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Session of the Codex Committee on

FOOD HYGIENE



PROPOSED DRAFT GUIDELINES
FOR THE CONTROL OF SHIGA
TOXIN-PRODUCING *ESCHERICHIA*
COLI (STEC) IN RAW BEEF, FRESH
LEAFY VEGETABLES, RAW MILK
AND RAW-MILK CHEESES, AND
SPROUTS: INTRODUCTION



INTRODUCTION

- CCFH 49 Discussion paper on future work on STEC -prepared by the United States of America, Uruguay and Chile for consideration at CCFH50.
- CCFH 50
- *New work on: Control of Shiga Toxin-Producing Escherichia coli (STEC) in Beef, Unpasteurized Milk and Cheese produced from Unpasteurized Milk, Leafy Greens, and Sprouts*
 - overarching guidance followed by commodity specific guidance was appropriate;
 - Prioritized beef and leafy greens – the proposed structure of the document to include overarching guidance followed by commodity
 - the term “unpasteurized milk” replaced with the term “raw milk” to avoid confusion with milk that may have received thermal treatment but not pasteurization.
 - Establish an EWG, co-chaired by Chile and the United States of America,

INTRODUCTION

- eWG (2018 -2019) 80 MS and 11 OBS. Draft for General part, Beef and Leafy Greens
- CCFH 51 2019 Agreed on Food Commodity names/Scopes/Definition
 - Raw Beef
 - Leafy Vegetables
 - Raw Milk and Raw milk cheeses
 - Sprouts
- New eWG Chair by Chile, Co-Chair by USA, New Zealand and France
- 2019 – until CCFH52, with 2 members consultations in between.
- JEMRA expert meetings 2020 (Raw Beef and Raw Milk) and 2021(Leafy vegetables and Sprouts)

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SPROUTS: GENERAL SECTION



General Section CRD4



- The proposed draft guidelines for control of STEC - the General Section and 3 Annexes – were circulated in December 2021 for comments at Step 3.
- Changes were made to the General Section based on comments received (CX/FH 22/52/7 Add.1), and these changes are shown with tracking in CRD4.
- Changes were made to definitions of “Fresh leafy vegetables,” “Raw beef,” “Raw milk,” and “Indicator microorganisms.”
- Text that referred to “GHP-based” or “hazard-based” control measures has been deleted except in paragraph 28, which refers to “hazard analysis activities and hazard-based control measures.”



Questions for CCFH52



- Should we delete or retain terms such as “GHP-based” and “hazard-based” control measures?
- Are the definitions acceptable?
- Should definitions for the commodities appear in both the General Section and in the specific commodity annexes, as previously agreed?
- Should we explain how virulence genes can be taken into account in corrective actions in the section on Laboratory Analysis Criteria for Detection of STEC?
- How should we deal with Section 6.1? (Next slide)

10. These Guidelines provide information to governments and industry on the control of STEC in raw beef, fresh leafy vegetables, raw milk and cheeses produced from raw milk, and sprouts that aims to reduce foodborne disease. The Guidelines provide a scientific tool for the effective ~~application of GHP and hazard-based approaches for~~ control of STEC in raw beef, fresh leafy vegetables, raw milk and raw milk cheeses, and sprouts according to national risk management decisions. The control measures that are selected can vary among countries and production systems.

14. The Guidelines present a number of ~~GHP-based~~ control measures. ~~GHPs are prerequisites to making choices on hazard-based control measures. Hazard-based~~ These control measures will likely vary at the national level and therefore these Guidelines only provide examples of ~~hazard-based control~~ them. Examples of ~~hazard-based~~ control measures are limited to those that have been scientifically demonstrated as effective in a commercial setting. Countries should note that these ~~hazard-based~~ control measures are indicative only. The quantifiable outcomes reported for control measures are specific to the conditions of particular studies and the control measures would need to be validated under local commercial conditions to provide an estimate of hazard reduction². Government and industry can use choices on ~~hazard-based~~ control measures to inform decisions on critical control points (CCPs) when applying HACCP principles to a particular food process.

15. Several ~~hazard-based~~ control measures as presented in these Guidelines are based on the use of physical, chemical and biological decontamination processes to reduce the prevalence and/or concentration of STEC-positive commodities, for example beef carcasses from slaughtered cattle (i.e. beef from animals of the species of *Bos indicus*, *Bos taurus*, and *Bubalus bubalis*). The use of these control measures is subject to approval by the competent authority, where appropriate, and varies based upon the type of product being produced. Also, these Guidelines do not preclude the choice of any other ~~hazard-based~~ control measure that is not included in the examples provided herein, and that may have been scientifically validated as being effective in a commercial setting.

