

codex alimentarius commission



FOOD AND AGRICULTURE
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Agenda Item 6

CX/PFV 10/25/7-Add.1
September 2010

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON PROCESSED FRUITS AND VEGETABLES

25th Session
Bali, Indonesia,
25 – 29 October 2010

PROPOSED DRAFT SAMPLING PLANS INCLUDING METROLOGICAL PROVISIONS FOR CONTROLLING MINIMUM DRAINED WEIGHT OF CANNED FRUITS AND VEGETABLES IN PACKING MEDIA

COMMENTS FROM: Australia, Cuba, Kenya, Switzerland, Thailand, the United States of America
and OIML

AUSTRALIA

General comments

Australia thanks the EU for its effective work as leader of this working group, and welcomes the opportunity to provide comments on this paper which will be submitted to the 25th Session of the committee.

While Australia sees merit in continuing to develop a more scientific approach to sampling for control of minimum drained weight of canned fruits and vegetables in packing media than applies with the current guidelines, we believe that it is preferable to aim for as much simplification and the most workable document possible for users who have varying levels of technical expertise.

Considerable technical information is provided in a number of resources including CAC/GL 50-2004 *General Guidelines on Sampling*; WELMEC *Guidance for the Verification of Drained Weight, Drained Washed Weight and Deglazed Weight and Extent of Filling of Rigid Food Containers*; and the International Organisation of Legal Metrology (OIML) R 87 Edition 2004 *Quantity of product in prepackages*. Australia notes a recent report to Codex from the OIML (May 2010) in which a first Committee Draft for the revision of OIML R 87 is expected later this year, and which may contain statistical requirements for sampling plans.

Specific comments

Australia notes the reformatting which has occurred in the latest version of the document. We believe the sequencing is more logical, with placement of the main part of the Plan as the leading part of the document; followed by the *Formula for the control of average actual drained net weight of items in a prepackage lot* as Annex 1; and the four *Examples of Checking with Different Tests* as Annex 2.

Australia suggests that footnote number ¹ be attached to the words in the heading: *Proposed Draft Sampling Plans Including Metrological Provisions for Controlling Minimum Drained Weight¹* to refer directly to the explanation of use of the term weight in footnote ¹ at the bottom of the page.

As the term AQL (Acceptable Quality Level) is used throughout the document, Australia suggests that it and its definition be included in section 2 Definitions. Similarly, Nominal Quantity of Prepackage (Q_n) could be included in the definitions. These inclusions would eliminate the need for the user to search through the Annex for definitions when reading text in the body of the document.

There appears to be an omission of “CAC/GL 50-2004”, which was included in the previous two drafts, from footnote 2 and we suggest they be included in the footnote of the revised draft so that it reads:

‘Definitions: The only definitions given are those needed for this sampling plan; a full list of definitions is given in the General Guidelines on Sampling (CAC/GL 50-2004).’

Australia notes the amendment of “the number of defective units (under 232g)” in Example 1 (palm hearts) 2.2 *Defective Checking* from 2 to 0.

Conclusion

Australia believes that in developing a sampling plan, it is important to achieve a suitable balance between consumer and producer interests, and between consistency of sampling and unnecessary complexity, and looks forward to continuing work with the committee on this important document.

CUBA

(i) General observations

The proposed draft sampling plan for minimum drained weight control submitted in this Draft has very solid scientific foundations, but clashes with the adequate balance that should exist between the interests of producers and consumers. On the other hand, the final result of the subject matter is significantly influenced by the diversity of fruits and vegetables used to produce this type of product, and by the nature and type of the technological processing used.

There are other approved international standardization documents (mentioned in the document) that allow legal metrology authorities of different countries to apply sampling plans to these canned fruit and vegetable products that correspond to the proposal of this Draft, that are used in order to protect the rights of the consumer, and to act when necessary with producers when violations are detected regarding compliance with drained net weight during their inspection work.

