



**Agenda Item 9(a)**

**CX/FH 11/43/9**

## **JOINT FAO/WHO FOOD STANDARDS PROGRAMME**

### **CODEX COMMITTEE ON FOOD HYGIENE**

#### **Forty-third Session**

**Miami, United States of America, 5-9 December, 2011**

### **CCFH WORK PRIORITIES**

#### **(PROPOSALS FOR NEW WORK AND/OR REVISION OF EXISTING STANDARDS)**

*Prepared by Thailand*

#### **Background**

1. The 42<sup>nd</sup> Session of the Codex Committee on Food Hygiene (CCFH) considered the Report of the Working Group for Establishment of CCFH Work Priorities (for details see REP 11/FH, paras 128 - 147).
2. Amongst others, the Committee agreed to re-establish the Working Group for Establishment of CCFH Work Priorities under the chairmanship of Thailand which will consider proposals for new work to be submitted in reply to CL 2011/11-FH. This working group will meet the day before the 43<sup>rd</sup> Session of the Committee (December 4, 2011).
3. CL 2011/11-FH was sent out to all Members and Interested International Organisations in May 2011. In it, Member Governments were invited to propose new work for consideration by the above working group and were asked to do so by 15 September 2011 in accordance with the Criteria for the Establishment of Work Priorities (see Codex Alimentarius Commission, Procedural Manual, 20<sup>th</sup> Edition) and in accordance with the process described in Appendix V of ALINORM 07/30/13.

#### **Based on the above:**

4. In response to the above mentioned Circular Letter, four proposals for new work were received from Australia, Peru, and the United States of America. The proposals include two proposals to prepare new standards and codes of hygienic practice and proposals to revise existing codes of hygienic practice.

#### **Proposals to prepare new standards and codes of hygienic practice**

##### **COMMENTS AND PROPOSALS SUBMITTED BY PERU IN RESPONSE TO CL 2011/11-FH<sup>1</sup>**

5. Peru is recommending two new work items: 1) the development of a Code of Hygienic Practice for the Production and Processing of Cocoa (Cacao) and Chocolate; and 2) the development of a Code of Safety for Materials Permitted for Packaging in Contact with Food.
6. Peru suggests that priority be given to work on a code of hygienic practice for cocoa and chocolate, noting the trend in increasing production since 1990 and the significant international trade in this commodity. In their proposal, Peru notes a number of issues relating to cocoa production including inadequate technical crop management, poor treatment in post-harvest processes and limited technical training.

---

<sup>1</sup> Comment is attached as Appendix 1

7. Peru is also suggesting that work be undertaken on a code of safety for materials permitted for packaging in contact with food, noting the importance of having a code that defines the permitted materials from which packaging for use in food can be made, and the need for establishing migration limits for certain constituents.

**Comments and proposals to revise existing standards and codes of hygienic practice**

COMMENTS AND PROPOSALS SUBMITTED BY AUSTRALIA IN RESPONSE TO CL 2011/11-FH<sup>2</sup>

8. The comments submitted by Australia focused on the revision of existing codes of hygienic practice not recently revised. The comments suggested that some existing codes of practice could be grouped or consolidated according to the type of food or the primary food safety/production process i.e. frozen, ambient, chilled, canned, dried or other.
9. The order of priority to revise and/or revoke existing codes of hygienic practice may be based on the impact that the current codes have on food safety and international trade. The codes of hygienic practices with suggested higher order of priority are:
- CAC/RCP 1 – Recommended International Code of Practice – General Principles of Food Hygiene;
  - Consolidation of four codes of hygienic practice/Guideline related to canned food: CAC/RCP 23- Recommended International Codes of Hygienic Practice for Low-acid and Acidified Low-acid Canned Foods; CAC/RCP 40- Code of Hygienic Practice for Aseptically Processed and Packaged Low-acid Foods; CAC/GL 17- Guideline Procedures for the Visual Inspection of Lots of Canned Foods for Unacceptable Defects; and CAC/RCP 2- Recommended International Code of Hygienic Practice for Canned Fruit and Vegetable Products;
  - Consolidation of four codes of hygienic practice related to dried fruits, vegetables and plants: CAC/RCP 3- Recommended International Code of Hygienic Practice for Dried Fruits; CAC/RCP 5- Recommended International Code of Hygienic Practice for Dehydrated Fruits and Vegetables Including Edible Fungi; CAC/RCP 4- Recommended International Code of Hygienic Practice for Desiccated Coconut; and CAC/RCP 42- Code of Hygienic Practice for Spices and Dried Aromatic Plants.