19. Fresh leafy vegetables - Vegetables of a leafy nature ~~{where the leaf is intended for consumption} {that may be consumed}~~ without cooking, including, but not limited to, all varieties of lettuce, spinach, cabbage, chicory, endive, kale, radicchio, and fresh herbs such as coriander, cilantro, basil, curry leaf, colocasia leaves and parsley, among other local products for foliar consumption.

20. ~~{Indicator microorganisms - microorganisms that are used to evaluate the microbiological status of food production and food control systems, including the evaluation of the quality or safety of raw or processed food products and the validation of the efficacy of microbiological control measures. Some hygiene indicator microorganisms are total bacterial counts, coliform or faecal coliform counts, total *E. coli* counts and counts of Enterobacteriaceae.}~~ ~~{Indicator microorganisms - microorganisms used as a signan indicator of quality, process efficacy, or hygienic status in-of food, water, or the environment, often commonly used to signify suggest the potential presence of pathogens, a lapse in sanitation-process hygiene or a process failure. Common-Examples of indicator microorganisms include counts of total ~~bacterial counts~~ mesophilic aerobic bacteria, coliforms s or faecal coliforms s-counts, total *E. coli* ~~counts~~ and ~~counts of~~ Enterobacteriaceae.}~~

21. Raw beef – Skeletal muscle meat from slaughtered cattle, including primal cuts³, sub-primal cuts, and trimmings.

22. Raw milk: Milk (as defined in Codex General Standard for the Use of Dairy Terms (CXS 206-1999)) that is intended for direct consumption or a primary input for dairy products and which has not been heated beyond 40°C or undergone any treatment that has an equivalent effect.⁴ This definition excludes product that has been subjected to processing techniques used for microbiological control (e.g. heat treatment above 40 °C, ~~as well as~~ microfiltration and bactofugation ~~which lead to a decrease in the microbiota equivalent to heating.~~).

23. Raw Milk Cheeses: Cheeses made from raw milk⁴.

24. Shiga Toxin-Producing *E. coli* (STEC): A large, highly diverse group of bacterial strains of *Escherichia coli* that are demonstrated to carry Shiga toxin genes (*stx*) and produce Shiga toxin protein (Stx).



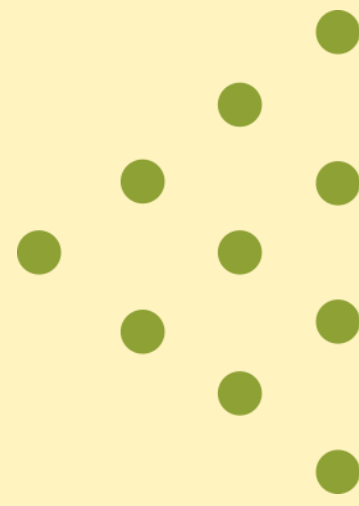
Section 6.1 - Development of Risk-Based Control Measures (Options)

- Delete the section.
- Replace paragraphs 30-33 with a reference to *Principles and Guidelines for the Conduct of Microbiological Risk Management (MRM)* (CXG 63-2007).
- Retain the section with modifications, selecting among 3 options for paragraph 31:
 - [Option 1: Risk modelling tools can be developed to assess the impact of control measures on the reduction or elimination of the hazard. Capability and limitations should be clearly specified.]
 - [Option 2: When risk modelling tools are developed, the risk manager needs to understand the capability and limitations.]
 - [Option 3: Risk modelling tools can be developed to assess the impact of control measures on the reduction or elimination of the hazard. The capability and limitations of the tools should be clearly specified and understood by the risk manager.]

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SPROUTS: **Virtual working Group**
Report – CRD 05



Virtual working Group Report – CRD 05





Term of Reference for eWG

- Establish an EWG, chaired by Chile and co-chaired by France, New Zealand and the United States of America, and working in English, to:
 - i. Update the General Section and the Annexes on Raw Beef, Fresh Leafy Vegetables, and Raw Milk and Raw Milk Cheeses, taking into consideration the written comments that were submitted through the OCS in response to the CL XX-XX, and CRDs submitted at CCFH52 , as well as the virtual working group and plenary session discussions at CCFH52.
 - ii. draft an annex on Sprouts describing interventions relevant to control STEC and presenting for comments at step 3 at CCFH 53;
 - iii. Review the relevant JEMRA reports with respect to control of STEC in raw beef, fresh leafy vegetables, raw milk and raw milk cheeses, and sprouts and incorporate appropriate interventions and other changes into the annexes and general part as appropriate.

See you at the eWG!!!

