWG chaired by Germany and working in English, to review existing standards in order to ensure their alignment with the layout for FFV standards, consider necessary updates, and note need for proposals for possible revisions of standards.

94. The EWGs will submit its report at least three months before CCFFV23.

Development of a standard for fresh curry leaves

95. CCFFV22 noted broad support for the proposal for this new work and further noted that the commodity was traded as fresh and therefore not as spice, and that there was a lack of internationally disaggregate data on its trade volumes. A delegation noted the total absence of data on this proposal made it impossible to evaluate using the Work Priorities-Criteria Applicable to Commodities as required in the PM.

96. Concerning the lack of data on tropical fruits and vegetables, a delegation highlighted that the PM currently includes for the critical review the need to identify the standard setting needs for developing countries to take into account the lack of data by developing countries when submitting proposals for new work for commodities originating from those countries.

Conclusion

97. CCFFV22 agreed to:

   (i) recommend approval of new work on fresh curry leaves by CAC45 (Appendix VI);

   (ii) establish an EWG chaired by India and working in English, to prepare, subject to the approval of the new work, a proposed draft standard for fresh curry leaves for circulation for comments at Step 3 and consideration at CCFFV23; and

   (iii) request the EWG to submit the report at least three months before CCFFV23.

Other matters

98. CCFFV22 agreed to request the Codex Secretariat to issue a Circular Letter requesting proposals for new work for consideration by CCFFV23.

OTHER BUSINESS (Agenda item 8)

99. CCFFV22 noted that there was no other business to discuss.

100. Mr Jesús Cantú Escalante, Head of the Unit of Regulations, Competitiveness and Competition, Ministry of Economy, commended CCFFV22 for successfully concluding its session, noting the importance of the Committee for Mexico.

DATE AND PLACE OF THE NEXT SESSION (Agenda item 9)

101. CCFFV22 was informed that the exact time and venue for CCFFV23 would be determined by the Host Government in consultation with the Codex Secretariat.
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1. **SCOPE**

The purpose of the standard is to define the quality requirements for onions and shallots after preparation and packaging. When it is applied at stages following packaging, onions and shallots may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- 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.

2. **DEFINITION OF PRODUCE**

This standard applies to onion bulbs of varieties grown from *Allium cepa* L. Cepa group and shallot bulbs grown from *Allium cepa* Aggregatum group and grey shallots grown from *Allium oschaninii* O Fedtsch, to be supplied fresh to the consumer. Green onions and green shallots with full leaves as well as onions and shallots intended for industrial processing are excluded.

- Onions and shallots may be of the following shapes: round, oval/elongated, long or demi-long.
- Onions and shallots shall have skin colour characteristics of the variety, including white, purple, cream, pink, red, grey, yellow or brown.

3. **PROVISIONS CONCERNING QUALITY**

3.1 **Minimum Requirements**

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

- whole;
- firm;
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter;
- practically free from pests;
- free from damage caused by pests affecting the flesh;
- free from hollow and/or tough pseudostems;
- free from visible shoot growth;
- free of abnormal external moisture excluding condensation following; removal from cold storage;
- free of any foreign smell and/or taste;
- free from damage caused by low and/or high temperature;
- sufficiently dry for the intended use (in the case of onions for storing, at least the first two outer layers of skins and the pseudostem must be fully dried); and

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1 The provisions for pests apply without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC).

2 See definition of terms for application in the layout for CCFFV.
the pseudostems of onions and shallots must be twisted or clean cut and must not exceed 6 cm in length; except for onions or shallots presented in strings that must be braided with their own stems and tied with string, raffia or any other appropriate material.

3.1.1 Minimum Maturity Requirements

Onions and shallots shall be sufficiently developed and must have reached an appropriate degree of development in accordance with criteria proper to variety and/or commercial type and to the area in which they are grown. They must be firm, not soft or spongy and present outer layers of skin that are dry and papery.

The development and condition of the onions and shallots must be such as to enable them to:

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

3.2 Classification

Onions and shallots may be classified into three classes defined below:

3.2.1 “Extra” Class

Onions and shallots in this class must be of superior quality. They must be characteristic of the variety and/or commercial type. They must be free from defects, 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 the presentation of the package.

For shallots, double or triples or more bulbs are not considered as a defect.

The following slight defects, however, may be allowed:

- a very slight defect in shape;
- very slight defects in colouring;
- very light staining, provided it does not cover more than one fifth of the bulb’s surface;
- for onions, bulbs should be free from splits and/or double centres and more;
- Root tufts shall be allowed:
  - for grey shallots; and
  - For onions and other shallots harvested before complete maturity.

3.2.2 Class I

Onions and shallots in this class must be of good quality and characteristics of the variety and/or the commercial type.

For shallots, double or triples or more bulbs are not considered as a defect.

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

- a slight defect in shape;
- slight defects in colouring;
- superficial cracks in and partial absence of the outer skins, provided the flesh is protected;
- light staining, provided it does not cover more than one third of the bulb’s surface;
- for onions, double and/or three bulbs and more;
- for onions, slight glassiness /translucence not exceeding the outer fleshy ring;
- root tufts shall be allowed:
  - for grey shallots;
  - for onions and other shallots harvested before complete maturity; and
practically free of sprouted onions.

3.2.3 **Class II**

This class includes onions and shallots that do not qualify for inclusion in higher classes but satisfy the minimum requirements specified in section 3.1 above.

For shallots, double or triples or more bulbs are not considered as a defect.

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

- defects in shape;
- defects in colouring;
- slight bruising;
- healed mechanical damage;
- root tufts;
- stains, provided they do not cover more than one half the bulb’s surface;
- cracks in the outer skins and partial absence of the skins on a maximum of one third of the bulb’s surface, provided the flesh is not damaged; and
- for onions, slight glassiness /translucence not exceeding the two outer fleshy ring;
- for onions, double and/or three bulbs and more; and
- practically free of sprouted onions.

4. **PROVISIONS CONCERNING SIZING**

4.1 Onions and shallots may be sized by the maximum diameter of the equatorial section in accordance with existing trade practices. When sized in accordance with existing trade practices, the package must be labelled with the size and method used. The following sizing provisions are a guide and may be used:

(a) **Onions:**

The minimum diameter shall be 10mm.

To ensure uniformity in size, the range in size between onions in the same package shall not exceed:

- 10 mm where the diameter of the smallest onion is 25 mm and over but under 40 mm;
- 20 mm where the diameter of the smallest onion is 40 mm and over but under 70 mm; and
- 30 mm where the diameter of the smallest onion is 70 mm or over.

(b) **Shallots:**

The minimum diameter shall be:

- 10 mm for all shallots.

The maximum diameter shall be:

- 55 mm for round shallots; and
- 60 mm for demi-long and long shallots.

To ensure uniformity in size, the range in size between shallots in the same package shall not exceed:

- 3 mm where the diameter of the smallest bulb is 10 mm and over but under 15 mm;
- 5 mm where the diameter of the smallest bulb is 15 mm and over but under 25 mm;
- 10 mm where the diameter of the smallest bulb is 25 mm and over but under 40 mm; and
- 15 mm where the diameter of the smallest bulb is 40 mm or over.
5. PROVISIONS CONCERNING TOLERANCES

5.1 Quality Tolerances
At all marketing stages, tolerances in respect of quality 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 re-sorted and brought into conformity in accordance with the relevant provisions in the Guideline for Food Import Control System (CXG 47-2003).

5.1.1 “Extra” Class
Five per cent (5.0%), by number or weight, of onions and shallots not satisfying the requirements of the class, but meeting those of Class I is allowed. Within this tolerance there is a 1% for decay, soft rot and/or internal breakdown.

5.1.2 Class I
Ten per cent (10.0%), by number or weight, of onions and shallots not satisfying the requirements of the class, but meeting those of Class II is allowed. Within this tolerance there is 1% for decay, soft rot and/or internal breakdown.
In addition, Four per cent (4.0%), by number or weight, of firm bulbs may present externally visible shoot growth not exceeding 1 cm.

5.1.3 Class II
Ten per cent (10.0%), by number or weight, of onions and shallots satisfying neither the requirements of the class nor the minimum requirements are allowed. Within this tolerance there is 2% for decay, soft rot and/or internal breakdown.
In addition, Ten per cent (10.0%), by number or weight, of firm bulbs may present externally visible shoot growth not exceeding 1.0 cm.

5.2 Size Tolerances
For all classes, (if sized), ten per cent (10.0%) by number or weight of onions and shallots not corresponding to the size indicated on the package.

6. PROVISIONS CONCERNING PRESENTATION

6.1 Uniformity
The contents of each package or lot of produce presented in bulk in the transport vehicle or compartment thereof must be uniform and contain only onions or shallots of the same origin, variety or commercial type, quality and size.
However, a mixture of onions or shallots of distinctly different commercial types and/or colours may be packed together in a consumer package, provided they are uniform in quality and, for each commercial type and/or colour concerned, in origin. However, in case of those mixtures, uniformity in size is not required.
The visible part of the contents of the package or lot for produce presented in bulk must be representative of the entire contents.

