

# Disinfection of Spinach Wash-Water

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Washing fresh produce, particularly leafy greens which are often eaten raw, before packaging is crucially important to reduce the risk of outbreaks of *Salmonella* or *E. coli*. Disinfectants are typically added to wash water to provide protection against bacterial outbreaks and reduce the amount of wash water required. Typically, producers rely on disinfectant manufacturer's directions to determine dosages, and do not have the resources to directly compare different types of disinfectants.



## PROJECT OBJECTIVES

1. Assess the effectiveness of current wash-water disinfection by hydrogen peroxide ( $H_2O_2$ ) at a spinach packing plant in the Annapolis Valley
2. Optimize disinfectant dose and investigate alternative disinfectants for spinach processing

## SAMPLING

Wash-water samples are being taken throughout the spinach packing plant during processing, and are tested for residual disinfectant and *E. coli* concentrations

## LABORATORY TESTING and OPTIMIZATION

Wash-water is being treated in laboratory tests with (1) hydrogen peroxide (2) chlorine and (3) peroxyacetic acid to determine optimal disinfectant and dose to control *E. coli* outbreaks

