Introduction
The 51st Session of the Codex Committee on Food Hygiene (CCFH51), chaired by Dr. Emilio Esteban, United States Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS), was attended by approximately 215 participants from 59 member countries, one member organization (the European Union (EU)), 15 international intergovernmental and non-governmental organizations, including the World Health Organization (WHO) and the Food and Agriculture Organization (FAO), and, on the first day, a group of undergraduate and graduate students from Bowling Green State University. The United States was represented by the Delegate, Ms. Jenny Scott, U.S. Food and Drug Administration (FDA) Center for Food Safety and Applied Nutrition (CFSAN); Co-Alternate Delegates Dr. Bill Shaw, USDA FSIS, and Dr. Andrew Yeung, FDA CFSAN; six government advisors; and two non-government advisors.

The session opened with comments from Ms. Mary Frances Lowe, U.S. Manager for Codex Alimentarius, USDA; and Dr. Mindy Brashears, Deputy Undersecretary for Food Safety, USDA. The importance of science-based and data-driven decisions with access to data to develop appropriate policies to ensure food safety was emphasized.

CCFH51 fully met the United States’ objectives for the meeting. The committee completed work on updating the General Principles of Food Hygiene and the Code of Practice on Food Allergen Management for Food Business Operators and forwarded them for final adoption at the next session of the Codex Alimentarius Commission (CAC43, July 2020). The United States played a leading role in drafting and achieving consensus on both documents, in line with our commitment to science-based decision making.

Highlights
The 51st Session of CCFH:

- Agreed to forward the draft Code of Practice on Food Allergen Management for Food Business Operators to the 43rd session of the Codex Alimentarius Commission (CAC43) for final adoption at Step 8, with an understanding that revision of the list of allergens and work on precautionary labeling would be resumed when new information and scientific advice become available from the Codex Committee on Food Labelling (CCFL) and FAO/WHO, respectively.
- Agreed to forward the revised General Principles of Food Hygiene (including the Hazard Analysis and Critical Control Point (HACCP) Annex) to CAC43 for final adoption at Step 5/8, without Diagram 3 (Example of Decision Tree to Identify Critical Control Points (CCPs)). Work on the decision tree will continue and will reflect the final text as adopted by the CAC.
- Agreed to forward the draft Guidance for the Management of Biological Foodborne Outbreaks to CAC43 for adoption at Step 5, which will allow for another round of review and comment, with the understanding that CCFH will keep working on the Annexes at
its next session (CCFH52, 2020). Consistent with past practice, the committee agreed to remove the list of references, since the key concepts were incorporated into the Guidance itself.

- Agreed to re-establish an electronic working group (EWG), chaired by Chile and co-chaired by France, New Zealand, and the United States, to revise the draft Guidelines for the Control of Shiga Toxin-Producing Escherichia coli (STEC) in Raw Beef, Fresh Leafy Vegetables, Raw Milk and Raw Milk Cheese, and Sprouts.
- Approved new work and agreed to establish an EWG, chaired by the Honduras and co-chaired by Chile, Denmark, the EU, and India, to prepare draft Guidelines for the Safe Use and Reuse of Water in Food Production, for consideration at CCFH52 (pending acceptance of the new work by CAC43).

One of the somewhat unusual features of CCFH51 was the use of Conference Room Documents (CRDs), prepared by working group chairs based on comments received on the CCFH51 working documents, as the basis for much of the discussion. This practice appeared to work well at this session for documents delegates had reviewed multiple times in the past.

A summary of the meeting of the 51st Session of CCFH is given below. The final report of CCFH51 will be posted on the Codex Website at www.fao.org/fao-who-codexalimentarius/meetings/detail/en/?meeting=CCFH&session=51.

**Meeting summary**

**Proposed Draft Code of Practice On Food Allergen Management For Food Business Operators**

The U.S. delegate, also speaking on behalf of the co-chairs from Australia and the United Kingdom (UK) that had together drafted the document, introduced the item, noting that the draft Code of Practice on Food Allergen Management for Food Business Operators (COP) had been adopted at Step 5 by CAC42 and advanced to Step 6 for comments. She also pointed out that CCFH50 (2018) had agreed to request that FAO/WHO convene an expert consultation to provide scientific advice and to request advice from the CCFL on the appropriateness of the use of precautionary/advisory allergen labeling.

