

LifeSpan[®] for Apple & Pears



LifeSpan[®] Modified Atmosphere Packaging (MAP)

LifeSpan[®] box liners and pallet shrouds are an innovation in post-harvest packaging that extend the storage and marketing life of fresh produce. Used commercially for over 15 years, LifeSpan[®] is a global leader in MAP products and is now an important packaging component for many of the worlds leading fresh produce exporters.

LifeSpan[®] for Apples and Pears

LifeSpan[®] extends the storage and shelf life of both fresh packed and post CA stored fruit delivering Apples & Pears to market in harvest fresh condition. Apples or Pears packed in LifeSpan[®] will have a significantly longer storage and marketing life than air stored fruit.

LifeSpan[®] is a proven cost effective alternative to CA containers or chemical storage treatments, offering greater flexibility in distribution and is suitable for organic produce.

How it works

LifeSpan[®] MAP Packaging allows the creation of a low oxygen (O₂), increased carbon dioxide (CO₂), and high humidity atmosphere inside a box liner. Similar in concept to a CA Coolstore.

The oxygen and carbon dioxide permeability of the LifeSpan[®] liner, is specifically designed for the respiration rate of Apples & Pears. The modified atmosphere

created will significantly reduce the fruits respiration rate, with the following benefits.

Benefits for Apples & Pears

- Maintenance of fruit firmness or pressures through reduced respiration
- Reduced dehydration or shrivel and subsequent fruit weight loss from a high humidity environment and slower respiration
- Prevention of the ripening effects of ethylene through elevation of CO₂
- Slower ripening and skin colour change during storage or distribution, allowing even ripening at market & longer shelf life
- Suppression of the development of skin greasiness and some rots or moulds

LifeSpan[®]
Modified Atmosphere Packaging



Contacts

For more information, visit www.amcor.com/lifespan or email lifespan@amcor.com

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LifeSpan[®] experience & advantages

LifeSpan[®] is used for commercial storage and export by many packers, exporters and importers around the world. The improvement in fruit quality gained from using LifeSpan[®] has helped many exporters compete in a range of new and distant markets.

Apples

LifeSpan[®] has been successfully used on many varieties of apple including but not limited to: Gala, Royal Gala, Braeburn, Pink Lady & Jonagold.



Pears

LifeSpan[®] has been successfully used on many varieties of pear including but not limited to: Packhams, Bosc, D'Anjou, Williams/Bartlett, Taylor's Gold, Comice and Forelle.

Advantages

When compared to other post harvest life extension methods LifeSpan[®] has proven to be both more flexible in distribution and more cost effective. Importantly, the beneficial atmosphere inside the liner is maintained through to market, not needing to be broken during distribution or transport, so long as the cool-chain is maintained. LifeSpan[®] is economical over any volume of product, not requiring a full store room of fruit to be cost effective.

Importance of MAP and Sealing airtight

Establishing a consistent and significantly modified atmosphere is essential to maximise the benefits of MAP. Only by significantly modifying the atmosphere will the produce respiration rate be reduced. To achieve this it is necessary to seal the liner airtight.

The LifeSpan[®] clip seal system is fast and simple for packers whilst giving a consistent airtight seal and should be used for best results.

Importance of pre-cooling & cool-chain management

Good temperature management commences the moment produce is harvested. LifeSpan[®] is designed to work at a pre-determined temperature range (0-20°C / 32-68°F) for most Apple & Pear varieties, so it is important produce is pre-cooled before packing.

Maintaining the cool-chain at the designated temperature range throughout storage and distribution is essential for maximising LifeSpan[®]'s benefits. It is important that the LifeSpan[®] liners are opened when the produce is removed from the cool-chain for any significant period of time.

Ripening effects of ethylene

Ethylene is a ripening hormone produced by apples, pears and many other fruit types as they respire. The presence of ethylene further accelerates the ripening process, reducing storage and marketing life. LifeSpan[®] lowers the produce respiration rate reducing the production of ethylene. Elevated CO₂ from the modified atmosphere, blocks the fruits ethylene receptor sites. This prevents the ripening effects of ethylene and further extends the storage and shelf life of the produce.

Why one bag does not fit all

Respiration rates vary with fruit type. The atmosphere that is most beneficial for pro-longing storage and shelf life also varies with fruit type. It is therefore essential a modified atmosphere liner is designed specifically for the respiration rate of an individual produce type, to obtain maximum benefit.

It is highly unlikely any liner sold as a 'one bag fits all' solution will establish a significantly modified atmosphere and offer the benefits possible with LifeSpan[®]. LifeSpan[®] is designed specifically for the requirements of each individual fruit type and it is important to use LifeSpan[®] only as designed and specified on each liner.

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