Is the Brooklyn, New York farmer's market local produce safe from *Enterococcus* Indicator species like *Salmonella* and *E. coli* (STEC 0157)? A survey using microbiological techniques.

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Abstract

Farmers' markets are attractive for local shoppers for fresh, less-processed, locally grown produce. However, reports suggest statistical correlation with such markets and outbreaks of fecal coliforms like *Salmonella sp.* and *Escherichia coli*; reinforces the need for investigation of our local produce. *Salmonella* and *E. coli* bacteria are associated with serious problems including gastroenteritis, typhoid, and paratyphoid, it can cause sepsis and kill you. Unfortunately, the majority of products we consume from farmer's markets contain *Salmonella*, which is a potential risk to food safety.

To execute our hypothesis, we collected and analyzed selected produce (salads, vegetables and poultry) from the various farmers' market in Brooklyn and analyzed the presence of *Salmonella sp.* and *E. coli* by utilizing microbiology lab techniques. Findings from 6 locations (10 samples) indicate the presence of gram-negative bacteria in food. However, a significant result one obtained when one sample (lettuce) showed indication of *Salmonella* by serological analysis using Microgen latex agglutination beads. We therefore recommend collection of more diverse samples from more locations to justify our hypothesis.