Microbiological Analysis of Produce Sold at Florida Farmers’ Markets and Supermarkets

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About me

- B.S. in Dietetics from the University of Florida
- Beginning Food Science Masters’ program in the fall of 2018 at the University of Florida
- Passion for food science and nutrition
Objectives

- Test the prevalence of *E. coli* and total coliforms using petrifilms on produce from farmers’ markets and supermarkets
- Test the prevalence of the foodborne pathogens *Salmonella*, *L. monocytogenes* and *E. coli* O157:H7 using qPCR
Method
# Results: Occurrence of Pathogens

<table>
<thead>
<tr>
<th>Pathogen</th>
<th>Farmers’ Market</th>
<th>Supermarket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salmonella</td>
<td>0.57 (2/350)</td>
<td>0.66 (1/151)</td>
</tr>
<tr>
<td>L. monocytogenes</td>
<td>1.14 (4/350)</td>
<td>0 (0/151)</td>
</tr>
<tr>
<td>E. coli O157:H7</td>
<td>0 (0/350)</td>
<td>0 (0/151)</td>
</tr>
</tbody>
</table>

*a* Denote significant differences. Values that do not share the same superscript are significantly different (p-value < 0.05).
The high prevalence of *L. monocytogenes* in spinach and leafy greens from farmers’ markets indicates the need for continued monitoring and the development of food safety programs for farmers’ markets.