COMMENTS AND PROPOSALS SUBMITTED BY THE UNITED STATES OF AMERICA IN RESPONSE TO CL 2011/11-FH<sup>3</sup>

10. The proposal prepared by the United States of America is for new work to revise and update the existing Code of Hygienic Practice for Spices and Dried Aromatic Plants (CAC/RCP 42-1995), noting that this code was included in the list of existing codes of hygienic practice that could be revised and/or revoked, on the basis of a proposal made at the 33<sup>rd</sup> CCFH (CX/FH 00/14).
11. The purpose of the proposed revision is to provide updated information in preventive controls and improve consistency with the Recommended International Code of Practice–General Principles of Food Hygiene (CAC RCP 1-1969) in order to prevent and minimize the illnesses arising from pathogen-containing spices.
12. The proposed scope of the work would include the following:
- Moving material to appropriate sections consistent with those in the General Principles of Food Hygiene, and deleting material that repeats recommendations in the General Principles.
  - Incorporating the current thinking and industry guidance for preventive control e.g. control of raw material sourcing, application of process treatments to eliminate microbial hazards, validation of process treatments, physical separation of the processing facility into pre- and post-treatment or finished product areas, restriction of wet cleaning to appropriate areas, control of water in the environment, and regular product and environmental sampling to ensure consumer protection.

---

<sup>2</sup> Comment is attached as Appendix 2

<sup>3</sup> Comment is attached as Appendix 3

- Addressing whether certain spices present unique situations that warrant an annex with commodity-specific guidelines and whether an annex on specifications, including microbiological criteria, is needed.

**Recommendations:**

13. In respect of proposals to prepare new standards and codes of hygienic practice, members may review the proposal as to their appropriateness and completeness and prioritize them.
14. In respect of proposals to revise existing standards and codes of hygienic practice, members may review the proposals to consider whether it is appropriate for CCFH to undertake the work and to prioritize them.

**APPENDIX 1****COMMENTS SUBMITTED BY PERU IN RESPONSE TO CL 2011/11-FH**

Peru suggests that priority be given to the work on: the Code of Hygienic Practice for the Production and Processing of Cocoa (Cacao) and Chocolate, for the following reasons:

National cocoa production has shown an increasing trend since 1990 but with ongoing fluctuations, due to changes in yields, resulting from the presence of diseases, mainly frosty pod rot, which affects 40 percent of plantations. Another issue is the partial or total abandonment of most crops in the 80s and early 90s, which have been replaced by coca crops and other, more profitable, products.

In 2002 cocoa accounted for a 0.38 percent share of agricultural GDP, providing livelihood for 20,000 growers. Cocoa production is characterized by the presence of small subsistence farmers who have a maximum of 2–3 hectares each, with a low level of technology.

The type of cocoa produced in Peru is the aromatic type, characterized by its high fat content (it may reach up to 57 percent), which gives it a high commercial value on the international market, and by its great potential for the production of organic cocoa as a crop in agroforestry systems.

Productivity depends on the level of technology used. There are two levels: the first covers an extraction process, with rudimentary harvest and post-harvest management, and the second level considers the use of rootstocks with clones for greater disease resistance and yield, the application of organic matter, fertilizers, crops and pruning, and improved harvest and post-harvest techniques.

Yield in the first level reaches around 300–400 kg per hectare, while minimum yield in the more advanced level is 1 metric ton per hectare (rehabilitated areas) and 1.5 t/ha (new areas)—and it is possible to obtain better yields, with a better quality product.

Problems include:

- Poor organization among cocoa growers
- Inadequate technical crop management by subsistence farmers
- Poor treatment in the post-harvest process
- Genetic materials with low productivity and high susceptibility to diseases and pests
- Limited support to agro-industrial companies at the stage of raw material production
- Lack of financing for cocoa collection and marketing
- High level of intermediation in cocoa collection
- Limited training and research services
- Limited investment in machinery and equipment to add value to the product

In view of the above, a code would help us develop a general strategy to increase cocoa competitiveness, sustainably boosting its productivity and improving marketing with high quality standards by strengthening partnership among growers with a business mind and a capacity to integrate technical assistance.