The Committee should submit evidence of claim statistics by consumers or wholesale clients in the different countries to illustrate and consolidate this proposal, and the need to have a standard that would become an obstacle for small- or medium-size producers who would have to comply with it once approved.

Therefore, Cuba does not support continuation of the work in this document of the Codex Committee on Processed Fruits and Vegetables.

KENYA

Comments

The Initial attempt was to decrease the AQL to allow for more flexibility, while ensuring greater consumer protection but we have noted that the new proposed document is too complicated for the purposed intended; it should be discontinued and keep existing process in place.

SWITZERLAND

Switzerland wishes to congratulate the Electronic Working Group led by France for the excellent work done on the **Proposed Draft Sampling Plans Including Metrological Provisions for Controlling Minimum Drained Weight of Canned Fruits and Vegetables in Packing Media**.

Switzerland appreciates the opportunity to make comments on the above-mentioned document which is being circulated at Step 3 in view of its consideration under Agenda Item 6 at the forthcoming session of the Codex Committee on Processed Foods and Vegetables session as follows:

GENERAL COMMENTS

Switzerland notes that some of the metrological requirements indicated in CX/PFV/10/25/7 are neither consistent with the requirements defined by the International Organisation of Legal Metrology (OIML) nor those developed by the European Cooperation in Legal Metrology (WELMEC). In our view, Codex should strive to develop standards which take full account of the recognised international standards in order to avoid discrepancies and conflicting situations in the future. 2/2

SPECIFIC COMMENTS

Section 2.7: Tolerable negative error

The Table in **Section 2.7.2** indicates the tolerable negative error for the actual drained net weight of a pre-package. However, when we examined the figures indicated in this Table, we realised that the tolerable negative errors, as defined in the current draft CX/PFV/10/25/7 are the double of the values defined by the OIML and the WELMEC. We are fully aware of the fact that the variability of products for example maturity, counts, size of units, etc. have to be taken into account. As stated previously, Codex should strive to avoid discrepancies and inconsistencies with other international Standards and we therefore propose that the Committee resolves this crucial issue before proceeding further.

Switzerland therefore wishes to submit the following proposal which could be included under Section 2.7.2 for consideration:

- 2.7.2.1 The actual drained weight of the pre-packages in a batch shall not be less, on average, than the nominal drained weight.
- 2.7.2.2 Individual pre-packages having a negative error of the actual drained weight greater than **twice** the tolerable negative error laid down in Table 2 of OIML R. 87 or in Table 1 of the WELMEC Guide 6.8 will be defined as defective. If the number of defective units is equal to or smaller than 1, the batch would be accepted (with an AQL of 2.5)
- 2.7.2.3 Individual pre-packages having a negative error of the actual drained weight greater than **2.5** of the tolerable negative error laid down in Table 2 of OIML R. 87 or in Table 2 of the WELMEC Guide 6.8 will be defined as not acceptable and may not be marketed.

Comments on Annex 1 of Annex I, page 9

2.2 *Defective checking*: We propose to use consistent wording and to therefore replace “maximum acceptable error” by “tolerable negative error”, as defined in the table in section 2.7.2.

Comments on Annex II, I-The Proposed Draft Sampling Plans, 1-The bases of the Draft, page 14

Switzerland strongly favours the idea to perform tests by the so called “double requirement”, check of average as well as check of minimum content in order to avoid unreasonable shortage and to keep the number of defective packages at a minimum.

We thank you for considering our comments and we look forward to fruitful discussions at the forthcoming CCPFV session.

THAILAND

Proposed Draft Sampling Plans Including Metrological Provisions for Controlling Minimum Drained Weight of Canned Fruits and Vegetables in Packing Media

We would like to propose that the “acceptable quality limit” (AQL) of the sampling plan should be confirmed at 6.5, since this AQL has been widely recognized and used without any problems arisen among producers and traders.