If CCFH waited for additional feedback from CCFL, completion of the new work underway in that committee, and the scientific advice needed to finalize the work, the draft COP could remain short of final adoption at Step 7 for some time. However, because the COP already contained a great deal of useful information on managing food allergens, the co-chairs proposed revisions, as presented in Conference Room Document (CRD) 4 and CRD5, that would allow the document to progress to final adoption. The United States noted that the COP could be revised in the future, once FAO and WHO have completed the work on scientific advice and CCFL has completed its work on precautionary allergen labeling and updating the list of foods and ingredients that cause hypersensitivity in Section 4.2.1.4 of the General Standard for the Labelling of Prepackaged Foods (CXS 1-1985).
The committee considered the revised draft, which deleted text related to precautionary allergen labeling throughout the COP (including the definition of precautionary allergen labeling) and other changes in response to comments received. CCFH51 discussed these changes, as well as others proposed during plenary, and revised the COP.

**Conclusion**
The committee agreed: (1) to forward the revised COP to Step 8 for final adoption by CAC43; (2) to inform CCFL of the status of the work; and (3) that the COP could be revised upon completion of the work on precautionary/advisory allergen labeling in CCFL and advice from FAO/WHO.

**Proposed Draft Revision of The General Principles Of Food HYGIENE (CXC 1-1969) and its HACCP Annex**
The General Principles of Food Hygiene (GPFH) is the foundational document of CCFH, begun at the first session of CCFH in 1964 (with the UK and the United States leading the effort). A physical working group (PWG), chaired by the UK, met the Sunday prior to the session, and there were several side meetings of working group chairs and other interested countries during the session to resolve issues.

The UK, as PWG Chair, speaking also on behalf of the co-chairs, (France, Ghana, India, Mexico, and the United States), introduced the report of the PWG (CRD2). The committee noted that the PWG Chair had also led informal discussions on the margins of the meeting with the purpose of incorporating all the comments received, as appropriate.

The committee considered the revised document contained in CRD2 and agreed to replace: (i) “disposing” and “disposal” with “disposition” where appropriate to indicate that there could be options other than discarding product; (ii) “loss of control” with “deviation” because the latter term was defined in the document; and (iii) “the next person/FBO” with “the next FBO” where appropriate. The committee also agreed with most of the revisions in CRD2 and editorial corrections and amendments for flexibility, clarity, completeness and consistency. The committee also made the following major comments and decisions.

**Definition of Food Business Operator (FBO)**
Several delegations felt that the definition of an FBO could be deleted, as it is well-understood. However, other delegations felt strongly that there should be a definition. Noting some countries considered the FBO to be an individual person, while others expanded the term to include an entity, the committee considered several options, to delete the definition or to define an FBO as “a person and/or entity,” “an entity,” or “a party. It was explained that an “entity” could include a “person.” Therefore, the committee agreed to the following revised definition: “Food business operator (FBO): An entity responsible for operating a business at any step in the food chain.”

**Definition of Validation**
In addressing issues related to the inclusion of validation in the document, CCFH looked closely at the definition. The committee decided that the proposed definition of “validation,” which came from the Guidelines for the Validation of Food Safety Control Measures (CAG 69-2008), should become “validation of control measures” and a new definition for validation (“confirmation, through the provision of objective evidence, that measures are capable of being effective”) was added in square brackets until it was determined whether it was needed. Eventually the committee agreed to remove the definition of “validation,” keeping the definition of “validation of control measures.”

Resistance of Microorganisms to Disinfecting Agents
Some delegations expressed concern about the text related to microorganisms’ developing resistance to disinfecting agents, in particular the part of the sentence that said this was unlikely to happen if recommended cleaning and disinfection procedures are followed. France explained that when bacteria are exposed to minimal concentrations, they could adapt to higher concentrations, which was “tolerance” rather than “resistance.” The paragraph was revised to read as follows:

“Microorganisms can sometimes become tolerant to disinfecting agents over time. Cleaning and disinfection procedures should follow the manufacturers’ instructions. Periodic review with disinfectant manufacturers/suppliers, where feasible, should be conducted to help ensure the disinfectants used are effective and appropriate. Rotation of the disinfectants could be considered to ensure inactivation of different types of microorganisms (e.g. bacteria and fungi).”

Medical Screening of Employees
Namibia proposed inserting a requirement that all food handlers should periodically undergo medical screening to prevent contamination of food. The PWG Chairs emphasized that this type of screening was ineffective to detect foodborne disease and thus should not be included, noting further that this was reflected in WHO documents as well. This view was confirmed by the Representative of WHO.

Description of Products and Processes in the Good Hygiene Practices (GHP) Chapter
Several delegations expressed concern that the steps of describing the product and process, along with discussions in the sections on monitoring, verification, and records, were also in the HACCP chapter and they should be deleted in this chapter. Others pointed out that in some cases there are GHPs that require greater attention to ensure the safety of food. At the suggestion of Morocco, the committee agreed to insert a new paragraph applying to the section on “Description of products and processes” as follows:

“After consideration of the conditions and activities of the food business, it may be necessary to pay greater attention to some GHPs that are particularly important for food safety. In this case the following provisions could be considered.”