**Exports of Cocoa and Cocoa Preparation in 2010**

PRODUCT	Kg	Value in US\$	%
Cocoa beans	11,144,912.09	34,864,826.59	38.7%
Cocoa butter	5,301,118.77	26,394,814.32	29.3%
Chocolate	2,789,549.04	11,149,475.72	12.4%
Cocoa powder	2,643,052.10	10,164,208.02	11.3%
Cocoa paste	1,729,548.43	6,595,835.97	7.3%
Cocoa shells, skins and waste	486,045.50	285,159.81	0.3%
For sowing	177,870.00	578,077.50	0.6%
Cocoa fat and oil	1,000.00	10,500.00	0.0%
	24,273,095.93	90,042,897.93	

Source: Promperú

In addition, as a second priority, we are interested in having a:

**Code of Safety for Materials Permitted for Packaging in Contact with Food**

It is important to have a code in place that defines the permitted materials from which packaging for use in contact with food can be made, as food contact is a major source of contamination. This requires setting appropriate migration global or specific limits. Furthermore, the need to reach an agreement on methods to simulate food contact and methods to estimate migrating substances should be considered.

## APPENDIX 2

## COMMENTS SUBMITTED BY AUSTRALIA IN RESPONSE TO CL 2011/11-FH

**General Comments**

New work proposals to revise and/or revoke existing codes of hygienic practice, not recently revised, may enable consolidation of some codes where practical and allow for updates in scientific knowledge. The Lists of Codes for Consideration by CCFH in Table 2 of CL 2011/11-FH remain without a consistent structure. Some stand alone and are too specific, while others could be consolidated to include similar products.

The Codes of Practice could be grouped or consolidated according to the type of food or the primary food safety/production process i.e. frozen, ambient, chilled, canned, dried or other. The Codes of Practice could include information regarding HACCP and microbiological assessment/principles; process information to ensure food safety; post process issues to be controlled; and verification systems. Specific sections could be created for classes of product as long as the document is kept easy to read, understand and apply.

The order of priority to revise and/or revoke existing codes of practice may be based on the impact that the current codes have on food safety and international trade.

**Specific Comments**

Suggested order of priority for revision of the current Codex Codes of Hygienic Practice

Priority 1	
CAC/RCP 1 – Recommended International Code of Practice – General Principles of Food Hygiene Annex: Guidelines for the Application of HACCP systems	CAC/RCP 1 is an overarching Code of Practice for Food Hygiene and as such should be revised and updated on a regular basis. The last revision was in 2003. A revision to ensure the scientific concepts of Food Hygiene are up to date would be an advantage. As CAC/GL 21 – Principles for the Establishment and Application of Microbiological Criteria for Foods is currently under revision it would be timely to revise CAC/RCP 1 to ensure it is consistent with CAC/GL 21 and that there is no duplication.
Priority 2	
CAC/RCP 23 – Recommended International Codes of Hygienic Practice for Low-acid and Acidified Low-acid Canned Foods	Australia considers that these Codes could be combined or consolidated into a single code of practice. CAC/RCP 2 was not included in the original recommendation however as it relates to canning or aseptic packaging it seems to belong in this group.
CAC/RCP 40 – Code of Hygienic Practice for Aseptically Processed and Packaged Low-acid Foods	
CAC/GL 17 – Guideline Procedures for the Visual Inspection of Lots of Canned Foods for Unacceptable Defects	
CAC/RCP 2 – Recommended International Code of Hygienic Practice for Canned Fruit and Vegetable Products	
Priority 3	
CAC/RCP 3 – Recommended International Code of Hygienic Practice for Dried Fruits	Australia agrees that CAC/RCP 3 and CAC/RCP 5 could be combined together into a Code of Hygienic Practice for dried fruits and vegetables or plants. CAC/RCP
CAC/RCP 5 – Recommended International Code of Hygienic Practice for Dehydrated Fruits and Vegetables	