UNITED STATES

The United States welcomes the opportunity to comment on the Proposed Draft Sampling Plans Including Metrological Provisions for Controlling Minimum Drained Weight of Canned Fruits and Vegetables In Packing Media (CX/PFV 10/25/7) that will be considered at the 25th Session of the Codex Committee on Processed Fruits and Vegetables (CCPFV).

General Comments:

The U.S. appreciates the efforts of the Working Group led by France. From our review of notices on non-conformity due to insufficient “fill of container” and “unreasonable shortage,” the U.S. found very low numbers of such reports in comparison to the volume of canned fruits and vegetables traded. Given this, the U.S. strongly recommends that the CCPFV retain the existing text and values therein and discontinue work on this agenda item. If the Committee believes that more precise determinations are needed for defining “unreasonable shortage” and the allowable number of such units, the U.S. strongly recommends that such standards not be more restrictive than the current standards.

Specific Comments

The U.S. strongly recommends discontinuing the development of this document for the following reasons:

- The existing Minimum Drained Weight text in CCPFV standards is simple, easily understood, and works well; there is no evidence that it has created any problems in international trade.
- The AQL value of 6.5 is internationally accepted and has been used in CCPFV standards for many years. Moreover, there is no justification or specific information that this value is inadequate in addressing consumer or trade issues. In addition, the U.S. is concerned that reducing the AQL value from 6.5 to 2.5 would result in the Codex standard being more restrictive than necessary.
 - The document is too complex for the purpose intended. It does not take into consideration that these procedures are most often done in the field, the volume of destructive testing that its application entails, and the cost of the lengthy inspection procedure.
- The document does not address the differences among national legislations concerning drained weights. In addition, the document indicates that it conforms to the International Organisation of Legal Metrology (OIML) R87 document which is managed by the OIML Technical Committee 6 (TC6). The U.S. notes that the OIML R87 document is currently being reviewed for possible revision by OIML TC6 to address inconsistencies in the sampling plans and the statistics found in the document.

- The limited resources of the CCPFV would be more effectively applied to other work of more importance such as developing new standards.

The U.S. recommends that the Committee consider establishing a simple threshold to define “unreasonable shortage.” The U.S. has used the following definition effectively in its domestic and import/export trade of processed fruits and vegetables:

Excessive Shortage exists if the drained weight of the container is less than 45% of the container’s water capacity, or less than the recommended minimum drained weight minus the weight of an average size unit, whichever is less.

OIML

Introduction

The OIML appreciates the opportunity to comment on the proposed draft sampling plan including metrological provisions for controlling minimum drained weight of canned fruits and vegetables in packing media. Unfortunately, the OIML became aware of the proposal rather recent and the comments are, therefore, mainly of a general nature, as explained further on.

The OIML notes that the Codex proposal deviates in some fundamental aspects from the relevant international standard and the national regulations of many countries concerning the control of the quantity of product in prepackages. The OIML offers to cooperate with CCPFV in order to resolve these deviations

The OIML and its Recommendations for prepackages

The OIML is an intergovernmental organization established by the OIML Convention (Paris, 1955) and has 115 members, (57 Member States and 58 Corresponding Members).

One of the purposes of the OIML is to harmonize national regulations for measurements and measuring instruments used for trade, commercial transactions, health and safety, protection of the environment and consumer protection.. The OIML publishes Recommendations, which are model regulations and international standards under the terms of the WTO/TBT Agreement.

The OIML has published two Recommendations relevant to the metrological control of the quantity of product in prepackages:

- OIML R 87 *Quantity of product in prepackages*¹, and
- OIML R 79 *Labeling requirements for prepackaged products*².

OIML R 87 specifies

- legal metrological requirements for prepackaged products labeled in predetermined constant nominal quantities of weight, volume, linear mass, area or count, and
- sampling plans and procedures for use by legal metrology officials in verifying the quantity of product in prepackages.

Many countries have implemented the provisions of OIML R 87 into their national legislation for the control of the quantity of product in prepackages placed on their market. Generally, these national provisions are also applied to the drained quantity of canned fruits and vegetables.

