

Project: Sanitation and Validation of Produce Rinse Water to Enhance Food Safety

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Project Overview

It is estimated that over 437,000 incidences of produce-related foodborne illnesses occur each year in Massachusetts alone. In addition to morbidity and mortality, the estimated cost as a result of the illnesses is \$903 million. Postharvest sanitation, in particular washing/rinsing, is a critical step that has shown to control microbial loads, thereby reducing the risk of contamination from pathogens. While there are several commonly used wash water sanitizers, there remains significant opportunity in identifying and validating best practices for farmers. Over time, sanitizers lose efficacy due to soiled water, chemical dissipation, pH changes, etc. Identifying and validating best practices for water sanitation in postharvest washing is a critical step towards increasing the safety and sales of Massachusetts produce. This proposal specifically addresses the safety practices of small-scale Massachusetts food producers and processors. A multidisciplinary team with expertise in food safety and local agriculture will evaluate current wash and rinse water sanitization practices of Massachusetts produce farmers. Researchers will collaborate with extension education professionals to create guidelines for best practices and develop effective tools for disseminating information related to rapid-testing methods, eventually resulting in a reduction in instances of produce-related foodborne illness in Massachusetts.

Activity Summary - 2014

- Determine optimal quality controls to monitor the chlorine in rinse water and validate using piloted farm site (3)
- Presentations to growers at New England Vegetable & Fruit Conference (1)
- Publish online material related to the use of rinse water in postharvest sanitation(1)
- Publish printed material (practices guide and fact sheets) related to the use of rinse water in postharvest sanitation(2)

Total educational contacts

	Adult Contacts
In Person	80
Indirect Contacts (Print, Web, etc...)	

Narrative Summary and Impact

The IREP has two focus areas: 1) what are current commercially available on-farm tools to help manage the use of sanitizer in produce washing "today" to reduce the risk of pathogen contamination, and 2) can there be novel, affordable tools developed to improve on-farm food safety practices.

Collaborating Organizations

- **Massachusetts Department of Agriculture**