

Title Results of Microbial Baseline Study of Ontario Grown Fresh Fruits and Vegetables
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Abstract

A baseline study of selected indicator and pathogenic bacterial prevalence in Ontario-produced fresh fruit and vegetables was carried out between August and October of 2004. This was the first study of its kind in Ontario. Comparison of this study with others that are similar in nature revealed that Ontario had a lower prevalence rate of pathogens, which may be due to Ontario's climate. Samples were collected from locations where consumers most often obtain their produce, including distribution centers (82% of samples obtained), farmers markets (15%) and organic site operations (2%). This sampling plan also enabled the largest percentage of Ontario farms to be sampled. The 1183 samples consisted of 151 cantaloupe, 173 green onions, 263 leaf lettuce, 155 head lettuce, 112 organic leaf lettuce, herbs (61 cilantro and 127 parsley) and 141 fresh market tomatoes. These commodities were chosen because they have a higher attributable risk compared to other foods of plant origin commodities, and there is a limited amount of information available about the prevalence of foodborne pathogens in these commodities in Ontario. Samples were analyzed for *Salmonella* spp., *Shigella* spp. and generic *Escherichia coli*. Any samples positive for *E. coli* were further analyzed for verotoxigenicity. No samples were positive for verotoxigenicity or for *Shigella* spp. Two (2) samples were positive for *Salmonella* spp., resulting in a prevalence rate of 0.17% for the whole study. The prevalence rate for generic *E. coli* was 5.3% of all commodities sampled, and the prevalence rate for generic *E. coli* for all commodities ranked as parsley>organic leaf lettuce>leaf lettuce>green onions>cilantro>cantaloupe>head lettuce and fresh market tomatoes.