Other countries have regulations that are compatible with OIML R 87 requirements, such as the European Union ‘e’-marking Directive, implemented by all EU Member States and a number of non-EU countries. Several Regional Legal Metrology Organizations actively promote the use of OIML R 87 by their members.

OIML R 87 and OIML R 79 are currently under revision. The responsible OIML Technical Committee is OIML/TC 6 for which South Africa holds the secretariat (see Annex 1 for information on OIML/TC 6).

¹ OIML R 87:2004 is available for download at: <http://www.oiml.org/publications/>.

² OIML R 79:1997 is available for download at: <http://www.oiml.org/publications/>.

Checking the quantity of product in prepackages

For reasons of consumer protection, national authorities establish regulations to control the quantity of product in prepackages; the underlying principle being that the prepackage should contain the quantity that is declared on the prepackage (nominal quantity). Originally, this was (and in some cases still is) interpreted such that each prepackage shall contain at least the nominal quantity ('minimum system'). To account for the the variation in the actual quantity due to the characteristics of the production process, the producer has to overfill (on average) to ensure that each individual prepackage met the requirement³.

To accommodate the producers, so that they could reduce the overfill, the so called 'average system' was introduced, which is now the basis of OIML R 87 and many national and regional regulations.

The principles of the average system as specified in OIML R 87 are known as the three packers' rules:

- the actual quantity of product in prepackages shall, on average, at least be equal to the nominal quantity;
- not more than 2.5 % of the prepackages shall have an actual quantity of product of less than the nominal quantity minus the tolerable deficiency (T_1 -error);
- no prepackage shall have an actual quantity of product of less than the nominal quantity minus twice the tolerable deficiency (T_2 -error).

For the sampling tests, OIML R 87 specifies that:

- the probability of rejecting of an inspection lot containing 2.5 % (AQL = 2.5) of inadequate prepackages⁴ shall not exceed 5 %;
- inspection lots with an average quantity of product less than the nominal quantity minus 0.74 x the sample standard deviation and containing 9 % inadequate prepackages, shall be detected in 90 % of the cases.

The third of the three packers' rules constitutes an absolute minimum for the actual quantity of product in any prepackage in order to safeguard an individual consumer against buying a prepackage with an excessive shortage of product.

OIML comments of the draft sampling plans (document CX/PFV 10/25/7)

As mentioned in the introduction, the OIML became aware of the proposal only recently. The secretariat of OIML/TC 6 circulated the proposal to the members of TC 6 with a request for comment by 28 July 2010.

To date (30 July), only five members responded. Their comments are attached (see annex 2) and should be viewed as initial general comments.

The main issues that arise from these comments are:

- the tolerable deficiency in the proposal is twice the value specified in OIML R 87;
- there is no absolute lower limit for the actual quantity of product in a prepackage.

The OIML concerns may be summarized by the conclusion that using the proposed sampling plans will cause inspection lots of prepackages to be rejected by countries that have adopted OIML R 87 or have regulations with compatible requirements.

On the other hand, the OIML appreciates the fact that the proposed sampling plans use an AQL of 2.5 instead of 6.5, which relatively lessens the risk of accepting non-conforming inspection lots (consumer risk), while the producer risk is still acceptable, as explained in the explanatory notes to the proposal.

Conclusion

The OIML appreciates that CCPFV, in developing the proposal for sampling plans for controlling minimum drained weight of canned fruits and vegetables (as contained in document CX/PFV 10/25/7) has considered OIML Recommendation R 87, a well established international standard.

The OIML, however, is concerned that the proposed sampling plans will cause inspection lots of prepackages to be rejected by countries that have adopted OIML R 87 or have regulations with compatible requirements.

³ Note that the amount of overfill is determined by the combination of the characteristics of the product and the quality of the production process, the latter being totally under the control of the packer.

⁴ An inadequate prepackage is a prepackage with an actual quantity of product less than the nominal quantity minus the tolerable deficiency ($Q_a < (Q_n - T_1)$).

