

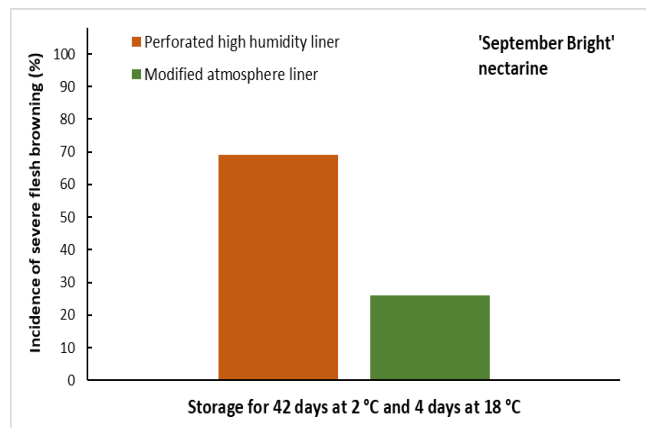
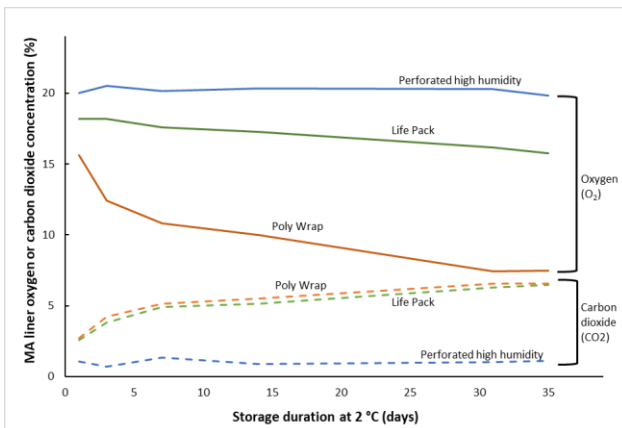
Effective use of modified atmosphere (MA) packaging for sea freight export of stone fruit

Modified atmosphere (MA) liners are now commonly used by growers and exporters for sea freight consignments to reduce fruit weight loss and are required by many importers who prefer consignments to be packed in liners. MA liners are likely to have commercial benefits during sea freight export by increasing storage potential of most peach and nectarine cultivars.



MA liners reduce the oxygen concentration and increase the carbon dioxide concentration around fruit, and with low temperature storage, they reduce fruit quality loss, decrease fruit susceptibility to storage disorders, and reduce water loss.

Recent trials conducted by Agriculture Research Victoria have demonstrated that current commercial MA liners can reduce the incidence of severe flesh browning, an indicator of chilling injury, by up to 25 % in moderately susceptible cultivars such as 'Majestic Pearl', and by up to 50 % in highly susceptible cultivars such as 'September Bright', when compared to fruit stored in perforated high humidity liners.



Commercial considerations when using modified atmosphere liners for stone fruit:

- MA liners are likely to extend storage life of most peach and nectarine cultivars by up to two weeks without impacting on fruit quality after ripening but this will depend on a cultivar's susceptibility to storage disorders, with a maximum storage life in MA liners for moderately susceptible cultivars of 6 to 7 weeks, and 4 to 5 weeks for highly susceptible cultivars.
- Good postharvest temperature management is important to maximise the benefits of MA liners, and to ensure that carbon dioxide concentrations around fruit are maintained at beneficial levels, whilst reducing the risk of condensation on fruit within sealed liners.
- MA liners need to be sealed to effectively extend cultivar storage potential and so cannot be used where methyl bromide fumigation is utilised for fruit disinfestation, but they are suitable for disinfestation treatment using irradiation.

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