

NATIONAL PROCESSED RASPBERRY COUNCIL

Food Safety Committee Conference Call

December 19, 2016, 1:00 p.m.

Committee Members Participating:

Andy Enfield Antonio Dominguez Rolf Haugen
 Eric Larson Karen Holzberg Corey Havard

Others Participating:

Tom Krugman Britt Burton Freeman Alvin Lee
 Hakim Fobia Allison Beadle Armand Paradis

x = present o = absent

A. Call to Order; Establish Quorum; Approve Minutes

The meeting was called to order at 1:03 p.m. by Eric with roll call disclosing a quorum to be present. On a motion by Antonio and seconded by Rolf, minutes from the May 24, 2016 meeting as presented were unanimously approved.

B. Pathogen Reduction

Eric reminded the committee of the Council's direction to press forward to identify and validate processes that could be used in the raspberry industry to reduce pathogenic contamination. Recognizing GAP's and work that was being done to educate growers, the discussion would be focused on in-plant processes. He directed members to a summary that Britt had prepared which provided a starting point for the call's discussion.

Britt reminded members that this discussion started a few meetings past where chlorine and alternatives were discussed. She introduced two of her colleagues at Illinois Institute of Technology/Institute for Food Science and Health who were working on strategies using ozone, PAA, or other treatments. They reported what complicates the use of many treatments for raspberries is their fragile nature and that they are not fully immersed, but sprayed, prior to freezing or processing. They indicated the surface topography of a raspberry is also a complicating factor, and that a spray, rather than a bath, would need to be validated as effective. Dwell time and concentration need also to be examined. It was noted that for PAA, some other process might need to be incorporated, as the product could form bubbles on the surface of raspberries which would prevent full contact with the sterilizing agent. PAA has been validated as effective, but at higher concentrations that might require a rinse to avoid off flavors. Committee members said that the potential quality degradation must also be examined, most specifically taste and character. A physical process, pulsed UV-C, was also discussed. It would avoid any rinse issues, and could be effective if full coverage of the berry was achieved.

It was agreed that chlorine as the industry standard, should be compared to PAA, ozone, and pulsed UV-C to determine if alternative processes worked better.

In summarizing the call, Eric noted for the next call, questions to be answered include:

- Pathogens of interest are listeria, norovirus, Hepatitis, salmonella, and E coli. Pathogen control at the processing plant, not in the field, is of interest. The industry is dealing with field level issues separately through grower education programs that are being developed. Contamination if present would be surface, not intra-cellular.
- The domestic industry currently uses chlorine in its rinse spray immediately prior to raspberries entering the freezing tunnel. What is an appropriate concentration? Does the rinse spray cover the whole raspberry? Does it also leave a taste that is undesirable?
- If chlorine is the standard, are either PAA and/or ozone better/more effective? At what concentrations? Recognizing the topography of a raspberry, would effective concentrations of either of these products have an adverse impact on quality (taste, character, color)?
- Re PAA, is a spray as effective as a bath? Could it be delivered from the spray bars currently used in the industry?
- Re ozone, what is the OSHA time weighted worker exposure limit? Delivery in an enclosed system is an interesting point versus an entire room (however the entire room could reduce environmental pathogens also).
- Is pulsed UV-C a realistic option?

C. Adjourn

Tom was asked to poll the committee as to their availability for the next call the week of January 16 or 23. There then being no further business to come before the Committee, the call adjourned at 1:55 p.m.