In the spirit of good cooperation between OIML and Codex, OIML/TC 6, which is currently in the process of revising OIML R 87, offers its support to CCPFV in the further development of the proposal for the sampling plans, with a view to avoid any discrepancies between Codex and OIML provisions for the control of the quantity of product in prepackages.

TC 6: Prepackaged productsLast Update: 2010-03-02 16:20:28**Secretariat**SOUTH AFRICA

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Liaisons

CECIP, European Committee of Weighing Instruments Manufacturers

CEN, European Standardization Committee

Codex Alimentarius

FEA, European Aerosol Federation

FIVS, International Federation of Wines and Spirits

IEC, International Electrotechnical Commission

ISO, International Standardization Organization

Responsibilities for publicationsR 79: Labeling requirements for prepackaged products - Confirmed 1997-10-31 - *Under revision*R 87: Quantity of product in prepackages - Confirmed 2003-10-31 - *Under revision*R 87-erratum: Erratum (2008.06.16) to R 87 (Edition 2004) Quantity of product in prepackages - Confirmed 2007-10-31 - *Under revision*

Status of projects

- **p1:** OIML certificate for prepackaged goods
1 CD - 2009-07-31
- **p2:** Revision of R 79 "Labeling requirements for prepackaged products"
2 WD - 2009-07-31
- **p3:** Revision R 87 "Quantity of product in Prepackages"
- **p4:** Methods for determining the quantity of product in prepackages

Planned Activities and Meetings in 2010

- Meeting of TC 6, venue: Pretoria, NCRS (South Africa), date: 1 to 5 March 2010
- **p1:** Collate comments to OIML I/Q-mark, CD2, received from TC 6 Members by July 2010
- **p2:** Collate comments to revision of OIML R 79, WD3, received from TC 6 Members by July 2010
- **p3:** Collate comments to revision of OIML R 87, WD1, received from TC 6 Members by September 2010

TC 6 COMMENTS on CX/PF 10/25/7

Member	Clause/Page	Comment
South Africa	Heading of CODEX document and wording in various clauses	Remove the word “minimum” where it appears before “drained weight” in the heading and various clauses of the document as the average requirement would apply as it does for the total mass of the product including the liquid. In the CODEX document a negative error is permitted so the minimum rule does not apply.
Denmark	Heading of the document	The heading of the document is: “Proposed draft sampling plans including - - - - . The proposed change is: “Proposed draft sampling plans including metrological provisions for controlling (minimum) average - - - - -. The word minimum is proposed exchanged with the word average.
South Africa	Annex 1, Par 2.1	We would prefer to drop the word “net” from “nominal net weight” as the liquid medium is regarded as a packing medium and the word “net” implies the exclusion of all packing media meaning that the nominal weight is not a true net weight. Because of this conflict OIML TC 6 was requested to drop all references to the word net and this will be done in the latest draft documents. New definitions will be developed to make it clear that declared mass must exclude all packing media including liquid media in the case of drained mass declarations.
New Zealand	2.1	This definition is the only place Nominal Net Weight is used in document. It is suggested this should be Nominal Quantity. The abbreviation Qn should be used.
South Africa	Annex 1, Par 2.7.1	This clause seems incorrect. To be more accurate add the word “permitted” after the word “deficit” and replace the word “nominal” with the word “declared”. If our interpretation is not correct, please define “nominal drained net weight”.
South Africa	Annex 1, Par 2.7.2	The “tolerable negative error for drained net weight” proposed in the CODEX document is double the tolerable deficiencies prescribed in OIML R 87, Table 2.
Switzerland	Annex 1, Par 2.7.2	The tolerable negative errors, as defined in the current draft of CX/PFV/10/25/7, are the double of the values as defined in OIML as well as in the WELMEC guide 6.8, draft Issue 2 chapter 2.1 of October 2009. These discrepancies have to be discussed and have to be resolved. We are fully aware that the variability of products like maturity, counts, size of units have to be taken into account. An adopted text, following somehow the WELMEC guide 6.8 (draft of October 2009) could be a possible solution: 2.1 Requirements for drained weight 2.1.1 The actual drained weight of the pre-packages in a batch shall not be less, on average, than the nominal drained weight . <ul style="list-style-type: none"> ▪ Individual pre-packages having a negative error of the actual drained weight greater than twice the tolerable negative error laid down in Table 1, will be defined as defectives. If the number of defective units is equal to or smaller than 1, the batch is accepted (with an AQL of 2.5) ▪ Individual prepackages having a negative error of the actual drained weight greater than 2.5 the tolerable negative error laid down in Table 1 will be defined as non acceptable and may not be marketed..

