

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of
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World Health
Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - Fax: (+39) 06 5705 4593 - E-mail: codex@fao.org - www.codexalimentarius.org

Agenda Item 6

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD HYGIENE

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PROPOSED DRAFT ANNEXES TO THE CODE OF HYGIENIC PRACTICE FOR LOW-MOISTURE FOODS

Comments of Colombia, Iran, Mali, Nigeria, Philippines, Senegal, Thailand and African Union

COLOMBIA

I. ANEXO I.

Colombia recomienda suprimir el anexo i el cual busca incorporar ejemplos de criterios microbiológicos a un código de prácticas de higiene del *Codex Alimentarius*, por cuanto puede ser tomado como referencia internacional. Lo anterior, es de preocupación para el país, debido a que los criterios microbiológicos son definidos por cada nación con base en sus particularidades sanitarias, riesgo a la salud pública y los productos alimenticios que cubre cada uno de ellos.

Propuesta: Eliminar.

II. ANEXO IV.

Colombia propone la supresión del anexo, por cuanto no incluye aspectos relativos al control de microorganismos patógenos en este grupo de productos alimenticios. Lo relacionado, es inherente a condiciones para evitar los hongos productores de micotoxinas, aspectos que son abordados en el comité.

IRAN

ANNEX I

EXAMPLES OF MICROBIOLOGICAL CRITERIA FOR LOW-MOISTURE FOODS

3. In line 3, it is suggested that “, stored and distributed” added after “... which the product was produced”.

Where appropriate, specifications for pathogenic microorganisms, such as *Salmonella* spp., should be established that take into account subsequent processing steps, the end use of the low moisture food, the conditions under which the product was produced, stored and distributed, as well as the intended population [especially when such a population may be more susceptible to foodborne infection].

4. “**security**” has to be replaced by “**safety**” in line 3.

4. We propose the addition of this statement at the end of paragraph. “**Also, when microorganisms are damaged through previous processing, using resuscitation process and media in microbial testing has to be considered**”.

When used properly and combined with validated process controls, testing can provide actionable information that helps to assure the safety of the products produced. Testing cannot guarantee the safety of the product. Microbiological testing alone may convey a false sense of **safety** due to the statistical limitations of sampling plans, particularly when the hazard presents an unacceptable risk at low concentrations and has a low and variable prevalence. Microorganisms are not homogeneously distributed throughout food and testing may fail to detect organisms present in a lot. **Also, when microorganisms are damaged through previous processing, using resuscitation process and media in microbial testing has to be considered.**

Page 5, paragraph 5, table footnote:

Repeatability is a statistical criterion which should be considered and mentioned together with others concepts such as sensitivity, reproducibility and reliability. So, we suggest to add it into the text.

The methods to be employed should be the most recent version of ISO 6579, or other validated methods that provide equivalent sensitivity, reproducibility, repeatability, and reliability.

ANNEX II**GUIDANCE FOR THE ESTABLISHMENT OF ENVIRONMENTAL MONITORING PROGRAMS FOR *SALMONELLA* SPP. AND OTHER ENTEROBACTERIACEAE IN LOW-MOISTURE FOOD PROCESSING AREAS**

(e) Analytical methods

Addition of underlined statements is suggested:

This should be documented appropriately. Under certain circumstances, it may be possible to composite (pool) certain samples but if this is done then the sensitivity of the microbiological testing method should not be reduced. Especially when the data history of microbial testing has shown no frequent contamination. However, in the case of positive findings, additional testing will be necessary to determine the location of the positive sample. At this time, separate sample examinations will have to be done to facilitate finding the exact location of contamination.

SECTION III - PRIMARY PRODUCTION**3.3 HANDLING, STORAGE AND TRANSPORT**

As other microorganisms other than mycotoxin-producing molds (such as bacterial spores) can contaminate spices and herbs, it is suggested that “mycotoxin-producing moulds” be replaced by “all potentially contaminating microorganisms”.

Plant matter that is damaged or other plant waste material should be disposed of properly and removed from the growing/harvest area in order to minimize the potential for it to serve as a source of all potential contaminating microorganisms. If possible, only the amount that can be processed in a timely manner should be picked in order to minimize growth of all potential contaminating microorganisms prior to processing. When the amount harvested exceeds processing capabilities, the excess should be stored under appropriate conditions.

3.3.4 Packing in the growing/harvest area

21. As it is mentioned in other sections (5.4. packaging), we propose to write “container” rather than “bag” for any material used for packaging. Likewise, as jute bags are water- and gas- permeable, they are not a suitable barrier for spices and dried herbs packaging. With regard to this, the author(s) also said that packages should prevent increasing of moisture in the spices and dried aromatic herbs. So, “jute bags” could be deleted here or the sentence could be changed to “jute bags should not be used for spices and dried herbs, as far as possible”.