6.2 Packaging
Onions and shallots 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.

Onions and shallots may be presented with tops braided or interlaced on strings. Onions and shallots shall be packed in each package in compliance with the appropriate section of the Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CXC 44-1995).

6.2.1 Description of Containers
The containers shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the onions and shallots.
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 Pre-packaged Foods (CXS 1-1985), the following specific provisions apply:

7.1.1 Name of produce

If the produce are not visible from the outside, each package shall be labelled as to the name of the produce ("Onions", "Shallots" as defined in Section 2 Definition of Produce) and may be labelled as to name of the variety and/or commercial type.

7.1.2 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 or commercial types of onions or shallots of different origins, the indication of the country of origin shall appear next to the name of the variety, commercial type and/or colour concerned.

7.2. NON-RETAIL CONTAINERS

The labelling of non-retail containers should be in accordance with the General Standard for the Labelling of Non-Retail Containers of Foods (CXS 346-2021) in addition the following requirements shall apply:

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

7.2.1 Origin of the 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 commercial types and/or colours of onions or shallots of different origins, the indication of each country of origin shall appear next to the name of the commercial types and/or colours concerned.

7.2.2 Commercial Specifications

- Class;
- Variety and/or commercial type (optional);
- Size (if sized) expressed as minimum and maximum diameters or in accordance with the method used.

7.2.3 Official Inspection Mark (optional)

8. FOOD ADDITIVES

No food additives are permitted in onions and shallots.

9. CONTAMINANTS

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

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

10. HYGIENE

10.1 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 (CXC 1-1969), Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

10.2 The produce should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods (CXG 21-1997).

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3 The full or commonly used name should be indicated.
1. **SCOPE**

The purpose of the standard is to define the quality requirements for berries, as defined in section 2, after preparation and packaging. When it is applied at stages following packaging, berry fruits may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- 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 with standard such conformity.

2. **DEFINITION OF PRODUCE**

This Standard applies to berries¹ found in the list below and shall be supplied fresh to the consumer; berries intended for industrial processing are excluded.

<table>
<thead>
<tr>
<th>Common Names</th>
<th>Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Umbu (Spondias tuberosa Arruda ex Koster)</td>
<td>Anacardiaceae</td>
</tr>
<tr>
<td>2. Andean blackberry (Rubus glaucus Benth)</td>
<td></td>
</tr>
<tr>
<td>3. Blackberries (Rubus spp.)</td>
<td></td>
</tr>
<tr>
<td>4. Cloudberrries (Rubus chamaemorus L.)</td>
<td></td>
</tr>
<tr>
<td>5. Cut-leaf blackberry, evergreen blackberry (Rubus laciniatus Wild)</td>
<td>Rosaceae</td>
</tr>
<tr>
<td>6. Loganberries (Rubus loganobaccus L. H. Bailey) and hybrids of these species</td>
<td></td>
</tr>
<tr>
<td>7. Raspberries (Rubus idaeus L.)</td>
<td></td>
</tr>
<tr>
<td>8. Saskatoon berry (Amelanchier Alnifolia (Nutt.) Nutt. ex M.Roem.)</td>
<td></td>
</tr>
<tr>
<td>9. Andean blueberry (Vaccinium meridionale Swartz)</td>
<td></td>
</tr>
<tr>
<td>10. Bilberries (Vaccinium myrtillus L.)</td>
<td></td>
</tr>
<tr>
<td>11. Blueberries (Vaccinium corymbosum L., Vaccinium formosum Andrews, Vaccinium angustifolium Ait., Vaccinium virgatum Ait.)</td>
<td></td>
</tr>
<tr>
<td>12. Cowberries, Lingonberry (Vaccinium vitis idaea L.)</td>
<td>Ericaceae</td>
</tr>
<tr>
<td>13. Cranberries (Vaccinium macrocarpon Ait.)</td>
<td></td>
</tr>
<tr>
<td>14. Pushgay, Mortiño or Colombian blueberry (Vaccinium floribundum Kunth.)</td>
<td></td>
</tr>
<tr>
<td>15. Wild cranberries (Vaccinium oxycoccos L.)</td>
<td></td>
</tr>
<tr>
<td>16. Gooseberries (Ribes uva-crispa L.)</td>
<td>Grossulariaceae</td>
</tr>
<tr>
<td>17. White, red and black currants (Ribes rubrum L., Ribes nigrum L.)</td>
<td></td>
</tr>
</tbody>
</table>

¹ Berries as in the Classification of Animal Feed and Feed, in Volume 2 of the Codex Alimentarius (1993).
18. Acerola or West Indian Cherry (*Malpighia emarginata* DC).

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>20.</td>
<td>Camu, CAMU-CAMU (<em>Myrciaria dubia</em> Mc Vaugh)</td>
</tr>
<tr>
<td>21.</td>
<td>Jaboticaba (<em>Myrciaria cauliflora</em> (Mart.) O. Berg)</td>
</tr>
<tr>
<td>22.</td>
<td>Strawberry-Guava (<em>Psidium cattleyanum</em> Sabine)</td>
</tr>
<tr>
<td>23.</td>
<td>Surinam Cherry (<em>Eugenia uniflora</em> L.)</td>
</tr>
<tr>
<td>24.</td>
<td>Brazil cherry (<em>Eugenia brasiliensis</em> Lam.)</td>
</tr>
<tr>
<td>25.</td>
<td>Goji berries (<em>Lycium barbarum</em> L.)</td>
</tr>
<tr>
<td>26.</td>
<td>Elderberry (<em>Sambucus nigra</em> L.)</td>
</tr>
<tr>
<td>27.</td>
<td>White Mulberry (<em>Morus alba</em> L.),</td>
</tr>
<tr>
<td>29.</td>
<td>Common Barberry (<em>Barberries vulgaris</em> L.)</td>
</tr>
</tbody>
</table>

### PROVISIONS CONCERNING QUALITY

#### 3.1 MINIMUM REQUIREMENTS

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

- Intact/whole;
- fresh in appearance;
- sound; berries, affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter\(^2\);\(^3\);
- practically free from pests\(^4\);
- practically free from damage caused by pests;
- free of abnormal external moisture excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste; including bitter taste in the case of bilberries;
- free of damage caused by low and/or high temperature;
- the peduncle may be missing in non-panicle berries, provided that the rest is clean and the juice does not drip from the breaking point.

The development and condition of the berries after packing must be such as to enable them to:

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

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\(^2\) The loose peduncles among berries that are harvested with them are not considered as foreign matter.

\(^3\) The pruine/natural bloom/fuzz on the surface of the produce of which this is a characteristic is not considered a foreign matter.

\(^4\) The provisions for pests applies without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC).
3.1.1 Minimum Maturity Requirements

The berries must have reached an appropriate degree of development and/or maturity in accordance with the criteria to the species, variety, commercial type and to the area in which they are grown, that allows the proper development of its organoleptic characteristics. The berries must not be over-ripe. Some berry fruits such as gooseberries may be presented as firm ripe.

3.2 CLASSIFICATION

The berries are classified into three classes, if it corresponds to a practice for that variety, defined below:

3.2.1 “Extra” Class

The berries in this class must be of superior quality and they must be characteristic of the variety and/or commercial type of the species or in the case of wild berries characteristic of the species concerned.

- Bilberries and blueberries should be practically free of twins or doubles (agglomerated), and attached stems and must be practically covered with bloom or wax, according to the varietal characteristics.
- Red and white currant panicles must be completely filled.
- Black currant panicles may not be completely filled and single berries are allowed.

They must be free from defects, with the exception of very slight superficial defects, provided these do not affect the general appearance of the produce, the quality, the keeping quality, the pulp or flesh and presentation in the package.

3.2.2 Class I

The berries in this class must be of good quality and characteristics of the variety, and/or commercial type of the species or in the case of wild berries characteristic of the species concerned. Currant (red, white and black) panicles may be less evenly spaced.

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

- very slight defects in shape;
- very slight leakage of juice, depending on the species and variety;
- slight defects in skin and colouring, depending on the species and variety; and
- very slight bruising

3.2.3 Class II

This class includes berries that do not qualify for inclusion in the higher classes (Class I and Extra Class) but satisfy the minimum requirements specified in Section 3.1. Currant (red, white and black) panicles may be less evenly spaced.

The following defects may be allowed, provided the berry fruits retain their essential characteristics as regards the quality, the keeping quality and presentation in the package:

- slight leakage of juice, depending on the species and variety;
- slight defects in shape;
- defects in skin and colouring, depending on the species and variety; and
- slight bruising.

