Scientific Challenges and Cost-Effective Management of Risks Associated with Implementation of Produce Safety Regulations

Key Takeaways
"Does This Look Risky to You? Part 2"

December 8, 2022 | Produce Safety Webinar Series Summaries (#11)

Alexis M. Hamilton, Laura K. Strawn, Michelle D. Danyluk, and Donald W. Schaffner

Top 5

1) Risk analysis is commonly considered to have three parts: (1) risk assessment, (2) risk communication, and (3) risk management. Risk assessors should not dictate risk management activities; instead, they conduct the analysis that helps risk managers make risk-based decisions.
2) Risk-based thinking is more useful than hazard-based thinking because the former provides clarify and focus in making choices to minimize risk.
3) Assessing the risk of using an agricultural water source requires knowledge of both the probability of an adverse health effect and the severity of that effect as the result of consuming produce irrigated with that water.
4) To help identify how risky your water source is, ask (1) how often you irrigate and how much crop is irrigated with that water, (2) how often and by how much are you outside of microbial target criteria, and (3) what are the likely means by which your water might become contaminated?
5) We still lack good risk-based tools to assess agricultural water risk. While risk matrices can be useful for preliminary understandings of risk, these may oversimplify risk profiles for your water source. Water testing is important for understanding the risks in a specific water source, and, while you cannot test your way to food safety, it is not possible to know the microbial quality of the water without testing.

Additional Reading

FAO and WHO (2008). Microbiological hazards in fresh leafy vegetables and herbs: Meeting report. Microbiological Risk Assessment Series No. 14. Rome. https://apps.who.int/iris/handle/10665/44031

FAO and WHO (2021). Microbiological risk assessment – Guidance for food. Microbiological Risk Assessment Series No. 36. Rome. https://doi.org/10.4060/cb5006en

Schaffner, DW (2007). Microbial Risk Analysis of Foods. ASM Press.

FAO and WHO (2021). Safety and quality of water used with fresh fruits and vegetables. Microbiological Risk Assessment Series No. 37. Rome. https://www.fao.org/3/cb7678en/cb7678en.pdf

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