When packing spices and dried aromatic herbs in the growing/harvest area for transport, storage, or for further sale, new bags/containers should be used to prevent the potential for microbial, physical and chemical contamination. When bags/containers are marked, food-grade ink should be used to minimize the potential for contamination with ink. When bags/containers have an open structure, such as jute bags/containers, the bags/containers should not be marked when filled with spices and dried aromatic herbs to prevent liquid ink from contaminating the contents and increasing the moisture in the spices and dried aromatic herbs. It is recommended that paper tags be used instead of liquid ink for marking. Although, jute bags should not be used for spices and dried herbs, as long as possible.

4.4 FACILITIES**4.4.8 Storage**

27. “or germination of spores” should be added after the last word at the end of paragraph.

Spices and dried aromatic herbs should be stored in an environment with humidity that does not result in product moisture that can support the growth of moulds or germination of spores.

SECTION V - CONTROL OF OPERATION

5.1 CONTROL OF FOOD HAZARDS

28. As the microbial and chemical contaminants are separated in the text, should the physical contaminant not be added there? We propose as change such as below:

Measures should be taken at each step in the food chain to minimize the potential for contamination of spices and dried aromatic herbs by microbial pathogens (including mycotoxin-producing moulds), chemical contaminants **and physical contaminants (excreta, rodent hair, insect fragments and other foreign materials)**.

31. Such as the previous comment in item 27:

Drying time should be reduced as much as possible by using optimal drying conditions to avoid fungal growth, toxin production **and germination of spores**.

5.2.5 Physical and chemical contamination

44. “**mesh**” instead of “**diameter**” for sieves.

Sieves of different **mesh** may be used to obtain the size required for each product and to remove foreign matter.

45. What is the size referred to in line 2 of the paragraph? It could be changed to “weight and size of particles, density, air speed, ...”

Regardless of the type of separator used, the following parameters should be considered: **weight and size of particles, density, air speed**, inclination of the sieve plate, vibration, etc. for the highest effectiveness of the procedure.

5.4. Packaging

52. Regarding suggestion on item 21, no loose bags/containers should be used for low moisture foods because of their water and gas permeability. So, some definitions have to be added here.

If reusable **bags/containers** are used, they should be properly cleaned and disinfected before use. All bags/containers should be in good condition and particular attention paid to the potential for loose bag fibres that can become potential contaminants. Secondary containment bags/containers providing additional protection can be reused but should not have been previously used to hold non-food materials such as chemicals or animal feed. **However, as mentioned in item 21, no loose bag fibers should be used as long as possible.**

SECTION VIII – TRANSPORTATION

64. Bacterial spores could be germinated under appropriate condition, too. So, bacterial spores should be added at the end of paragraph.

Prior to bulk transport, the products must be dried to a safe moisture level to prevent germination and growth of moulds **and bacterial** spores.

8.1. General

65. It is helpful to add “**cross-contamination**” in the text.

Vehicles should be clean, dry, and free from infestation. Spices and dried aromatic herbs should be loaded, transported, and unloaded in a manner that protects them from any damage, **cross contamination** or water.

MALI

Il est favorable à sa progression à l'étape suivante de la procédure.

Observations particulières

Des travaux supplémentaires sont recommandés et devraient aborder les questions suivantes:

- Quelle est la pertinence de ces 6 différentes annexes?
- Est-ce que l'ajout de ces annexes ne rend pas le document plus difficile à utiliser?
- Est-ce que les exemples de critères microbiologiques applicables aux aliments à faible teneur en eau sont suffisants?

- Faire une comparaison entre l'"Annexe sur les épices et les plantes aromatiques séchées" et le "Code d'usages en matière d'hygiène pour les aliments à faible teneur en eau" qui a été adopté par la Commission l'année dernière pour supprimer toutes les sections superflues et éviter des doubles emplois.

NIGERIA

Nigeria supports the retention of all six annexes as they are important and relevant to this Proposed Draft Code of Hygienic Practice for Low-Moisture Foods at Step 8.

Rationale: Each annex deals with the specifics of commodities which will be very helpful and useful to all users of this document.

PHILIPPINES

General Comments:

The Philippines would like to support the document prepared by EWG, "Proposed Draft Annexes to the Code of Hygienic Practice for Low Moisture Foods" at Step 3.

Rationale: We believe that the document sufficiently covers Good Manufacturing Practices, Good Agricultural Practices and Good Hygienic Practices for Low Moisture Food.

