Committee Final Reports are considered DRAFT until acknowledged by Council or accepted by the Executive Board

COMMITTEE NAME: Produce Wash Water Committee (PWWC)

DATE OF FINAL REPORT: 11/01/2019

COMMITTEE ASSIGNMENT: \square **Council II** \square **Council III** x **Council III** \square **Executive Board**

REPORT SUBMITTED BY: Anna Starobin, Jaime Hernandez

COMMITTEE CHARGE(S):

Issue # 2018-III-013: Re-Create - Produce Wash Water Committee

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - **b.** Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2. Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.

COMMITTEE WORK PLAN AND TIMELINE:

- 1. Created subgroup will continue working on the guideline draft (Members: Amanda Garvin; Erich Hess; Jaime Hernandez; Janet Buffer; Jill Hollingsworth; Kris Zetterlund; Rick Barney; Todd Rossow; Anna Starobin) (complete)
- 2. The chapters of the future guideline will be created. (complete)
- **3.** Washing and crisping methods, considerations, and comments will be listed in a table as an example of most commonly used produce washing methods and risk reduction associated with each of the methods. (**complete**)
- 4. Pre-requisite SOPs for produce washing and crisping will be prepared and included into the guideline. (Outside of the committee charge, per CFP Board members Keith Jackson and Christine Applewhite)
- **5.** Diagram/decision tree for using various chemicals used in produce washing with jurisdictions regulated those chemicals will be created. (**complete**)
- 6. After developing the guidance document, said document will be peer-reviewed between Committee members and FDA consultants to ensure that all details from the charge have been fulfilled. June-July 2019 (complete)
- **7.** After completion of the charge, the Committee will report back to the 2020 Conference for Food Protection Biennial Meeting. (**complete**)
- 8. Issues identified during the committee work will be prepared and submitted to CFP (September-December 2019) (complete)

COMMITTEE ACTIVITIES:

- 1. Dates of committee meetings or conference calls:
 - **a.** 9/25/18; 10/23/18; 11/26/18; 12/17/18; 1/28/19; 2/25/19; 3/25/19; 4/22/19; 5/20/19; 6/24/19; 7/29/19; 8/26/19; 10/3/19
 - b. Working group had conference calls at least every other week, as well as multiple e-mail communications.

2. Overview of committee activities:

- a. Committee member roster approved.
- **b.** Issued a guideline which covered most common methods for produce washing and crisping in retail. Risk reduction for each method recommended. Relevant references are searched and included.
- **c.** The types of chemicals and their use for washing and crisping clarified.
- d. Periodic reports submitted.
- e. Final report submitted.
- 3. Charges COMPLETED and the rationale for each specific recommendation:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - **b.** Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2.Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.
- 4. Charges INCOMPLETE and to be continued to next biennium:
 None

COMMITTEE REQUESTED ACTION FOR EXECUTIVE BOARD:

X No requested Executive Board action at this time; all committee requests and recommendations are included as an Issue submittal.

LISTING OF CFP ISSUES TO BE SUBMITTED BY COMMITTEE:

- 1. **Committee Issue #1:** PWWC 1- Acknowledgement of the 2018-2020 Produce Wash Water Committee Final Report and disbanding the 2018-2020 Produce Wash Water Committee
 - a. List of content documents submitted with this Issue:
 - (1) Committee Final Report (see attached PDF)
 - (2) Committee Member Roster (see attached PDF)
 - (3) Guide for Washing and Crisping Whole, Raw Fruits and Vegetables at Retail Food Establishments
 - b. List of supporting attachments:
 - (1) Meeting Notes. All meeting notes were approved by the majority of the voting members via email responses.
- 2. **Committee Issue #2:** PWWC 2 Posting of the Guidance Document of the 2018-2020 Produce Wash Water Committee to the Conference for Food Protection website.

List of supporting attachments:

- (1) Guide for Washing and Crisping Whole, Raw Fruits and Vegetables at Retail Food Establishments
- 3. **Committee Issue #3:** PWWC 3 4-302.15 Fruit and Vegetable Wash Solutions, Testing Devices

List of supporting attachments: x No supporting attachments submitted

Committee Name: Produce Wash Committee - 20 Voting Members 41 total members 9 Industry: 9 Regulatory: 2 Academia)

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	First	Position				_		
Last Name	Name	(Chair/Member)	Constituency	Employer	City	State	Telephone	Email
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						_		

asked to be removed from the committee

Guide for Washing and Crisping Whole RawFruits and Vegetables at Food Establishments

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Prepared for submission to:

2020 Biennial Meeting of the Conference for Food Protection

I. Disclaimer

(Need CFP legal review)

The guidance in this document does not create or confer any rights for, or on, any person and does not operate to bind public health officials or the public. This guide does not have the force and effect of law and thus is not subject to enforcement. This guide encourages food establishments to use the general recommendations in the guidance to tailor food safety practices appropriate to their operations.

II. Preamble

In response to Issue #2018-III-013 presented at the 2018 Conference for Food Protection (CFP) Biennial Meeting, Council III voted, and it was subsequently approved, to recreate the Produce Wash Water Committee. The following charges were given to the Committee:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - b. Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2. Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.

III. Introduction

Fresh fruit and vegetable risk control measures, such as those detailed in the Food Safety Modernization Act (FSMA), the Produce Safety Rule, Food and Drug Administration (FDA) Guidance Documents and industry best practices guides, have enhanced the implementation of preventive controls during growing, harvesting, packing, holding and processing. However, despite these efforts, since there is no kill step for pathogens on whole, raw fruits and vegetables they may be contaminated when they enter commerce. Food establishment operators should be aware of potential risks associated with fruits and vegetables that may be washed at retail and consider appropriate risk control steps when handling fresh produce.

In food establishments, "... raw fruits and vegetables shall be thoroughly washed in water to remove soil and other contaminants before being cut, combined with other ingredients, cooked, served, or offered for human consumption in READY-TO-EAT form" as per the 2017 FDA Food Code 3-302.15(A). ¹

As per the FDA Food Code Annex #3, "It was assumed that washing removes the majority of organisms and/or chemicals present; however, more recent studies have demonstrated washing to fall short of their complete removal." ²

In food establishments, different methods are used to wash different types of produce, including submersion, spray, rinsing, or a combination of these. Each method has advantages and risks that should be considered.

Spraying or rinsing with water, rather than submerging in water, may be less likely to cross-contaminate produce or result in infiltration of water. However, care must be taken with spray washing to prevent contamination by splashing or by aerosol. In a food establishment, this method may not be practical for large quantities of product.

Submersion in water is a common method used for washing whole, raw fruits and vegetables in food establishments. This method can present a risk of cross-contamination if pathogens present on the surface of the produce subsequently contaminate the water. Studies have shown that under certain conditions, pathogens washed off the produce surface into the water may be internalized into the produce via water infiltration. ^{3, 4, 5}

Regardless of wash method used, retail food establishments should be aware of the potential risks and control measures to minimize those risks. This guide seeks to assist food establishments that wash whole, raw produce by providing risk control steps for washing methods when using water alone, chemical treatments, and/or antimicrobial treatments. In practice, the differences in methods and treatments are not always understood or well differentiated. This guide provides information that should be considered when selecting a method for washing produce.

IV. Definitions

Antimicrobial Pesticide (Treatment): An antimicrobial pesticide [also called an antimicrobial treatment] is intended to disinfect, sanitize, reduce, or mitigate growth or development of microbiological organisms or protect inanimate objects, industrial processes or systems, surfaces, water, or other chemical substances from contamination, fouling, or deterioration caused by bacteria, viruses, fungi, protozoa, algae, or slime. ⁶

Antimicrobial products are divided into two categories based on the type of microbial pest against which the product works:

Public health antimicrobial pesticide products are those products that bear a claim to
control pest microorganisms that pose a threat to human health, and whose presence
cannot readily be observed by the user, including but not limited to, microorganisms
infectious to humans in any area of the inanimate environment, including water. 6

 Nonpublic-health antimicrobial pesticide products are those products that bear a label claim to control microorganisms of economic or aesthetic significance, where the presence of the microorganism would not normally lead to infection or disease in humans. ⁶ Examples include fungi or lactic acid bacteria that can cause spoilage.

Food Additive: Any substance the intended use of which results or may reasonably be expected to result, directly or indirectly, either in their becoming a component of food or otherwise affecting the characteristics of food. Includes any substance intended for use in producing, manufacturing, packing, processing, preparing, treating, packaging, transporting, or holding food; and including any source of radiation intended for any such use if such substance is not GRAS or sanctioned prior to 1958 or otherwise excluded from the definition of food additives. ⁷

Fresh-Cut Produce: Any fresh fruit or vegetable or combination thereof that has been physically altered from its whole state after being harvested from the field (e.g., by chopping, dicing, peeling, ricing, shredding, slicing, spiralizing, or tearing) without additional processing (such as blanching or cooking). ⁸

Infiltration (Internalization): As it relates to fresh produce, the process of a liquid, usually water, permeating the internal structure by penetrating its pores [stoma], cut surfaces or other openings. ⁵ Infiltration of microorganisms can occur through stem scars, cracks, cuts, or bruises in certain fruits and vegetables during washing. ² Microorganisms in water have been shown to enter produce through various pathways available due to the natural structure of certain produce. Various factors such as type of commodity, age, condition of the item (e.g., wounds, cracks, stem removal), water temperature, time in the water, and hydrostatic pressure can play a role in the internalization of microorganisms into fruits and vegetables. ⁴

On-Site Generators: Devices that produce antimicrobial pesticides (chemicals), and which are located at the retail facility. On-site generators produce the antimicrobial chemical (usually a gas or liquid) via a chemical reaction and should not be confused with equipment that mixes, dilutes, or delivers chemicals that have been manufactured elsewhere. Refer to the FDA Food Code for details on using antimicrobials generated by on-site devices. ⁹

- Whole, raw fruits and vegetables can be washed using antimicrobial treatments generated on-site.
- The EPA does not require the registration of the chemicals produced on-site from generating devices.
- The device must be manufactured in a registered establishment.
- Because there is no EPA registration of solutions generated and used on-site, the user of the equipment should look to the equipment manufacturer for data to validate the efficacy of the solution as well as the conditions for use.