4. PROVISIONS CONCERNING SIZING

Sizing of berry fruits is optional. However, berries may be sized in accordance with existing trade practices. When sized in accordance with existing trade practices the package may be labelled with the size and method used.
5. PROVISIONS CONCERNING TOLERANCES

5.1 QUALITY TOLERANCES

At all marketing stages, tolerances in respect of quality and size (if sized) 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 re-sorted and brought into conformity in accordance with the relevant provisions in the Guidelines for Food Import Control System (CXG 47-2003).

5.1.1 “Extra” Class

Five percent (5.0%) allowed by number or weight, of berries not satisfying the requirements of this class, but meeting those of Class I. Included within this tolerance, is one per cent (1.0%) tolerance for decay, soft rot and/or internal breakdown.

5.1.2 Class I

Ten percent (10.0%) allowed by number or weight, of berries not satisfying the requirements of this class, but meeting those of Class II. Included within this tolerance, is two per cent (2.0%) tolerance for decay, soft rot and/or internal breakdown.

5.1.3 Class II

Ten percent (10.0%) allowed by number or weight, of berries not satisfying the requirements of this class. Included therein within this tolerance, is three per cent (3.0%) tolerance for decay, soft rot and/or internal breakdown.

5.2 SIZE TOLERANCES

For all classes (if sized), a maximum of ten percent by number or weight of berries not satisfying the size indicated is allowed.

6. PROVISIONS CONCERNING PRESENTATION

6.1 UNIFORMITY

The content of each package must be uniform and contain only berries from the same origin, species, variety or commercial type, or in the case of wild berries, species, quality, colour and size (if sized). The visible part of the contents of the package must be representative of the entire contents. Berry fruits in “Extra” Class and Class I must be practically uniform in ripeness.

However, a mixture of berries of distinctly different species and/or varieties may be packed together, as long as they are uniform in quality and each species and/or variety being from the same origin.

6.2 PACKAGING

Berries 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.

Berries shall be packed in each container in compliance with the Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CXC 44-1995).

6.2.1 Description of Containers

The container shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the berries.

Packages must be free of all foreign matter and smell.

7. PROVISIONS CONCERNING MARKING OR LABELLING

7.1 CONSUMER PACKAGES

In addition to the requirement of the General Standard for the Labelling of Pre-packaged Foods (CXS 1-1985), the following specific provisions apply:
7.1.1 Name of Produce
Each package shall be labelled as to the name of the produce, and may be labelled as to name of the variety and/or commercial type.

Each package may be labelled “Mixture of berry fruits”, in the case of a mixture of distinctly different species and/or varieties of berry fruits. The species and/or varieties in the package must be indicated. “Wild” or equivalent denomination may be included, where appropriate.

7.1.2 Origin of Produce
Each package must include country of origin and, optionally, district where grown or national, regional or local place name.

In the case of a mixture of distinctly different species and/or varieties of berries of different origins for each species and variety, the indication of each country of origin shall appear next to the name of the species or variety concerned.

7.2 NON-RETAIL CONTAINERS
The labelling of non-retail containers should be in accordance with the General Standard for the Labelling of Non-Retail Containers of Foods (CXS 346-2021) in addition the following requirements shall apply:

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

7.2.1 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 species and/or varieties of berries of the berries of different origins, the indication of each country of origin shall appear next to the name of the species and/or variety concerned.

7.2.2 Commercial Specifications
- Class;
- Variety and/or commercial type; “wild” or equivalent denomination, where appropriate;
- Weight or size (if sized);
- Net weight (optional)
- Crop year (optional);

8. FOOD ADDITIVES
No food additives are permitted in berry fruits.

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

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

10. HYGIENE
10.1 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 (CXC 1-1969), Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

10.2 The produce should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods (CXG 21-1997).

5 The full or a commonly used name should be indicated.
1. **SCOPE**

The purpose of the standard is to define the quality requirements for fresh dates after preparation and packaging. When it is applied at stages following packaging, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- a slight deterioration due to their development and 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.

2. **DEFINITION OF PRODUCE**

This Standard applies to commercial varieties, cultivars or other commercial types of fresh dates (*Phoenix dactylifera* L. from Arecaceae family), to be supplied fresh and whole fruit to the consumer in unpitted form after preparation and packaging. Fresh dates shall not have undergone any intentional or artificial process to adjust the moisture content. Fresh dates intended for industrial purposes 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 fresh dates shall be:

- intact;
- sound; produce affected by rotting or deterioration, which makes it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter;
- free from living pests¹, and their debris or excreta;
- practically free of damage caused by pests;
- free from mould filaments visible to the naked eye
- free of undeveloped and deformed fruits, as indicated by stunted growth, immature characteristics and naturally absence of pit;
- free of blemishes, scars, discoloration, sunburnt and black nose affecting an area more than 7mm of the fruit surface;
- free of external moisture excluding condensation following removal from cold storage; and
- free of foreign smell and/or taste.

The development and condition of the fresh dates shall be such as to enable them to:

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

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¹Provisions 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).
3.1.1 Minimum maturity requirements

Fresh Date shall have reached an appropriate degree of development and/or maturity in accordance with criteria proper to the variety, cultivar or other commercial type, to the time of harvesting and area in which they are grown.

Fresh dates shall have a moisture content, in accordance with criteria to the variety and stage of harvest/or commercial type and the area in which they are grown. Moisture content of fresh dates ranges from 30-85%.

3.2 CLASSIFICATION

Classification of fresh dates is optional. When classified, the classification is done in accordance with Section 5 – Provisions concerning Tolerances, fresh dates are classified into the following classes.

- “Extra” Class, Class I and Class II.

4. PROVISIONS CONCERNING SIZING

Fresh dates may be sized by count or weight of the fruit or in accordance with existing trading practices. When sized in accordance with existing trade practice, the package shall be labelled with the count or size and method used. The following table may be used on an optional basis.

A. When sized by count, size is determined by the number of individual fresh date per package.

<table>
<thead>
<tr>
<th>Size</th>
<th>Number of fresh dates per 500gram</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Extra Large)</td>
<td>≤45</td>
</tr>
<tr>
<td>B (Large)</td>
<td>46-70</td>
</tr>
<tr>
<td>C (Medium)</td>
<td>71-100</td>
</tr>
<tr>
<td>D (Small)</td>
<td>&gt;100</td>
</tr>
</tbody>
</table>

B. When sized by weight, size is determined based on the individual weight of the fruit as mentioned below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Weight of individual fruit in the package (gram)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Extra Large)</td>
<td>&gt;11</td>
</tr>
<tr>
<td>B (Large)</td>
<td>&gt;7-11</td>
</tr>
<tr>
<td>C (Medium)</td>
<td>&gt;5-7</td>
</tr>
<tr>
<td>D (Small)</td>
<td>≤5</td>
</tr>
</tbody>
</table>

5. PROVISIONS CONCERNING TOLERANCES

5.1 QUALITY TOLERANCES

At all marketing stages, tolerances in respect of quality 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 re-sorted and brought into conformity in accordance with the relevant provisions in the Guidelines for Food Import Control System (CXG 47-2003).
<table>
<thead>
<tr>
<th>S. No.</th>
<th>Quality Tolerance</th>
<th>Tolerances allowed percentage of defective produce by count or weight (Not more than)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Extra Class</td>
</tr>
<tr>
<td>1.</td>
<td><strong>Total Tolerance</strong> not satisfying the quality requirement of which no more than, i.e. individual tolerance</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Individual Tolerance</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Undeveloped</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>- Damage by pest</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>- Blemished/discoloured</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>- Sour/decayed/mouldy</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>- Living pest</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Additional tolerance</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) Size Tolerances-off size from what is indicated/marked</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(b) Produce belonging to other similar varieties than marked</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>(c) Loose dates among dates with stems or clusters</td>
<td>10</td>
</tr>
</tbody>
</table>

*When fresh dates are traded as unclassified, the minimum tolerance requirements for Class II shall apply.

6. PROVISIONS CONCERNING PRESENTATION

6.1 UNIFORMITY

The contents of each package shall be uniform and contain only fresh dates of the same origin, variety or commercial type, stage of ripeness, quality (if indicated) and size (if sized). The visible part of the contents of the package shall be representative of the entire contents.

Fresh dates may be presented:

- in clusters (consisting mainly of the rachis and the stems to which the fruit is attached naturally);
- in stems (stems which are separated from the rachis and to which the fruit is attached naturally); and
- Separated in individual fruit, arranged in layers, or loose in the package.

Stems presented in clusters or separated from the rachis shall be at least 10cm in length and carry an average of four–six fruits per 10 cm of length.

6.2 PACKAGING

Fresh dates shall be packed in such a way so as to protect the produce properly. The materials used inside the package shall 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.

Fresh dates 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 (CXC 44-1995).