SENEGAL

2.1 La nécessité pour toutes les six annexes:

Il ya une discussion quant à savoir si toutes les six annexes au présent projet de Code d'usages pour les aliments faible teneur en humidité sont nécessaires.

Position: Le Sénégal soutient le maintien de toutes les six annexes car elles sont jugées importantes et pertinentes à ce projet de Code d'usages pour les aliments à faible humidité à l'étape 8. Chaque annexe porte sur les spécificités des produits de base qui seront très utiles à tous les utilisateurs de ce document.

2.2 Annexe 1: Exemples de critères microbiologiques pour les aliments à faible taux d'humidité

Position: Le Sénégal soutient le maintien de la présente annexe. C'est une annexe extrêmement importante car elle prend en considération les conditions fondées sur le risque dans lesquelles des aliments faibles en humidité sont produits, manipulés et consommés par diverses populations, y compris les groupes vulnérables. Comme indiqué, la référence à la dernière publication de l'ICMSF dire Book Number 8 (2011) est appropriée pour la présente annexe, car cela est une source fiable d'informations scientifiques actuelles. Cette annexe donne un très bon guidage et une assistance aux industries de toutes catégories.

2.3 Annexe II: Programme de surveillance de l'environnement

Position: Le Sénégal soutient la question de l'échantillonnage au niveau de l'environnement car c'est très pertinent. Salmonella en particulier, peut être trouvée dans le même environnement de nombreuses années après la contamination initiale du produit. Cette annexe prévoit notamment un très bon guidage pour cet aspect de plus en plus important de la surveillance microbiologique. Elle prévoit également les gouvernements et les associations de l'industrie pour développer davantage, des programmes plus détaillés pour la surveillance de l'environnement, au besoin.

Le Sénégal soutient la référence à des entérobactéries (EB) dans le programme d'échantillonnage au point 5, comme ça a été dûment pris en compte.

2.4 Annexe VI: Arachides:

Il ya une discussion pour savoir si cette annexe n'a pas déjà été abordée dans le PGHA et le Code d'usages pour la prévention et la réduction des aflatoxines dans les arachides (CAC / RCP 55-2004).

Position: Le Sénégal recommande que la brève annexe sur les arachides soit conservée. Toutefois, la phrase suivante devrait être ajouté : "Cette annexe devrait être utilisé en conjonction avec PGHA et le Code d'usages pour la prévention et la réduction des aflatoxines dans les arachides (CAC / RCP 55-2004)". Elle fournira des orientations coordonnée à l'utilisateur de la présente annexe. Par conséquent, la protection de la santé et la sécurité du public doit être améliorée compte tenu de la forte consommation d'arachides et les produits dérivés à l'échelle mondiale, en particulier en Afrique.

2.5 Annexe III: Les épices et les herbes aromatiques séchées:

Un amendement est proposé à la section IV: Création - Conception et installations, 4.2 Locaux et Chambres, numéro de peine de 23.

Position: Le Sénégal recommande l'amendement suivant (indiqué dans le libellé gras et souligné). "Lorsque cela est possible, les bâtiments et les installations devraient être conçus pour fournir une séparation, par une cloison, un emplacement ou d'autres moyens efficaces, entre les opérations qui pourraient entraîner la contamination croisée. Ils doivent être conçus pour faciliter les opérations d'hygiène selon la direction de l'écoulement à sens unique, sans retour en arrière, à partir de l'arrivée des matières premières dans les locaux au produit fini, et prévoir la température appropriée **"et les teneurs en humidité"** pour le process et le produit".

Commentaires : La justification de cette addition est que les teneurs en humidité doivent être contrôlées afin d'empêcher la contamination et la croissance des moisissures ainsi que la formation potentielle de mycotoxines.

2.6 Annexe III: Les épices et les herbes aromatiques séchées:

Un amendement est proposé à l'article VI: Création - Maintenance et de l'assainissement, 6.2 Programmes de nettoyage, numéro de phrase 60.

Position: Le Sénégal recommande les amendements suivants (indiqués en gras et soulignés libellé): "Le nettoyage humide peut être approprié dans certaines circonstances, par exemple, lorsque *Salmonella* a été détectée dans l'environnement. Le nettoyage humide devrait être suivi par une désinfection avec **"de préférence"** un désinfectant à base d'alcool, qui va s'évaporer rapidement après le contact, puis par séchage complet. **D'autres désinfectants appropriés, ne contenant pas d'alcool peuvent être utilisés le cas échéant**".

Commentaires : La justification de ces modifications proposées et de la phrase supplémentaire est que pour les spécifications Halal, l'usage de désinfectants à base d'alcool n'est pas accepté et donc des alternatives appropriées doivent être recherchées.