Including Edible Fungi	4 - Desiccated Coconut could also fit in this category despite the fact that there is a separate standard for Desiccated Coconut. Spices and Dried Aromatic Plants are a specialist case in regard to food safety. In keeping with grouping the Codes of practice by process or food safety function, CAC/RCP 42 may fit within a specialist area of a new Code of practice on dried fruits, vegetables and plants.
CAC/RCP 4 – Recommended International Code of Hygienic Practice for Desiccated Coconut	
CAC/RCP 42 – Code of Hygienic Practice for Spices and Dried Aromatic Plants	
<b>Priority 4</b>	
Recommended International Code of Hygienic Practice for Tree Nuts	Australia agrees that these two Codes could be combined into a single Code of Hygienic Practice for Nuts; and/or consolidated with CAC/RCP 55-2001 and CAC/RCP 59 – 2005 which are Codes of Practice for the Prevention and Reduction of Aflatoxin in Peanuts and Tree Nuts respectively.
CAC/RCP 22 – Recommended International Code of Hygienic Practice for Ground Nuts (Peanuts)	
<b>Priority 5</b>	
CAC/RCP 2 – Code of Hygienic Practice for Precooked and Cooked Foods in Mass Catering	Australia considers that review of this Code may be required to ensure the most up to date scientific concepts in food safety are incorporated.
CAC/RCP – Code of Hygienic Practice for Refrigerated Packaged foods with Extended Shelf Life	Australia considers that review of this Code may be required to ensure the most up to date scientific concepts in food safety are incorporated.
CAC/RCP 30 – Recommended International Code of Hygienic Practice for the Processing of Frog Legs.	This Code of Hygienic Practice has not been review since it was put in place in 1983. Australia questions the need for this Code of Practice in regard to its impact on international trade.

### **Work previously considered and assigned lower priority in previous sessions of CCFH**

Annex 1 CL 2011/11-FH indicates that the 42<sup>nd</sup> session of CCFH proposed new work to develop an Annex on tomatoes in the Code of Hygienic Practice for Fresh Fruits and Vegetables. Australia agrees with placing lower priority on tomatoes over the work to revise and or revoke the Codes of Hygienic Practice that already exist.

The 41<sup>st</sup> session of CCFH agreed that the proposed Code of Hygienic Practice for the production and Processing of Cocoa (Cacao) and Chocolate was of low priority compared to other issues and should be reconsidered in the future. Australia agrees that the proposal should take a lower priority than the revision or revocation of the existing Codes of Hygienic Practice.

**APPENDIX 3****COMMENTS SUBMITTED BY THE UNITED STATES OF AMERICA IN RESPONSE TO  
CL 2011/11-FH****REVISION TO THE CODEX *CODE OF HYGIENIC PRACTICE FOR SPICES AND DRIED  
AROMATIC PLANTS (CAC/RCP 42-1995)*****(Proposal Submitted by the United States of America)**

The United States is proposing a revision to the Codex *Code of Hygienic Practice for Spices and Dried Aromatic Plants*, CAC/RCP 42 -1995. We note that this Code was included in the list of Codes that CCFH should consider for revision (ref: CX/FH 00/14).

The United States believes that, from a public health standpoint, it is important to update this Code. During the period 1973-2009, 12 spice-attributed outbreaks were identified internationally despite the challenges associated with tracing an outbreak to a complex food minor ingredient. These outbreaks resulted in at least 1,688 documented human illnesses, 127 hospitalizations and one death. The actual health burden from these outbreaks was likely much larger: the U.S. Centers for Disease Control and Prevention estimate that there are 28 undiagnosed cases of salmonellosis for every documented case. Infants and children were the primary population segments impacted by 33 percent of the spice-attributed outbreaks, including the largest (~1000 illnesses) outbreak. *Salmonella* spp. was the pathogen identified in 83 percent of the outbreaks and all of the large-scale outbreaks. While pathogen growth in the food may have played a role in some of the outbreaks, it was not likely a contributing factor in the largest outbreaks, which involved low-moisture foods. Traceback investigations of the two most recent outbreaks of salmonellosis found the outbreak strain(s) in both the imported spice packs and in the environment.

Attached is a Project Document for the proposed new work. We appreciate the opportunity to provide this response regarding new work that could be undertaken by CCFH.



## PROJECT DOCUMENT

### Revision to the Codex Code of Hygienic Practice for Spices and Dried Aromatic Plants (CAC/RCP 42-1995)

#### Prepared by the United States of America

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

The purpose and scope of the work is to revise and update the existing Codex *Code of Hygienic Practice for Spices and Dried Aromatic Plants* (CAC/RCP 42-1995).