Potable Water: Water that meets criteria as specified in 40 CFR 141 National Primary Drinking Water Regulations; referred to in the 2017 FDA Food Code as *drinking water*. (2017 FDA Food Code 1-201.10) ¹

Produce: Any fruit or vegetable (including mixes of intact fruits and vegetables) and includes mushrooms, sprouts (irrespective of seed source), peanuts, tree nuts, and herbs. A fruit is the edible reproductive body of a seed plant or tree nut (such as apple, orange, and almond) such that fruit means the harvestable or harvested part of a plant developed from a flower. A vegetable is the edible part of an herbaceous plant (such as cabbage or potato) or fleshy fruiting body of a fungus (such as white button or shiitake) grown for an edible part such that vegetable means the harvestable or harvested part of any plant or fungus whose fruit, fleshy fruiting bodies, seeds, roots, tubers, bulbs, stems, leaves, or flower parts are used as food and includes mushrooms, sprouts, and herbs (such as basil or cilantro). ¹⁰

Raw Agricultural Commodity (RAC): Any food in its raw or natural state, including all fruits that are washed, colored, or otherwise treated in their unpeeled natural form prior to marketing. ¹¹ Certain activities such as refrigeration, washing, trimming, and waxing do not transform a RAC into a new or distinct commodity. Transforming a RAC into a processed food involves altering the general state of the commodity, sometimes referred to as transformation of a RAC. Examples of activities that may be manufacturing/processing without transforming a RAC into a processed food include coloring, washing, and waxing. Examples of activities that change a RAC into a processed food include chopping, cooking, cutting, homogenization, irradiation, and pasteurization.

Ready-to-Eat (RTE) Food: Food that is in a form that is edible without additional preparation to achieve food safety. (2017 FDA Food Code 1-201.10) ¹ For this Guide, RTE includes raw fruits and vegetables [RACs] that are washed as specified under FDA Food Code § 3-302.15. ¹

Risk Factors: Food preparation practices and employee behaviors most commonly reported to the Centers for Disease Control and Prevention (CDC) as contributing factors in foodborne illness outbreaks. Risk factors include: Food from Unsafe Sources, Improper Holding Temperatures, Inadequate Cooking, Contaminated Equipment, and Poor Personal Hygiene. (2017 FDA Food Code, Annex 7, Guide 3-B) ¹

Sanitizer: Product [or substance] used to reduce, but not necessarily eliminate, microorganisms from the inanimate environment to levels considered safe as determined by public health codes or regulations. ¹² Sanitizers can be designated for use on food-contact and/or nonfood-contact surfaces.

V. Information to Assist the User

(A) Scope

- This guidance is specific to whole, raw fruits and vegetables (also called raw agricultural commodities or RACs) that are washed at food establishments.
- This guidance does not apply to further processed fruits and vegetables, such as freshcut produce.
- In addition to washing, another common retail practice, known as crisping, involves produce-to-water contact. Therefore, this guide also provides information regarding the risks and controls that should be considered when selecting a method for crisping produce. (See Section VII)

(B) Understanding/Clarifying Sanitizers and Disinfectants

The words cleaner, sanitizer, disinfectant, pesticide and antimicrobial treatment are often misused, which can lead to confusion. This section attempts to provide an explanation and clarification of these terms as used by the US Environmental Protection Agency (EPA) and FDA.

Pest, Pesticide, and Antimicrobial Pesticide

The term "pest" means: "(1) any insect, rodent, nematode, fungus, weed, or (2) any other form of terrestrial or aquatic plant or animal life or virus, bacteria, or other micro-organism (except viruses, bacteria, or other micro-organisms on or in living man or other living animals)...." ¹³

A "pesticide" is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating pests. A product is likely to be a pesticide if the labeling or advertising "makes a claim to prevent, kill, destroy, mitigate, remove, repel or any other similar action against any pest." ¹⁴

Antimicrobial pesticides [also referred to as antimicrobial treatments] are substances or mixtures of substances used to destroy or suppress the growth of harmful microorganisms such as bacteria, viruses, or fungi on inanimate objects and surfaces. ¹² Antimicrobial pesticides are intended to disinfect, sanitize, reduce, or mitigate growth or development of microbiological organisms; or protect inanimate objects, industrial processes or systems, surfaces, water, or other chemical substances from contamination, fouling, or deterioration caused by bacteria, viruses, fungi, protozoa, algae, or slime. ¹²

Sanitizers and Disinfectants

Food-contact surface sanitizers are EPA-registered products that are used to reduce, but not necessarily eliminate, microorganisms from the inanimate environment to levels considered safe as determined by public health codes or regulations. ¹² They may not totally eliminate

microorganisms from hard, nonporous inanimate surfaces, but they reduce them to levels considered safe from a public health standpoint.

The FDA Food Code 1-201.10 describes sanitization as the "...application of cumulative heat or chemicals on cleaned food-contact surfaces that, when evaluated for efficacy, is sufficient to yield a reduction of 5 logs, which is equal to a 99.999% reduction, of representative disease microorganisms of public health importance. ¹

Disinfectants are also EPA-registered products that can be used on hard, non-porous surfaces to destroy or irreversibly inactivate infectious bacteria and fungi, but not necessarily their spores. ¹²

The efficacy testing, performance standards, and label claims required by EPA for food-contact surface *sanitizers* are different than those of hard surface *disinfectants*, as well as the intended purpose for these two types of products.

Likewise, the efficacy testing, performance standards, and label claims required by EPA for *surface sanitizers* are different than those required for *produce antimicrobial treatments*. EPA registered antimicrobial produce washes (treatments) must demonstrate antimicrobial efficacy in the wash water, but not on the produce surface. There are also different requirements for the substances allowed for treatment of food-contact surfaces vs. produce treatments. Not all substances approved as hard surface sanitizers can be used for produce wash antimicrobial treatments. For example, quaternary ammonium compounds (Quats) are commonly used as active ingredients for food-contact surface sanitizers but currently they are not allowed for use as produce antimicrobial wash treatments.

Substances for use as produce treatments are listed in 21 CFR §173 as additives permitted for human consumption ¹⁵ and in 21 CFR §184 as substances Generally Recognized As Safe. ¹⁶

Substances cleared for use in antimicrobial formulations as hard surface sanitizers are listed in 40 CFR 180.940. ¹⁷

VI. Methods and Risk Controls for Washing Whole Raw Fruits and Vegetables

The following general principles apply to all the methods for washing whole, raw produce in food establishments included in the following chart titled:

WASHING Whole Raw Fruits and Vegetables – Methods and Risk Reductions

In general:

- This guidance is specific to whole, raw fruits and vegetables (RACs) and does not apply to processed produce.
- Use only potable water when washing produce.
- All chemical treatments should meet the requirements of the FDA Food Code, Section 7-204.12. ¹ Unless otherwise stipulated in 21 CFR 173, chemicals used to wash or peel fruits and vegetables should not exceed the minimum amount required to accomplish the intended effect, need to be accurately tested for proper concentration, and must adhere to any indications as dictated on the product label. (2017 FDA Food Code Annex 3-302.15) ¹
- A food establishment should consider developing a written procedure (such as a Standard Operating Procedure, job aid, or instructional wall chart) for washing produce. Controls for risk factors such as sourcing, receiving, holding temperatures, product handling, cleaning and sanitizing surfaces and equipment including the sink where produce will be washed, employee health, and personal hygiene can be found in the FDA Food Code and may be considered as part of the procedure or as pre-requisites prior to produce washing.
- This guide does not provide specific recommendations for how to comply with the FDA
 Food Code or state/local requirements. Because this guide does not repeat the full text
 of all requirements, users should familiarize themselves with the applicable
 requirements.

Different methods are used for washing whole, raw fruits and vegetables at food establishments. The following chart lists recommended risk reductions for each of the most commonly used produce washing methods.

WASHING Whole Raw Fruits and Vegetables – Methods and Risk Reductions					
Method	Risk Reductions	Comments			
(W1) Washing fruits and vegetables by rinsing or spraying under continuous running and draining water	 Rotating produce items so that all surfaces are washed/rinsed thoroughly Providing sufficient water velocity to loosen soil and particles from the surface Washing individual pieces or small batches of produce 	 When produce is not submerged in water the risk of cross-contamination and microbial infiltration may be reduced. This method could cross-contaminate if multiple pieces are rinsed at the same time. Do not allow water to splash onto other product or food-contact surfaces. This method may not be practical for large volumes of produce. 			
(W2) Washing fruits and vegetables by rinsing or spraying in a container under a continuous stream of running water with a continuous overflow	 Maintaining water temperature warmer than the pulp temperature of the produce to reduce potential infiltration Providing sufficient water velocity to loosen soil and particles from the surface and to float off loose particles in the overflow Stirring the produce in the container to ensure equal exposure to the water flow Washing small batches of produce 	 The use of continuously flowing and draining water may reduce the potential risk of cross-contamination. This method could cross-contaminate if multiple pieces are rinsed at the same time. Do not allow water to splash onto other product or food-contact surfaces. This method may not be practical for large volumes of produce. 			

Method	Risk Reductions	Comments
(W3) Washing fruits and vegetables by submerging or by spraying or rinsing under running water using an EPA registered antimicrobial treatment in the water Note: The treatment may be provided in a concentrated form that has to be diluted for use as per label instructions.	 Following all manufacturer's instructions and the registered EPA label instructions for use Using the concentration of the antimicrobial indicated by the manufacturer's use directions included in the EPA registered label Agitating the produce to loosen soil and surface contaminants and to ensure all produce is exposed to the treated water 	 Consult the EPA registered product label to determine if the product controls pathogens in the wash water, e.g., a 3-log reduction of Salmonella, Listeria monocytogenes, and E. coli O157:H7. By reducing pathogens introduced into the water by contaminated produce, the risk of crosscontamination via the water and pathogen infiltration is reduced. When it is not practical to reduce the temperature differential between the water and the produce, using an antimicrobial product in the wash water helps to mitigate the risk of pathogen contamination from wash water via infiltration. Decreasing produce soaking time has been shown to reduce water infiltration rate. The treated water should be prepared, and the concentration verified, following manufacturer label instructions.
(W4) Washing fruits and vegetables by submerging in water using a produce wash that is an approved food additive, or generally recognized as safe (GRAS), or is the subject of a food contact notification (FCN) as per FDA Food Code 7-204.12, but is not registered as an antimicrobial by EPA	 Following the manufacturer's instructions Maintaining water temperature warmer than the pulp temperature of the produce to reduce potential infiltration Developing a policy for the frequency of changing the water Agitating the produce to loosen soil and surface contaminants 	 These wash products may help loosen and remove soil and other contaminants on the surface of produce, but they have limited antimicrobial properties on pathogens introduced into the water by contaminated produce. These wash products are not EPA registered, and do not make any pathogen kill or reduction claims. Decreasing produce soaking time has been shown to reduce water infiltration rate. The treated water should be prepared, and the concentration verified, following manufacturer label instructions.

