P1-24   Evaluation of BAM with VIDAS Immunoassay Method for Identifying *Salmonella* on Tomatoes Surface

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Introduction: *Salmonella* has been implicated as a major cause of human foodborne illness worldwide, and several outbreaks of salmonellosis associated with tomatoes have recently been reported. There is an increase demand for effective detection methods which are rapid, accurate and easy to apply.

Purpose: This study evaluated the Mini Vidas *Salmonella* (SLM) (bioMérieux) method in relation to its ability to detect *Salmonella* cells artificially inoculated on tomato surfaces.

Methods: Tomatoes without any defects (peel ruptures, bruised areas) were used in the experiment. A total of 168 tomatoes were artificially inoculated on the surface at levels of 10, 10^2 and 10^3 CFU/tomato with *Salmonella* Brazil and left to dry inside the air cabinet. These contaminated tomatoes were analyzed simultaneously by Mini Vidas (SLM) and BAM methods. Test for significant difference (x^2) between the methods was evaluated as described by McNemar´s test.

Results: The proportion of samples confirmed positive by the alternative method is not statistically different from the proportion confirmed positive by the reference method (BAM) in all inoculated levels tested. Overall, the Mini Vidas (SLM), method recovered *Salmonella* in 106 test samples compared to 87 for the cultural method, resulting in an 82% overall agreement between the two methods.

Significance: The results indicated that the rapid method Mini Vidas *Salmonella* (SLM) may be effective for the analysis of this microorganism on tomato surface.