

Assessment of *Listeria monocytogenes* in salad vegetables through kitchen stimulation study

ABSTRACT

This study was to investigate the occurrence of cross-contamination and decontamination in the kitchen via *Listeria monocytogenes* contaminated vegetables during salad preparation. In this study, naturally contaminated produce were used to provide realistic quantitative data as opposed to information obtained through artificial inoculation. The study was designed to simulate the real preparation of salad in kitchens in Malaysia which simply involved washing the vegetables in tap water and cutting them on a chopping board prior to serving. It was found that the mean percentage of transfer rates for *L. monocytogenes* from vegetables to wash water was 32.4660.2%; from wash water to cucumber 24.9666.3%; from vegetables to chopping board 18.9632.2%; from chopping board to cucumber 5.4675.3%. Washing of the vegetables in tap water caused a 0.3-log reduction of *L. monocytogenes* attached to the vegetables.

Keyword: *Listeria monocytogenes*; Salad; Vegetables; Kitchen; Simulation