

Title Fresh horticultural produce quality and safety: the importance of traceability from the field to the consumer

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Abstract

Purpose of review: The purpose of this review is to outline principal means already existing or having the potential to allow tracing of the biological and biochemical history of fresh fruits or vegetables. Specifically, this manuscript highlights different steps of the produce chain that could be traced in order to reduce potential biological contamination and preserve the quality of food items from field to the consumer's plate. An overview of the actual policies or interventions involved will be summarised. In the light of this, suggestions will be made regarding what more could be done to ensure good food quality and safety, and what the costs and real needs of traceability are in the produce chain.

Findings: Traceability offers many advantages for maintaining quality in the food chain. It can allow the determination of deficient steps in the food chain, which, if well managed and performed, can then lead to the situation being remedied. In terms of accountability, traceability encourages and empowers each employee in the food chain to achieve their work in the best way possible. Since there are no absolute regulations concerning quality and food safety standards to date, industries implement their own programmes to improve food quality and safety.

Directions for future research: Research is needed to identify the strengths and weaknesses of actual traceability programmes. Identifying weaknesses is necessary to improve the quality of the system, while automation of traceability systems by electronically recording the different traceable steps, and underlining the strengths will, in a large measure, encourage the industry to adopt the technology more widely. Using a traceability system, it should be effortless to consult the origin and quality of each produce. Finally, identifying data that might be useful for good control of food quality and food safety is a premise; tracking every step requires much effort, but the data collected is worth it.