

# Abstract

Traceability has become a global requirement in the fresh food supply chain to ensure safety and quality of exports, imports and food grown and processed for local consumption. The objectives of this research were to establish the current state of traceability in South Africa, the constraints faced by those in the fresh vegetable supply chain and the implications of the current state.

The developed theoretical framework, derived from the literature review, for assessing the current state of traceability included the measurement of traceability, an evaluation of five supply chain enablers which are, information management, product management, quality assurance, buyer-supplier relationships and certification and compliance, and identification of constraints to traceability in South Africa. The research concluded that the fresh vegetable supply chain in South Africa was partly traceable. This was obtained from the results of the interviews analysed. To evaluate the state of traceability, six aspects of traceability had to be fulfilled by every participant in the supply chain which were; 1) product traceability, 2) process traceability, 3) genetic traceability, 4) inputs traceability, 5) disease and pest traceability and 6) measurement traceability. Constraints identified were, time it took to obtain results for maximum residue and microbial tests, liability due to sharing information hence exposing themselves, cost of testing produce and certification, competition as other markets besides the retailers exist, age and education of farmers as they are unable to use technology, legislation as a number of certifications exist, management of loose produce during processing and selling, and consumer awareness as no recorded incidence of contamination exist. The differences in the supply chains had no impact on the state of traceability.

The research followed a qualitative approach. A case study approach was implemented as a research strategy. South Africa has five major retailers who sell general merchandise and fresh fruit and vegetables to consumers. Case studies of three retailers in South Africa were carried out. Interviews and observations were used as the methods for gathering data. The data was analysed using gap analysis for measurement

of traceability and the five supply chain enablers. Content analysis was used to analyse the constraints in traceability. The differences in the supply chains of the retailers under study was noted and each participant in the supply chain which were the farmer, packing facility, transport providers, fresh produce market and retailers gave insight into the functions and processes they performed in the fresh vegetable industry.

The study hopes to aid the retailers in issues that need to be addressed to implement full traceability, assist farmers in building mutually beneficial relationships and addressing the constraints they all face.