#### 2. Relevance and Timeliness

Review of the literature reveals that a number of pathogens can be found in spices at retail, but only *Salmonella* spp. and *Bacillus* spp. (*subtilis* and *pumilis*) have been reported to be associated with foodborne outbreaks attributed to spice consumption.<sup>1-15</sup> During the period 1973-2009, 12 spice-attributed outbreaks were identified internationally, despite the challenges associated with tracing an outbreak to a complex food minor ingredient. These outbreaks resulted in at least 1,688 documented human illnesses, 127 hospitalizations and one death.<sup>1-15</sup> The actual health burden from these outbreaks was likely much larger: the U.S. Centers for Disease Control and Prevention estimate that there are 28 undiagnosed cases of salmonellosis for every documented case.<sup>16</sup> Infants and children were the primary population impacted by 33 percent of the spice-attributed outbreaks, including the largest (~1000 illnesses) outbreak.<sup>5,6,8,11</sup> *Salmonella* spp. were identified as the etiologic agent in 83 percent of the outbreaks, including all large-scale outbreaks.<sup>2-15</sup> *Bacillus* spp. were identified in two small outbreaks.<sup>1,4,9</sup> Multiple strains of *Salmonella* spp. or *Bacillus* spp. were found in the spices/spice-containing foods associated with four of the outbreaks.<sup>1,4,8,9,11</sup> While pathogen growth in the food may have played a role in some of the outbreaks, it was not likely a contributing factor in three of the largest outbreaks, which involved low-moisture foods.<sup>2,8,11</sup> Traceback investigations of the two most recent outbreaks of salmonellosis found the outbreak strain(s) in both the imported spice packs and in the spice/food processing environment (spice grinding and packaging and food manufacturing, respectively).<sup>2,17,18</sup>

Several additional factors influence the number of illnesses arising from pathogen-containing spices. Use of spices in foods is increasing world wide.<sup>19</sup> For example, spice per capita consumption in the United States, as measured by disappearance data, averaged 3.5 lbs/year in 2008 and has been increasing annually at an average rate of 0.05 lbs/person/year for 40 years.<sup>20</sup> Spices may be added to foods after the final lethality step in food preparation.<sup>2,8,11</sup> Spice lots can be very large, so that a single contaminated lot could serve millions to tens of millions of consumers.<sup>21</sup> Finally, for *Salmonella*-contaminated spices, the dose required to cause illness is small, with a probability of illness of approximately 0.25% for consumption of just one *Salmonella* cell, based on the 2002 FAO/WHO dose-response function.<sup>22</sup>

#### 3. The main aspects to be covered

The proposed revision would provide consistency with the *Recommended International Code of Practice—General Principles of Food Hygiene* (CAC RCP 1-1969). Material will be moved to appropriate sections consistent with those in the *General Principles of Food Hygiene*, and material that repeats recommendations in the *General Principles* will be deleted. Sections will be added; e.g., Objectives and Control of Operation. The revision will incorporate the current thinking and industry guidance for preventive controls; e.g., control of raw material sourcing, application of process treatments to eliminate microbial hazards, validation of process treatments, physical separation of the processing facility into pre- and post-treatment or finished product areas, restriction of wet cleaning to appropriate areas, control of water in the environment, and regular product and environmental sampling. The working group would address whether certain spices present unique situations that warrant an annex with commodity-specific guidelines and whether an annex on specifications, including microbiological criteria, is needed.

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

##### 4.1 Assessment with respect to the General Criterion: Consumer protection from the view of health, food safety, ensuring fair practices in food trade and taking into account the identified needs of developing countries.

The proposed work is directed primarily at control of microbial hazards such as *Salmonella* spp., which are common public health problems world-wide. However, the hygienic production of spices also covers chemical contaminants, such as aflatoxin, and filth, indicative of production under unsanitary conditions. These are common issues resulting in rejection of spices by countries and by food business operators. This revision will provide useful guidance, in particular to developing countries, on the hygienic production of spices to help minimize contamination and the resulting rejection of spice shipments. Spices are part of the basic diet worldwide and, therefore, widely traded with many spices originating from developing countries.

