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JOINT FAO/WHO FOOD STANDARDS PROGRAM  
CODEX ALIMENTARIUS COMMISSION  
Fourth Session, Rome, 7-14 November 1966

REPORT OF THE THIRD SESSION OF THE CODEX COMMITTEE ON  
PROCESSED FRUIT AND VEGETABLES  
FAO, Rome, 6-10 June 1966

1. The Third Session of the Codex Committee on Processed Fruit and Vegetables was held from 6 to 10 June, 1966, at FAO Headquarters in Rome, Italy, under the chairmanship of the U.S., with Dr. F.L. Southerland in the chair. Representatives and observers from fifteen countries, and observers from four international organizations attended the meeting. The Secretariat was provided by FAO. (The list of participants appears as Appendix I). The Chairman welcomed the participants, particularly those who were attending the session of the Committee for the first time. The Committee adopted the provisional agenda with a slight rearrangement of items.

2. Swiss Proposal on a General Standard for Fully Preserved Canned Fruits

The Committee agreed to put on the agenda the examination of the above document which had been distributed before the meeting. The Swiss delegation explained that the provisions of this general standard were not to replace those which had already been elaborated but merely constituted an attempt to summarize the points which were common to all standards. The reason for the preparation of this document was the concern over the considerable detail contained in each standard on such matters as size, defect tolerances, conditions of the raw material. In the view of the Swiss delegation these details concerned mainly quality criteria, whereas their document was principally concerned with safeguarding the consumer's health. Another consideration was the need to enable enforcement authorities to control by normal means of inspection compliance with the provisions of the standards. In discussing the Swiss proposal the Committee, while recognizing the possibility of using its principles in the future, decided that in line with the decision taken at the first session in Washington no change should be made in the present procedure of elaborating comprehensive standards separately for each product. The Committee also noted that the coverage of qualitative criteria in a Codex Standard was permissible under the general principles of the Codex Alimentarius. Such criteria were regarded as important for consumer protection and in the development of international trade. For achieving these and the other purposes of the

Codex Alimentarius it was necessary to include provisions to this effect. Several delegations expressed the view that the proposal of the Swiss delegation was useful as a general statement against which Codex Standards under elaboration could be compared in order to check whether only essential provisions were included and thereby avoid certain provisions becoming too detailed.

3. Substandard Products

The Committee expressed concern about the disposal of commodities such as canned fruits and vegetables which might not comply with a Codex Standard in a country which had accepted the standard. It was thought that the general principles of the Codex Alimentarius did not adequately cover this type of difficulty and that this was a matter which should be examined by the Codex Alimentarius Commission.

4. Conversion Tables

The delegation of the U.S., as author country, informed the Committee that the document which it had prepared on U.S., imperial and metric measures of fluid, contents, weight, length and area had been amplified as requested by the Committee at its second meeting. The Committee considered this document would be useful not only in connection with measurements in processed fruit and vegetable standards but also in the work of other Codex Committees. Participants were requested to check the accuracy of the figures in the document and to inform the Chairman should it appear that modifications or corrections were needed. This document was distributed to Members of the Committee and is not attached.

5. Sampling plans

The delegation of the U.S., as author country, gave a report on the Sampling plans for Processed Fruit and Vegetables which has been revised since the last meeting of the Committee. The plans had been drawn up to cover the quality characteristics of canned fruit and vegetables and dried fruits. Such provisions of the processed fruit and vegetable standards as size, colour and texture defects would be covered under the operation of the plan which, as a general rule, would make a lot acceptable for about 95% of the time if it contained up to 6.5% units not meeting quality requirements. The delegate of France proposed that the Committee should also consider developing sampling plans of broader scope which would not only cover quality criteria but would take into account organoleptic, chemical and physical, bacteriological and container quality criteria. Such plans could allow a distinction between defects so serious that they would exclude a product automatically, defects where a product would have to be withdrawn only under certain conditions, and finally, defects of a minor nature which would not impair the palatability of the product. The Committee decided to transmit the Sampling Plans for Processed Fruit and Vegetables to the Codex Committee on Methods of Analysis and Sampling for its consideration and also to send it out to Governments for comment at Step 3 in the Commission's Procedure for the Elaboration of World-wide Standards. The document is therefore not attached to this Report. It was again emphasized that the plan was generally intended to cover quality criteria only and was inappropriate for single unit sampling. Other sampling plans for enforcement purposes and dealing with the intrinsic properties of the product

would still have to be elaborated.

6. References in Processed Fruit and Vegetables Standards to subjects dealt with by other Codex Committees

In the second reading of the draft standards which had been sent to Governments for comment, the problem arose of the extent to which provisions dealing with additives, labelling and methods of analysis and sampling, respectively, should appear in each standard. Since standards were to be consulted individually, on their own, at least for the time being, the Committee thought that such provisions would have to be included in full in each standard. The attention of the reader would also have to be drawn to the fact that these provisions were tentative and subject to ratification upon examination by the respective Codex Committees which were dealing with these provisions. It was decided that a note to this effect should appear conspicuously at the beginning of each standard.

7. Subjects discussed during the examination of individual Processed Fruit and Vegetables Standards and singled out for special attention

- (a) Non-nutritive sweeteners. It was the opinion of the Committee that products containing non-nutritive sweeteners are to be the subject of separate standards.
- (b) Nisin. The Committee heard an explanation on the technological need for the use of Nisin as a permitted additive in canned green or wax beans and certain other canned vegetable products which are likely to be stored under conditions of elevated temperature. Some delegations questioned not only the necessity but also the efficacy of Nisin for this purpose. The Committee noted that the FAO/WHO Expert Committee on Food Additives had yet to consider the toxicology of Nisin and like antibiotics used as direct additives in foods. It was agreed to retain the provision in the standard for the time being and to seek the views of Governments on the need to use Nisin in the circumstances mentioned.
- (c) Cut-out syrup strength in canned fruits. After discussing the possibility of having uniformity in the descriptions and the figures in terms of degrees Brix for the various cut-out syrups strengths in all canned fruit, the Committee concluded that such uniformity could not be achieved at the present time. However, after a number of individual standards had been developed, uniform Brix cut-out figures may emerge for broad classes of fruits, which could be incorporated in a general standard for syrup concentrations.

8. Individual Commodity Standards

The Committee noted that proposed provisional draft standards for ten canned commodities which were adopted by the second session of the Committee had been circulated for comments under Step 3 of the Procedure for the Elaboration of World-wide Standards of the Codex Alimentarius Commission. The list of these products and author countries is as follows:

1. Sweet Corn - Canada with U.S.  
(Appendix 2 of the Report of the Second Session)
2. Applesauce - Canada with the Netherlands and U.S.  
(Appendix 3 of the Report of the Second Session)
3. Tomatoes - U.S. with Canada  
(Appendix 4 of the Report of the Second Session)
4. Green Beans - Canada with U.S.  
(Appendix 5 of the Report of the Second Session)
5. Peaches - U.S. with Australia (and originally also South Africa)  
(Appendix 6 of the Report of the Second Session)
6. Strawberries - Netherlands and as revised by author country  
(Appendix 7 of the Report of the Second Session)
7. Plums - U.K. with Netherlands  
(Appendix 8 of the Report of the Second Session)
8. Raspberries - U.K. with Netherlands  
(Appendix 9 of the Report of the Second Session)
9. Fruit Cocktail - U.S. with Australia  
(Appendix 10 of the Report of the 2nd Session)
10. Grapefruit sections (segments) - Israel with U.S.  
(Appendix 11 of the Report of the 2nd Session)

The Committee further noted that the following four drafts of standards were referred back to the author countries for revision:

11. Asparagus - Netherlands  
(Appendix 12 of the Report of the Second Session. Revised draft circulated as a working paper for the Third Session of the Committee)
12. Green/Garden Peas - U.K. with Denmark and Sweden  
(Appendix 13 of the Report of the Second Session. Redraft made available to the Third Session)
13. Mature, processed peas - U.K.  
(Appendix 14 of the Report of the Second Session. Redraft made available to the Third Session)
14. Processed raisin - U.S. with Australia  
(Appendix 15 of the Report of the Second Session. Redraft made available to the Third Session)

The eight commodities on which the development of standards had been continued or newly undertaken since the Second Session of the Committee and for which drafts were made available to the Committee were the following:

- |                           |                                  |
|---------------------------|----------------------------------|
| 15. Beans in tomato sauce | - U.K.                           |
| 16. Canned Carrots        | - U.K. with Denmark and Canada   |
| 17. Dried Currants        | - U.S. with Australia            |
| 18. Fruit Salad           | - U.S.                           |
| 19. Table Olives          | - U.S.                           |
| 20. Canned Pears          | - Canada with Australia and U.S. |
| 21. Canned Pineapple      | - U.S. with Taiwan               |
| 22. Tomato Concentrate    | - U.S. with U.K.                 |

Drafts on four commodities, namely:

23. Jams, Jellies and Marmalade (France)
24. Fruit Mixture (Australia)
25. Tropical Fruit Salad (Australia)
26. Canned Mushrooms (France)

could not be distributed to the Members of the Committee, except for 26 above.

