Monitoring the persistence of Listeria monocytogenes in dairy processing facilities by whole-Genome Sequencing technique

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One of the major safety concerns in the dairy processing facilities is Listeria monocytogenes that has been known to survive harsh environmental conditions and cause serious outbreaks of food born disease. There has been an interest to link between the bacterial contamination in food processing facilities and the genetic data of the species of concern. In the current research, dairy processing facilities were monitored by whole-genome sequencing (WGS) technique to comprehensively track Listeria contamination in different environments in the processing facility. The aim was to identify sources and link the environmental conditions to specific genes know for bacterial persistence in different conditions. The results showed that WGS method can accurately address the safety issues of dairy processing facilities.