Method	Risk Reductions	Comments
(W5) Washing fruits and vegetables by submerging in water without adding anything to the water	 Maintaining water temperature warmer than the pulp temperature of the produce to reduce potential infiltration Developing a policy for the frequency of changing the water Agitating the produce to loosen dirt and contaminants 	 This method provides the fewest preventive controls. Water may loosen soil and some pathogens from the surface but will not reduce pathogens in the water; this increases the risk of pathogen crosscontamination and infiltration of pathogens via the water. Decreasing produce soaking time has been shown to reduce water infiltration rate.

VII. Methods and Risk Controls for Crisping Whole Raw Fruits and Vegetables

Certain types of whole, raw fruits and vegetables may come in contact with water during a process known as crisping. Other terms used for this practice are re-crisping, hydrating, re-hydrating, and conditioning. Because washing and crisping may use the same produce-to-water contact methods, this guide also provides information regarding the risks and controls that should be considered by food establishments when selecting a method for crisping produce.

Crisping is the process of rehydrating produce with water for the primary purpose of maintaining quality and appearance. The process of crisping may also incorporate a method for chilling such as holding the produce under refrigeration. "Crisping typically involves the submersion of commodities in water (with or without sanitizers) followed by refrigeration, which gives products a fresh look and crisp texture." ¹⁸ Crisping may also have the added benefit of contributing to sustainability initiatives such as reducing food waste and maintaining the produce quality appearance.

A primary risk factor that needs to be considered when crisping certain types of produce is internalization of pathogens. "Enteric pathogens have been shown to enter plant tissues through natural apertures (stomata, lateral junctions of roots, flowers), damaged tissue (wounds, cut surfaces)," ⁵ and purposeful openings such as stem trimming. Studies have shown that under certain conditions, pathogens washed off the produce surface may be internalized into the produce via water infiltration. ^{4, 5, 8} Pathogen internalization can occur at any time including pre-harvest, post-harvest processing and food establishment handling. Various factors such as type of commodity, age, condition of the item (e.g., wounds, cracks, stem removal), water temperature, time in the water, and hydrostatic pressure can play a role in the internalization of water which could contain pathogens if microbiological water quality is not maintained.

Crisping and washing have different objectives, however they share similar risks and controls. Washing is performed to clean produce surfaces and to remove surface soil and potential contaminants. The 2017 FDA Food Code 3-302.15(A) states "... raw fruits and vegetables shall be thoroughly washed in water to remove soil and other contaminants before being cut, combined with other ingredients, cooked, served, or offered for human consumption in ready-to-eat form." ¹ Crisping is an optional practice, intended to maintain the quality and appearance of raw fruits and vegetables, and is not addressed in the FDA Food Code.

The information in this Guide regarding crisping reflects industry practices, published references (see Section IX), and input from subject matter experts. Because the FDA Food Code does not address crisping, this Guide is for use at the sole discretion of the food establishment and State/local regulators.

The following general principles apply to all the methods for crisping whole, raw produce in food establishments included in the following chart titled:

CRISPING Whole Raw Fruits and Vegetables – Methods and Risk Reductions

In general:

- This guidance is specific to whole, raw fruits and vegetables (RACs) and does not apply to processed produce.
- Use only potable water when crisping produce.
- When used, all chemical treatments should meet the requirements of the 2017 FDA Food Code 7-204.12.¹
- A food establishment should consider developing a written procedure (such as a Standard Operating Procedure, job aid, or instructional wall chart) for crisping produce. Controls for risk factors such as sourcing, receiving, holding temperatures, product handling, cleaning and sanitizing surfaces and equipment, employee health, and personal hygiene can be found in the FDA Food Code and may be considered as part of the procedure or as pre-requisites prior to produce crisping.
- This guide does not provide specific recommendations for how to comply with the FDA
 Food Code or state/local requirements. Because this guide does not repeat the full text
 of all requirements, users should familiarize themselves with the applicable
 requirements.

Different methods are used for crisping whole, raw fruits and vegetables at food establishments. The following chart lists recommended risk reductions for each of the most commonly used crisping methods.

CRISPING Whole Raw Fruits and Vegetables – Methods and Risk Reductions				
Method	Risk Reductions	Comments		
(C1) Produce is submerged in water containing an EPA registered antimicrobial Note: The treatment may be provided	 Following all manufacturer's instructions and the registered EPA label instructions for use Using the concentration of the antimicrobial indicated by the manufacturer's use directions included in the EPA registered label Minimizing the time produce remains 	 Consult the EPA registered product label to determine if the product controls pathogens in the wash water, e.g., a 3-log reduction of Salmonella, Listeria monocytogenes, and E. coli O157:H7. By reducing pathogens introduced into the water by contaminated produce, the risk of cross-contamination via the water and pathogen infiltration is reduced. When it is not practical to reduce the temperature 		
in a concentrated form that has to be diluted for use as per label instructions.	 in the water Holding the produce under refrigeration to complete the crisping process 	 differential between the water and the produce, using an antimicrobial product in the wash water helps to mitigate the risk of pathogen contamination from wash water via infiltration. The treated water should be prepared, and the concentration verified, following manufacturer label instructions. 		
(C2) Produce is submerged in water with an added treatment that is an approved food additive, or generally recognized as safe (GRAS), or is the subject of a food contact notification	 Following the manufacturer's instructions Maintaining water temperature warmer than the pulp temperature of the produce to reduce potential infiltration 	 These treatments are <u>not</u> EPA registered, and do not make any pathogen kill or reduction claims. These treatments have limited antimicrobial properties on pathogens introduced into the water by contaminated produce; therefore, there is a risk of cross-contamination and pathogen infiltration. 		
(FCN) as per FDA Food Code 7-204.12, but is <u>not</u> registered by EPA as an antimicrobial	 Developing a policy for the frequency of changing the water Minimizing the time produce remains in the water Holding the produce under refrigeration to complete the crisping process 	 Decreasing produce soaking time has been shown to reduce water infiltration rate. The treated water should be prepared, and the concentration verified, following manufacturer label instructions. 		

Method	Risk Reductions	Comments
(C3) Produce is submerged only in water, without adding anything to the water	 Maintaining water temperature warmer than the pulp temperature of the produce to reduce potential infiltration Developing a policy for the frequency of changing the water Minimizing the time produce remains in the water Holding the produce under refrigeration to complete the crisping process 	 This method provides the fewest preventive controls. Pathogens on the surface of produce may be introduced into the water which can then crosscontaminate other produce items in the same water. It has been shown that submerging some produce in water that is colder than the produce can increase the risk of pathogen infiltration. Decreasing produce soaking time has been shown to reduce water infiltration rate.
(C4) Produce is submerged in water in a container under a continuous stream of running water with a continuous overflow.	 Maintaining water temperature warmer than the pulp temperature of the produce to reduce potential infiltration Crisping small batches to minimize cross-contamination Minimizing the time produce remains in the water Holding the produce under refrigeration to complete the crisping process 	 The use of continuously flowing and draining water may reduce the potential risk of cross-contamination. This method may not be practical for large volumes of produce.

VIII. Chemical Use and Regulations

Chemicals used for washing and crisping produce and/or to reduce microbial cross-contamination via wash water should be formulated from ingredients that are approved for this application and must be used in accordance with FDA and EPA regulations.

The following charts describe the approval process for chemicals, with and without antimicrobial claims, used for washing or crisping whole, raw fruits and vegetables.

Antimicrobial pesticide products are categorized by EPA as either "public health" or "non-public health," depending on the specific claims made on each product's labeling. Registrants of public health antimicrobial pesticide products must submit efficacy data to EPA to support their application for registration or amendments to add public health claims. The chemical producer or supplier is responsible for obtaining the appropriate approvals and assuring that the label provides instructions on proper use of the chemical for the intended purpose.

WASHING WHOLE RAW FRUITS AND VEGETABLES (RACS) USING CHEMICALS

FOR EACH CHEMICAL SUBSTANCE IN THE PRODUCT:

Approved food additive listed for this intended use in 21 CFR 173* PRODUCE WASH TREATMENTS PRODUCE WASH TREATMENTS with Antimicrobial Claims OR • No antimicrobial claims can be made **EPA Registered Product** Be generally recognized as AND • Removes soil and other surface (Meet the requirements in 40 CFR 156 Labeling safe (GRAS) for produce Requirements for Pesticide and Devices)* contaminants washing* Controls public health OR microorganisms in the wash water (e.g. Listeria monocytogenes, Salmonella, E.coli 0157:H7) Be the subject of an • Controls spoilage organisms effective food contact • Removes soil and other surface notification for this contaminants* intended use (only effective for the manufacturer or supplier identified in the notification*

*Reference Food Code §7-204.12

Note: This diagram does not include chemicals designed for the treatment of further processed produce

Washing Whole Raw Fruits and Vegetables (RACs) Using Chemicals

All chemicals used for washing fruits and vegetables should meet Food Code 7-204.12 requirements

Treatment Types	Intended Use	Food Code Compliance	Comments
Antimicrobial EPA registered chemicals	To control pathogens or spoilage organisms in wash water.	Could be used for Washing Fruits and Vegetable as specified in FDA Food Code 3-302.15	Consult the product label to determine if the chemical controls pathogens in the wash water (e.g., a 3-log reduction of Salmonella, Listeria monocytogenes, E. coli O157:H7) and/or reduces non-public health organisms (e.g. spoilage organisms).
Chemicals with no antimicrobial claims (not EPA registered)	To help loosen soil from the produce surfaces.	Could be used for Washing Fruits and Vegetable as specified in FDA Food Code 3-302.15	No antimicrobial efficacy claims are made. Cross-contamination via water is not addressed.