9. Standards which have reached Step 5 and are submitted to the Fourth Session of the Codex Alimentarius Commission

In the light of Government comments the Committee amended six Proposed Draft Provisional Standards. The Committee considered these drafts as ready for submission through the Secretariat to the Codex Alimentarius Commission with a view to their adoption as Draft Provisional Standards at Step 5 in the Commission's Procedure for the Elaboration of Standards. The following lists the products to which these standards refer and the remainder of this paragraph, to be read in conjunction with the Appendices containing the standards, explains decisions, requests action to clear up minor points and registers positions differing from those expressed in the standard.

Canned Sweet Corn	- Standard No. PFV 66/5-1 (Appendix 2)
Canned Applesauce	- " " PFV 66/5-2 (Appendix 3)
Canned Tomatoes	- " " PFV 66/5-3 (Appendix 4)
Canned Green Beans and Canned Wax Beans	- " " PFV 66/5-4 (Appendix 5)
Canned Peaches	- " " PFV 66/5-5 (Appendix 6)
Canned Grapefruit	- " " PFV 66/5-6 (Appendix 7)

Standard No. PFV 66/5-1 - CANNED SWEET CORN

The Standard was revised according both to Government comments and to changes made on reviewing it in the meeting and to applicable improvements made in other standards.

Standard No. PFV 66/5-2 - CANNED APPLESAUCE

Additives - The delegations of Switzerland and the Federal Republic of Germany did not wish ascorbic acid to be declared on the label of canned applesauce. The suggestion by the Committee that there should be no claim made for vitamin activity of ascorbic acid is to be referred to the Codex Committee on Food Labelling. The United States delegation requested that provision be made for red and green colouring in applesauce. The names and quantities of these suggested additives are to be supplied.

Consistency - The U.S. delegation suggested that the flow value of canned applesauce should not be in excess of 10 cm. Members of the Committee were invited to investigate further the method for consistency and to report the result to the author country (Canada).

Standard No. PFV 66/5-3 - CANNED TOMATOES

Colour - The Committee accepted a suggestion by Poland that only red varieties should be covered by the standard.

Types of pack - Since the expression "stewed tomatoes" was not in many countries a general designation for the product, the term "flavoured" or "seasoned" should also appear in the standard.

Additives - The Committee noted that acidifying agents were additives and that it was its responsibility to specify those which were presently used in the manufacture of the product so that the Codex Committee on Food Additives could, in turn, consider these substances. The members of the Committee were requested to inform the author country (U.S.) of the maximum levels of use needed to acidify the blandest product using the following acidifying agents, namely: acetic, citric, lactic, malic, tartaric and fumaric acids.

Firming agents - The firming agents at the levels indicated have been approved by the Codex Committee on Food Additives.

Size or Wholeness - The delegations of Australia and Poland stated that in canned tomatoes of "Whole" style, 80% of drained tomatoes in whole or almost whole units would be too high and that the figure should be reduced to 50%.

Mould count - The U.S. delegation questioned whether the mould count should be as high as (a) 25% when juice was the packing medium and (b) 50% when residual material, purée, pulp or paste was the packing medium.

Insoluble minerals or sand - In the absence of an agreed method of analysis, the Committee tentatively accepted 200 mg per kg of these insolubles in the product. The Committee requested delegations familiar with methods for the detection of sand or insoluble minerals in this product to supply full details to the author country (U.S.A.).

Specifications for circular sieves - The members of the Committee were invited to submit comments on sieve sizes and sieve mesh to the author country (USA).

Standard No. PFV 66/5-4 - CANNED GREEN BEANS and CANNED WAX BEANS

Colouring matter - The United Kingdom delegation explained the reasons why colours were used in the U.K. for certain canned fruits and vegetables. The Committee agreed to tentatively leave the lists of colours in the standards. The delegations of Poland, France, Federal Republic of Germany and Switzerland expressed their reservation as to the use of any additives including colouring in this product as they did not

consider there was any technological need which would justify their use in this product. The Netherlands delegation, while not expressing its concurrence, stated that it would not formally reserve its position since in its view the acceptance of a Codex Standard need not be in its entirety.

Standard No. PFV 66/5-5 - CANNED PEACHES

Packing Media - The delegation of Australia prefers a minimum figure of 16° for heavy syrup and for extra heavy syrup 21° Brix.

Defects - The delegation of Canada suggested that 5% broken whole, halves or quarters may be too low a figure for freestone peaches and it is suggested that this be re-examined by those who have data available.

Standard No. PFV 66/5-6 - CANNED GRAPEFRUIT

The comments of the Israeli government were incorporated into the revision of the standard and it was made to conform to the layout of the other standards.

10. Standards retained at Step 4 of the Commission's Procedure for the Elaboration of Standards

The following four Proposed Draft Provisional Standards, having been with Governments for comment at Step 3 were retained at Step 4, pending amendment and revision by the author countries in the light of the decisions reached by the Committee:

- Canned Strawberries (Author country, Netherlands), Standard No. PFV 66/4-7
- Canned Plums (Author country, U.K.), Standard No. PFV 66/4-8
- Canned Red Raspberries (Author country, U.K.), Standard No. PFV 66/4-9
- Canned Fruit Cocktail (Author country, USA), Standard No. PFV 66/4-10

In addition to the Government comments already recorded for these drafts, the following specific comments and points for action were drawn to the attention of the author countries. After revision by the author countries, the drafts are to be presented as working documents for the next session of the Committee and should be in the hands of the Chairman by 30 November 1966. They are not appended to this Report. Author countries are requested to use the code numbers of standards which have now be assigned and appear above, when sending their drafts to the Chairman.

Standard No. PFV 66/4-7 - CANNED STRAWBERRIES

Product description - The Committee noted that only the five sepals were meant by the word "Calyx" in the standard.

Syrup density - The Committee agreed to review at its next session the strength of heavy syrups used in canning strawberries. Members of the Committee were requested to provide information on this matter to the author country (Netherlands).

Additives - The delegation of the Netherlands undertook to supply further information on red colouring in the EEC and on levels of use. The delegation of Poland stated that in its country only sugar, water and strawberries were allowed in canned strawberries.

Acidifying agents - The delegation of the Netherlands would supply information on levels of use for acids. The delegation of the Federal Republic

of Germany reserved its position with regard to fumaric acid.  
Tolerance for grit, sand and silt contents - The Committee agreed to increase the tolerance for such mineral matter from 100 mg to 200 mg per kg.

Sub-standard Units - The description and evaluation of these units will be developed and will be used in working out the tolerance for lot acceptance.

Standard No. PFV 66/4-8 - CANNED PLUMS

Packing medium - The delegations of the Netherlands, Poland and the Federal Republic of Germany would have preferred to have only two syrup strengths. However, in view of the fact that the four concentrations of syrup as appearing in the standard were optional, these countries abstained from stating their formal objection.

Additives - The delegations of Poland and the Federal Republic of Germany expressed their reservation against the use of any additives including colouring matters.

Sub-standard Units - Consideration of defects was deferred until the development of the description and evaluation of these units which will be used in the tolerance for lot acceptance.

Standard No. PFV 66/4-9 - CANNED RED RASPBERRIES

Additives - The delegation of Poland wished to reserve their position with regard to additives in raspberries. The Netherlands mentioned the possible use of other red colours in the EEC and will provide their names and levels of use to the author country (U.K.).

Sub-standard units - Work will have to be done to develop descriptions and evaluations to be used in working out the tolerance for lot acceptance.

