

Objectives & Rationale

With increasing public awareness of the negative impact of plastic on the environment, retailers have started rejecting the use of single-use packaging. It is suggested that the fruit industry assists in developing intellectual capital relating to environmentally friendly packaging solutions, for which a knowledge gap exists.

The objective of this study is therefore to start equipping post-harvest fruit scientists with knowledge to address these needs, so that research can commence that aims at replacing, reducing and/or removing single-use plastics.

Methods

A literature review was conducted, referencing existing information with regards to single-use plastics, its alternatives and potential challenges. This review includes results from a survey circulated to representatives of the fruit industry in South Africa.

Key Results

The functionality of plastic packaging is very much seen as an important factor in the fruit industry, as it relates to fruit quality management, which needs to be taken into consideration when alternatives are being looked at. There is potential in fruit coatings, as well as biodegradable packaging, however this needs to be combined with the re-use of plastic, i.e. returnable packaging.

Conclusion and Discussion / Recommendation

A co-operative effort will be required to successfully perform industry specific research and develop technologies for replacement of disposable plastics within commercial settings, and test market acceptability by monitoring and redesign.