Validation/Verification
The issue of whether validation belonged in Principle 3 ("Establish validated critical limits") or Principle 6 ("Verification") was resolved to the United States’ satisfaction by including validation information under both principles; the document now makes the point in Principle 6 that validation goes beyond validation of critical limits at critical control points to include validation of other aspects of the HACCP plan and validation of the entire HACCP plan.

Recall Procedures - Removal from the Market of Unsafe Food
The following views were stated: (1) the paragraph should be revised to reflect the obligation for FBOs to contact the competent authority, as FBOs might not have the knowledge to estimate the risk correctly and conduct withdrawal from the market properly; (2) food products could be recalled due to reasons other than safety and public warnings were only necessary if food products could lead to public health concerns; and (3) there might be inadequate capacity for small businesses to implement these requirements.

The committee agreed with revised text as follows, with the aim of providing more flexibility to individual countries: “Reporting to the relevant competent authority should be required and public warnings should be considered where product may have reached consumers and when return of product to the FBO or removal from the market is appropriate.”

Addition of Text on Determining Shelf Life of Food
One observer proposed language on determining the shelf life of food, since “intended shelf-life of the product” was a factor to be taken into account for time and temperature control systems. However, an appropriate location in the document for the proposed text could not be found, and there was concern that including the text would give the impression that FBOs would have to do a shelf life determination in all cases. The text was not included, since it was decided that it was not a key aspect of a food hygiene system.

Diagram 3 – Example of Decision Tree to Identify CCPs
There were numerous suggestions for revision of the decision tree, as many delegations found it confusing. All the proposals for revision had issues that were not easily resolved. The PWG Chair proposed to delete this diagram for the time-being to avoid delaying adoption of the document, and to continue work to revise it for later addition to the document once the committee agreed on an approach. The committee agreed with the deletion of the diagram for the time-being. Brazil, Honduras, Jamaica and Thailand volunteered to work together to prepare a proposal on the decision tree for consideration by CCFH52.

Conclusion
The committee: (1) agreed to forward the proposed draft revision of the General Principles of Food Hygiene (CXC1-1969) for final adoption by CAC43 at Step 5/8; and (2) noted the ongoing work on the decision tree.
Proposed Draft Guidance for The Management of Biological Foodborne Outbreaks

The delegate of Denmark, as chair of the EWG, speaking also on behalf of co-chairs Chile and the EU, introduced the report of the EWG and highlighted some of the key discussions and conclusions of the EWG. She informed the committee that a revised guidance document (CRD 6) had been prepared based on the comments submitted. The chair stated that even though most of the comments were of an editorial nature, there were more significant comments with respect to FAO/WHO document references throughout the Guidance, to the wording of the paragraphs on rapid risk assessment, and to the template asking for a rapid risk assessment. The United States had expressed concerns about both the references and the term rapid risk assessment.

In view of these comments, the chair explained that (1) Annex I (list of FAO/WHO documents and other relevant documents) and references elsewhere in the document had been deleted, since the relevant information from these references was incorporated into the text; and (2) the confusion about what a rapid risk assessment is (as compared to an outbreak assessment) had been addressed by separating the terms and clarifying the differences between them. As a consequence, a new definition of outbreak assessment was developed, the Annex on rapid risk assessment was changed to examples of requests for a rapid risk assessment, and relevant text in some paragraphs was revised. The former annex that was a template for a rapid risk assessment was changed to a template for an outbreak assessment. During the plenary discussion, the committee further agreed to change the term “outbreak assessment” to “outbreak analysis.”

**Definition of “Surveillance”**

The Committee noted the concern of the United States about the reference to feed in the definition of “surveillance.” The United States questioned its inclusion and whether surveillance of feed for microbial pathogens would be helpful for early detection of human foodborne illness. New Zealand stated that in their experience surveillance of feed had proved helpful in an outbreak and noted that the inclusion of “feed” was merely an example in the definition. The committee agreed to retain the definition of surveillance unchanged but noted that the reference was limited to usefulness with respect to human foodborne disease.