6.2.1 Description of containers

The containers shall meet the quality, hygiene, ventilations and resistance characteristics to ensure suitable handling, shipping and preserving of the fresh dates. Packages shall 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 Pre-packaged Foods* (CXS 1-1985), the following specific provisions apply:

7.1.1 Name of produce
Each package shall be labelled as fresh dates and may be labelled as to the name of the variety, cultivar and/or commercial type.

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

7.2 NON-RETAIL CONTAINERS
The labelling of non-retail containers should be in accordance with the *General Standard for the Labelling of Non-Retail Containers of Foods* (CXS 346-2021), in addition the following requirements shall apply:

7.2.1 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 species and/or varieties of fresh dates of different origins, the indication of each country of origin shall appear next to the name of the species and/or variety concerned.

7.2.2 Commercial Specifications
- Class (optional);
- Variety and/or commercial type;
- Weight or size (if sized) in accordance with the method applied.

8. FOOD ADDITIVES
No food additives are permitted in fresh dates.

9. CONTAMINANTS
9.1 The produce covered by this Standard shall comply with the maximum levels of the *General Standard for Contaminants and Toxins in Food and Feed* (CXS193-1995).

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

10. HYGIENE
10.1 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* (CXC 1-1969), *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CXC 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

10.2 The produce should comply with any microbiological criteria established in accordance with the *Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods* (CXG21-1997).

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2 The full or commonly used name should be indicated.
PROPOSED AMENDMENT TO THE STANDARD FOR BANANAS (CXS 205-1997)
(For adoption)

Text to be removed is indicated in bold/strikethrough.

1. DEFINITION OF PRODUCE

This Standard applies to commercial varieties of bananas grown from Musa spp. (AAA), of the Musaceae family, in the green state, to be supplied fresh to the consumer, after preparation and packaging. Bananas intended for cooking only (plantains) or for industrial processing are excluded. Varieties covered by this Standard are included in the Annex. Amendment
PROJECT DOCUMENT

PROPOSAL FOR NEW WORK ON DEVELOPMENT OF A STANDARD FOR FRESH CURRY LEAVES

(For approval)

1. Purpose and scope

The Purpose of the standard is to consider essential quality characteristics of fresh curry leaves to facilitate international trade. The scope of the work is to establish a worldwide standard for fresh curry leaves obtained from varieties (cultivars) of Murraya koenigii (L.) Sprengel of Rutaceae family, which must be supplied fresh to the consumer after proper cleaning and packaging. It does not apply to other forms of curry leaves such as dehydrated, powdered, and dried products.

2. Relevance and timelines

Fresh curry leaves is used in vegetable cooking for its aromatic values. Curry leaves can be easily produced under arid and semi-arid. It is a perennial crop. Fresh curry leaves (dark green colour) is harvested for consumption and trade.

Due to non availability of standard for fresh curry leaves and impediments in international trade, it is necessary to establish a standard covering the safety, quality and labelling requirements in order to have a reference that has been internationally agreed by consensus between the main producing and trading countries. The Codex Standard for fresh curry leaves will help to protect consumers' health and to promote fair trade practices in accordance with the different international agreements.

3. Main aspects to be covered

The standard will include characteristics relating to the freshness, leaf size, quality, contaminants and residues of agro chemicals, labelling and packaging. The most relevant items, which may be considered, are related to:

a) Establish the minimum requirements of fresh curry leaves, which shall be complied with, independently from the quality class.

b) Define the quality to classify fresh curry leaves in accordance with its characteristics.

c) Establish the tolerance as regards quality and size that may be permitted in fresh curry leaves contained in a package.

d) Include the provisions relating to uniformity of the packaged product and the package used.

e) Include provisions for the labelling and marking in accordance with the General Standard for the Labelling of Pre-packaged Foods.

f) Include provisions for contaminants with reference to the General Standard for Contaminants and Toxins in Food and Feed.

g) Include provisions for hygiene and handling with reference to the General Principles of Food Hygiene and other relevant codes of hygiene practice.

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

General criterion:

Fresh curry leaves is grown and traded round the year and used in vegetable curry for enhancing aroma. Trading of fresh curry leaves is done according to its quality such as freshness, colour, texture, size and shape of the leaves. Developing an international standard for fresh curry leaves will protect consumers from fraudulent practices while facilitating international trade. India is in process of notification of fresh curry leave standard for the benefit of domestic and international consumers and the major producing/exporting countries.

Criteria applicable to commodity:

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

The volume of production, consumption and trade of each country for fresh curry leaves is not available. The produce, however, is used in cooking vegetable curries. The main producer and exporting countries are India, Sri Lanka, Bangladesh, etc. There has been considerable export of fresh curry leaves from India to Middle Eastern countries and European Community. Curry leaves are exported in fresh form, generally air lifted as assorted vegetable consignment packed in CFB boxes.
The FAOSTAT and any other international organization do not compile production and trade data for fresh curry leaves as it is traded as assorted vegetables. Trade data is not compiled separately for fresh curry leaves by the exporting and importing countries. It is estimated to be 5 million USD trade during the year 2014-15 and 2015-16. Due to restrictions put by the major importing countries the exports of fresh curry leaves has stopped. India has started compiling production and trade data for fresh curry leaves.

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

India has developed grading and marking standards for fresh curry leaves and these standards are being notified. The fresh curry leave standard has been developed specifically considering the food safety compliance requirements of importing countries such as Middle East and EU countries.

(c) International or regional market potential

There is a great potential of international trade of fresh curry leaves. However, due to food safety concerns and unavailability of harmonized standards the trade of fresh curry leaves has come to a standstill.

(d) Amenability of the commodity to standardization

Taking into account that technical information is available and certain degree of harmonization at regional/international levels has already been initiated on certain aspects relevant to consumer’s protection and trade facilitation complementary work to come up with an inclusive standard on this worldwide traded produce should be amenable.

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

There is no commodity standard covering fresh curry leaves. Therefore, the new work will enhance consumer protection and facilitate trade by establishing an internationally agreed quality standard covering minimum requirements, freshness, colour, shape, uniformity, packaging and other relevant quality requirements.

(f) Number of commodities, which would need separate standards

A single standard for fresh curry leaves will cover all varieties traded worldwide.

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

None, this new work will consider in formulating the Codex Standard.

5. Relevance to the Codex strategic objectives

The elaboration of a Codex Standard for fresh curry leaves 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 by protecting the health of the consumers. This proposal is relevant to Codex Strategic Plan 2020-2025, Goal 1 (Objective 1.1 & 1.2).

The new work will contribute to state the minimum quality requirements for fresh curry leaves for human consumption, different categories based on quality parameters and size 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

This is proposed as a new global standard and has no relation to any other existing Codex text on this item, except that the standard will make references to relevant safety standards and related texts developed by general subject committees.

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

There is no need of technical input from external bodies.

9. Proposed timeline for completion of the new work

Development of the standard would be expected to take three sessions of CCFFV or less, depending upon relevant inputs and agreement from Members.
THE PROPOSED LAYOUT FOR STANDARDS FOR FRESH FRUITS AND VEGETABLES

Standard for {name of produce}

CODEX STAN {number of the Standard} {year of the first adoption}

INTRODUCTION

- This Layout is for use by the Codex Committee on Fresh Fruits and Vegetables (CCFFV).
- The Standard Layout must be followed when developing new or revising existing Codex/FFV Standards. However, it is permissible to use other appropriate texts in the Standard Layout to reflect individual FFV characteristics and current trade practices.

In the text the following conventions are used:

- {name of produce} must be replaced by the common name of the produce to be covered by the standard.
- {text}: For text which explains the use of the Standard Layout. This text does not appear in the standards.
- <text>: For optional texts or text for which several alternatives exist, depending on the products. Depending on the nature of produce the provision(s) in brackets may be removed as not applicable/necessary.

1. SCOPE

The purpose of the standard is to define the quality requirements for {name of produce} after preparation and packaging. When it is applied at stages following packaging, products may show in relation to the requirements of the standard:

- a slight lack of freshness and turgidity;
- 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.

2. DEFINITION OF PRODUCE

This Standard applies to <part of the produce being standardized of> commercial varieties1 (cultivars) of {name(s) of produce} grown from {Latin botanical reference}2 from the {Latin botanical reference}2 family to be supplied fresh to the consumer < (Name of produce) for industrial processing is/are excluded.>.