Labelling and designation - The name of the fruit in this standard is to be "raspberries" and if varieties other than the red varieties are used, the colour designation will appear as e.g., "black raspberries". The United States delegation noted that the designation "red raspberries" would be required when this item is sold in the U.S. In general this standard is subject to revision upon presentation by the U.S. of data on other than red varieties of raspberries.

Standard No. PFV 66/4-10 - CANNED FRUIT COCKTAIL

This standard was not discussed at the meeting, but the author country (U.S.A.) was requested to revise this standard for presentation at the next (fourth) session of this Committee. It is possible that this standard may serve as a model for the similar standards for Fruit Salad, Fruit Mixture and Tropical Fruit Salad.

11. Standards which have reached Step 3 and will be sent to Governments for comments

The following three Proposed Draft Provisional Standards were examined both by groups of producing countries and by the Committee at Step 2 and were deemed ready to advance to Step 3:

- Canned Asparagus (Author country, Netherlands), Standard No. PFV 66/3-11
- Processed Raisins (Author country, U.S.A.), Standard No. PFV 66/3-12
- Canned Pineapple (Author country, U.S.A.), Standard No. PFV 66/3-13

The following points for action should be noted by delegations from the interested countries and replies on these points should be sent to the author country by 30 November 1966. These standards as revised by the Committee will be circulated to Governments for comments at Step 3 and are not appended to this report.

Standard No. PFV 66/3-11 - CANNED ASPARAGUS

No action required unless individual delegates have been asked for specific information by the author country.

Standard No. PFV 66/3-12 - PROCESSED RAISINS

Size classification - Decisions on this item were deferred and the author country (USA) was requested to collaborate with producing countries on size and colour classifications.

Additives - The Secretariat requested that levels be provided for the additives indicated: potassium sorbate, sorbic acid, sulfur dioxide and antioxidants in the vegetable oil. In the case of sulfur dioxide the level of use was indicated to be 2000 mg/kg. The Committee noted that the Codex Committee on Food Additives had requested that actual levels as found in the product when consumed should be supplied as these would form a more exact basis for the estimation of the daily intake.

Pesticides and fumigants - With regard to the various compounds used as fumigants the Committee was requested to supply the Secretariat with data on the levels of use and residues found. These would be transmitted to the Committee concerned with pesticide residues which would examine them and eventually establish tolerances in this product.

Mouldy raisins - The author country (USA) requested comments from other countries after they had applied the procedure outlined in Appendix D to the draft standard. The author country was willing to supply visual aid films to help these countries in this work. The U.K. felt that the level suggested was rather high and the producing countries volunteered to look into the matter.

Extraneous inorganic material - A section on sand and grit is to be inserted in this standard.

Labelling - Members of the delegations were requested to supply the distinguishing designations used in their countries to specify various types of raisins.

Standard No. PFV 66/3-13 - CANNED PINEAPPLE

Size - Interested delegates were requested to give information regarding specific size requirements of spears or fingers and tidbits.

Defects - The delegation of Australia indicated that it felt that the basis for defects on whole slices, half slices and quarter slices should be a weight basis. This matter will be studied by the author and the collaborating countries.

Texture - A method will be given in the next draft for the determination of core material.

12. Standards which were considered by the Committee but which remain at Step 2

The following three Proposed Draft Provisional Standards were given a reading at the session, but it was recommended that author countries redraft these standards for reconsideration at Step 2 by the Committee at its next session. Author countries should take into account the revisions suggested at the session and also those which they might receive later from other countries.

- Canned Green Garden Peas (Author country, UK), Standard No. PFV 66/2-14
- Table Olives (Author country, USA), Standard No. PFV 66/2-15
- Tomato concentrate (Author country, USA), Standard No. PFV 66/2-16

Standard No. PFV 66/2-14 - CANNED GREEN GARDEN PEAS

The Committee examined the draft prepared by the UK in collaboration with Denmark and Sweden in the light of comments received from Governments. Certain provisions of the draft still appeared to need substantial clarification and the Committee therefore concluded that the draft should be returned to the author country (UK). Participants were requested to send their comments to the Chairman of the Committee by 30 November 1966, so as to enable the author country to gather information and prepare a new draft for distribution to Governments well ahead of the next session of the Committee. Members of the Committee were urged to observe the deadline without fail to ensure that a new draft could be prepared, which would be sufficiently advanced for official distribution to Governments for comment under Step 3 of the Procedure for the Elaboration of Standards of the Codex Alimentarius Commission after the next meeting of the Committee. The author country would incorporate in its new draft those features of the other canned fruit and vegetables standards which mutatis mutandis would apply to canned green/garden peas. The provisions of the draft standard to which the Committee wished to draw particular attention and for which comments were invited, were as follows:

Varietal Types - There was some discussion as to whether round and wrinkled types needed to be specified in view of the new cross-bred varieties. The question was also raised as to whether these two types when listed would have to be designated on the label. Delegates were asked to make specific comments on this point.

Sizes - Government comments were sought on size grades and details were requested on those actually used. The possibility of restricting the number of sizes to three was raised and comments were asked upon this possibility.

Ingredients - The percentage of garnishes is to be decided later and comments were requested on this point. Butter and monosodium glutamate should also appear among these ingredients.

Additives - The delegations of Poland, Switzerland and France again expressed their opinion that additives were not needed in this product. The U.K. put forward the following tentative list of colouring matters: Yellow 2G, C.I. (1956)-18965; Green S., C.I. (1965)-44090 and Tartrazine, C.I. (1956)-19140, individually up to a maximum of 100 mg/kg or in combination up to a total maximum of 200 mg/kg. Vegetable gums, alginates and propyleneglycol alginate will appear in this standard as additives for the product containing butter. The flavouring mentioned was mint essence. Delegates were requested to send to the author country levels of use of these additives. Nisin appears in this standard at a level of 100 Reading Units, and the Netherlands again expressed its reservation on the use of Nisin as in the green and wax beans standard.

Maturity - Delegates were requested to send in comments on the maturity test suggested and to give details of other equivalent tests. pH will not appear in the final standard as this was deemed to be covered in the food hygiene requirements.

Defects - The format and the actual tolerances for defects (sub-standard units) will be brought in line with the Basic Sampling Plans.

Filled weights - References to filled weight were removed since it was felt that this was not suitable for an international standard as it cannot be checked on import samples.

Drained weights - Comments were requested on the level of 60% for drained weights.

Labelling - The decision was that the declaration of size grade should be mandatory.

Standard No. PFV 66/2-15 - TABLE OLIVES

The Committee agreed to defer detailed consideration of the standards prepared by the U.S.A. until after a meeting of the International Olive Oil Council scheduled for October 1966 in Madrid. After this meeting the Council would make available to the author country (USA) a further draft trading standard which could be used by the author country in the elaboration of a new draft Codex Standard. The redraft will be submitted for review by the Committee at its next session.

Standard No. PFV 66/2-16 - TOMATO CONCENTRATE

Ingredients - The delegations of France and Poland indicated that the addition of sugar was permitted in their countries.

Mould count - The delegates of France and Malta suggested a figure of 50% instead of 40% for the mould count.

13. Standards given priority

The Committee decided to give to the following three standards: Jams, Jellies and Marmalades (Author country, France); Mushrooms (Author country, France) and Pears (Author country, Canada) priority and that they should be considered at the next session of the Committee. Author countries were requested to revise the drafts which they had already prepared, in accordance with the decisions reached at the session. It was suggested that Jams, Jellies and Marmalades be allocated one to two days on the agenda of the next session of the Committee.

14. Standards held in abeyance

With the consent of the author country (indicated in parenthesis) the Committee agreed to postpone consideration of standards for the following products:

- Fruit Salad (U.S.)
- Fruit Mixture (Australia)
- Tropical Fruit Salad (Australia)
- Carrots (U.K.)
- Peas, Mature/Processed (U.K.)
- Beans in Tomato Sauce (U.K.)
- Dried Currants (U.S.)

The Committee considered that the standards for Fruit Salad, Fruit Mixture, Tropical Fruit Salad and Fruit Cocktail were similar and that they would cover the entire range of mixed canned fruits. It was therefore thought that they could be developed together, and the suggestion was made that interested producing countries (Australia, China(Taiwan) and U.S.A.) meet prior to the next session of the Committee to coordinate the elaboration of these standards.