##### 4.2 Assessment with respect to criteria applicable to general subjects:

##### Diversification of national legislations and apparent resultant or potential impediments to international trade

Data on the millions of tons of spices produced each year, along with the countries that import and export them, can be obtained through FAOSTAT. The United States is one of the largest importers of spices, in both volume and value basis, with imports coming from more than 140 countries.<sup>23</sup> Analysis of 2007-2009 U.S. Food and Drug Administration (U.S. FDA) import surveillance data indicates that *Salmonella* violation rates for spices are approximately twice the rate for all other foods (including raw and ready-to-eat foods).<sup>21</sup> Violation rates are not strongly associated with spice type or country of origin, although a few spices and source countries do have statistically larger or smaller violation rates than the rest.<sup>21</sup> A small study of spices found positive for *Salmonella* at U.S. import revealed that levels are generally low ( $\leq 1$  MPN/g) but not significantly different from the few values reported in the literature for spice/spice-containing products associated with outbreaks.<sup>3,6,8,21</sup> More research is needed to fully describe the distribution of *Salmonella* levels in spices throughout the farm-to-table continuum. This study also demonstrated that the presence of multiple strains of *Salmonella* in *Salmonella*-positive spice is not uncommon.<sup>21</sup>

Analysis of U.S. foodborne outbreaks, food recall events, and primary reports to the Reportable Food Registry (RFR—an electronic registry in the United States where industry or public health officials report foods that have a reasonable probability of causing serious adverse health effects or death) demonstrates that *Salmonella*-contaminated spices are found in processing and retail settings.<sup>24</sup> The “Spices & Seasonings” food category in the RFR had the largest number of *Salmonella* primary reports (19 percent) in the first year of reporting.<sup>24</sup> During 2008-2009, eight primary recalls (recalls from the firm where the violation was first identified) were associated with spices, including 116 different products (or 19 percent of all food products recalled).<sup>21</sup> Poor supplier control was determined to be a root cause of all of the spice-associated recalls investigated.<sup>21</sup>

Spices may be sourced from jurisdictions that lack sound regulatory frameworks for food safety and that have limited monitoring and enforcement, even when there are applicable laws or regulations. By providing guidance that can be applied by all countries, this document will decrease the potential for impediments to international trade and enhance global food safety.

##### Consideration of the global magnitude of the problem or issue

There is potential for contamination of spices from multiple sources during growing, harvesting, processing, and transporting. Spices are widely traded throughout the world. Spices are in large part sourced from developing countries. Most countries in the world import at least some spices. Thus the issue of contaminated spices is global and should be addressed by a code of hygienic practice that incorporates current science- and risk-based information about appropriate control measures.

#### 5. Relevance to Codex strategic objectives

The proposed work directly relates to the following Codex Strategic Goals from the 2008-2013 strategic plan:

Goal 1: Promoting sound regulatory frameworks

The development of a revised code of hygienic practice for spices is consistent with the direction elaborated under Goal 1; i.e., CAC will develop international standards, guidance and recommendations based on scientific principles for the reduction of health risks along the entire food chain. The public health risk from pathogens such as *Salmonella* in spices warrants enhancing the current code of hygienic practice for spices to better reflect the current scientific information to address this hazard at multiple points in the food chain. These guidelines can provide important information for developing countries seeking to achieve higher levels of food safety.

Goal 2: Promoting widest and consistent application of scientific principles and risk analysis

There has been a recent focus in a number of countries on controlling *Salmonella* in low-moisture foods such as spices. Several recent guidance documents have been developed based on industry experience and the application of scientific principles. The U.S. FDA is in the process of completing a risk profile on spices to inform decision-making on appropriate preventive controls to reduce the risk from microbial pathogens.<sup>25</sup> Incorporating the most current scientific knowledge into a revised code of hygienic practice for spices is consistent with this goal. In addition, Codex promotes validation of food safety control measures, which would be a feature of the enhanced code of hygienic practice for spices.

Goal 5: Maximum and effective participation of members

The development of a revised code of hygienic practice for spices should generate interest in participation from developing countries, which are the primary source for many spices. We anticipate conducting this revision through an electronic working group using email exchanges and web meetings designed to foster increased participation, as occurred with the development of the leafy greens annex to the Codex *Code of Hygienic Practice for Fresh Fruits and Vegetables* (CAC/RCP 53-2003).

