Title The packaging implication of the 'Last mile of the strawberry supply chain'

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Abstract

The strawberry (*Fragria ananassa*) is one of the most popular crops with increasing consumption. During the strawberry supply chain, temperature management plays the main role in preventing spoilage. However one of the main problems in the strawberry supply chain is temperature fluctuation, which can causes condensation inside the packaging and increases the potential for fungal disease infection. Frequently the biggest problem happens when the cool chain is stopped in "the last mile" from retail outlet to the consumer's refrigerator. During this period of time temperature fluctuation and condensation occur respectively. This study presents an investigation to evaluate the temperature fluctuation and applicable ways to reduce this damage when the cool chain is cut. The work was based on two main areas of "packaging" and "arrangement" during handling. Comparison of different types of packaging included absorbing pads and different punnet designs with or without vents at the base. Also different types of arrangements of punnets during handling were assessed to find a way to reduce damage caused by temperature fluctuations. The results showed that better air movement can help to decrease the damage caused by condensation, to prevent fungal diseases during postharvest life. Suggestions from this work of changing the packaging and handling systems of strawberries could help to improve the postharvest life of strawberries.