JOINT FAO/WHO FOOD STANDARDS PROGRAM  
CODEX ALIMENTARIUS COMMISSION

CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES  
Third Meeting, Rome, 6-10 June 1966

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ALINORM 66/20  
Appendix 2  
June 1966

Standard No. PFV 66/5-1

CANNED SWEET CORN

submitted to the Fourth Session of the  
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Draft Provisional Standard

NOTE

The sections of the Canned Sweet Corn Standard which deal with additives, methods of analysis and sampling, and labelling, are subject to ratification by the relevant Codex Committees and to any general provisions laid down by these Committees and accepted by the Codex Alimentarius Commission.

1. DESCRIPTION AND DESIGNATION

Product Description

Canned sweet corn (zea mays) excluding corn on the cob, is the product:

- (a) prepared from clean, sound kernels of sweet corn;
- (b) packed with a suitable liquid medium, which may be the creamy component from corn kernels or may be packed with suitable nutritive sweeteners, seasoning ingredients, and other ingredients appropriate for the product, and
- (c) in which the prepared product is sealed in a container and is so processed by heat as to prevent spoilage.

General Sanitary Requirements

All steps in the preparation and processing of Canned Sweet Corn should be carried out under conditions as prescribed by the Codex Alimentarius Commission Code of Hygienic Practice for Canned Fruit, Vegetables and Related Products.

Product Designation

Colour Type

- (a) Golden or Yellow
- (b) White

Styles

- (a) Whole Kernel (Whole Grain or Cut Kernel)  
Whole or substantially whole cut kernels packed with a liquid medium.
- (b) Cream Style  
Whole or partially whole cut kernels packed in a creamy component from the corn kernels and other liquid or other ingredients to form a product of creamy consistency.

Types of Whole Kernel Pack

Whole Kernel (Whole Grain; Cut Kernel) corn may be designated as:

- (a) "Brine" or "Liquid Pack" when a salt (NaCl) brine liquid medium is used and except for normal headspace completes the fill of the container.
- (b) "Vacuum pack" or "Vacuum packed" if the liquid packing medium does not exceed 20 percent of the total net weight of product and the container is closed under conditions creating a high vacuum in the container.

2. COMPOSITION

Packing Medium

The packing medium shall be water, in an amount necessary for proper processing, which may be combined with other ingredients.

Ingredients

Corn, salt, sugar (sucrose), invert sugar, pieces of green or red peppers, or other similar vegetables in an amount not greater than 10% by weight; butter, starch in cream-style corn in a quantity not more than sufficient to ensure a smooth consistency.

Permitted additives

Vegetable gums	} for use when butter is an ingredient (levels to be specified) [ca. 0.5%?]
Alginates	
Propylene glycol alginate	
Monosodium glutamate	

3. QUALITY CRITERIA

These requirements apply to individual containers of the product unless otherwise stated.

Flavour

Canned corn shall have a normal flavour and odour free from objectionable flavours or objectionable odours of any kind and canned corn with special ingredients shall be characteristically flavoured for the substances used.

Colour

The colour of the product shall be normal for the colour type. The product shall also be reasonably free from "off-variety" kernels.

Consistency - Cream Style

The product possesses a consistency which may be thin but not excessively thin; thick and heavy, but not excessively dry or pasty; and from which (after two minutes) there may be a moderate but not excessive separation of free liquid. The product when tested shall have a flow value not in excess of ... cm. (The test procedure for consistency and flow characteristics will be sent out together with the proposed sampling plans).

Cut -- Whole Kernel

In Whole Kernel (Whole Grain; Cut Kernel) corn the product shall be at least reasonably well cut and not seriously affected by ragged cut kernels or kernels with cob tissue attached.

Texture

The kernels in either Cream Style or Whole Kernel corn are of a reasonably tender texture offering some resistance when chewed but are not hard or tough.

Defects

The following are considered defects: pieces of silk, husk, cob, discoloured or blemished kernels, and extraneous vegetable matter.

Allowances for Defects

Canned corn shall not contain excessive defects (whether or not specifically defined in this standard). Certain common defects shall not be present in greater amounts than the limitations set out below:

	<u>Whole Kernel Corn</u> <u>(Whole Grain; Cut Kernel)</u>	<u>Cream Style Corn</u>
	<u>Per 20 ozs. Drained Weight</u>	<u>Per 20 ozs. Total Contents</u>
Pieces of Cob	2 cubic centimetres	2 cubic centimetres
Pieces of Husk	2 square inches, 12.0 sq.cm.	2 square inches, 12.9 sq.cm
Blemished kernels (Brown or black discoloured kernels or pieces)	10 kernels or pieces that are damaged and seriously damaged but not more than 5 may be seriously damaged.	10 kernels or pieces that are damaged and seriously damaged but not more than 5 may be seriously damaged.
	<u>Per 1 oz. Drained Weight</u>	<u>Per 1 oz. Net Weight</u>
All silk	7 inches (178 mm)	6 inches (152 mm)

4. FILL OF CONTAINER

Minimum Fill

The contents, including the liquid of canned corn, other than "Vacuum Pack" type, shall occupy not less than 90 percent of the volume capacity of the container.

Minimum drained weights

In Whole Kernel corn, the drained weight shall not be less than 61% of the weight of distilled water (at 68 degrees Fahrenheit) which the sealed container will hold.

The requirements for minimum drained weight shall be based on the average of the values from all the containers of the sample representing a lot, provided there is no unreasonable shortage in individual containers.

5. TOLERANCES

For Lot Acceptance

With respect to Quality

A container or a subsample that fails to meet one or more of the applicable minimum quality requirements (flavour, colour and consistency, texture, defects) of section 3 of the standard shall be considered a "defective" (sub-standard unit). A lot will be considered as meeting the minimum requirements for quality when the number of "defectives" (sub-standard units) does not exceed the acceptance number (c) of the appropriate sampling plan (A.Q.L.-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables

With respect to Minimum Fill

A lot will be considered as meeting the requirements for minimum fill when the individual containers which fail the requirements for total fill do not exceed the acceptance number (c) of the appropriate sampling plan AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables

6. SAMPLING AND TEST PROCEDURES

Sampling

Sampling shall be in accordance with the Basic Sampling Plans for Processed Fruit and Vegetables.

Test Procedures

Consistency - Cream Style

(The test procedure for consistency and flow characteristics will be sent out together with the proposed sampling plans)

7. CONTAINER LABELLING

All labelling on the containers shall conform to the Codex Alimentarius Commission's provisions on Food Labelling. In addition the containers shall be labelled in such a manner that under normal purchase conditions the following shall appear conspicuously and be clearly legible:

- (a) the name of the product which is corn, sweet corn or sugar corn, together with a declaration of characterizing seasoning, e.g. "with butter", when applicable;
- (b) the colour, e.g. yellow, golden or white;
- (c) the type, e.g. whole kernel or cream style;
- (d) style of pack, e.g. "in brine" or "vacuum packed";
- (e) a declaration of flavouring and other ingredients as may be appropriate.



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Appendix 3  
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Standard No. PFV 66/5-2

CANNED APPLE SAUCE

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Draft Provisional Standard

NOTE

The sections of the Canned Apple Sauce Standard which deal with additives, methods of analysis and sampling, and labelling, are subject to ratification by the relevant Codex Committees and to any general provisions laid down by these Committees and accepted by the Codex Alimentarius Commission.

1. DESCRIPTION AND DESIGNATION

Product Description

Canned apple sauce is the comminuted or chopped product:

- (a) prepared from apples (*Pyrus malus*) that have been washed and are clean and may have been peeled and cored and which after trimming are sound;
- (b) packed with or without the addition of water, suitable nutritive sweeteners, and seasoning ingredients; and
- (c) in which the prepared product is sealed in a container and is so processed by heat as to prevent spoilage.

General Sanitary Requirements

All steps in the preparation and processing of Canned Apple Sauce should be carried out under conditions as prescribed by the Codex Alimentarius Commission Code of Hygienic Practice for Canned Fruits, Vegetables and Related Products.

Product Designation

Styles

Sweetened and Unsweetened.

2. COMPOSITION

Ingredients

Apples, salt, sucrose, invert sugar, dextrose, glucose syrup, dried glucose syrup as defined by the Codex Committee on Sugars, spices and natural flavourings.

Additives

Ascorbic acid, iso-ascorbic acid as an antioxidant at a level of 150 mg per kg.