This table does not include chemicals designed for treatment of further processed produce

IX. References

- 1. U.S. Food and Drug Administration (FDA). *Food Code*. 2017. https://www.fda.gov/media/110822/download.
- 2. US Food and Drug Administration. *Food Code Annex 3 § 3-302.15.* 2017. Available at: https://www.fda.gov/media/110822/download.
- 3. U.S. Food and Drug Administration (FDA). *Guidance for Industry: Guide to Minimize Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables*. February 2008; updated 09/20/2018. https://www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-guide-minimize-microbial-food-safety-hazards-fresh-cut-fruits-and-vegetables.
- 4. U.S. Food and Drug Administration (FDA). *Potential for Infiltration, Survival, and Growth of Human Pathogens within Fruits and Vegetables*. December 19, 2017. https://www.fda.gov/food/hazard-analysis-critical-control-point-haccp/potential-infiltration-survival-and-growth-human-pathogens-within-fruits-and-vegetables.
- 5. Erickson MC. Internalization of Fresh Produce by Foodborne Pathogens. *Annual Review of Food Science and Technology*. April 2012;volume 3:283-310. Available online: https://doi.org/10.1146/annurev-food-022811-101211.
- 6. U.S. Environmental Protection Agency. *Pesticide Registration Manual: Chapter 4*. Updated Sep 2019. Available at: https://www.epa.gov/pesticide-registration/pesticide-registration-manual-chapter-4-additional-considerations#whatis.
- 7. US Health and Human Services. *Food for Human Consumption. 21CFR170.3*. April 1, 2018. Available at: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=170.3.
- 8. U.S. Food and Drug Administration. *Guidance to Minimize Food Safety Hazards of Fresh Cut Produce Draft Guidance for Industry*. October 2018. Available at: https://www.fda.gov/media/117526/download.
- 9. US Food and Drug Administration (FDA). Food Code. 7-204.12 Chemicals for Washing Fruits and Vegetables. 2017. Available at: https://www.fda.gov/media/110822/download.
- 10. US Heaslth and Human Services. *Food and Drugs. 21CFR112.3*. August 29, 2019. Available at: https://www.ecfr.gov/cgi-bin/text-idx?SID=0d44d552221fd16550a96dffc1218978&mc=true&node=se21.2.112 13&rgn=div8.
- 11. United States Code 21 USC §321(r). *Title 9 Food Drug and Cosmetics Act*. 2012. Available at: https://www.govinfo.gov/content/pkg/USCODE-2010-title21/pdf/USCODE-2010-title21-chap9-subchapII-sec321.pdf.
- 12. U.S. Environmental Protection Agency. *What Are Antimicrobial Pesticides?* April 7, 2017. Available at: https://www.epa.gov/pesticide-registration/what-are-antimicrobial-pesticides.
- 13. United States Code 7 USC.§136(t). *U.S. Government Publishing Office*. 2012. Available at: https://uscode.house.gov/view.xhtml?path=/prelim@title7/chapter6&edition=prelim.
- 14. U.S. Environmental Protection Agency. *What Is A Pesticide?* April 2, 2018. Available at: https://www.epa.gov/minimum-risk-pesticides/what-pesticide.

- 15. U.S. Code of Federal Regulation 21CFR 173. Secondary Direct Food Additives Permitted in Food for Human Consumption. April 1, 2018. Available at: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=173.
- 16. U.S. Code of Federal Regulations 21CFR 184. *Direct Food Substances Affirmed as Generally Recognized As Safe*. April 1, 2018. Available at: https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=184&showFR=1.
- 17. U.S. Envoronmental Protection Agency. *Food Contact Surface Sanitizing Solutions*. July 1, 2011. Available at: https://www.govinfo.gov/content/pkg/CFR-2011-title40-vol24/pdf/CFR-2011-title40-vol24-sec180-940.pdf.
- 18. Jung Y, Jang H, Guo M, Gao J, Matthews K. Sanitizer efficacy in preventing cross-contamination of heads of lettuce during retail crisping. *Food Microbiology*. 2017;v.64:179-185.

X. Acknowledgements

Prepared by the Produce Wash Water Committee created at the CFP 2018 Biennial Meeting.

Chair: Anna Starobin

Vice-Chair: Jaime Hernandez

Working group members: Amanda Garvin; Erich Hess; Jaime Hernandez; Janet Buffer; Jill

Hollingsworth; Kris Zetterlund; Rick Barney; Todd Rossow

Committee members: Barbara Ingham; Carol Culbert; Jaime Hernandez; Chris Peasley; Deanna Copeland; Anna Starobin; Ata (Al) Baroudi; Erich Hess; Hillary Thesmar; Jason Dickhaut; Jennifer

Nord; Jill Hollingsworth; Josh Jordan; Karl Mathew; Dianna Karlicek; Ki Straughn; Kris

Zetterlund; Todd Rossow; Tom McMahan, Amanda Garvin

Federal consultants: Laurie Williams; Kenya Moon

At-large, non-voting members: Rick Barney; Janet Buffer; Betsy Craig; Todd Geller; Chip Manuel; Carol McInnes; B.J. Mikeska; Ashley Miller; George Nakamura; Kathleen O'Donnell; Steve Oswald; Jaymin Patel; Travis Patton; Matthew Reighter; Nela Romo; Chick Seaman; Matthew Malker, Tim Mosthrook, Bishard William Thomas Mondhury, Woodin Your

Walker; Tim Westbrook; Richard Willis; Thomas Woodbury; Woo Jin Yoo;

Council III chair: Keith Jackson

Council III vice-chair: Christine Applewhite

The Committee wishes to thank all persons and organizations who provided input and assistance in the creation of this document.

PWWC Conference Call Notes 9/25/2018

Attendees:

- Voting Members:
 - Al Baroudi, Carol Culbert, Deanna Copeland, Jason Dickhaut, Amada Garvin, Erich Hess, Jill Hollingsworth, Barbara Ingham, Josh Jordan, Dianna Karlicek, Karl Matthews, Jennifer Nord, Hilary Thesmar
- At-Large Members:
 Betsy Craig, Todd Geller, Chip Manuel, Carol McInnes, B.J. Mikeska, Jaymin Patel, Travis Patton, Nela Romo,
 Todd Rossow, Matthew Walker, Richard Willis, Woo Jin (Joey) Yoo

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - b. Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2. Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.

Notes:

- 2018-2020 PWWC is continuation from 2016-2018 committee work
- Keith Jackson and Christine Applewhite are board representatives overlooking committee
- Committee charges from 2018 Biennium were reviewed
- Roll Call: Tom McMahan (excused), Chris Peasley (excused), and Kris Zetterlund (excused) were voting members that were absent from the call.
- Anna Starobin discussed the Antitrust Statement; this statement is to be read by all committee members and acknowledged, via email.
- Conference call frequency will be scheduled monthly; the frequency may be changed if needed.
- Attendance rules for the conference call were discussed; per an email sent by Keith Jackson, "The general guideline is that "excused" absences are acceptable, which means the committee Chair and Vice Chair receive notice of the absence. Two unexcused calls then requires for a counseling session, which I can do, and a third means they can no longer hold a voting position." Please notify both Anna Starobin (Anna.Starobin@ecolab.com) and Jaime Hernandez (Jaime.Hernandez@dc.gov) beforehand, if unable to be present for a scheduled conference call in order for absence to be excused.
- As a data storage platform for the committee, it was decided that Google Docs will be used, as it is user-friendly and the majority of members have access to said platform. Member Betsy Craig noted that she can assist in setting-up the platform. When using Google Docs, be sure to use Google Chrome browser in order to avoid any compatibility issues.
- Jill Hollingsworth noted that based on the survey results which were collected, it seems like produce washing/crisping practices for the retail and restaurant sectors are not the same. She proposed to work on them separately. It was decided that process flow diagrams for produce washing and crisping will be created for two sectors individually and later merged together, since both are governed by the same set of regulations. Hilary Thesmar, working together with several retailers will draft a diagram for the retail sector. Committee members that are involved in the restaurant industry will be recruited and draft a diagram for the restaurant sector. These diagrams will be presented at the next Conference Call, to determine if there is a significant difference between washing and crisping in the retail sector versus the restaurant sector. These diagrams will also be used as a

PWWC Conference Call Notes 9/25/2018

foundation to create the produce washing and crisping guidance document requested for the 2020 Biennium. With this "framework" in place, sub-committees will be formed at the next conference call.

• All the supporting documents generated during the committee work were emailed to the members to inform them on the outcome and recommendations of the 2016-2018 committee work.

Action Items:

- o Jaime Hernandez will email Keith Jackson regarding being unable to record the conference calls.
- All members must read the Antitrust Statement that Anna Starobin sent via email and acknowledge that they
 read and understood the statement through sending an email to both Anna Starobin
 (Anna.Starobin@ecolab.com) and Jaime Hernandez (Jaime.Hernandez@dc.gov)
- Anna Starobin will send an email to all members in the following weeks to set a date and time for the next conference call.
- Betsy Craig will assist both Chair and Vice Chair in setting-up the Google Docs data storage platform; all members should verify that they are able to access Google Docs, and to email both Anna Starobin (<u>Anna.Starobin@ecolab.com</u>) and Jaime Hernandez (<u>Jaime.Hernandez@dc.gov</u>) if they encounter any issues
- Hilary Thesmar, along with any other interested members will create the produce washing and crisping process
 flow diagram for the retail sector, to be presented at the next conference call
- Committee members that are involved in the restaurant industry along with any other interested members will be recruited and create the produce washing and crisping process flow diagram for the restaurant sector, to be presented at the next conference call

PWWC Conference Call Notes 9/25/2018



Conference for Food Protection Antitrust Statement

This Antitrust Statement is to inform the Conference for Food Protection (CFP) Executive Board members and the general membership of CFP that whenever competitors within an industry gather together, appropriate care must be taken to ensure that violations of antitrust laws do not take place.

CFP functions, be they conferences, board or committee meetings, by their very nature, bring competitors together. To avoid antitrust allegations it is necessary to avoid discussions of sensitive topics. Agreements to engage in product boycotts, restrictive market allocations, refusal to deal with third parties and price-restraining activities are automatically illegal under antitrust laws.

An antitrust violation does not require proof of a formal agreement. There need not be written or verbal agreement to collude. Also, conversations regarding any of these sensitive areas may be construed as implicit violations. As a result, those attending CFP-sponsored functions should remember the importance of avoiding not only unlawful activities but even the appearance of unlawful activity.

The antitrust laws – the Sherman Act, Clayton Act, and the Federal Trade Commission Act – are intended to ensure free and open competition. Violations of these laws can have serious consequences for CFP and its members. Violations are felonies that can result in severe penalties and significant litigation expenses for CFP and its members. Even if a government or private suit is successfully defended, the cost and disruption of the litigation can be overwhelming. Taking antitrust precautions, therefore, is not only advisable but imperative.

For your protection, the Conference for Food Protection recommends that, should one of these subjects be brought up, it would be in your best interest to voice your objection and disassociate yourself from the discussion if it continues.