(The Latin botanical reference is given in accordance with the International Code of Botanical Nomenclature)

{Additional provisions concerning the definition of the produce may be included under is heading.}

3. PROVISIONS CONCERNING QUALITY

3.1 MINIMUM REQUIREMENTS

In all classes, subject to the special provisions for each class and the tolerances allowed, the {name of produce} must be display the following characteristics, deviations from which shall be observed by the naked eye or corrected 20/20 vision3 when appropriate:

- intact {depending on the nature of the produce, a deviation from the provision or additional provisions are allowed};
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- firm;
- clean, practically free of any visible foreign matter;

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1 Varieties suitable for trade
2 All information on botanical names is taken from the GRIN database (www.ars-grin.gov) or Mansfeld’s World Database of Agricultural and Horticultural Crops (http://mansfeld.ipk-gatersleben.de/apex/f?p=185:3:0) or any other suitable database.
3 Loupe, binocular or other magnifying equipment should not be used when assessing defects.
- practically free from pests\(^4\);
- <practically free of damage caused by pests (For fresh fruits and vegetables with edible skin)>\(\Rightarrow\) [or];
- <free of damage caused by pests affecting the flesh (For fresh fruits and vegetables with inedible skins or skins that are peeled off prior to consumption)>\(\Rightarrow\);
- free of abnormal external moisture excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- fresh in appearance;
- free of damage caused by low and/or high temperature;
- (Additional provisions may be made for specific standards, depending on the nature of the produce).
- The development and condition of the {name of produce} must be such as to enable them:
  - To withstand transportation and handling; and
  - To arrive in satisfactory condition at the place of destination.

### 3.1.1 Minimum Maturity Requirements

The {name of produce} must have reached an appropriate degree of development and/or maturity in accordance with criteria proper to the variety <and/or commercial type>, to the time of harvesting/picking/etc.>, and to the area in which they are grown.

The {name of produce} must display sufficient development for the intended purpose in accordance with criteria appropriate to the variety and to the area in which they are grown {for non-climacteric fruit}.

The development and state of maturity of {name of produce} must be such as to enable them to continue their ripening process and to reach the degree of ripeness required in relation to the varietal characteristics <and the growing area> {for climacteric fruit}.

<The {name of produce} must be sufficiently developed and comply such in relation to the varietal characteristics <and the growing area>>.

### 3.2 CLASSIFICATION\(^5\)

The {name of produce} are/is classified into three classes defined below:

#### 3.2.1 “Extra” Class

{Name of produce} in this class must be of superior quality. They must be characteristic of the variety <and/or commercial type>. They must be free from defects, 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.

<They must be:

………………………………………………………………………………………………
………………………………………………………………………………………………
……………………………………………………………………………………………….>

(Add additional Provisions/defects allowed, depending on the nature of the produce.)

#### 3.2.2 Class I

{Name of produce} in this class must be of good quality. They must be characteristic of the variety <and/or commercial type>.

<They must be:

………………………………………………………………………………………………
………………………………………………………………………………………………
……………………………………………………………………………………………….>

\(^4\) The provision for pests applies without prejudice to the applicable plant protection rules applied by governments in line with the International Plant Protection Convention (IPPC).

\(^5\) See Annex I for Alternative format
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:

- a slight defect in shape;
- slight defects in colouring;
- slight skin defects;

The defects must not, in any case, affect the flesh/pulp/etc. of the fruit/produce/etc. or name of produce.

3.2.3 Class II

This class includes {name of produce} that do not qualify for inclusion in the higher classes but satisfy the minimum requirements specified in Section 3.1 above.

They must be:

The flesh must be free from major defects.

4. PROVISIONS CONCERNING SIZING

(Sizing should not be a factor in classification unless there is a direct correlation between size and sufficient development and market acceptance.)

{Name of produce} may be sized by <diameter, count, length or weight>; <or in accordance with existing trade practices. When sized in accordance with existing trade practices, the package must be labelled with the size and method used.>

A. When sized by count, size is determined by the number of individual fruits per package< in accordance with the following table>. <The following table is a guide and may be used on an optional basis.>

B. When sized by length, size is determined by the length of the longitudinal axis <excluding the peduncle>.

C. When sized by diameter, size is determined by either the maximum diameter of the equatorial section of each fruit or a diameter range per package <in accordance with the following table>. <The following table is a guide and may be used on an optional basis.>

D. When sized by weight, size is determined based on the individual weight of each fruit or a weight range per package. <in accordance with the following table>. <The following table is a guide and may be used on an optional basis.>

E. The minimum size shall be {should be only defined in cases to guarantee sufficient development}
{In case when minimum sizes are established the size requirements might not apply to miniature produce: In case of introduction of the exemption for miniature produce, it should be checked whether other provisions on maturity and/or ripeness sufficiently developed are already in the standard or should be introduced, to guarantee the adequate development of miniature produce.}

<The size requirements shall not apply to miniature produce. Miniature produce means produce obtained from a variety or cultivar of vegetable, obtained by plant breeding and/or special cultivation techniques. These produce though smaller in size than the minimum size requirement in the standard when applicable), however, they must meet all other requirements of the standard.>

A) <There is no sizing requirement for {name of produce, variety, commercial type or class depending on the nature of produce}.>

<To ensure uniformity in size, the range in size between produce in the same package shall not exceed …>

a) For fruit sized by diameter: x mm.
b) For fruit sized by weight: x grams.
c) For fruit sized by count: the difference in size should be consistent with the difference indicated in point (a).
d) In case size codes are applied, the codes and ranges in the following table have to be respected.

(When tables and size codes are used to define uniformity in size, the size codes should be arranged in descending order … example to be included)

<There is no sizing uniformity requirement for Class II.>

{Provisions can be added on minimum and maximum sizes and size range, depending on the nature of produce, the variety, the commercial type and possibly the individual classes}.

5. PROVISIONS CONCERNING TOLERANCES

5.1 QUALITY 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 relevant provisions in the Guidelines for Food Import Control System (CXG 47-2003).

{The tolerances for decay may be established depending on the characteristics/ nature of produce and current trade practices.}

5.1.1 “Extra” Class

Five percent 5.0%, by number or weight, of {name of produce} not satisfying the requirements of the class, but meeting those of Class I. <Included therein, is one percent [0.5%; 0.75%; 1%; 0.5 - 1%; either 0.5% or up to 1%]; tolerance for decay, soft rot and/or internal breakdown.>

{Add possible tolerances for individual defects, depending on the nature of the produce.}

5.1.2 Class I

Ten percent, 10.0% by number or weight, of {name of produce} not satisfying the requirements of the class but meeting those of Class II. Included therein, is one percent tolerance for decay, soft rot and/or internal breakdown.

{Add possible tolerances for individual defects, depending on the nature of the produce.}

5.1.3 Class II

Ten percent, 10.0% by number or weight, of {name of produce} not satisfying the requirements of the class. Included therein, is two percent tolerance for decay, soft rot and/or internal breakdown.

{Add possible tolerances for individual defects, depending on the nature of the produce.}

{The percentages for decay shall be adapted to the characteristics of the produce.}

5.2 SIZE TOLERANCES

For all classes if sized: Ten percent 10.0% by number or weight of {name of produce} not satisfying the requirements as regards to sizing.
6. PROVISIONS CONCERNING PRESENTATION

6.1 UNIFORMITY

The contents of each package (or lot for produce presented in bulk in the transport vehicle) must be uniform and contain only {name of produce} of the same origin, quality and size (if sized).

<However, a mixture of {name of produce} of distinctly different <species> <varieties> <commercial types> <colours> may be packed together in a <package> <sales package>, provided they are uniform in quality and, for each <species> <variety> <commercial type> <colour> concerned, in origin.>

{It is recommended, not to require uniformity in size for this type of mixtures.}

{In addition, for individual standards, uniformity concerning variety and/or commercial type may be laid down, depending on the nature of the produce.}

{If specific requirements, including net weight limits of sales packages, are needed, they can be added within the context of individual standards.}

{Other possible provisions, depending on the nature of the produce.}

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

6.2 PACKAGING

{Name of produce} 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.

<Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue nor lead to skin defects.>

{Name of produce} shall be packed in each container in compliance with the Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CAC/RCP 44-1995).

6.2.1 Description of Containers

The container shall meet the quality, hygiene, ventilation and resistance characteristics to ensure suitable handling, shipping and preserving of the {name of produce}.

Packages (or lots for produce presented in bulk) must be free of all foreign matter and smell.

7. PROVISIONS CONCERNING MARKING OR LABELLING

7.1 CONSUMER PACKAGES

In addition to the requirement of the General Standard for the Labelling of Pre-packaged Foods (CXS 1-1985), the following specific provisions apply:

7.1.1 Name of Produce

Each shall be labelled as to the name of the produce and may be labelled as to name of the variety <and/or commercial type>.

7.1.2 Origin of Produce

Country of origin6 and optionally, district where grown, or national, regional or local place name.

<In the case of a mixture of distinctly different varieties <species> of {name of produce} of different origins, the indication of each country of origin shall appear next to the name of the variety <species> concerned.>

7.2 NON-RETAIL CONTAINERS

The labelling of non-retail containers should be in accordance with the General Standard for the Labelling of Non-Retail Containers of Foods (CXS 346-2021). In addition, the following specific requirements shall apply:

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside.