**Analytical Methods**

The committee had a discussion on the need for the inclusion of extensive text relating to whole genome sequencing (WGS). Some developing countries were concerned that this could create the impression that the use of WGS should be considered mandatory. However, it was acknowledged that WGS was increasingly being used as a biological typing tool, and that it was important to retain the sections on WGS to “future-proof” the Guidance. In order to address the concerns that WGS could be interpreted as being mandatory, Paragraph 50 was amended to read, “When WGS is used, consideration should be given to...”
The committee further agreed to amend Paragraph 51 by deleting the reference to the cost of WGS, since the focus was more on the opportunities for collaboration between countries and that such collaboration should be strongly encouraged. The example relating to developed countries carrying out WGS at the request of developing countries was also deleted.

Combining Epidemiological and Laboratory Data
Some countries express concern about the statement that “robust epidemiological evidence can be conclusive of a foodborne outbreak even without positive laboratory results from sampling.” The committee agreed that, while epidemiological evidence absent positive laboratory results was not “conclusive,” it could warrant an outbreak response. The committee therefore amended Paragraph 80 to read as follows: “Robust epidemiological evidence can be sufficiently indicative of a foodborne outbreak even without positive laboratory results from sampling to warrant an outbreak response.”

Conclusion
The committee agreed to: (1) forward the proposed draft Guidance to CAC43 for adoption at Step 5, allowing for another round of review and comment; and (2) establish a PWG, chaired by Denmark and co-chaired by Chile and the EU, working in English, French and Spanish, to meet just prior to CCFH52 to consider all comments received and to prepare a revised proposal for consideration by plenary.

Proposed Draft Guidance for the Control of Shiga toxin-Producing Escherichia Coli (STEC) in Raw Beef, Fresh Leafy Vegetables, Raw Milk and Raw Milk Cheese, and Sprouts
Chile and the United States, co-chairs of the EWG, introduced the item and highlighted the proposed timeline to develop the guidance and commodity annexes in conjunction with relevant expert meetings of Joint Expert Meeting on Microbiological Risk Assessment (JEMRA) scheduled through to 2022. The co-chairs also proposed terminology/definitions for the commodities which would be covered in the annexes. They stressed that further scientific advice from JEMRA was needed to progress development of the guidance (and its annexes). JEMRA plans an expert meeting on STEC in beef and dairy products in June 2020, an expert panel in 2021 to update its report on microbial hazards in leafy green vegetables (to include STEC), and an expert panel on sprouts (to include STEC) in 2022.

The committee did not discuss the proposed draft guidance, but rather focused on giving guidance on the terminology to be used for each of the commodities and the request for scientific advice from JEMRA.

The committee discussed terminology and agreed to use “leafy green vegetables” instead of “leafy greens” for consistency with the Code of Practice for Fresh Fruit and Vegetables (CXC 53 – 2003); “raw beef;” and “raw milk and raw milk cheese.” Concerns were expressed with respect
to exactly what would be included with respect to raw beef and raw milk, with several
delegates particularly concerned that the focus be on raw milk for direct consumption and not
raw milk for further processing (i.e., pasteurization; the document would address raw milk for
processing into raw milk cheeses). It was agreed that the terms would be further considered by
the re-established EWG.

The committee further agreed to request scientific advice from JEMRA on: (1) the most
appropriate application point(s) of specific interventions, including decontamination
treatments; (2) any other additional interventions for control of STEC in beef, raw milk and
cheese produced from raw milk, fresh leafy vegetables, and sprouts; (3) verification, based on
the available data, of the efficacy of the interventions in terms of STEC reduction; (4) advice,
with some level of confidence, to the extent possible, on the quantifiable level of reduction that
interventions achieve; and (5) advice on the practicality and feasibility of proposed
interventions to be applied on a commercial scale and therefore reasonably likely to be
adopted by FBOs (and thus would be appropriate to include in the Codex guidelines). It was
clarified that this work would include verification of the efficacy of feed additives to control
STEC.

Conclusion
The committee agreed to: (1) return the proposed draft document to Step 2/3 for redrafting
and circulation for comments; and (2) establish an EWG, chaired by Chile and co-chaired by
France, New Zealand and the United States working in English, to: (a) redraft the General
Section, Raw Beef Annex, and Fresh Leafy Vegetables Annex of CX/FH 19/51/8 based on written
comments submitted to CCH51; (b) update the Raw Beef Annex in CX/FH 19/51/8 with any
additional information on interventions relevant to control of STEC in raw beef and submit this
to JEMRA prior to June 2020; (c) draft an annex on Raw Milk and Raw Milk Cheeses describing
interventions relevant to control of STEC in these foods and submit this to JEMRA prior to June
2020; (d) revise the Annexes, based on JEMRA feedback, as necessary.