PWWC Conference Call Notes 10/23/2018

Attendees:

- Voting Members:
 - Al Baroudi, Carol Culbert, Jason Dickhaut, Amada Garvin, Erich Hess, Josh Jordan, Dianna Karlicek, Tom McMahan, Jennifer Nord, Hilary Thesmar, Chris Peasley, Kris Zetterlund, Anna Starobin, Jaime Hernandez
- At-Large Members:
 Rick Barney, Janet Buffer, Betsy Craig, Carol McInnes, Kathleen O'Donnell, Travis Patton, Matthew Reighter, Nela
 Romo, Todd Rossow, Matthew Walker, Woo Jin (Joey) Yoo

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - b. Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2. Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.

PWWC GoogleDrive link: (no need for Google Account or Google login)

https://drive.google.com/drive/folders/158-NUmDMyS3eZ 5WXlcbslm8qLR3TbpP?usp=sharing

Notes:

- All conference calls are recorded. To request a recording of the conference call, please email either Anna Starobin (<u>Anna.Starobin@ecolab.com</u>) or Jaime Hernandez (<u>Jaime.Hernandez@dc.gov</u>) and either will send you the recording.
- Roll Call: Deanna Copeland (excused), Jill Hollingsworth (excused), Barbara Ingham (excused) and Karl Matthews (excused) were voting members that were absent from the call.
- Anna Starobin presented a summary of 2016-2018 committee work
 - The presentation is saved in GoogleDrive. Please use the link above to access the PWWC folder within the drive. Once in the PWWC folder in GoogleDrive, the path for the presentation slides is as follows: '16-'18 Committee Work > CFP Produce Committee 2016-2018 Summary.pdf
- Jaime Hernandez discussed accessing the PWWC folder in GoogleDrive. With committee member Betsy Craig as
 lead, the GoogleDrive was created last week as a storage platform for all documents pertaining to our
 committee. Additionally, it was determined that the GoogleDrive could be accessed through clicking a link by
 anyone in the committee without the need to create and/or log into a Google account. Per committee members
 on the call, there were no issues in accessing the PWWC folder through using the link.
- A table for detailing steps for produce washing was created by Anna Starobin and Jaime Hernandez. This table is
 a consolidation of produce washing steps, from both the retail and restaurant sectors, that several committee
 members sent to the chair and vice chair within the last couple of weeks. During the call, the table was discussed
 with the committee members, and edited, in real time, by both Anna and Jaime. The path for the table within
 the PWWC folder in GoogleDrive is as follows: '18-'20 PWWC Docs > Committee Charge > a. Guideline > Retail
 Produce Washing Steps

PWWC Conference Call Notes 10/23/2018

Action Items:

- o For those of you that have not done so, please read the Antitrust Statement (a copy of it is below) and acknowledge that you have read and understood the statement through sending an email to both Anna Starobin (Anna.Starobin@ecolab.com) and Jaime Hernandez (Jaime.Hernandez@dc.gov)
- Anna Starobin will send an email to all members in the following weeks to set a date and time for the next conference call. Per an emailed suggestion by committee member Amada Garvin, an email with a poll for different days/times will be sent to determine what hours/days are best for the majority of committee members.
- o Since the produce washing procedures table was not reviewed in its entirety (due to time constraints), please review the table. If you have any comments for the table, please download the document from the GoogleDrive, as a word document, comment, and email a copy of the commented table to both Anna Starobin (<u>Anna.Starobin@ecolab.com</u>) and Jaime Hernandez (<u>Jaime.Hernandez@dc.gov</u>). As noted earlier, the path for the table within the PWWC folder in GoogleDrive is as follows: '18-'20 PWWC Docs > Committee Charge > a. Guideline > Retail Produce Washing Steps
- Committee members that have not already done so, are encouraged to email both Anna Starobin
 (<u>Anna.Starobin@ecolab.com</u>) and Jaime Hernandez (<u>Jaime.Hernandez@dc.gov</u>) SOPs / instructions for produce washing and produce crisping used by your organization.

PWWC Conference Call Notes 10/23/2018



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The antitrust laws – the Sherman Act, Clayton Act, and the Federal Trade Commission Act – are intended to ensure free and open competition. Violations of these laws can have serious consequences for CFP and its members. Violations are felonies that can result in severe penalties and significant litigation expenses for CFP and its members. Even if a government or private suit is successfully defended, the cost and disruption of the litigation can be overwhelming. Taking antitrust precautions, therefore, is not only advisable but imperative.

For your protection, the Conference for Food Protection recommends that, should one of these subjects be brought up, it would be in your best interest to voice your objection and disassociate yourself from the discussion if it continues.

PWWC Conference Call Notes 11/26/2018

Attendees:

- Voting Members:
 - Al Baroudi, Carol Culbert, Deanna Copeland, Jason Dickhaut, Amada Garvin, Erich Hess, Jill Hollingsworth, Barbara Ingham, Josh Jordan, Dianna Karlicek, Tom McMahan, Karl Matthews, Jennifer Nord, Hilary Thesmar, Kris Zetterlund, Anna Starobin, Jaime Hernandez
- At-Large Members:
 Rick Barney, Janet Buffer, Todd Geller, Chip Manuel, Carol McInnes, B.J. Mikeska, Kathleen O'Donnell, Matthew Reighter, Nela Romo, Matthew Walker, Thomas Woodbury

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Notes:

- All conference calls are recorded. To request a recording of the conference call, please email either Anna
 (<u>Anna.Starobin@ecolab.com</u>) or Jaime (<u>Jaime.Hernandez@dc.gov</u>) and either will send you the recording.
- Roll Call: Chris Peasley (excused) was a voting member that was absent from the call.
- The Retail Produce Washing Steps table that was created last month was discussed with the committee members, and edited, in real time. The path for the table within the PWWC folder in GoogleDrive is as follows:
 '18-'20 PWWC Docs > Committee Charge > a. Guideline > *Updated* Retail Produce Washing Steps
 (Just in case, attached to the conference call notes email is a Word document of the table)

Action Items:

- o For those of you that have not done so, please read the Antitrust Statement (a copy of it is below) and acknowledge that you have read and understood the statement through sending an email to both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov); currently, only eight (8) committee members have read and acknowledged the statement via email.
- o Review the Retail Produce Washing Steps table, specifically the comments/questions in *red italics*, and populate with references and comments that are scientifically supported. Please provide comments in the Word document and email to both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- From the poll Anna sent via email, the next conference call will occur on Monday, December 17, 2018, from
 3:00 PM 4:00 PM EST. Jaime will be sending a calendar invite.
- Provide scientifically-based comments with references on any time limitations for produce washing, especially
 if produce is washed by submerging in water. Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime
 (<u>Jaime.Hernandez@dc.gov</u>) with this information.

PWWC Conference Call Notes 11/26/2018

- Since crisping will be discussed in the next conference call, please review the crisping definition from 2016-2018 committee work and email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) with any comments. The crisping definition (CFP PWWC 2016-2018) is included in the Retail Produce Washing Steps table.
- Contact organizations outside of the committee (Ex. FMI, Nat'l Restaurant Assoc., Nat'l Produce Assoc., FDA, etc.) in order for them to provide their input on the following question (If crisping produce is accomplished by submersion, is washing the produce necessary beforehand?). Carbon Copy both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov) on these emails.
- Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in being a member of the subgroup for subcharge 1c (Clarify the types of chemicals and their use for washing and crisping).

PWWC Conference Call Notes 11/26/2018



Conference for Food Protection Antitrust Statement

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An antitrust violation does not require proof of a formal agreement. There need not be written or verbal agreement to collude. Also, conversations regarding any of these sensitive areas may be construed as implicit violations. As a result, those attending CFP-sponsored functions should remember the importance of avoiding not only unlawful activities but even the appearance of unlawful activity.

The antitrust laws – the Sherman Act, Clayton Act, and the Federal Trade Commission Act – are intended to ensure free and open competition. Violations of these laws can have serious consequences for CFP and its members. Violations are felonies that can result in severe penalties and significant litigation expenses for CFP and its members. Even if a government or private suit is successfully defended, the cost and disruption of the litigation can be overwhelming. Taking antitrust precautions, therefore, is not only advisable but imperative.

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PWWC Conference Call Notes 12/17/2018

Attendees:

- Voting Members:
 - Al Baroudi, Carol Culbert, Erich Hess, Jill Hollingsworth, Barbara Ingham, Dianna Karlicek, Karl Matthews, Jennifer Nord, Hilary Thesmar, Anna Starobin, Jaime Hernandez
- At-Large Members:
 - Rick Barney, Janet Buffer, Betsy Craig, Chip Manuel, Carol McInnes, Kathleen O'Donnell, Matthew Reighter, Todd Rossow, Chuck Seaman, Matthew Walker, Woo Jin Yoo

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - b. Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2. Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.

PWWC GoogleDrive link: (no need for Google Account or Google login)

https://drive.google.com/drive/folders/158-NUmDMyS3eZ 5WXlcbslm8qLR3TbpP?usp=sharing

Notes:

- All conference calls are recorded. To request a recording of the conference call, please email either Anna
 (Anna.Starobin@ecolab.com) or Jaime (Jaime.Hernandez@dc.gov) and either will send you the recording.
- Roll Call: Deanna Copeland (excused), Jason Dickhaut (excused), Amanda Garvin (excused), Josh Jordan (unexcused), Tom McMahan (unexcused), Chris Peasley (unexcused), Kris Zetterlund (unexcused) were voting members that were absent from the call.
- Laurie Williams, the FDA consultant for this committee, provided FDA feedback on crisping. She mentioned that since there is no current FDA definition for crisping, it is important to distinguish between produce washing and produce crisping, as defined in our committee charge. She also mentioned that the FDA has recently created a guide to minimize food safety hazards in fresh-cut produce for industry. This guide includes parameters for produce washing, involving soaking and submerging, which we can reference for our guidance document.

https://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/UCM6 23718.pdf

Laurie stated that Food Code does not have any details on the process of produce washing, while the Annex of the code advises against produce soaking, due to potential infiltration issues. Hillary Thesmar commented on the fact that the guide document addresses produce for the fresh cut industry, while the FDA Food Code covers produce washed at retail establishments. Laurie agreed with the comment, but stated that some information from the new guide could be useful.