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6 The full or a commonly used name should be indicated.
7.2.1 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 produce of different origins, the indication of each country of origin shall appear next to the name of the variety concerned.>

7.2.2 Commercial Specifications
- Class;
- Size < (if sized)>
(Add other possible particulars, depending on the nature of the produce).

7.2.3 Official control mark (optional)

8. FOOD ADDITIVES
<No food additives are permitted in these products.>
<For untreated {name of produce}, food additives listed in Tables 1 and 2 of the General Standard for Food Additives (CODEX STAN 192-1995) in Food Category 04.2.1.1 (Untreated fresh vegetables (including mushrooms and fungi, roots and tubers, pulses and legumes (including soybeans), and aloe vera), seaweeds, and nuts and seeds) are acceptable for use in foods conforming to this standard.>
(For untreated fruits, as currently no food additives are permitted according to the GSFA. Therefore, only untreated vegetables are mentioned as above.)
<For treated {name of produce} Food additives listed in Tables 1 and 2 of the General Standard for Food Additives (CODEX STAN 192-1995) in Food Categories 04.1.1.2 (Surface-treated fresh fruit) or 04.2.1.2 (Surface-treated fresh vegetables, (including mushrooms and fungi, roots and tubers, pulses and legumes, and aloe vera), seaweeds, and nuts and seeds) are acceptable for use in foods conforming to this Standard.>
(Include the appropriate provisions, depending on the nature of the produce).

9. CONTAMINANTS
9.1 The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.
9.2 The produce covered by this Standard shall comply with the maximum levels of the General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995).

10 HYGIENE
10.1 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 (CXC 1-1969), Code of Hygienic Practice for Fresh Fruits and Vegetables (CXC 53-2003), and other relevant Codex texts such as codes of hygienic practice and codes of practice.
10.2 The produce should comply with any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria related to Foods (CXG 21-1997).

11 METHODS OF ANALYSIS AND SAMPLING
(Methods of analysis to be included as appropriate / necessary).

\* The full or a commonly used name should be indicated.
The following is alternate method of arranging Section 3 on Classification and Section 5 on Tolerances in FFV standards. Within this format the text indicating the tolerances/requirements for each FFV class is not used. It also allows the indication of specific defects and their individual tolerance limits.

Within the table all the defects in Part (a) are tabulated against the indicated total tolerance. Also, a single defect except Decay, Soft Rot and Internal Breakdown can use the total tolerance. Since Decay, Soft Rot and Internal Breakdown is considered as the most serious defect, it is limited by the indicated.

3.1 CLASSIFICATION

In accordance with <sizing requirements in Section 4 – Provision concerning Sizing (when applicable) and> Section 5 – Provisions concerning Tolerances, (name of produce) are classified into the following class(es).

“Extra” Class, Class I and Class II

5.1 QUALITY 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 System (CAC/GL 47-2003) paragraphs 9, 10 and 27.

{The tolerances for decay may be established depending on the characteristics/ nature of produce and current trade practices.}

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

<table>
<thead>
<tr>
<th>Quality Tolerances</th>
<th>Tolerances allowed percentage of defective produce by count or weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extra Class</td>
</tr>
<tr>
<td>(a) Total Tolerance</td>
<td></td>
</tr>
<tr>
<td>(name of produce) not satisfying the quality requirements</td>
<td>5</td>
</tr>
<tr>
<td>of which no more than {examples given below} Condition (Progressive) Defects</td>
<td></td>
</tr>
<tr>
<td>Shriveling</td>
<td>Unhealed bruises</td>
</tr>
<tr>
<td>Misshapen</td>
<td>Immature/not sufficiently developed [Decay, soft rot, internal breakdown</td>
</tr>
<tr>
<td>(b) Size Tolerances- off size from what is indicated/marketed</td>
<td>10</td>
</tr>
<tr>
<td>(c) Produce belonging to other similar varieties than marked</td>
<td></td>
</tr>
</tbody>
</table>
DEFINITION OF TERMS FOR APPLICATION IN THE LAYOUT 
FOR CODEX STANDARDS FOR FRESH FRUITS AND VEGETABLES

Introduction: This document defines the terms used in the Codex Committee on Fresh Fruits and Vegetables (CCFFV) standard layout as well as to facilitate the implementation and uniform interpretation of the provisions within CCFFV standards. It is written in the sequence of the CCFFV Standard Layout to facilitate faster referencing and ease of application.

PART 1: DEFINITION OF TERMS USED IN CCFFV STANDARDS

The Terms and Definitions in this section, follows the sequence of the CCFFV Standards.

1. SCOPE: This indicates the general name of the fresh fruit and vegetables (FFV) being standardized and the point of application of the standard along the food chain.

Fresh Fruit and Vegetable\(^1\): Fruits and vegetables whose physical and textural characteristics have not been changed or processed in any manner including by salting, freezing, cooking, juicing, sugaring, hydrating, smoking dehydrating or drying. They may undergo post-harvest practices to maintain freshness, shelf life and to facilitate transportation, storage and handling without affecting their raw nature as when harvested.

Fresh: this word has different meanings depending how and where it is used in the standard. The most commons meanings are:

- Recently harvested, not preserved by any means and in a state of vigour.
- Not dull, stale, wilted or faded.

Fruit: The seed-bearing structure developed from the ovary and surrounding tissue of a flowering plant. In some plants it is the edible part, the mesocarp (flesh or pulp layer) located between the exocarp (peel/skin) and the endocarp (the seed/s). Fruits are divided into the following two groups.

Climacteric fruits: Fruits having a ripening process that is accompanied by increased production of ethylene due to the increase of respiration rate and continue ripening after harvest. Climacteric fruits intended to be eaten when ripe should be harvested at [the stage of physiological maturity appropriate stage of maturity] that facilitates the ripening process accompanied by the fruit’s normal taste and odour.

Non-climacteric fruits: Fruits having a ripening process that is not accompanied by increased respiration rate and are unable to continue ripening after harvest. Non-climacteric fruits intended to be eaten when ripe should be harvested at its maximum maturity or early ripe stages.

Vegetable: The edible non-fruit portions of plants including bulbs, flowers, leaves, roots, corn, stems, tubers, rhizomes, sprouts as well as fruiting vegetables from some annual plants such as cucumbers, sweet peppers, tomatoes, and mushrooms.

Point of Application: The physical locations where the standard is applied; namely – shipping point, en-route and destination.

- Shipping Point: Physical location from where the FFV is shipped into the trade channel, it can be a field, packhouse or warehouse/storage.
- En-route: Any point in-transit i.e., between the shipping point and the final destination of the FFV (both are indicated on the shipping documents).

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\(^1\) In some cases, the definition of fruit and vegetable is based on their traditional use versus botanical nomenclature. E.g., watermelon and cantaloupe are considered as fruits while cucumbers and pumpkins are considered as vegetables; tomato is a fruit but is traditionally considered as a vegetable. Therefore, consideration should also be given to each product’s traditional use and not solely botanical definition/nomenclature.
• **Destination**: The final point of arrival of the product (indicated on the shipping documents) usually for international FFV trade, this is the foreign port of arrival or importer’s warehouse depending on trade agreement.

2. **DEFINITION OF PRODUCE**: This section of the standard identifies the family, species, sub-species/varieties and/or cultivars and – where necessary the part of the plant being standardized.

**Species**: A group of closely related organisms that are similar capable of interbreeding and reproducing fertile offspring. Wherever the term “species” is mentioned in the standard it refers to the species listed in Section I Definition of Produce.

**Variety**: Taxon that has been selected for a particular attribute or combination of attributes, and is clearly distinct, uniform, and stable in its characteristics and when propagated by appropriate means, retains those characteristics. In some cases, the term “cultivar” (cultivated varieties) is equivalent to “variety” which is a single botanic taxon of the lowest known rank. Varieties are recognized for their unique characteristics by authorities for variety protection. They may have been derived by mutation or hybridization.

**Cultivar**: Cultivated varieties

**Hybrids**: FFV produced by crossing two species, varieties or cultivars or developed from a series of crosses between such parents. Hybrids between species are called interspecific hybrids.

**Mutant**: An organism or individual differing from the parental strain/s due to a genetic alteration

**Commercial Type**: Produce with similar technical characteristics and/or appearance, but which may belong to different varieties.

**Industrial Processing**: The process of transforming the physical, organoleptic and textural characteristics of raw FFV into a new product through chemical, biological or physical means. Industrial processing of FFV include juice extraction, pulp/puree creation, canning, preserving, freezing or drying/dehydrating. However, trimming, peeling, cutting, washing, grading, sorting and packaging are part of FFV preparation for marketing and are not considered processing.

3. **PROVISIONS CONCERNING QUALITY

3.1 MINIMUM REQUIREMENTS

Minimum Requirements are the lowest organoleptic prerequisites that FFV must meet to be traded, thereby meeting consumer performance expectations and food safety criteria. These requirements change based on individual FFV physiological characteristics, trade practices and food safety concerns. Deviations/exceptions from these prerequisites are permissible and are referred to as an “allowance”, and collectively as “Tolerances for defects allowed”.

