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Microbiological analysis of pre-packed sweet basil (*Ocimum basilicum*) and coriander (*Coriandrum sativum*) leaves for the presence of *Salmonella* spp. and Shiga toxin-producing *E. coli*

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ABSTRACT

Enteric pathogens, such as *Salmonella* spp. and pathogenic *E. coli*, have been detected and associated with food borne outbreaks from (imported) fresh leafy herbs. Screening on imported herbs from South East Asian countries has been described. However, limited information on prevalence of these pathogens is available from other sourcing regions. Therefore, fresh pre-packed basil and coriander leaves from a Belgian trading company were investigated for the presence of *Salmonella* spp., Shiga toxin-producing *E. coli* (STEC), generic *E. coli* and coliforms. In total 592 samples were collected originating from Belgium, Israel and Cyprus during 2013-2014. Multiplex PCR followed by further culture confirmation was used for the detection of *Salmonella* spp. and STEC, whereas the Petrifilm Select *E. coli* and VRBL-agar were used, respectively, for the enumeration of *E. coli* and coliforms. *Salmonella* was detected in 10 out of 592 samples (25 g) (1.7%; 5 basil and 5 coriander), of which two samples were sourced from Israel and eight from Cyprus. The presence of STEC was suspected in 11 out of 592 samples (25 g) (1.9%; 3 basil and 8 coriander), due to the detection of *stx* and *eae* genes, of which one sample originated from Belgium, four from Israel and