- Crisping methods were discussed with the committee members, and edited, in real time in the table. Currently, four (4) crisping methods were discussed and noted in the table. These methods include:
 - A. Prechilled produce placed in warm water, and placed in a clean container into a cooler

PWWC Conference Call Notes 12/17/2018

- B. Submerging pre-washed produce in cold water; ice made from potable water could be added to maintain the temperature
- C. Submerging unwashed produce in cold water with antimicrobial; ice made from potable water could be added to maintain the temperature
- D. Holding produce under cold, running water for a time sufficient for rehydration

Misting was discussed as a potential crisping option, however, it was decided that misting is to **maintain** hydration of the produce (prevent dehydration/browning) and that soaking is not involved in the misting process, a "single-pass spray system" with potable water is being used. The path for the table within the PWWC folder in GoogleDrive is as follows: '18-'20 PWWC Docs > Committee Charge > a. Guideline > *Updated* Retail Produce Washing Steps (Just in case, attached to the conference call notes email is a Word document of the table)

- Creation of a subgroup for subcharge 1c: "Clarify the types of chemicals and their use for washing and crisping" was discussed. Committee members interested in working this subgroup include Janet Buffer, Jill Hollingsworth, Todd Rossow, Anna Starobin, and Jaime Hernandez.
- Jill Hollingsworth volunteered to begin drafting the format for the Produce Washing and Crisping guidance document. Committee members Erich Hess, Todd Rossow, Anna Starobin, and Jaime Hernandez are interested in assisting Jill.

Action Items:

- o For those of you that have not done so, please read the Antitrust Statement (a copy of it is below) and acknowledge that you have read and understood the statement through sending an email to both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov); currently, only ten (10) committee members have read and acknowledged the statement via email.
- Laurie Williams provided a link
 (https://www.fda.gov/downloads/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/UCM-623718.pdf) to view a recently created FDA guide to minimize food safety hazards in fresh-cut produce for industry. Please take the time to read this guide, as it can be a great reference document for when we write-up our produce washing and crisping guideline.
- Review the four (4) crisping methods in the table. Please provide comments regarding the 4 methods, provide
 any other crisping processes not listed, and email to both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime
 (<u>Jaime.Hernandez@dc.gov</u>) so that our table can be updated.
- The next conference call will occur on Monday, January 28, 2019, from 3:00 PM 4:00 PM EST. A calendar
 invite for this call will be sent shortly.
- Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in being a
 member of the subgroup for subcharge 1c (Clarify the types of chemicals and their use for washing and
 crisping).
- Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in aiding Jill
 Hollingsworth in drafting the format for the Produce Washing and Crisping guidance document.

PWWC Conference Call Notes 12/17/2018



Conference for Food Protection Antitrust Statement

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PWWC Conference Call Notes 1/28/2019

Attendees:

Voting Members:

Al Baroudi, Carol Culbert, Deanna Copeland, Amanda Garvin, Erich Hess, Jill Hollingsworth, Barbara Ingham, Josh Jordan, Dianna Karlicek, Tom McMahan, Karl Matthews, Jennifer Nord, Todd Rossow, Anna Starobin, Jaime Hernandez

• At-Large Members:

Carol McInnes, B.J. Mikeska, Kathleen O'Donnell, Matthew Reighter, Nela Romo, Chuck Seaman, Matthew Walker, Woo Jin Yoo

FDA Consultants:
 Kenya Moon, Laurie Williams

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - b. Describe the criteria for produce crisping vs. produce washing.
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- Roll Call: Jason Dickhaut (excused), Hilary Thesmar (unexcused), Chris Peasley (unexcused), Kris Zetterlund (unexcused) were voting members that were absent from the call.
- Anna and Jaime recently completed the CFP Spring Progress Report for this committee. The report was
 submitted to both Keith Jackson and Christine Applewhite for review. Keith verified that he had received the
 report and will review said report this week. If any committee members are interested in viewing the progress
 report, please email Anna (<u>Anna.Starobin@ecolab.com</u>) or Jaime (<u>Jaime.Hernandez@dc.gov</u>) and they will send
 the report after it is approved by Keith and Christine.
- Jill Hollingsworth discussed progress made in the Draft Guideline subcommittee working group. Other members of this group include Amanda Garvin, Jaime Hernandez, Erich Hess, Todd Rossow, and Anna Starobin. Communication within this subgroup has been accomplished though emails and calls. Jill mentioned that an outline of the guidance document has been made. Sections within this document include an Introduction, Definitions, FDA Food Code References, Prerequisites, and detailed sections on the procedures of Produce Washing and Produce Crisping; Washing and Crisping are split into separate sections because the procedures for each process serves different purposes. For the Washing and Crisping sections, different procedures are stated for each process, including manners to mitigate the potential risks that are inherent for each procedure. In other words, these sections will have a significant emphasis on risk analysis, which will include a table of all procedures for each process, with an accompanying "decision tree" for each process.

PWWC Conference Call Notes 1/28/2019

- Crisping methods were discussed with the committee members, and edited, in real time in the table. Jill mentioned that in some cases, submersion in cold water and crisping are performed without prewashing produce. This generated a discussion of the permissibility of crisping without prewashing, as this method has potential infiltration implications. Erich Hess mentioned that infiltration is temperature-dependent; produce has to maintain cold throughout the chain to minimize infiltration. Dr. Karl Matthews, stated that infiltration rates are commodity-specific; cut produce has a higher propensity for infiltration than uncut produce. He stated that in a limited research his group has done, the water uptake measured ranged from 5-15%. No micro work was done in this testing.
- Anna and Jill are contacting an academia expert to talk with the group on crisping, water uptake research.
- Laurie Williams asked if leafy greens are the only produce, we are covering. Anna responded that crisping applies to all produce, but most often used for leafy greens.
- Crisping methods were further discussed and the table was updated as listed below:
 - (A1)Prechilled produce placed in warm water, and placed in a clean container into a cooler
 - (A2)Prechilled produce placed in warm water with antimicrobial, and placed in a clean container into a cooler
 - (B1)Submerging pre-washed produce in cold water, ice made from potable water could be added to maintain the temperature.
 - (B2)Submerging pre-washed produce in cold water with a/m, ice made from potable water could be added to maintain the temperature.
 - (C1)Submerging unwashed produce in cold water with antimicrobial, ice made from potable water could be added to maintain the temperature.
 - (C2)Submerging unwashed produce in cold water, ice made from potable water could be added to maintain the temperature
 - (D)Hold the produce under the running cold water for time sufficient for rehydration.

- o For those of you that have not done so, please read the Antitrust Statement (a copy of it is below) and acknowledge that you have read and understood the statement through sending an email to both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov); currently, only ten (10) committee members have read and acknowledged the statement via email.
- Review the listed crisping methods in the table. Please provide comments regarding the methods, provide any other crisping processes not listed, and email to both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) so that our table can be updated.
- Since the next call is scheduled on Monday, February 18, 2019 (President's Day), the next conference call will occur on Monday, February 25, 2019, from 3:00 PM 4:00 PM EST.
- Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in being a member of the subgroup for subcharge 1c (Clarify the types of chemicals and their use for washing and crisping).
- Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in aiding Jill
 Hollingsworth in drafting the format for the Produce Washing and Crisping guidance document.

PWWC Conference Call Notes 1/28/2019



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PWWC Conference Call Notes 2/25/2019

Attendees:

- Voting Members:
 - Carol Culbert, Deanna Copeland, Jason Dickhaut, Amanda Garvin, Erich Hess, Jill Hollingsworth, Josh Jordan, Tom McMahan, Karl Matthews, Jennifer Nord, Hilary Thesmar, Kris Zetterlund, Jaime Hernandez
- At-Large Members:
 - Rick Barney, Janet Buffer, Betsy Craig, Carol McInnes, Jaymin Patel
- FDA Consultants:
 Kenya Moon, Laurie Williams

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
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 (<u>Anna.Starobin@ecolab.com</u>) or Jaime (<u>Jaime.Hernandez@dc.gov</u>) and either will send you the recording.
- Roll Call: Al Baroudi (excused), Barbara Ingham (excused), Dianna Karlicek (excused), Todd Rossow (excused), Chris Peasley (unexcused), Anna Starobin (excused) were voting members that were absent from the call.
- Jill Hollingsworth discussed progress made in the Draft Guideline subcommittee working group. Other members of this group include Amanda Garvin, Jaime Hernandez, Erich Hess, Todd Rossow, and Anna Starobin. The subcommittee has compiled a washing and crisping methods chart that was discussed during the call.
 - Jill mentioned that food establishments may hold whole or fresh-cut produce in either cold or ice water
 for extended periods of time to maintain its crisp quality and asked if this practice is permissible per FDA
 Food Code. FDA consultant Laurie Williams mentioned that 3-302.12(c) of the Food Code states that raw
 produce, both whole and cut, may be immersed in ice water. She also stated that there are no specific
 time parameters for such practice delineated in the Food Code; this may be a topic to address in the
 guidance document.
 - Karl Matthews questioned the term "tepid water" that is used in the washing and crisping methods chart. Jill stated that tepid water is used with cold produce in order to minimize infiltration. Although acceptable for produce washing, this is ineffective for produce crisping as crisping requires the produce to uptake water. There was also a discussion regarding the wording in the term "tepid water." Deanna Copeland mentioned that the temperature of water from the cold water tap will greatly differ nationwide. For example, during Texas summers, water from the cold water tap may be around 90°F, whereas in a northern state, water may be around 70°F. Due to this high variability in water temperatures from the cold tap, it was decided that "lukewarm" and "tepid" should both be used. There was another discussion regarding the crisping of cut produce, however, it was decided that the guidance

PWWC Conference Call Notes 2/25/2019

document that we are charged to complete should only relate to whole, uncut produce. Jaime mentioned that this statement should be noted in the introduction section of the guidance document.

• Deanna Copeland discussed that she edited the Retail Produce Product flowchart that was created months ago. She reorganized said flow chart so that it would be easier to follow. Jaime mentioned that this flowchart will be incorporated in our guidance document, to be used as a "decision tree" in conjunction with the washing and crisping methods chart.

