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BOOK OF ABSTRACTS

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Title

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**104: GROWTH OF *LISTERIA MONOCYTOGENES* AND *SALMONELLA* spp. ON READY TO EAT FRESH-CUT LETTUCE: MICROBIOLOGICAL COUNTS AND COMBASE PREDICTOR**

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**Introduction:** Consumption of fresh produce has been recognized as an important vehicle for the transmission of human pathogens. The consumption of these foods has been increasing among consumers who prefer healthy diets and provide an appropriate meal for the current lifestyles. Consumption of pre-washed leafy green salads has been increasing in parallel with consumer demand for convenient foods. In spite of their healthy and convenient aspects, microbiological safety should be a concern as growth of pathogens may occur during refrigerated storage in particular at abuse temperature conditions often observed at household level.

**Methodology:** Individual packages of pre-washed lettuce salad were inoculated with a cocktail of *Salmonella* or *Listeria monocytogenes* strains. Counts of the pathogens were followed during storage at different temperatures simulating refrigeration temperature abuse conditions observed in domestic settings. Growth under the same conditions was predicted using the ComBase Predictor software.

**Results:** Growth of *Listeria monocytogenes* and *Salmonella* spp. was observed on salads stored at temperatures above 5.5°C and 7°C, respectively. Higher growth rates were determined when ComBase Predictor was used.

**Conclusion and Relevance:** *Listeria monocytogenes* and *Salmonella* spp. can grow in fresh-cut lettuce even at short abuse of refrigeration temperature during storage. ComBase Predictor can be a useful tool to estimate the risk of consumption of lettuce stored at abuse temperatures at household level.

**Keywords:** ComBase Predictor; *Salmonella* spp.; *Listeria monocytogenes*; fresh-cut lettuce

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