Red and green colourings - Names and levels of use to be supplied by USA

3. QUALITY CRITERIA

Flavour

The product should have a normal flavour free from flavours and odours foreign to the product.

Colour

The product should have a normal colour which should not be excessively dull, grey, pink, green or yellow.

Consistency

A consistency that (after stirring and emptying the apple sauce from the container to a dry flat surface) may be moderately mounded but not

excessively stiff or may be slightly thin so that it levels itself, and that at the end of two minutes there may be moderate but not excessive separation of free liquid. The product when tested shall have a flow value not in excess of ... cm. (The test procedure for consistency and flow characteristics will be sent out together with the proposed sampling plans).

#### Total Soluble Solids

Sweetened style shall test not less than 15% total soluble solids (15.0° Brix).

Unsweetened style shall test not less than 7% total soluble solids (7.0° Brix).

#### Defects

The following shall be considered defects: seeds or particles thereof, peel, carpel tissue, bruised apple particles, dark particles, and any other extraneous material.

#### Allowances for Defects

The number, size and prominence of the defects present do not seriously affect the appearance of the eating quality of the product.

### 4. FILL OF CONTAINER

#### Minimum Fill

The product shall occupy not less than 90 percent of the volume capacity of the containers.

#### Ascertaining Compliance

The requirements for minimum fill shall be deemed to be complied with if the average of the values from all the containers of the sample representing a lot complies, provided that there is no unreasonable shortage in individual containers.

### 5. TOLERANCES

#### For Lot Acceptance

#### Quality

A container or a sub-sample that fails to meet one or more of the applicable minimum quality requirements (flavour, total soluble solids, colour, consistency, defects) of Section 3 of this standard shall be considered a "defective" (sub-standard unit). A lot will be considered as meeting the minimum requirements for quality when the number of "defectives" (sub-standard units) based on individual containers does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables.

Minimum fill

A lot will be considered as meeting the requirements for fill when the individual containers which fail the requirement for total fill do not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables.

6. SAMPLING AND TEST PROCEDURES

Sampling

Sampling shall be in accordance with the Basic Sampling Plans for Processed Fruit and Vegetables.

Test Procedures

Total Soluble Solids

Total soluble solids and/or Brix determination to be made by the refractometric method without corrections for insoluble solids or acidity but with corrections for temperatures at 20°C. (68°F.).

Consistency

(The test procedure for consistency and flow characteristics will be sent out together with the proposed sampling plans)

7. CONTAINER LABELLING

All labelling of the containers shall conform to the Codex Alimentarius Commission's provisions on Food Labelling. In addition, the container shall be labelled in such manner that under normal purchase conditions the following shall appear conspicuously and be clearly legible:

- (a) the name of the product which is apple sauce, accompanied by a declaration of characterizing seasonings and flavourings and, where the product is unsweetened, the word "unsweetened".



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Appendix 4  
June 1966

Standard No. PFV 66/5-3

CANNED TOMATOES

submitted to the Fourth Session of the  
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for adoption as a

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NOTE

The sections of the Canned Tomatoes Standard which deal with additives, methods of analysis and sampling, and labelling, are subject to ratification by the relevant Codex Committees and to any general provisions laid down by these Committees and accepted by the Codex Alimentarius Commission.

1. DESCRIPTION AND DESIGNATION

Product Description

Canned tomatoes is the product:

- (a) prepared from washed, ripened tomatoes (*Lycopersicum esculentum*) of red or reddish varieties which are clean and which are substantially sound. Tomatoes shall have the stem removed and the cores removed except where the internal core is insignificant as to texture and appearance;
- (b) packed with or without a suitable liquid packing media (other than added water), and seasoning ingredients appropriate to the product;
- (c) in which the prepared product is sealed in a container and is so processed by heat as to prevent spoilage.

General Sanitary Requirements

All steps in the preparation and processing of Canned Tomatoes should be carried out under conditions as prescribed by the Codex Alimentarius Commission Code of Hygienic Practice for Canned Fruits, Vegetables and Related Products.

Product Designation

Varietal type

Tomatoes of distinct varietal groups with respect to shape or other similar physical characteristics may be designated as:

Round - globular or semi-globular shape.  
Pear or Egg or Plum - elongated shape.

Style (or form)

Canned tomatoes in these forms are normally prepared with peel removed; if the peel is not removed, the style is considered additionally as "Unpeeled":

Whole  
Whole and Pieces  
Pieces  
Diced  
Sliced

Types of pack

With a liquid medium added

Solid Pack -

without any liquid or vegetable substance added other than liquid draining from the tomatoes during canning

Flavoured or Stewed  
or Seasoned -

packed with minor amounts of vegetable ingredients, such as celery, onions and peppers

Highly seasoned - packed with minor amounts of spices or seasonings or extremely spicy vegetable material, such as pungent ("hot") varieties of peppers.

## 2. COMPOSITION

### Packing Media

Canned tomatoes may be packed with or without a packing medium expressed, or defined, as follows:

<u>Juice</u> -	with liquid prepared from ripened tomatoes;
<u>Residual material</u> -	with liquid strained from the residue from preparing tomatoes for canning, consisting of sound and clean peelings and cores with or without such tomatoes or pieces thereof;
<u>Purée or Pulp</u> -	with the addition of tomato purée or pulp (concentrated tomato liquid) as defined by Codex Standards for Tomato Concentrates;
<u>Paste</u> -	with the addition of tomato paste (highly concentrated tomato liquid) as defined by Codex Standards for Tomato Concentrates.

### Ingredients

Tomatoes, water and any suitable food grade ingredient may be used in the formulation of the product provided it does not serve to deceive or mislead the consumer. Examples of such ingredients are: salt, ground pepper, spices, spice oils, sucrose, invert sugar, dextrose, glucose syrup, natural vegetable products (basil leaf, onions, peppers, celery, etc.).

### Additives

<u>Acidifying agents</u> -	acetic acid, citric acid, lactic acid, malic acid, tartaric acid, fumaric acid [levels to be specified later];
<u>Firming agents</u> -	calcium chloride or other calcium salts. If such calcium salts are used, the calcium contained in any such calcium salts may be not more than 0.026 percent of the weight of the final product.

## 3. QUALITY CRITERIA

### Colour

The colour is typical of tomatoes that have been properly prepared and properly processed.

Size or Wholeness

Size or wholeness, as such, is not a factor in any style, except that designated as "Whole" style. Canned tomatoes of "Whole" style consist of not less than 80 percent of drained tomatoes in whole or almost whole units.

Defects

- (a) Objectionable core material - internal core material of tough and fibrous texture or which is discoloured throughout the tomato tissue representing the tomato core and that is definitely objectionable as to appearance and edibility.
- (b) Blemished - areas which are abnormal and contract strongly in colour and/or texture with the normal tomato tissue and which would normally be removed in the preparation of tomatoes for culinary use.
- (c) Extraneous plant material - tomato leaves, stems, calyx bracts and similar plant material.
- (d) Peel (or skin) - considered a defect except in "Unpeeled" styles and is that which adheres to the tomato flesh or is found loose in the container.
- (e) Mould.
- (f) Insoluble minerals and sand.

Allowances for Defects

Canned tomatoes shall be substantially free from extraneous plant material and shall not contain excessive defects (whether or not specifically defined or as allowed in this standard). Certain common defects shall not be present in amounts greater than the limitations set out below:

Peel (except in "Unpeeled" styles) -  
Average, not more than 1 square inch (6.5 cm<sup>2</sup>)  
aggregate area per pound (0.453 kg) of  
total contents.

Blemished -  
Average, not more than 1/4 square inch (1.6 cm<sup>2</sup>)  
aggregate area per pound (0.453 kg) of  
total contents.

Mould count (in accordance with Howard Mold Count Method)

- (a) When the tomatoes are packed with juice, the juice portion may not have more than 25% positive fields.
- (b) When the tomatoes are packed with residual material, tomato purée or pulp, or tomato paste, the liquid portion may have not more than 50% positive fields.

Insoluble Minerals or Sand

Not more than 0.02% (200 mg/kg) of the net weight of the product.

Flavour

Canned tomatoes shall have a normal flavour and odour free from flavours or odours foreign to the product; and canned tomatoes with special ingredients shall be characteristically flavoured for the substance(s) used.