- o For those of you that have not done so, please read the Antitrust Statement (a copy of it is below) and acknowledge that you have read and understood the statement through sending an email to both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- Review the washing and crisping methods chart discussed during the call. Please provide edits/ comments and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- o Review the flowchart Deanna Copeland edited and send an email with any comments to Deanna Copeland (<u>Deanna.Copeland@phs.hctx.net</u>), Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>).
- The next conference call will occur on Monday, March 25, 2019, from 3:00 PM 4:00 PM EST.
- Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in being a
 member of the subgroup for subcharge 1c (Clarify the types of chemicals and their use for washing and
 crisping).
- Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in aiding Jill
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PWWC Conference Call Notes 2/25/2019



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PWWC Conference Call Notes 3/25/2019

Attendees:

- Voting Members:
 - Al Baroudi, Carol Culbert, Jason Dickhaut, Erich Hess, Jill Hollingsworth, Dianna Karlicek, Tom McMahan, Karl Matthews, Hilary Thesmar, Kris Zetterlund, Anna Starobin, Jaime Hernandez
- At-Large Members:
 - Rick Barney, Chip Manuel, B.J. Mikeska, Kathleen O'Donnell, Nela Romo, Matthew Walker
- FDA Consultants:
 Kenya Moon, Laurie Williams

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
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 (<u>Anna.Starobin@ecolab.com</u>) or Jaime (<u>Jaime.Hernandez@dc.gov</u>) and either will send you the recording.
- Roll Call: Deanna Copeland (absent), Amanda Garvin (excused), Barbara Ingham (absent), Josh Jordan (excused), Jennifer Nord (excused), Chris Peasley (absent) were voting members that were absent from the call.
- Anna Starobin had a question directed toward CFP Board members Christine Applewhite and Keith Jackson regarding whether or not SOPs of produce handling, from receiving to storage prior to produce washing, falls within the scope of our committee charges. Christine stated that based on the way the charges are written, some of the precursory info at the beginning of the SOP is outside the scope of the charges, specifically statements on approved sources and supplier. Christine also stated that information, like employee health and hygiene, could be mentioned, if desired, but in a very brief format with relevant FDA Food Code references.
- Jill Hollingsworth discussed progress made in the Draft Guideline subcommittee working group. Other members of this group include Rick Barney, Janet Buffer, Amanda Garvin, Jaime Hernandez, Erich Hess, Todd Rossow, and Anna Starobin. The subcommittee has compiled a washing and crisping methods chart that was discussed during the call.
 - FDA consultant Laurie Williams will review the chart and send feedback to Anna.
 - Al Baroudi asked if using ozone for produce washing applies to the chart, specifically W3. Anna suggested adding "on-site generation" wording to the table, in order to be inclusive with other chemicals that may be generated on-site for washing. Jill requested Al to provide language for on-site generated chemical use to be added to the chart.
 - Kris Zetterlund had a concern regarding the "crisping of unwashed produce" that is stated in the crisping section of the chart. Jill remarked that washing and crisping produce is sometimes performed in one-step; for this reason, the "crisping of unwashed produce" is stated in the chart. Erich Hess noted that the

PWWC Conference Call Notes 3/25/2019

washing and crisping distinction depends on the end-use of the produce, meaning if the produce will be on display for sale versus produce being further processed for direct consumption. Jill responded that in the crisping section of the chart, it is noted that crisping unwashed produce will require frequent change of the crisping water, due to the accumulative organic load within said water. In order to address Kris' concern, Jill recommended to state the frequent water change for the considerations sections related to the crisping of unwashed produce and to potentially merge the unwashed with the prewashed sections.

- Hilary Thesmar had concerns regarding the lack of a distinction in the chart of whole produce versus cut
 produce and the lack of specific produce-type commodities in the chart. Anna stated that this
 committee's charges are only regarding whole, uncut produce. Jaime stated also that Hilary's concerns
 will be addressed in the introduction section of this guidance document.
- Kris Zetterlund volunteered to join the Draft Guideline subcommittee working group.

- o For those of you that have not done so, please read the Antitrust Statement (a copy of it is below) and acknowledge that you have read and understood the statement through sending an email to both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- Review the washing and crisping methods chart discussed during the call. Please provide edits/ comments and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- The next conference call will occur on Monday, April 22, 2019, from 3:00 PM 4:00 PM EST.
- o Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in aiding Jill Hollingsworth in drafting the format for the Produce Washing and Crisping guidance document.



PWWC Conference Call Notes 3/25/2019

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PWWC Conference Call Notes 4/22/2019

Attendees:

Voting Members:

Al Baroudi, Deanna Copeland, Jason Dickhaut, Amanda Garvin, Erich Hess, Jill Hollingsworth, Josh Jordan, Dianna Karlicek, Tom McMahan, Karl Matthews, Todd Rossow, Hilary Thesmar, Kris Zetterlund, Anna Starobin, Jaime Hernandez

• At-Large Members:

Rick Barney, Janet Buffer, Betsy Craig, Chip Manuel, Kathleen O'Donnell, Matthew Reighter, Matthew Walker

FDA Consultants:

Kenya Moon, Laurie Williams

Committee Charges:

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 (<u>Anna.Starobin@ecolab.com</u>) or Jaime (<u>Jaime.Hernandez@dc.gov</u>) and either will send you the recording.
- Roll Call: Carol Culbert (excused), Barbara Ingham (excused), Jennifer Nord (excused), Chris Peasley (excused) were voting members that were absent from the call.
- Jill Hollingsworth discussed progress made in the Draft Guideline subcommittee working group. Other members of this group include Rick Barney, Janet Buffer, Amanda Garvin, Jaime Hernandez, Erich Hess, Todd Rossow, Kris Zetterlund, and Anna Starobin. The subcommittee has compiled a washing and crisping methods chart that was discussed during the call.
 - On-site generated antimicrobials was the major topic of discussion related to the chart during this call. Jill mentioned the distinction between on-site generated antimicrobials versus systems that use EPA approved concentrated chemicals diluted with water; such methods are mutually exclusive. Anna mentioned that the risk reduction step of using on-site generated antimicrobials is the same as using other antimicrobials; the only difference is how the product is registered. Stating this, Anna questioned whether adding on-site generated antimicrobials as a separate method is redundant. Al Baroudi commented that on-site generated antimicrobials should be mentioned in the chart, however, it could be combined with other methods already listed. Jill was hesitant about combining such methods because other methods that use antimicrobials discussed in the table already emphasizes their specific intended use, which may be different than the specific intended use of on-site generated antimicrobials. Amanda Garvin noted that since on-site generated antimicrobials are often not encountered in the field in retail food establishments, this topic should not be too in-depth in the chart, as it may cause

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confusion to its intended audience. Laurie Williams agreed that it may cause confusion, and that on-site generated antimicrobials should maybe be added as a footnote in the chart.

- Anna discussed progress made in the chemicals document related to sub charge 1c. She mentioned that based on the feedback from regulators in the subcommittee, this document needs to be simplified so that it can be easily understood by its intended audience. Erich Hess agreed that the intended audience has to be kept in mind when creating this document and that the current document does not meet the sub charge. Specifically, this document should specifically address what are the chemical options and how to use them. Hilary Thesmar, noted that Food retail employees developing such programs are highly educated and well versed in regulations related to the chemical use and their choices. Therefore, comprehensive information needs to be kept in this document. Anna noted that two versions for different audiences could be created.
- FDA Consultant Laurie Williams provided an update related to the FDA reviewing the washing and crisping chart. She mentioned that CFSAN Produce Safety has two branches- one branch has already reviewed the document and has recommended that the other branch review the document as well. With that said, she wants to send back he comments to the committee once both branches have reviewed the chart and that she is expecting to send the comments in the next two weeks.

- o For those of you that have not done so, please read the Antitrust Statement (a copy of it is below) and acknowledge that you have read and understood the statement through sending an email to both Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- Review the washing and crisping methods chart discussed during the call. Please provide edits/ comments and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- o Review the chemicals document discussed during the call. Please provide edits/ comments and email to Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- o The next conference call will occur the week of May 20, 2019, from 3:00 PM 4:00 PM EST (exact day still pending), since the regular call was scheduled for May 29 (Memorial Day).
- o Email both Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>) if interested in aiding Jill Hollingsworth in drafting the format for the Produce Washing and Crisping guidance document.



Conference for Food Protection Antitrust Statement

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PWWC Conference Call Notes 5/20/2019

Attendees:

• Voting Members:

Al Baroudi, Carol Culbert, Jason Dickhaut, Amanda Garvin, Erich Hess, Jill Hollingsworth, Josh Jordan, Dianna Karlicek, Tom McMahan, Jennifer Nord, Todd Rossow, Chris Peasley, Kris Zetterlund, Anna Starobin

• At-Large Members:

B.J. Mikeska, Matthew Reighter, Nela Romo, Matthew Walker

FDA Consultants:

Kenya Moon, Laurie Williams

• CFP:

Keith Jackson

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - b. Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2. Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.

PWWC GoogleDrive link: (no need for Google Account or Google login)

https://drive.google.com/drive/folders/158-NUmDMyS3eZ_5WXlcbslm8qLR3TbpP?usp=sharing

- All conference calls are recorded. To request a recording of the conference call, please email either Anna
 (Anna.Starobin@ecolab.com) or Jaime (Jaime.Hernandez@dc.gov) and either will send you the recording.
- Roll Call: Deanna Copeland (absent), Barbara Ingham (excused), Karl Matthews (absent), Hilary Thesmar (excused), Jaime Hernandez (excused) were voting members that were absent from the call.
- Jill Hollingsworth discussed the draft of the guidance document compiled by the subcommittee. During her discussion, she provided details to each section within said document.
- Amanda Garvin provided her feedback of the document. Her main feedback point was related to the generated on site (GOS) antimicrobial chemicals. As a Regulator, she noted that GOS are rarely used and it might be unnecessary to include this option into the table. She suggested to remove W6 and C5. _ Since this is an uncommon practice, she suggested to mention on-site generated antimicrobial treatments in the preface of the charts. Voting members of this committee will vote on this issue during the next call. Dr. Baroudi, who uses GOS, commented that keeping this method in the document would inform readers who are not familiar with this technology.
- Anna explained the differences between Food Contact (FC) sanitizers vs. produce washing antimicrobial treatments. She reiterated that both have different uses, different test methods and microorganisms to show antimicrobial efficacy. FC sanitizers have to achieve a 5-log reduction in 1 minute, while registered antimicrobial treatments are tested against the pathogens most commonly implicated in produce related outbreaks (E. coli O 157:H7, Salmonella, Listeria monocytogenes) and need to provide a 3-log reduction in wash water. She also restated that this guidance document only pertains to RACs, not for fresh-cut or further processed produce. Tom

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McMahan stated that a clarifying statement noting that the guidance document is not intended for fresh-cut produce should be added, since fresh-cut produce is defined in the document and suggested to remove any references relevant to fresh-cut produce.

- Anna mentioned that she has submitted the chemical charts to the FDA for review. Laurie Williams will follow-up on this during the next conference call.
- Keith Jackson reminded the committee that all committee work needs to be approximately 75 95% complete by August.

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- Review the draft guidance document. Please provide edits/ comments by June 7th and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (<u>Anna.Starobin@ecolab.com</u>) and Jaime (<u>Jaime.Hernandez@dc.gov</u>).
- The next conference call will occur Monday, June 24, 2019, from 3:00 PM 4:00 PM EST.

