

2.14 Predictive microbiology for spices and herbs

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Spices and herbs can be contaminated with high numbers of microorganisms among them pathogens and therefore it is important to estimate the risk of consumption of these commodities. A concrete approach to estimate such risk is the Food Safety Objective (FSO) concept linked to the appropriate level of protection (ALOP). The FSO integrates factors such as the initial numbers, the sum of reductions and the sum of increases. These FSO components and their prediction intervals were estimated from own meta-analyses of literature and were benchmarked with existing meta-analyses of other food commodities. In addition, experimental validation data were obtained. The final outcome was a model to predict how many people can get ill by consuming spices and herbs. Some examples of specific pathogens in spices were used as illustration to show how the data can be used to get the best estimation, but also how variability impacts the outcome as well as various scenarios.

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