

Objectives and Rationale

Packaging of fruit provides tremendous benefits to the global trade and the consumer, this includes: simplified supply chain logistics from farm to point of sale, minimized postharvest harvest handling process and cross-contamination, protection against mechanical damage and microorganism contamination along all the steps involved on the supply chain and minimized water loss from fruit, thereby, maintaining postharvest quality and extending product shelf life. To sustain the growth potential of the fruit industry there is the need to identify specific types of packaging conditions which can provide sustainable food production and packaging of fresh fruit. The aim of this project is to compare the effect of liners of different thickness for packaging of different pear cultivars and to evaluate the effect of pallet shrouds for packaging of different apple cultivars.

Methods

Work plan 1 - Forelle

Post CA 'Forelle' pears were used. Fruit were packed according to the trial stated in work plan 1. The Forelle trial was done locally at ExperiCo. Poly trays were used. It was stored for a 9-week simulated shipping and handling period at -0.5°C followed by a 7-day shelf life at 20°C.

Work plan 2 – Royal Gala

The export packaging trial on 'Royal Gala' apples was discontinued.

Key Results

Post CA 'Forelle' pears stored without liners had higher shrivel incidence and mass loss compared to fruit stored in 15 µm, 20 µm or 37.5 µm perforated liners. No significant differences were exhibited in any quality parameters measured for fruit stored in the different liner types.

Key Conclusion of Discussion

Forelle pears should be packed into liners to prevent mass loss and to prevent shrivel. Liner thickness made no significant difference to any quality parameters measured.

Take Home message for Industry

Forelle pears should be packed into liners to prevent mass loss and shrivel. Liner thickness made no significant difference to any quality parameters measured. However, it is recommended to include another season's data to verify findings.