PWWC Conference Call Notes 5/20/2019



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PWWC Conference Call Notes 6/24/2019

Attendees:

Voting Members:

Al Baroudi, Carol Culbert, Deanna Copeland, Jason Dickhaut, Amanda Garvin, Erich Hess, Jill Hollingsworth, Barbara Ingham, Dianna Karlicek, Tom McMahan, Jennifer Nord, Anna Starobin, Jaime Hernandez

• At-Large Members:

Rick Barney, Chip Manuel, Carol McInnes, Matthew Reighter, Nela Romo, Chuck Seaman, Matthew Walker

• FDA Consultants:

Kenya Moon

• CFP:

Christine Applewhite, Keith Jackson

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
 - b. Describe the criteria for produce crisping vs. produce washing.
 - c. Clarify the types of chemicals and their use for washing and crisping.
- 2. Report findings and recommendations back to the 2020 Conference for Food Protection Biennial Meeting.

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- All conference calls are recorded. To request a recording of the conference call, please email either Anna
 (Anna.Starobin@ecolab.com) or Jaime (Jaime.Hernandez@dc.gov) and either will send you the recording.
- Roll Call: Josh Jordan (excused), Karl Matthews (excused), Todd Rossow (excused), Hilary Thesmar (excused), Chris Peasley (absent), Kris Zetterlund (excused) were voting members that were absent from the call.
- Jill Hollingsworth discussed the draft of the guidance document compiled by the subcommittee. This draft contains comments made by FDA and responses to those comments. During her discussion, she provided details regarding changes/updates to each section within said document. Changes to the document include adding a section on sanitizers versus disinfectants, revising the definitions, and separating the washing and crisping tables into two separate sections.
 - Barbara Ingham suggests being consistent with language used in the document (ex. washing and rinsing)
- Anna discussed changes that were made to the chemicals diagram/chart. Changes include consolidating the
 chemical diagrams for produce wash treatments and produce was treatments with antimicrobial claims into one
 diagram.
- Anna shared the feedback provided by FDA, in which they stated that FDA does not support crisping or washing produce by soaking in water. Advice on further committee steps was sent to CFP.
- Anna mentioned that both she and Jaime created a draft of the Fall Committee Progress Report and sent the draft to both Keith Jackson and Christine Applewhite for review. Keith mentioned that he will provide comments by the end of the week.

PWWC Conference Call Notes 6/24/2019

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- o Review the draft guidance document and chemicals diagram/chart. Please provide edits/ comments and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- The next conference call will occur Monday, July 29, 2019, from 3:00 PM 4:00 PM EST. Initially, the next
 conference call was scheduled for Monday, July 22, 2019, however, several committee members will be
 attending the IAFP Conference that week.



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PWWC Conference Call Notes 7/29/2019

Attendees:

- Voting Members:
 - Al Baroudi, Carol Culbert, Jason Dickhaut, Amanda Garvin, Erich Hess, Jill Hollingsworth, Barbara Ingham, Dianna Karlicek, Jennifer Nord, Todd Rossow, Hilary Thesmar, Chris Peasley, Kris Zetterlund, Anna Starobin, Jaime Hernandez
- At-Large Members:
 Rick Barney, Chip Manuel, Carol McInnes, Nela Romo

Committee Charges:

- 1. Develop a Produce Washing and Crisping Guidance document for Retail Food Establishments which includes the following:
 - a. Detail the handling, cleaning, and sanitation practices related to washing and crisping of produce.
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- Roll Call: Deanna Copeland (absent), Josh Jordan (absent), Tom McMahan (absent), Karl Matthews (absent) were voting members that were absent from the call.
- Anna discussed submitting the Fall Committee Report to the CFP Board. The report was submitted and within
 this report, a request was made for the CFP Board to advise the Produce Wash Water Committee group on the
 best manner of pursuing with the guidance document to ensure that it is both meaningful and that it aligns with
 our committee charges.
- Anna also mentioned that both Jill and she had an opportunity to meet with the Director of CFP, Dave McSwane, and CFP Board member Brenda Bacon during the IAFP meeting held last week. They discussed the challenges related to the guidance document. A conference call with CFP Board members, Anna, Jaime, and FDA consultants will be held on Wednesday, July 31, 2019, in order to follow-up on what was discussed during IAFP. The CFP Board members also invited Anna to attend the CFP Board meeting on August 13; Anna will be representing the work that this committee has done thus far during the Board Meeting.
- Jill Hollingsworth discussed the draft of the guidance document compiled by the subcommittee. Specifically, she
 reviewed comments made by FDA and responses to those comments. Several of the comments were provided
 by FDA representatives that deal with processed produce.
- Laurie Williams reviewed the 5 Steps for Retail Policy Debate. They are as follows... (1) Clearly define the problem that needs to be addressed, (2) Clearly describe the cause of the problem (3) Clearly describe why the status quo is not addressing the problem (4) Clearly present your recommended policy solution and explain why it should be preferred over possible alternatives (5) Clearly state the potential consequences of implementing the recommended policy solution. She mentioned that the 5 Steps will be made available shortly on the FDA website and will discuss with the group at a later conference call.
- Jill asked the group if they had any suggestions related to formatting of the guidance document. She mentioned that CFP has no preference, as long as consistency I being maintained throughout the document.

PWWC Conference Call Notes 7/29/2019

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- o Review the draft guidance document. Please provide edits/ comments and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
- The next conference call will occur Monday, August 26, 2019, from 3:00 PM 4:00 PM EST.

PWWC Conference Call Notes 7/29/2019



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PWWC Conference Call Notes 8/26/2019

Attendees:

- Voting Members:
 - Al Baroudi, Carol Culbert, Deanna Copeland, Jason Dickhaut, Amanda Garvin, Erich Hess, Jill Hollingsworth, Josh Jordan, Dianna Karlicek, Tom McMahan, Jennifer Nord, Todd Rossow, Hilary Thesmar, Chris Peasley, Anna Starobin
- At-Large Members: Carol McInnes, Nela Romo

Committee Charges:

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 (Anna.Starobin@ecolab.com) or Jaime (Jaime.Hernandez@dc.gov) and either will send you the recording.
- Roll Call: Barbara Ingham (absent), Karl Matthews (absent), Kris Zetterlund (excused), Jaime Hernandez (excused) were voting members that were absent from the call.
- Anna attended the CFP Board meeting in August. She attended the meeting so that the Board could provide clarification for the next steps of this committee, based on FDA's position on crisping.
- Keith Jackson provided updates from the CFP Board. He mentioned that the Board accepted the PWWC Fall
 Report as submitted. The CFP Board understands the situation of the PWWC Committee in relation to fulfilling
 the crisping-related charges and FDA's position on crisping. Due to this situation, all mentions of crisping within
 the guidance document have been "compartmentalized" so that the committee can easily edit the document if
 the Council decides to edit or redact crisping during deliberation.
- Christine Applewhite mentioned that a CFP Board member stated that the PWWC guidance document is in
 response to the charges to CFP- in other words, the committee is ultimately responding to CFP; as long as the
 charges are fulfilled, CFP will have no conflicts with the document, with the understanding that FDA does not
 condone crisping. Amanda Garvin added that in the past, CFP has accepted documents and placed them on the
 CFP website that were not accepted by the FDA.
- Glenda Lewis (FDA) re-iterated that FDA supports the CFP process, however, still does not support the practice of crisping. She recommends to continue with creating the guidance document; Anna agrees.
- Anna reviewed the chemical diagram and table. There are currently two versions- one version is the initial document and the other is one that addresses comments provided by the FDA.
- Jill Hollingsworth reviewed on the progress made in the guidance document. Progress includes editing the disclaimer, citing references, clarifying definitions, "compartmentalizing" crisping within the document for easy extraction, if necessary.

PWWC Conference Call Notes 8/26/2019

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- o Review the draft guidance document. Please provide edits/ comments and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).
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PWWC Conference Call Notes 10/3/2019

Attendees:

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 - Al Baroudi, Carol Culbert, Deanna Copeland, Jason Dickhaut, Amanda Garvin, Erich Hess, Jill Hollingsworth, Barbara Ingham, Josh Jordan, Jennifer Nord, Todd Rossow, Hilary Thesmar, Chris Peasley, Anna Starobin, Jaime Hernandez
- At-Large Members:
 Nela Romo, Matthew Walker

Committee Charges:

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- Roll Call: Diana Karlicek (excused), Tom McMahan (absent), Karl Matthews (absent), Kris Zetterlund (absent) were voting members that were absent from the call.
- Keith Jackson discussed deadlines for submitting our committee work and issues. Specifically, he mentioned that everything has to be complete and submitted with committee consensus to the CFP Council by November 1, 2019. Anna and Jaime will complete a Committee Report for this submission. Keith and Christine Applewhite will then review said report and supporting documents, to be submitted to the CFP Board by December 1, 2019. Keith also recommended to begin writing issues to be submitted. The issue submission process will begin in December 2019; CFP will send out an announcement regarding this shortly. Keith also mentioned that the Committee will have to submit an issue for the Council to acknowledge the report.
- Anna mentioned that Laurie Williams has contacted her, stating that FDA will review the latest version of the guidance document; comments made by the FDA will be sent next week.
- Jill Hollingsworth mentioned that the comments received regarding the guidance document were suggested word changes and clarifications. She also mentioned that the guidance document was reorganized to have a better flow. For example, the definitions section was placed after the introduction. Also, the "Sanitizers vs. Disinfectants" section was restructured to provide better clarification. Additionally, the document was reorganized to have "washing" and "crisping" as separate sections. Also, citations were verified and inserted into the document using the American Medical Association (AMA) method.
- Anna summarized our current status/plans based on FDA objection to crisping and washing by submersion. Committee will submit the document as-is (with crisping and washing by submersion), in order to address the committee charges. Laurie Williams confirmed this understanding between the CFP committee and FDA.
- Amanda Garvin suggested an issue to submit to CFP. The issue to be submitted relates to requirements for
 testing the concentration of EPA-registered produce wash chemicals in water. Currently, there are no such
 parameters delineated in the 2017 FDA Food Code. Anna suggested to clarify that this issue only applies for EPA-

PWWC Conference Call Notes 10/3/2019

registered chemicals. Jill suggested we do not include additional burdens on retailers and not be prescriptive about the frequency of monitoring or record keeping.

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- o Review the draft guidance document. Please provide edits/ comments and email to Jill Hollingsworth (jillh@chemstarcorp.com), Anna (Anna.Starobin@ecolab.com) and Jaime (Jaime.Hernandez@dc.gov).

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