4. FILL OF CONTAINER

Minimum fill

The canned tomatoes shall contain tomato material and surrounding liquid of not less than 90 percent of the capacity of the container. Total fill is based on the capacity of the container, expressed in fluid measure.

Minimum drained tomato material

The drained weight of the tomato material shall be not less than 50% of the weight of distilled water, at 20°C (68°F), which the sealed container will hold.

Ascertaining compliance

The requirements for fill of container shall be deemed to be complied with when:

- (a) the total fill for individual containers is met and within the tolerances in Section 5; and
- (b) the drained tomato material on an average from all containers meets the minimum required: Provided, that there is no unreasonable shortage in individual containers.

5. TOLERANCES

For Lot Acceptance

Quality

A container that fails to meet one or more of the applicable minimum quality requirements (for colour, size or wholeness, defects, flavour) of Section 3 shall be considered a "defective" (sub-standard unit). A lot will be considered as meeting the minimum requirements for quality when:

- (1) the number of "defectives" (sub-standard units), based on individual containers, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables; and
- (2) applicable requirements (pertaining to peel and blemishes) based on averages are met.

Minimum fill

A lot will be considered as meeting the requirement for minimum fill when the individual containers which fail the requirement for total

fill do not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables.

## 6. SAMPLING AND TEST PROCEDURES

### Sampling

Sampling shall be in accordance with the Basic Sampling Plans for Processed Fruit and Vegetables.

### Test Procedures

#### Drained Weight Method (for canned tomatoes only)

- (1) Remove lid from container, but in the case of a container with lid attached by double seam, do not remove or alter the height of the double seam.
- (2) Tilt the opened container so as to distribute the contents over the meshes of a circular sieve which has previously been weighed, or for which a tare has been established.
- (3) Without shifting the tomatoes, so incline the sieve as to facilitate drainage of the liquid.
- (4) Two minutes from the time drainage begins, ascertain the weight of the drained tomato material.

#### Specifications for circular sieves

- (a) If the quantity of the total contents of the containers is less than 3 pounds (1.36 kg), use a sieve with a diameter of 8 inches (20.3 cm).
- (b) If the quantity of the total contents of the container is 3 pounds (1.36 kg) or more, use a sieve with a diameter of 12 inches (30.5 cm).
- (c) The meshes of such sieves are made by so weaving wire of 0.054 inch (1.3716 mm) diameter as to form square openings of 0.446 inch (11.3284 mm) by 0.446 inch.

#### Test for Calcium Salts

Determined in accordance with:

- (1) method(s) outlined in the Official Methods of Analysis of the Association of Official Analytical Chemists (U.S.); or
- (2) method(s) which give comparable results such as those being developed by ISO TC 34/SC 3.

#### Mould count method

Determined on the liquid portion in accordance with the method for "Tomato Products (not Dehydrated)" in the Official Methods of Analysis of the Association of Official Analytical Chemists (U.S.) or comparable document wherein this method appears.

7. CONTAINER LABELLING

All labelling of the container shall conform to the Codex Alimentarius Commission's provisions on Food Labelling. In addition, the container shall be labelled in such a manner that under normal purchase conditions the following shall appear conspicuously and be clearly legible:

- (1) The name of the product which is "Tomatoes" together with only the following designation if applicable:
  - (a) as "Pear" or "Egg" or "Plum" tomatoes, if elongated shape;
  - (b) any characterizing seasoning;
  - (c) "Diced" or "sliced" if of those styles;
  - (d) "Unpeeled" when peel is not removed;
  - (e) "Flavoured" or "Stewed" or "Seasoned" or "Highly seasoned" as the case may be;
  - (f) "Packed with Tomato Paste", only when tomato paste is added;
  - (g) The word "Whole" may be used when the product complies with the requirements set out above for wholeness under "Quality Criteria".



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Standard No. PFV 66/5-4

CANNED GREEN BEANS AND CANNED WAX BEANS

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NOTE

The sections of the Canned Green Beans and Canned Wax Beans which deal with additives, methods of analysis and sampling, and labelling, are subject to ratification by the relevant Codex Committees and to any general provisions laid down by these Committees and accepted by the Codex Alimentarius Commission.

1. DESCRIPTION AND DESIGNATION

Product Description

Canned beans is the food product:

- (a) prepared from succulent pods of the fresh green bean or wax bean plant (*Phaseolus vulgaris*) from which strings (if any), stems and ends have been removed;
- (b) packed with water or other suitable liquid medium, nutritive sweeteners, seasoning ingredients, and other ingredients;
- (c) in which the prepared product is sealed in a container and is so processed by heat as to prevent spoilage.

General Sanitary Requirements

All steps in the preparation and processing of Canned Green Beans and Canned Wax Beans should be carried out under conditions as prescribed by the Codex Alimentarius Commission Code of Hygienic Practice for Canned Fruits, Vegetables and Related Products.

Product Designation

Varietal Type

Beans of distinct varietal groups with respect to shape may be designated as

- Round: beans having a width not greater than 1-1/2 times the thickness of the bean.
- Flat: beans having a width greater than 1-1/2 times the thickness of the bean.

Colour Type

Beans of distinct varietal differences will be designated as:

Green; Wax; Golden; Yellow.

Styles

- Whole: whole pods of any length;
- Shoestring; Sliced Lengthwise; French Style (Schnittbohnen - Snybonen): pods sliced lengthwise or at an angle of 45 degrees or less;
- Cuts: transversely cut pods not less than 3/4 inch (20 mm) long and may contain shorter end pieces which result from cutting;
- Short cuts: pieces of pods cut transversely of which 75 percent, by count, or more are less than 3/4 inch long.

Designations in accordance with sizes

Canned beans of whole, cut or short cuts may be designated in accordance with size as follows:

- Small - up to 7.5 mm in diameter
- Medium - from 7.5 to 10 mm in diameter

- Large - over 10 mm in diameter

Size measurement

The thickness of a bean is determined by measuring the shorter diameter transversely to the long axis at the thickest portion of the pod.

2. COMPOSITION

Packing Medium

Canned beans shall be packed with water or other suitable liquid medium.

Ingredients

Any suitable food grade ingredient provided it does not serve to mislead or deceive the consumer may be used in the formulation of the product. Examples of such categories and ingredients include but are not necessarily limited to the following:

Seasonings or similar substances - salt; sugar (sucrose); invert sugar; dextrose; glucose syrup; dried glucose syrup; pieces of green or red peppers or mixture of both; tomato; dill seeds or dill flavouring or similar seasonings; vinegar; butter, monosodium glutamate.

Additives

Vegetable gums	}	for use when butter is an ingredient; 0.5% total
Alginates		
Propylene glycol alginate		

√ Nisin - 100 Reading units/g contents (special usage - see text of Report)

Colouring matter

√ Wool Green BS or Green S - C.I. (1956) No. 44070 and Tartrazine - C.I. (1956) No. 19140 used singly or in combination up to 100 mg/kg maximum.

3. QUALITY CRITERIA

Colour and appearance

The drained beans shall possess normal colour characteristics for canned green beans or canned wax beans. The packing medium shall not have a colour or an appearance which is foreign to the product.

Flavour

The product shall be free from foreign flavours or foreign odours of any kind.

Texture

The beans shall not be fibrous and not more than 10% by weight of the units shall possess tough strings.

### Defects

When tested according to the sampling procedure indicated herein, canned beans shall be free of defects to the extent indicated below:

- 1) sampling unit size
  - a) for extraneous material, entire sample
  - b) for other defects 12 ozs. of drained beans
- 2) allowances
  - a) extra material not more than 3 pieces per 12 ozs. of drained beans
  - b) all other defects
    - i) 8 unstemmed units per 12 ozs.
    - ii) not more than 15% by weight of damaged beans provided not more than 5% by weight is materially damaged by insect or pathological injury.

## 4. FILL OF CONTAINER

### Minimum Fill

The beans and packing medium shall occupy not less than 90 per cent of the volume capacity of the container.

### Minimum Drained Weights

The drained weight of the product shall be not less than the following percentages (for the respective styles) of the weight of distilled water at 20°C (68°F) which the sealed container will hold:

- Whole and sliced lengthwise: not less than 50% drained weight
- Other styles: not less than 55% drained weight.

### Ascertaining Compliance

The requirements for fill of container shall be deemed to be complied with when:

- a) the minimum fill for individual containers is met and within the tolerances outlined in Section 5; and
- b) the drained weights on an average from all containers meet the minimum required: Provided, that there is no unreasonable shortage in individual containers.