New/Future Work
The United States chaired the PWG on CCFH Work Priorities (Proposals for New Work and/or
Revision of Existing Standards), which addressed the discussion paper on water and the
Forward Workplan. The PWG recommended that CCFH:

(1) agree to new work on Guidelines for the Safe Use and Reuse of Water in Food
Production, review the revised project document updated with input from FAO/WHO,
and submit it to CAC43 for approval as new work;

(2) solicit the development of a discussion paper by members on the new information from
FAO/WHO on *Vibrio* to address the need for new work to update CXG 73-2010; and

(3) adopt the Forward Workplan and request delegations to rank the added areas of
potential new work before the CCFH52 meeting.

*Guidelines for the Safe Use and Reuse of Water in Food Production*
Honduras introduced the revised project document (CRD23) and highlighted changes in the title, scope and main aspects to be covered, and timeline. The committee agreed that the Guideline would only cover biological hazards, while acknowledging the importance of chemicals in the context of safe use and reuse of water in food production. Considering this, the committee agreed to inform the Codex Committee on Contaminants in Foods (CCCF) of this new work.

The committee agreed to: (1) forward the project document to CAC43 for approval as new work; and (2) subject to approval of the work by the Commission, establish an EWG, chaired by Honduras and co-chaired by Chile, Denmark, the EU and India, working in English, to prepare proposed draft guidelines for circulation for comments and consideration at CCFH52. The EWG is to take into account published JEMRA work and future work on water. (JEMRA plans a meeting on water quality for aquaculture in 2021.)

**Forward Workplan**

The Forward Workplan was updated by the PWG to include the *Code of Practice on Food Allergen Management for Food Business Operators* (anticipating the need to update it based on input from FAO/WHO and CCFL); *Guidelines on the Application of General Principles of Food Hygiene to the Control of Pathogenic Vibrio Species in Seafood* (CXG 73-2010) (FAO/WHO held a meeting on *Vibrio* in 2019); *Guidelines on the Application of General Principles of Food Hygiene to the Control of Viruses in Food* (CXG 79-2012) (Canada and the United States have been working on a risk assessment on norovirus); and possible *Guidelines for Developing Performance-Based Criteria for Microbiological Methods* (there is interest in moving away from specifying particular methods that may exclude newer methods or become outdated, and instead focusing on performance-based criteria).

The committee accepted the Forward Workplan provided by the PWG. Japan offered to review the forthcoming (in 2020) JEMRA report on *Vibrio* and prepare a discussion paper on the possible revision of the *Guidelines on the Application of General Principles of Food Hygiene to the Control of Pathogenic Vibrio Species in Seafood* (CXG 73-2010), and New Zealand offered to help in this effort; FAO/WHO indicated they would provide the conclusions of the JEMRA expert meeting in advance of publication so the work could begin. Canada offered to prepare a discussion paper on the possible revision of *Guidelines on the Application of General Principles of Food Hygiene to the Control of Viruses in Food* (CXG 79-2012); The Netherlands offered to help in this effort.

**Other Matters**

FAO/WHO reported that there were three meetings in 2019: methods for risk assessment (the report of which will be open for public comment); water quality; and *Vibrio*. FAO/WHO also announced a tentative schedule of JEMRA meetings up to 2022. For 2020, these include the meeting on control of STEC in beef and dairy products (tentatively in June); a meeting on allergens (tentatively in September); and *Listeria (L.) monocytogenes* (tentatively in April). For 2021, FAO/WHO anticipates continued work on allergens if needed; continued work on *L.*
monocytogenes; a meeting on water quality for aquaculture; and microbial hazards in leafy green vegetables. In late 2021 or early 2022, they will do work on sprouts, including STEC.

The committee welcomed the planned JEMRA expert meeting on *L. monocytogenes*, as this will help to inform possible future revision of *Guidelines on the Application of General Principles of Food Hygiene to the Control of Listeria Monocytogenes in Foods* (CXG 61-2007).

In response to a request from the Codex Committee on Methods of Analysis and Sampling (CCMAS), which is currently revising the *Recommended Methods of Analysis and Sampling* (CXS 234 – 1999) into a more user-friendly, single source of information for all analytical methods in Codex, the committee agreed, in principle, to transfer all methods in the *General Methods for the Detection of Irradiated Foods* (CXS 231 - 2001) to CXS 234. Brazil offered to review the methods in CXS 231 to determine their fitness for purpose and their possible conversion to performance-based criteria for consideration by CCFH52.

The committee also agreed to establish a PWG on CCFH Work Priorities, chaired by the United States, in conjunction with CCFH52, working in English, French and Spanish.

**Next Session**
The 52nd Session of CCFH is tentatively scheduled for November 16-20, 2020, with a location in the United States to be determined.