**Intact/whole**: The fruit or vegetable as it was harvested having no physical parts/pieces missing. However, depending on the characteristics of the FFV (roots, rhizomes and tubers such as yams, ginger, taro) may be trimmed and still be considered as whole/intact.

**Sound**: The fruit or vegetable is free from physical injury, decay, and the presence of live or dead insects including insect, eggs and larvae affecting its appearance, eating and/or keeping quality and market value.

**Clean**: Free from visible extraneous and foreign objectionable matter on the FFV surface, including soil, dirt and residues of agricultural production inputs, evident to the naked eye or with adjusted corrected vision lenses. Permissible post-harvest treatments such as waxes, shredded paper used for cushioning and other wrapping materials are allowed, their minute particles are not considered as making the product unclean.

**Extraneous Matter**: Vegetal matter associated with the part of the plant the FFV was harvested from. Extraneous matter in fruits are leaves, twigs and loose stems/ peduncles.

**Foreign Matter**: Vegetal and non-vegetal matter not associated with the part of the plant the FFV was harvested from. It also includes stones, sticks, bark, soil, metal, plastic, debris and glass.

**Firm**: The textural level of turgidity/compactness in the part of the plant being traded, with flesh that is acceptable as part of the FFV characteristics. Firmness is interpreted differently based on the section in which it appears and the innate physical characteristics of the FFV being standardized.
**Fresh in appearance:** The FFV having its original external skin and condition (physical and textural characteristics) or as close as possible to when harvested. Portraying the desired unimpaired quality except in some fruits, a change of colour that may occur due to the ripening process.

**Pests:** Any animal or micro-organisms species, strain or bio type whose presence or actions are detrimental to FFV quality, keeping quality/storage and/or safety.

**Pest Damage:** Physical injury to FFV skin and/or flesh caused by any animal or micro-organisms species, strain or bio type feeding/gnawing, living on or in it including current or past presence of pests at any stage of their development, along with their nest/frass, excreta or dead pest fragments).

**Foreign smell and/or taste:** Smell or taste not associated with natural FFV due to inappropriate post-harvest practices/conditions and transportation. In such cases the FFV absorbs the foreign smell and/or taste.

**Damage caused by low and/or high temperatures:** This includes damage caused to the FFV before or after harvesting due to exposure to non-product specific temperatures and/or extreme temperatures such as frost or heat. Damages may appear as freezer burn, frozen flesh, certain types of sunburn, chilling injury, sunscald, frostbitten and freezing. Common damages caused by low and/or high temperatures are:

- **Sunburn:** Discoloration of the FFV’s surface due to direct exposure to sun’s rays. Depending on the FFV, the affected area may be thickened, tough or leathery with underlying discoloured flesh.
- **Sunscald:** Discoloration of the FFV’s surface due to direct and intense exposure to sun’s rays. Depending on the FFV, the affected area may appear whitish grey, dry paper-like, blistered and/or flattened. The underlying flesh may be dry and discoloured.
- **Frostbitten:** Damage to the FFV resulting from freezing temperatures (below 0°C or 32°F) in the field before harvest. This may manifest as the following defects in the FFV- skin discoloration, soft or flabby tissue, external and/or internal flesh darkening.
- **Chilling Injury:** Damage to the FFV resulting from non-ambient low temperatures during post-harvest transportation and storage.
- **Freezing/Frozen:** the FFV is completely or partly frozen and in some cases accompanied by a translucent appearance.

**Abnormal external moisture:** Moisture from sources not associated with condensation after refrigerated storage and/or transportation.

**Defects:** These are classified as progressive and non-progressive defects in the FFV resulting from deterioration, physical injury and/or physiological factors affecting the appearance or market quality of the produce.

- **Progressive/Condition defects:** Defects having impact on the FFV that worsen over time such as unhealed bruises, skin breaks, decay, mould. Such defects will eventually result in the FFV losing its utility. These factors vary depending on the specific characteristics of each FFV.
- **Non-progressive/Quality defects:** These are defects that do not worsen overtime, such as misshapen, healed cuts, undersize, immaturity, russets, some skin marks and residues of sap or wax from the plant. These factors vary depending on the specific characteristics of each FFV.

**Some common FFV defects include:**

- **Pest Damage:** Physical injury to, or that detracts from the appearance of the FFV caused by pest (insects, mammals, birds etc.)- feeding/gnawing, living on or in. This definition also includes the presence of dead pest or pests at any stage of their development.
- **Bruise:** A physical injury caused by an impact that ruptures the outer surface/skin of the FFV and may or may not impact the underlying tissue.
- **Rubbing:** Injuries to FFV skin caused by friction between the fruits surface and the tree limb or branch or with other fruits, side of packaging and other foreign objects. Due to this rubbing, the skin suberizes.
- **Decay:** Deterioration and/or decomposition of tissue induced by fungi, bacteria resulting from injury (physical damage), pest damage, diseases and or senescence; and/or fungi as a natural process of change/senescence affecting the appearance or market quality of the produce.
• **Rot:** To decompose due to biological action. Depending on individual FFV physical characteristics and trade practices other descriptors such as “soft rot” or “decay” is used instead of rot.

• **Mould:** A fungus that grows on FFV that causes decay.

• **Translucent:** Water-soaked condition resulting in the FFV having a glassy appearance.

• **Misshapen:** The physical shape of the FFV does not fully conform to the established/normal shape characteristics and therefore its appearance is affected or seriously affected.

• **Damage:** Any specific defect or an equally objectionable variation of defects or a combination of defects, which materially detracts from the appearance, edibility, utility or shipping quality of the FFV. Damage may be caused by physical means, insects, pests and unfavourable environmental factors such as heat, wind, hail and frost.

### 3.1.1 Minimum Maturity Requirements: Horticultural maturity.

**Maturity:** The fruit has attained a physiological stage of development at which it possesses the desired characteristics/pre-requisites to provide the minimum accepted sensory attributes to the consumer (normal taste/flavour, odour and texture).

- **Maturity measurements most used for fruits at inspection points include** sugar content (total soluble solids degrees or percentage Brix), total soluble solids; acid ratio, shape, juice content, ground colour changes and pressure testing of the flesh using a penetrometer.

**Sufficiently developed (vegetables, roots, rhizomes, tubers etc.):** measured by ground colour, skin texture, flavour, leaf texture, shape, firmness/compactness, days from planting or flowering.

(The following terms firm, tender, flabby, pithy, shrivelled, woody, translucent are used to indicate stages of Sufficient Development and together with the general quality or condition of vegetables, used to describe maturity).

**Immature/not sufficiently developed:** FFV that have not attained the physiological and biochemical stage of development at which they possess the desired characteristics/pre-requisites to provide the minimum accepted sensory attributes to the consumer.

### 3.2 Classification:

The placing of FFV into groups/classes based on physical and physiochemical characteristics/parameters (shape, colour, taste/maturity and the presence or absence of defects).

#### 3.2.1 “Extra” Class:

Selection of FFV of superior quality. The produce shall have the characteristics typical of the variety or commercial type and shall fulfil the minimum requirements. The produce may have slight superficial defects only, unless otherwise indicated in the standard. The slight superficial defects should affect only very small areas of the produce and should hardly contrast with the typical colouring, nature of the skin or typical shape. The produce shall not have any defect affecting the internal quality.

#### 3.2.2 Class I:

Selection of fruit or vegetables of good quality. The produce shall have the characteristics typical of the variety or commercial type and shall fulfil the minimum requirements. The produce may have slight defects only in shape, development, colouring and skin, unless otherwise indicated in the standard. The slight defects should affect only small areas of the produce and should only slightly contrast with the typical colouring, nature of the skin or typical shape. The produce shall not have any defect affecting the internal quality.

#### 3.2.2 Class II:

Selection of fruit or vegetables of marketable quality. The produce may have defects regarding shape, development, colouring and skin as well as the minimum requirements, unless otherwise indicated in the standard. The produce shall not have serious defects affecting the internal quality.

### 4. PROVISION CONCERNING SIZING

**Size:** The physical dimension or mass of the FFV measured by one of, or a combination of the following:

**Count:** The number of FFV per package or to a set volume/dimension.

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2In some non-English languages maturity and ripeness are the same word and have the same meaning.

**Horticultural maturity/Sufficiently developed:** The fruit has attained a minimal level of physiological development (organoleptic characteristics) at which it can be traded and/or consumed.

**Physiological maturity/ Fully developed:** The fruit has attained a biological stage of development that results in the fruit being able to continue development (ripening) even it is detached from the plant.
Length: The longitudinal axis of the FFV measured from the stem end/peduncle to the blossom/growth end/apex excluding the peduncle.

