

### Abstract:

Modern value chains are constantly seeking improved methods for information management and data capture. A major focus is track and trace technology. To increase the rate of adoption of this technology information should have multiple uses. This paper discusses an approach that uses individually identified product and a range of quality indicator measurements to infer consumer preferences for product at the point of sale. The technique is also useful to provide feedback on product performance on the retail shelf. Two products have been studied, tomatoes and flat mushrooms. Consumers show a preference for intense red tomatoes and will show this preference over a small band (L-value of 40.6 over 41.1 and hue angle of 51.0° over 49.0°). For mushrooms there is a preference for larger product (>55g), which moves more quickly off the shelf. The technique also enables demonstration of product deterioration on retail shelves. For example firmness and colour change in tomatoes is significant, and mushrooms can lose over 30% of their weight over 3.5 days on a retail shelf.