THAILAND

Comments on specific issues as follows:

Annex IV Annex on Dried/Dehydrated Fruits and Vegetables Including Edible Fungi

Section III Primary production (paragraph 2)

We would like to suggest an amendment as follows:

Refer to **appropriate requirements of** the *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CAC/RCP 53-2003).

Rationale: only some of the requirements specified in Section 3 Primary production of CAC/RCP 53-2003 should be applied to this Section since CAC/RCP 53-2003 dealing with fresh fruits and vegetables which are perishable and have higher risk of pathogenic contamination.

Annex VI Annex for Groundnuts (Peanuts)

The requirements under this Annex should not repeat the existed requirements to control mycotoxin under the Code of Practice for the Prevention and Reduction of Aflatoxin Contamination in Peanuts (CAC/RCP 55-2004)

However, if the requirements can be used to control both *Salmonella* spp. and mycotoxin, the requirement may be repeated.

Also, Section III Primary production and Section V Control of operation should refer to related Codex standards such as CAC/RCP 55-2004, where appropriate.

AFRICAN UNION

Issue and Rationale:

2.1 The need for all six annexes:

There is a discussion as to whether all six annexes to this Proposed Draft Code of Hygienic Practice for Low-Moisture Foods are required.

The AU supports the retention of all six annexes as they are deemed important and relevant to this Proposed Draft Code of Hygienic Practice for Low-Moisture Foods at Step 8. Each annex deals with the specifics of commodities which will be very helpful and useful to all users of this document.

2.2 Annex 1: Examples of Microbiological Criteria for Low Moisture Foods

The AU supports the retention of this annex. It is an extremely important annex as it takes into consideration the risk-based conditions under which low moisture foods are produced, handled and consumed by various populations, including the vulnerable sector. As indicated, reference to the latest ICMSF publication i.e. Book Number 8 (2011) is appropriate for this Annex as this is a reputable source of current scientific information. This Annex will give very good guidance and assistance to industries of all sizes.

2.3 Annex II: Environmental Monitoring Programme

The AU supports the issue of environmental sampling as it is very relevant. *Salmonella* in particular can be found in the same environment many years after initial contamination of product occurs. A contaminated environment can therefore be a source of re-occurring contamination. This particular Annex provides very good guidance for this increasingly important aspect of microbiological monitoring. It also provides for governments and industry associations to develop further, more detailed programmes for environmental monitoring, should the need arise.

The AU supports reference to Enterobacteriaceae (EB) in the sampling programme under point 5, as it has been adequately addressed.

2.4 Annex VI: Ground Nuts:

There is a discussion as to whether this Annex has not already been addressed in the GPFH and the Code of Practice for the Prevention and Reduction of Aflatoxins in Peanuts (CAC/RCP 55-2004).

The AU recommends that the brief Annex on Ground Nuts is retained. However, a sentence should be added as follows: **“This Annex should be used in conjunction with the GPFH and the Code of Practice for the Prevention and Reduction of Aflatoxins in Peanuts (CAC/RCP 55-2004)”**. This will provide coordinated guidance to the user of this Annex. Hence, protection of public health and safety should be enhanced considering the high consumption of ground nuts and ground nut products globally, especially in Africa.

2.5 Annex III: Spices and Dried Aromatic Herbs:

An amendment is proposed to Section IV: Establishment – Design and Facilities, 4.2 Premises and Rooms, sentence number 23.

The AU recommends the following amendment (indicated in bold and underlined wording). “Where practicable, buildings and facilities should be designed to provide separation, by partition, location or other effective means, between operations that could result in cross-contamination. They should be designed to facilitate hygienic operations according to the one-way flow direction, without backtracking, from the arrival of the raw materials at the premises to the finished product, and should provide for appropriate temperature **“and humidity”** conditions for the process and the product”. The rationale for this addition is that moisture levels of the finished product must be controlled in order to prevent mould contamination and growth and potential mycotoxin formation.

2.6 Annex III: Spices and Dried Aromatic Herbs:

An amendment is proposed to Section VI: Establishment – Maintenance and Sanitation, 6.2 Cleaning Programmes, sentence number 60.

The AU recommends the following amendments (indicated in bold and underlined wording): “Wet cleaning may be appropriate in certain circumstances, e.g. when *Salmonella* has been detected in the environment. Wet cleaning should be followed by disinfection with **“preferably”** an alcohol-based disinfectant, that will rapidly evaporate after contact and then by thorough drying. **Suitable, alternative disinfectants that are not alcohol-based should be used where appropriate”**.

The rationale for these proposed changes and additional sentence are that for Halal requirements, alcohol-based disinfectants are not acceptable and therefore suitable alternatives should be sought.