Diameter: the greatest dimension (equatorial section) of the FFV measured at right angles to a line from the stem to the blossom end; or determined by the FFV passing through a round opening in any position. Diameter is measured either by the maximum or minimum diameter of the equatorial section of each FFV or a diameter range per package.

Weight: the individual weight of each FFV or a weight range per package

Minimum size: the absolute smallest acceptable size or size range in the standard.

Maximum size: the absolute largest acceptable individual size or size range in the standard.

Undersize: the FFV size is lower than the size that is indicated on the package or the minimum size allowed.

Oversize: the FFV size is larger than the size that is indicated on the package or the maximum size allowed.

Uniformity in size: A size or size range that is defined to guarantee uniform appearance of the FFV in the package with respect to the physical dimensions. It may be expressed by a fixed size, minimum and maximum size, or a minimum/maximum number of units in the package.

5. PROVISIONS CONCERNING TOLERANCES

Tolerances: The maximum percentage of all the allowances/deviations that are permitted within a lot of FFV or a class, from the requirements of the standard. Tolerances are assessed on samples taken from the lot in accordance with a pre-set ratio and/or based on recognized internationally agreed methods of sampling (such as OECD or Codex rules for conformity checks). The cumulated defects found in a sample must be set in context to the weight or number of the sample, to calculate the percentage and check whether the tolerances are met.

5.1.1 Quality tolerances: The collective maximum deviation allowed for produce not meeting the quality requirements, expressed in percentage, by number or weight.

Allowance: The amount of a factor/defect (e.g., staining) deviation permitted by a minimum requirement in a lot of produce. The allowance can be part of the tolerance or separate/independent.

5.2 Size tolerances: Maximum deviation allowed for produce not meeting the indicated size i.e., larger or smaller. This deviation is expressed as a percentage, by number or weight.

6. PROVISIONS CONCERNING PRESENTATION

6.1 Uniformity: Terms used to indicate that the FFV in a package and/or a lot are similar in variety, shape, size and/or size range, colour and/or a colour range.

Lot: A quantity of produce presented for inspection as one unit, having similar characteristics regarding type and or variety and origin:

Sublot: the result of dividing very large volumes of FFV such as a car lot (rail carload) or boat load into smaller ones for inspection purposes.

6.2 Packaging

Package: Individual containers of produce that individually or collectively facilitate safe handling, storage, transportation and sale of the produce. Packages vary in size and function based on the produce characteristics and its trade practices. Its main function is to contain, protect and preserve the product. Types of packages are:

- **Sales package:** Individual containers in which produce is offered for sale. These may be small, containing a few grams of products such as fresh herbs or as large as pallet-bins holding 200 kg of watermelons or pumpkins.

- **Consumer Packages:** Sales packages/ units intended for direct sale to the consumer. These can vary in size due to the intended/targeted consumer.

- **Pre-package/Primary package:** Sales packages having product enclosed completely or only partially, but in such a way that the contents cannot be altered without opening or changing the packaging. Protective films covering/wrapping single produce are not considered as a pre-package
• **Bulk Containers**: Large receptacles or packages such as pallet bins or bags, rail cars and other large shipping packages and/or containers in which the FFV may be in direct contact with the transportation unit and/or the atmosphere. Some bulk containers such as pallet bins are sometimes used as sales packages.

In all cases, packages/receptacles in which the FFV is packaged must be of such quality and strength as to protect the FFV during transportation and handling. Recycled and re-usable packages meeting the requirements in this section are acceptable.

The materials used inside the package must be 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. Stickers individually affixed to the produce shall be such that, when removed, they neither leave visible traces of glue nor lead to skin defects.

6.2.1 **Description of Containers**: The type containers in which the FFV is placed in such as or multilayer, consumer sales package and bulk containers.

7. PROVISIONS CONCERNING MARKING OR LABELLING

7.1 Consumer Packages: See previous Section 6.2.

7.1.1 **Name of produce**: The common name or the trade name under which the product is traded.

**Trade Name**: A name or denomination developed or selected by a trader or specific industry for which no legal protection has been sought or obtained in any country. Example: The name of pear variety is Forelle, a special colour grading is named “Vermont Beauty”, the latter being a trade name connected to the variety.

**Trademark Name**: A name or denomination developed or selected by a trader or specific industry for which legal protection has been sought and granted or obtained in any country. Example: Thompson Seedless (table grapes). Trademark named produce often require special organoleptic requirements such as prescribed maturity, colour and/or size requirements.

**Synonym**: Officially accepted name that can replace the variety name that refers to the same variety …

7.1.2 **Origin of produce**: The country in which the product was grown and harvested. Optionally, this may include addition of the name of the geographical physical location within the country.

7.2. Non-retail Containers: Any container that is not intended to be offered for direct sale to the consumer. The food in the non-retail container is for further food business activities before being offered to the consumer.

7.2.1 **Identification**: The name and physical address of the exporter, packer/dispatcher and the receiver/importer.

7.2.4 **Commercial Specifications**: This include stating the:

- **Class**: A rank of quality expressed in accordance with Section 3.2 Classification
- **Size**: If sized, should be expressed in accordance with Section 4. Provision Concerning Sizing

7.2.5 **Official Control Mark**: Stamp, adhesive sticker or signage on the package reflecting the inspection status of the lot.
PART 2: ADDITIONAL TERMS

These additional terms though may not be part of the Standard Layout or standards they are some of most used words in Codex Committee on Fresh Fruits and Vegetables (CCFFV) standard development and application methods. They are also very important in reporting conformity or non-conformity with CCFFV Standards.

**Colour Variation**: Differences in colour occurring with the same variety of FFV

**Conformity check**: Inspection carried out by an inspector to check that FFV conform to the requirements laid down in a standard

**Excreta**: fresh or dried bodily waste from living organisms

**Senescence**: The gradual aging/deterioration of FFV due to physical and physio-biochemical changes which naturally occur. It may be accompanied by either flesh softening, changes in colour and structure and other organoleptic characteristics. Its progression at a point renders the FFV unsuitable for consumption.

**Well-formed/Well shaped**: The FFV have the normal shape characteristic of the variety.

**Stalk/Peduncle**: A stalk bearing a flower or flower cluster or a fructification which attaches the stem-end of the fruit to the plant.

**Blossom/Growth End/Apex**: The part of FFV opposite the stalk/peduncle at which the vegetative growth stops.

**Terms describing firmness in**:

(i) **Fresh Fruits and Vegetables**: In some fresh fruits, firmness is measured using a pressure tester (penetrometer). The penetrometer’s result is also used to describe levels of flesh development and maturation/ripeness in some fruits such as apples, pear, apricot, peaches and nectarines. The degree of firmness (without a pressure tester) is described progressively as:

- **Hard**: the fruit’s flesh is tenacious and not yielding to moderate hand/finger pressure
- **Firm**: the flesh yields very slightly to moderate hand/finger pressure
- **Firm ripe**: the fruit is ripe, but the flesh yields slightly to moderate hand/finger pressure
- **Ripe**: the flesh yields readily to moderate hand/finger pressure
- **Over-ripe**: the flesh has softened and has signs of breakdown, yields readily to hand/finger pressure, deterioration is quickening, and the produce is unacceptable for wholesale trade.

(ii) **Roots, Rhizomes, Corm and Tubers**: Firm means these are turgid, solid, tenacious and do not yield readily to hand/finger pressure.

(iii) **Leafy Vegetables**: Firm means these vegetables are crisp, not wilted or flabby and can be readily snapped/torn by hand.

**Terms Describing Degrees of Freshness**:

(i) **Fresh**: Normal succulence, brightness and firmness shown like when harvested. This is important as any impairment of original fresh quality reduces the product’s value.

(ii) **Firm**: Compact, solid, substantial and yields very slightly to moderate hand/finger pressure. Indicative of normal development and good condition. Very important in root crops, cucurbits, some eggplants, etc.

(iii) **Crisp**: Turgid, brittle and breaks readily. This denotes a fresh condition that is desirable, e.g., in celery and rhubarb.

(iv) **Tender**: Succulent and of delicate texture. This is a desirable condition in vegetables, e.g., asparagus, artichokes and string beans.

(v) **Flabby**: Soft, limp, pliable, and lacking firmness. Flabbiness is often due to loss of stored nutrients and water on account of improper storage conditions, sprouting or old age, such as in sprouted potatoes or aged carrots.
(vi) **Pithy:** Open texture with air spaces in pith or central portion that is usually the result of malnutrition. This condition is especially applicable to celery, radishes, turnips and carrots.

(vii) **Shrivelled:** Shrunken, drawn, or wrinkled resulting in a marked change in form and often in size. This is an extreme condition resulting from excessive transpiration or old age.

(viii) **Spongy:** Easily compressed and of loose open texture. This is usually the result of very rapid or irregular growth in commodities such as poorly headed cabbage or lettuce and immature or sprouted onions.