

## Key Takeaways

### “Back of the House But Not Back of the Mind: Best Practices for Sanitation at Retail”

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#### Top 5

- 1) Produce safety risks in the retail environment can come from a variety of places, including from contaminated incoming produce, improper handling practices by employees or customers, and others. GRPs that reduce produce safety risks include implementing employee health and personal hygiene policies, maintaining validated SSOPs, utilizing antimicrobial wash treatments, and incorporating environmental monitoring programs, among others.
- 2) Surfaces and unit operations at retail can result in cross-contamination of produce; therefore, produce contact surfaces should be designed to allow effective cleaning and sanitizing.
- 3) The frequency of cleaning and sanitizing impacts the potential for indicator organism detection.
- 4) Adding sanitizers to water (e.g., misting, crisping, washing) can prevent cross-contamination even with multiple water reuse events.
- 5) HOCl is a readily available antimicrobial compound for use in produce wash water to reduce cross-contamination risks. While this is not the only compound with the potential to manage cross-contamination risks in produce wash water, some formulations (e.g., Produce Maxx®) have been EPA-registered, proven to achieve a 5-log reduction in foodborne pathogens (i.e., *Escherichia coli* O157:H7, *Listeria monocytogenes*, and *Salmonella*), and effective on whole or cut produce, among other benefits.

#### Acronym Key

EPA: Environmental Protection Agency

GRPs: Good Retail Practices

HOCl: hypochlorous acid

SSOPs: Sanitation Standard Operating Procedures

#### Additional Reading

Burnett J, ST Wu, HC den Bakker, PW Cook, DR Veenhuizen, SR Hammons, M Singh, and HF Oliver (2020). *Listeria monocytogenes* is prevalent in retail produce environments but *Salmonella enterica* is rare.

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Choi J, H Norwood, S Seo, SA Sirsat, and J Neal (2016). Evaluation of food safety related behaviors of retail and food service employees while handling fresh and fresh-cut leafy greens.

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- Jung Y, J Gao, H Jang, M Guo, and KR Matthews (2017). Sanitizer efficacy in preventing cross-contamination during retail preparation of whole and fresh-cut cantaloupe. [https://www.sciencedirect.com/science/article/pii/S095671351630682X?casa\\_token=l4c5QRJuWggAAAAA:5JRhMgBf9xfsZ\\_OZ-S-LL8afB2S4ERU\\_5OicdjRI1lhQVu1fWF9\\_x3a9\\_d0v9\\_M\\_ig3y0rjY1Hg](https://www.sciencedirect.com/science/article/pii/S095671351630682X?casa_token=l4c5QRJuWggAAAAA:5JRhMgBf9xfsZ_OZ-S-LL8afB2S4ERU_5OicdjRI1lhQVu1fWF9_x3a9_d0v9_M_ig3y0rjY1Hg).
- Jung Y, M Guo, and KR Matthews (2023). The effect of crisping, misting, and storage temperature on the survival and growth of *Listeria monocytogenes* and natural psychrotrophic bacteria on romaine lettuce. <https://journals.sagepub.com/doi/abs/10.1177/10820132221101265>.
- Jung Y, M Guo, J Gao, H Jang, and KR Matthews (2022). The antimicrobial interventions of cilantro (*Coriandrum sativum*) in mitigating cross-contamination of foodborne pathogens during the retail soaking process. <https://academic.oup.com/fqs/article/doi/10.1093/fqsafe/fyac019/6550281>.
- Jung Y, H Jang, M Guo, J Gao, and KR Matthews (2017). Sanitizer efficacy in preventing cross-contamination of heads of lettuce during retail crisping. [https://www.sciencedirect.com/science/article/pii/S0740002016304373?casa\\_token=WRNASSi-hPsAAAAA:GrR28DalamHSae\\_bOM-jHHn3oi-eymBSEFgvt4bitUWnMwSZg6U7Pt\\_gzMBqrSBwGyainzy7k4](https://www.sciencedirect.com/science/article/pii/S0740002016304373?casa_token=WRNASSi-hPsAAAAA:GrR28DalamHSae_bOM-jHHn3oi-eymBSEFgvt4bitUWnMwSZg6U7Pt_gzMBqrSBwGyainzy7k4).
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