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

This work is a revision of the existing Codex *Code of Hygienic Practice for Spices and Dried Aromatic Plants* (CAC/RCP 42-1995) to ensure consistency with the Codex *Recommended International Code of Practice: General Principles for Food Hygiene* (CAC/RCP 1-1969). The Codex *Principles for the Establishment and Application of Microbiological Criteria for Foods* (CAC/GL 30-1999) (currently under revision) may be applicable, depending on the approach agreed to by the working group on the need for such criteria. Additionally, guidance in the Codex *Code of Hygienic Practice for the Transport of Food in Bulk and Semi-Packed Food* (CAC/RCP 47-2001) may also be applicable.

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

We anticipate there may be need for scientific advice from FAO/WHO (JEMRA) on the pathogen-specific hazards associated with various types of spices and the role of various agricultural and manufacturing practices in enhancing or mitigating these hazards. Such an evaluation should also take into consideration how these products are marketed and handled by consumers and the impact of this on foodborne illnesses. Specifically, JEMRA could conduct a feasibility study to determine if sufficient data are available or collected on the prevalence and level of pathogens, the potential for growth before or in the absence of a lethality treatment step, and the potential for recontamination after a lethality treatment for different spices for the purpose of conducting a quantitative risk assessment.

**8. Identification of any need for technical input to the standard from external bodies so that this can be planned for**

In addition to scientific advice and technical input from JEMRA, technical input may be needed from the International Commission on Microbiological Specifications for Foods, in particular assistance on the development of microbiological criteria if the working group decides that the development of microbiological criteria is appropriate.

**9. Proposed timeline for completion of the new work including the start date, the proposed date for adoption at Step 5, and the proposed date for adoption by the Commission; the timeframe for developing a standard should normally not exceed five years**

Proposed timeline-

- Consideration for new work by 43<sup>rd</sup> Session, 2011
- Consideration for new work by CAC, 2012
- Development of document by an electronic working group
  - o Step 3 at 2012 and 2013 Sessions of CCFH,
  - o Step 5 (or 5/8) at 2014 Session of CCFH
  - o Ready for adoption at Step 5 or Step 5/8 by CAC at the 2015 Session or adoption at Step 8 at the 2016 Session of the CAC.

**References**

1. Cameron, G. 1998. Need to consider *Bacillus subtilis* as a cause of food poisoning, in Surveillance and Control Notes. New Zealand Pub. Health Rep 5(2): 11.
2. Centers for Disease Control and Prevention. 2010. *Salmonella* Montevideo infections associated with salami products made with contaminated imported black pepper and red pepper – United States, July 2009-April 2010. Morb. Mortal. Wkly. Rep. Dec 24;59(50):1647-1650.
3. Gustavsen, S., and O. Breen. 1984. Investigation of an outbreak of *Salmonella oranienburg* infections in Norway, caused by contaminated black pepper. Am. J Epidemiol. 119(5):806-812.
4. Health Protection Agency. 2011. Electronic Foodborne and non-Foodborne Gastrointestinal Outbreak Surveillance System (eFOSS) NB: The database is dynamic and, as such, is subject to change. K:\GSURV\DataRequests\FOSS\_Foodborne Outbreaks linked with spices (Jane Van Doren, FDA, 24-05-11)
5. Ilic, S., P. Duric, and E. Gergo. 2010. *Salmonella senftenberg* infections and fennel seed tea, Serbia. Emerg. Infect. Dis. 16(5):893-895.
6. Koch, J., A. Schrauder, K. Alpers, D. Weber, C. Frank, R. Prager, W. Rabsch, S. Broll, F. Feil, P. Roggentin, J. Bockemuhl, H. Tschape, A. Ammon, and K. Stark. 2005. *Salmonella* Agona outbreak from contaminated aniseed, Germany. Emerg. Infect. Dis. 11(7):1124-1127.
7. Laidley, R., S. Handzel, D. Severs, and R. Butler. 1974. *Salmonella weltevreden* outbreak associated with contaminated pepper. Epidemiol. Bull. 18(4):62.
8. Lehmacher, A., J. Bockemuhl, and S. Aleksic. 1995. Nationwide outbreak of human salmonellosis in Germany due to contaminated paprika-powdered potato chips. Epidemiol. Infect. 115:501-511.
9. Little, C. L. , Health Protection Agency, UK. 2011. Personal Communications.
10. Rabsch, W., R. Prager, J. Koch, K. Stark, P. Roggentin, J. Bockemuhl, G. Beckmann, R. Stark, W. Siegl, A. Ammon, and H. Tschape. 2005. Molecular epidemiology of *Salmonella enterica* serovar Agona: Characterization of a diffuse outbreak caused by aniseed-fennel-caraway infusion. Epidemiol. Infect. 133(5):837-844.
11. Sotir, M.J., G. Ewald, A.C. Kimura, J.I. Higa, A. Sheth, S. Troppy, S. Meyer, R.M. Hoekstra, J. Austin, J. Archer, M. Spayne, E.R. Daly, and P.M. Griffin. 2009. Outbreak of *Salmonella* Wandsworth and Typhimurium infections in infants and toddlers traced to a commercial vegetable-coated snack food. Pediatr. Infect. Dis. J. 28(12):1041-1046.
12. U.S. Food and Drug Administration (USFDA). 2009. Union International Food Co. is further expanding the recall of Lian How brand and Uncle Chen brand retail and institutional products. Available at: <http://www.fda.gov/Safety/Recalls/ArchiveRecalls/2009/ucm135361.htm>. Accessed Oct 2010.

