

## **Abstract**

Tomorrow's successful perishable product supply chains will incorporate sophisticated and consumer focused data collection and information management systems. These systems will have multiple uses for the various chain participants. The final interaction in the supply chain between consumers and retailers forms the main driving factor up through the supply chain but it is the least understood. An investigation into this interaction using the retail characteristics and performance of gourmet mushrooms was undertaken at a New Zealand supermarket. For this study, track and trace technology using individually identified mushrooms was used in combination with physical measurements of mushrooms, display quality, non- intrusive quantification of consumer behaviour using video monitoring, and actual retail performance. The techniques were used to measure actual buying behaviour, infer consumer preferences for mushrooms at the point of sale and demonstrate product deterioration on retail shelves. Results showed a consumer preference for larger mushrooms (>55g), a weight loss of over 30% after 3.5 days and a measurable difference in the success of fresher retail displays.