Member	Clause/Page	Comment
New Zealand	2.7.2/4.1.2/ 4.2	Abbreviation Qn used here and also in annex 1. Throughout annex 2 abbreviation is NQ. Suggest Qn should be used as in OIML R87
South Africa	Annex 1, Par 3.3.2 and 3.3.3	OIML R 87 does not make provision for destructive sampling plans, however, the described sampling plan is based on ISO principles for an AQL = 2,5 and is accepted in European and other countries e.g. South Africa. Cognisance should be taken of the fact that if CODEX members implement sampling plan based on an AQL = 6,5, legal metrology bodies regulating the quantity of the product in prepackages to an AQL = 2,5 might reject these products.
South Africa	Annex 1, Par 3.3.3 and 4.2	OIML R 87 section 4.1.1 provides for the criteria for the acceptance or rejection of inspection lots. These consists of three rules pertaining to the average, 2,5 % allowed to exceed the tolerable deficiency and nothing allowed to exceed twice the tolerable deficiency. The CODEX document does not provide for the second and third rules. This will probably cause prepackages to be rejected by countries that have adopted OIML Recommendations. See Annex 1, example 1, page 9, paragraph 3 which would have been rejected by OIML requirements.
New Zealand	3.3.3	1 defective package is allowed. If we look at example calculations in annex 2 it appears that one defective package is allowed and the deficiency on that package can be any amount less than the amount defined in 2.7.2. Table 3.3.3 should be changed so that acceptance number is 0. This would mean any sample with a package with a tolerable error greater than that shown in table 2.7.2 would fail. This would be in keeping with the T2 error in R87
New Zealand	4.2	Suggest TNE or T be used instead of E
New Zealand	5.2	“Kiwi” (2X) in the table should be changed to read “kiwi fruit”. (kiwi is a New Zealand native bird)
South Africa	Examples	Clause 1: The heading “average test only” seems to be misleading because the requirement for average in this document allows for the correction of the average when sampling and the “double test” will apply. If the “average test only” is meant to refer to cases where a 100 percent of the population of prepackages is tested, this should be clearly stated. Clause 2: Replace “average and minimum content” with “average and defective units” as a minimum system is not applied.
Switzerland	Annex 2, 1 st example	<i>2.2 Defective checking:</i> We propose to use consistent wording and replace “maximum acceptable error” by “tolerable negative error”, as defined in the table in 2.7.2.
New Zealand	Page 9	Example 1. mean and std dev calculations wrong. The batch will fail under section 2.1 using corrected figures.
Switzerland	Annex II,I-1 (Basis of the draft)	We strongly favour the idea to perform tests by the so called “double requirement”, check of average as well as check of minimum content to avoid unreasonable shortage and keep number of defective packages at minimum.
New Zealand	Page 10	Example 2. The table show 14 of the 20 packages are less than the drained weight statement. If we apply requirements of R87; 9 packages have errors greater than T1 and 2 are greater than T2. If the result for package number 3 is changed to read 450 g the lot would pass yet it would fail under R87 because it would have 8 packages >t1 and 1 package >t2. We think the acceptance errors in the codex document are to great and disadvantage the consumer. It is suggested that the table 2 in R87 and the tolerable deficiencies as defined in 4.2.3 of R87 and the examination procedure in annex A of R87 should be used.