13. U.S. Food and Drug Administration (USFDA). 2009. Import alert 28-02. Detention without physical examination of Indian pepper. Available at: [http://fdswa090.fda.gov/vts/imports\\_publish/private/importalert\\_90.html](http://fdswa090.fda.gov/vts/imports_publish/private/importalert_90.html) Accessed Nov 2010.
14. World Health Organization (WHO). 1974. *Salmonella* surveillance: *Salmonella weltevreden* outbreak associated with contaminated pepper. Wkly. Epidemiol. Rec. 42:351-352.
15. Zweifel, C. and R. Stephan. 2011. Spices and herbs as source of *Salmonella*-related foodborne diseases. Food Res. Int. (In Press).
16. Scallan, E., R.M. Hoekstra, F.J. Angulo, R.V. Tauxe, M.-A. Widdowson, S.L. Roy, J.L. Jones, and P.M. Griffin. 2011. Foodborne illness acquired in the United States – Major Pathogens. Emerg. Inf. Dis. 17(1):7-15.
17. Hajmeer, M. and C. Myers. 2010. Outbreak of *Salmonella* Rissen associated with Ground White Pepper: Environmental Investigation. International Association for Food Protection 2010 Annual Meeting, Anaheim, CA.
18. Lienau, E.K., E. Strain, C. Wanag, J. Zheng, A.R. Ottensen, C.E. Keys, T.S. Hammack, S.M. Musser, E.W. Brown, M.W. Allard, G. Cao, J. Meng, and R. Stones. 2011. Identification of a salmonellosis outbreak by means of molecular sequencing. N. Engl. J. Med. ;364 (10), 981-982.
19. Global Industry Analysts, Inc. 2011. Spices and seasonings: A Global Strategic Report. As reported at PRWeb: [http://www.prweb.com/releases/spices\\_seasonings/red\\_black\\_pepper/prweb8075810.htm](http://www.prweb.com/releases/spices_seasonings/red_black_pepper/prweb8075810.htm) Accessed Sept 12, 2011.
20. U. S. Department of Agriculture (USDA)/Economic Research Service (ERS). 2009. Spices: Supply and disappearance. February 27, 2009. Available at: <http://www.ers.usda.gov/data/foodconsumption/spreadsheets/ctcsp.xls#Spices!A1> Accessed Nov 2010.
21. Food and Drug Administration. Unpublished data.
22. Food and Agriculture Organization/World Health Organization. 2002. Risk assessments of *Salmonella* in eggs and broiler chickens. FAO/WHO Microbiological Risk Assessment Series 2, 2002.
23. U. S. Department of Agriculture/Foreign Agricultural Service. 2011. Available at: <http://www.fas.usda.gov/data.asp> Accessed June 2010.
24. Food and Drug Administration. 2011. Reportable Food Registry Annual Report. Available from: <http://www.fda.gov/Food/FoodSafety/FoodSafetyPrograms/RFR/ucm200958.htm> Accessed Jan 2011.
25. Food and Drug Administration. 2010. Risk Profile: Pathogens and Filth in Spices: Request for Comments and for Scientific Data and Information [Docket No. FDA-2010-N-0195]. Federal Register 75(75):2061 <http://www.regulations.gov/#!home> Accessed April 2011.