



Modified Atmosphere Packaging (MAP) improves shelf life of Pears

Significantly larger market opportunities is just one benefit of research showing that MAP contributes to better post-harvest quality of pears. Conducted by Wageningen Food & Biobased Research as part of the GreenCHAINge program, the outcomes show that firmness of pears can be maintained better throughout the chain.

MAP in the destination country

The GreenCHAINge project's overall goal is to improve the quality of fresh product on the shelf. Set to become a key part of the 'smart' chain, Modified Atmosphere Packaging helps extend the shelf life of fresh produce. Its efficacy is dependent on foil type, pear respiration and temperature conditions in the chain. For Conference pears the target atmospheric oxygen percentage is 1-3%, as this reduces respiration: CO₂ concentrations must be under 5% to prevent risk undesirable physiological changes.

Firm, fresh-looking pears at point of sale

The scientists packed batches of pears in different films, in simulated chain conditions, including distribution (5 days 8°C)/retail phase (5 days 18°C). In packages using a new type of film, an effective modified atmosphere was achieved, whilst those using regular film (BOPP with micro-perforation) resulted in damaging CO₂ levels. Firmness and appearance were better for pears in the new MA packaging, compared with normal air conditions.

Reliable application

Results show that correct application of MAP increases the shelf life of pears. It helps to maintain desired product characteristics throughout chains, even those serving distant markets.

"Optimized MAP significantly improves shelf life of Conference pears"



Packaging materials for packing fresh produce.

For detailed information about this project result please visit www.wur.eu/greenchainge.

 GreenCHAINge



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