## 5. TOLERANCES

### For Lot Acceptance

#### Quality

A container or a sub-sample that fails to meet one or more of the applicable minimum quality requirements (flavour, colour, packing

medium, texture, defects), of Section 3 of this standard shall be considered a "defective" (sub-standard unit).

A lot will be considered as meeting the minimum requirements for quality when:

- 1) the number of "defectives" (sub-standard units), based on individual containers, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables, and
- 2) applicable requirements based on averages are met (extraneous material only).

#### Minimum fill

A lot will be considered as meeting the requirements for minimum fill when the individual containers which fail the requirements for total fill do not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables.

### 6. SAMPLING AND TEST PROCEDURES

#### Sampling

Sampling shall be in accordance with the Basic Sampling Plans for Processed Fruit and Vegetables.

#### Test Procedures

#### Drained Weights

In accordance with the applicable Drained Weight Method for Processed Fruit or Vegetable Products in the "Methods of Analysis of the Association of Official Analytical Chemists" (latest edition) or in accordance with any other standardized method which gives equivalent results.

#### Fibre Test

Fibre test to be developed.

### 7. CONTAINER LABELLING

All labelling on the containers shall conform to the Codex Alimentarius Commission's provisions on Food Labelling. In addition, the containers shall be labelled in such a manner that under normal purchase conditions the following shall appear conspicuously and be clearly legible:

- (a) the name of the product which is green beans or wax beans;
- (b) style, namely whole, shoestring, sliced lengthwise, French style (Schnittbohnen - Snÿbonen), cuts, short cuts;
- (c) colour type: green, golden, yellow, wax; and
- (d) characterizing seasoning ingredients such as "with butter".



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ALINORM 66/20  
Appendix 6  
June 1966

Standard No. PFV 66/5-5

CANNED PEACHES

submitted to the Fourth Session of the  
Codex Alimentarius Commission

for adoption as a

Draft Provisional Standard

NOTE

The sections of the Canned Peaches Standard which deal with additives, methods of analysis and sampling, and labelling, are subject to ratification by the relevant Codex Committees and to any general provisions laid down by these Committees and accepted by the Codex Alimentarius Commission.

1. DESCRIPTION AND DESIGNATION

Product Description

Canned peaches (*Prunus persica*) is the product:

- (a) prepared from peeled, stemmed, fresh or frozen or previously canned mature peaches of commercial canning varieties, but excluding nectarine varieties;
- (b) packed with or without a suitable liquid packing medium, nutritive sweeteners and seasoning or flavouring ingredients appropriate for the product; and
- (c) in which the prepared product is sealed in a container and is so processed by heat as to prevent spoilage.

General Sanitary Requirements

All steps in the preparation and processing of Canned Peaches should be carried out under conditions as prescribed by the Codex Alimentarius Commission Code of Hygienic Practice for Canned Fruits, Vegetables, and Related Products.

Product Designation

Varietal Type

- (a) Freestone - where the pit separates readily from the flesh
- (b) Clingstone - where the pit adheres to the flesh

Colour Type

- (a) Yellow - varietal types in which the predominant colour ranges from pale yellow to rich red orange.
- (b) White - varietal types in which the predominant colour ranges from white to yellow-white.
- (c) Red - varietal types in which the predominant colour ranges from pale yellow to orange red and with variegated red colouring other than that associated with the pit cavity.

Styles

- (a) Whole - unpitted whole peaches
- (b) Halves - pitted and cut into two approximately equal parts
- (c) Quarters - pitted and cut into four approximately equal parts
- (d) Sliced - pitted and cut into wedge shaped sectors
- (e) Diced - pitted and cut into cube like parts
- (f) Pieces - (or irregular pieces) - pitted and comprising irregular shapes and sizes.

Types of Pack

- (a) Regular Pack - with liquid packing medium
- (b) Solid Pack - practically all fruit with very little free flowing liquid

## 2. COMPOSITION

### Ingredients

Peaches, water, nutritive sweeteners and any suitable food grade ingredient may be used in the formulation of the product provided it does not serve to deceive or mislead the consumer. Examples of such ingredients are spices, flavourings, natural fruit essences, vinegar, peach pits and peach kernels.

### Packing Media

Where the packing medium is used, it may consist of:

- (a) Water - in which water, or any mixture of water and peach juice is the sole liquid packing medium;
- (b) Dry sweetener - without added liquid but with permitted dry sweeteners, namely, sucrose, invert sugar, dextrose, dried glucose syrup and such slight amounts of steam, water, or natural juice as occurs in the normal canning of the product;
- (c) Syrup - In which water is combined with sucrose, invert sugar, dextrose, dried glucose syrup and glucose syrup, as defined by the Codex Committee on Sugars, and classified on the basis of out-out strength as:

Extra Light Syrup	-	not less than	10°	Brix
Light Syrup	-	"	"	14°
Heavy Syrup	-	"	"	19°
Extra heavy Syrup	-	"	"	24°

## 3. QUALITY CRITERIA

Unless otherwise stated, these requirements apply to individual containers of the product.

### Flavour

Canned peaches shall have a normal flavour and odour, free from foreign flavours or odours of any kind. Canned peaches with special ingredients shall be characteristically flavoured for the ingredients used.

### Colour

The colour of the product shall be normal for the colour type. Portions which were obviously near or part of the pit cavity and which after canning may become slightly discoloured are considered normal characteristic colour. Canned peaches containing special ingredients as described in Section 1(b) shall be considered of characteristic colour when there is no abnormal discolouration for the respective ingredient used.

### Uniformity of Size

- (a) Whole, Halves, Quarters - in the 95 percent by count of units that are most uniform in size, the weight of the largest unit shall be

- no more than twice the weight of the smallest unit.
- (b) Slices - not more than 25 percent by weight of the units may be partial slices, slivers or slabs. A partial slice is a segment that is less than three-fourths ( $3/4$ ) of an apparent full slice. A sliver is a unit that weighs less than 4 grams and a slab is a unit resulting from an irregular cut, normally circular in shape, having one flat surface and one convex surface.
- (c) Dices - the product is reasonably free from chips and large, irregular shaped units.

### Texture

The peaches shall be reasonably fleshy, may be variable in tenderness and may be slightly soft and frayed. In liquid media packs a maximum of ten percent may be mushy or excessively firm. In solid packs a maximum of 20 percent may be excessively firm.

### Defects

#### Definitions of Defects

Blemish - surface discoloration and spots that definitely contrast with the overall colour and which may penetrate into the flesh.

Examples include bruises, scab and dark discoloration.

Broken - considered a defect only in whole, halved and quartered canned peaches in liquid media pack. The unit must be severed into definite parts; and all of such portions that equal the size of a full-size unit are considered one unit in applying the allowance herein.

Peel - that which adheres to peach flesh or is found loose in the container.

Pit (or stone) - considered defects in all styles other than whole and except when whole peach pits or peach kernels are used as seasoning ingredients. Pit material includes whole pits and pieces (including mature pit points) that are hard and sharp.

Trim - considered a defect only in whole, halved and quartered canned peaches in liquid media packs. The trimming must be excessive and includes serious gouges (whether due to physical trimming or other means) on the surface of the units which definitely detract from the appearance.

#### Allowances for Defects

Canned peaches shall be reasonably free from defects and within the limit set herein for common defects as defined:

<u>Defect</u>	<u>Liquid Media Packs</u>	<u>Solid Packs</u>
Blemish and trim	30 percent by count	3 units per pound (0.45 kg)
Broken (whole, halves, quarters)	5 percent by count	not applicable
Peel *	1 square inch (6,5 cm <sup>2</sup> ) per pound (0.45 kg) of total contents	2 square inches (12,9 cm <sup>2</sup> ) per pound of total contents

\* Examine entire contents of all containers and base upon sample average.

<u>Defect</u>	<u>Liquid Media Packs</u>	<u>Solid Packs</u>
Pit or pit material *	1 pit or its equivalent per 12.5 pounds (5,67 kg) of total contents	some

One pit for the allowances herein provided is: one whole pit; or one large piece, the equivalent of one-half pit or larger; or up to three small hard pieces, the total mass of which is smaller than one half pit.

4. FILL OF CONTAINER

Minimum Fill

The containers shall be well filled with fruit and the product (peaches and packing medium) shall occupy not less than 90 percent the volume of the container.

Minimum Drained Weight

The percentage requirements for drained weight shall be based on the weight shall be based on the weight of canned peaches in relation to the weight of distilled water, at 68°F (20°C) which the sealed container will hold.

Minimum Drained Weights

	<u>In heavy and extra heavy syrup</u>	<u>In light or extra light syrup</u>	<u>Solid Pack</u>
Clingstone Type	57%	60%	84%
Freestone Type	54%	56%	82%

Note: The above requirements do not apply to Whole Style.

The requirements for minimum drained weight shall be deemed to be complied with when the drained fruit from all the containers as an average meets the minimum requirements, provided there is no unreasonable shortage in individual containers.

5. TOLERANCES

For Lot Acceptance

With respect to quality

A container that fails to meet one or more of the applicable minimum quality requirements (for colour, size, defects, texture, flavour) of Section 3 shall be considered a "defective" (sub-standard unit).

\* Examine entire contents of all containers and base upon sample average.

A lot will be considered as meeting the minimum requirements of this standard when:

- (1) the number of "defectives" (sub-standard units), based on individual containers, does not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables; and
- (2) applicable requirements based on averages are met (peel and pit material).

## 6. SAMPLING AND TEST PROCEDURES

### Sampling

Sampling shall be in accordance with the Basic Sampling Plans for Processed Fruit and Vegetables.

### Test Procedures

#### Drained Weights

In accordance with the applicable Drained Weight Method for Processed Fruits or Vegetable Products of the "Methods of Analysis of the Association of Official Analytical Chemists" (latest edition), or in accordance with any other standardized method which gives equivalent results.

#### Syrup Measurements

Syrup measurements of "Cut-out" Brix shall be determined on the finished canned product in accordance with standardized methods by hydrometer or by refractometer.

## 7. CONTAINER LABELLING

All labelling of the containers shall conform to the Codex Alimentarius Commission's provisions on Food Labelling. In addition, the container shall be labelled in such a manner that under normal purchase conditions the following shall appear conspicuously and be clearly legible:

- (a) the name of the product which is Peaches, together with a declaration of characterizing seasoning when applicable;
- (b) a statement as to style, colour type, varietal type;
- (c) a declaration of packing medium and syrup designation as may be applicable;
- (d) a declaration of flavouring and other ingredients as may be appropriate.



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Appendix 7  
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Standard No. PFV 66/5-6

CANNED GRAPEFRUIT

submitted to the Fourth Session of the  
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for adoption as a

Draft Provisional Standard

NOTE

The sections of the Canned Grapefruit Standard which deal with additives, methods of analysis and sampling, and labelling, are subject to ratification by the relevant Codex Committees and to any general provisions laid down by these Committees and accepted by the Codex Alimentarius Commission.

1. DESCRIPTION AND DESIGNATION

Product Description

Canned grapefruit is the food prepared from sound ripe grapefruit (*Citrus paradisi*). Before processing, the fruit is properly washed and peeled; and the membrane, seeds, and core are substantially removed from the sections.

Suitable liquid packing media, nutritive sweeteners, suitable acids, and seasoning ingredients may be added.

The product is sealed in a container and is so processed by heat as to prevent spoilage.

Product Designation

Style (or form)

Canned grapefruit may be packed either as:

- (a) Sections (segments) or
- (b) Broken Sections (broken segments)

General Sanitary Requirements

All steps in the preparation and processing of Canned Grapefruit should be carried out under conditions as prescribed by the Codex Alimentarius Commission Code of Hygienic Practice for Canned Fruit, Vegetables and Related Products.

2. COMPOSITION

Packing Media - Definitions

Canned grapefruit is packed in any one of the following:

- (a) Water in which water is the sole liquid packing medium.
- (b) Juice in which grapefruit juice is the sole liquid packing medium and to which no water has been added directly or indirectly.
- (c) Water and Juice in which water and grapefruit juice are combined as a liquid packing medium.
- (d) Syrup in which water and sucrose, invert sugar, dextrose, glucose syrup or dried glucose syrup, as defined by the Codex Committee on Sugars, are combined as a liquid packing medium and are classified on the basis of cut-out strength as specified below:

<u>Liquid Media</u>	<u>"Cut-out" Brix measurement</u>
<u>Slightly sweetened</u>	12°
<u>Light syrup</u>	16°
<u>Heavy syrup</u>	18°

Ingredients

Lemon juice, spices, flavourings (other than artificial).

Additives

Calcium lactate (level to be supplied)  
Citric acid

3. QUALITY CRITERIA

In addition to the specific requirements that follow, the product shall be free from waste, foreign matter, and insect contamination.

Colour

The colour of canned grapefruit may be variable but is typical of properly processed fruit; the grapefruit may have a slight tinge of amber or being slightly darker than the fresh grapefruit but shall be substantially free from any brown tinge.

Texture

The texture shall be firm and characteristic of the product; and shall be reasonably free from dry cells or fibrous cells affecting the appearance or the edibility of the product. Segments shall be practically free from signs of disintegration.

Flavour

The flavour shall be free from scorching or of any other objectionable flavour, and in the case of canned grapefruit in syrup the flavour shall be characteristic of sweetened grapefruit.

Defects and Wholeness

Definitions

Whole segment

a section or portion of section in which its length is at least 75% of the apparent length of the original segment. A segment which is split in one place only and is not prone to disintegrate shall be considered whole, but parts of a segment joined by a "thread", or by membrane only shall not be considered "whole".

Developed seed

a seed that measures more than 9 millimeters (11/32 inch) in any dimension.

Allowances for Defects and Wholeness

Property	Sections or Whole Segments	Broken Sections or Broken Segments
Whole segments and uniformity	65% or more by weight of drained fruit are whole and reasonably uniform in size	No requirement for wholeness nor uniformity
Total surface covered by membrane - per each 560 gr.	16 sq.cm. maximum (2.63 sq.in.)	16 sq.cm. maximum (2.63 sq.in.)
Developed seeds - per each 560 gr. total contents	2 maximum	3 maximum
Extraneous fruit matter	Free from parts of peel or core and practically free from albedo	

4. FILL OF CONTAINERMinimum Fill

The container shall contain fruit and surrounding liquid of not less than 90% of the capacity of the container.

Minimum Drained Weight

The drained weight of the fruit material shall be not less than 52% of the weight of distilled water, at 20°C (68°F), which the sealed container will hold.

Ascertaining Compliance

The requirements for fill of container shall be deemed to be complied with when:

- a) the minimum fill for individual containers is met and within the tolerances in Section 5; and
- b) the drained fruit material on an average from all containers meets the minimum required: Provided, that there is no unreasonable shortage in individual containers.

5. TOLERANCES

For Lot Acceptance

Quality

A container that fails to meet one or more of the applicable minimum quality requirements (for colour, defects and wholeness, texture, flavour) of Section 3 shall be considered a "defective" (sub-standard unit).

A lot will be considered as meeting the minimum requirements for quality when the number of "defectives" (sub-standard units), based on individual containers, does not exceed the acceptable number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables.

Minimum Fill

A lot will be considered as meeting the requirement for minimum fill when the individual containers which fail the requirement for total fill do not exceed the acceptance number (c) of the appropriate sampling plan (AQL-6.5) in the Basic Sampling Plans for Processed Fruit and Vegetables.

6. SAMPLING AND TEST PROCEDURE

Sampling

Sampling shall be in accordance with the Basic Sampling Plans for Processed Fruit and Vegetables.

Test Procedures

Drained Weights

In accordance with the applicable Drained Weight Method for Processed Fruit or Vegetable Products of the "Methods of Analysis of the Association of Official Analytical Chemists" (latest edition) or in accordance with any other standardized method which gives equivalent results.

Syrup Measurements

Syrup measurements of "Cut-out" Brix shall be determined on the finished canned product in accordance with standardized methods by hydrometer or by refractometer.

7. CONTAINER LABELLING

All labelling on the containers shall conform to the Codex Alimentarius Commission's provisions on Food Labelling. In addition, containers shall be labelled in such a manner that under normal purchase conditions the following shall appear conspicuously and be clearly legible:

- (a) the name of the product which is grapefruit with
- (b) the designation of the packing media: water, juice, water and juice, and syrup; and
- (c) the style: Sections (segments) or Broken sections (broken segments).