

RYPEN[®] **Case liners** **& Sheets**



**Designed for bulk packaging,
tailored to specific crops, for both
storage & transit applications.**

**Pack smart.
Protect more.
Waste less.**

About RYPEN®

RYPEN Technology captures ethylene, without the need to block receptors or to oxidise the molecule through chemical reactions. The effects of ethylene are gently moderated, allowing continued natural ripening development at a slower rate.

With RYPEN, fresh produce can be stored, or shipped, with less deterioration in condition. This reduces deductions and wastage, leading to improved financial returns.

RYPEN® Case liners & Sheets

Provides fresh produce with all-round protection from over-exposure to ethylene.

Highly customisable packaging solution for different fresh produce weights, ethylene sensitivity levels and storage or shipping durations.

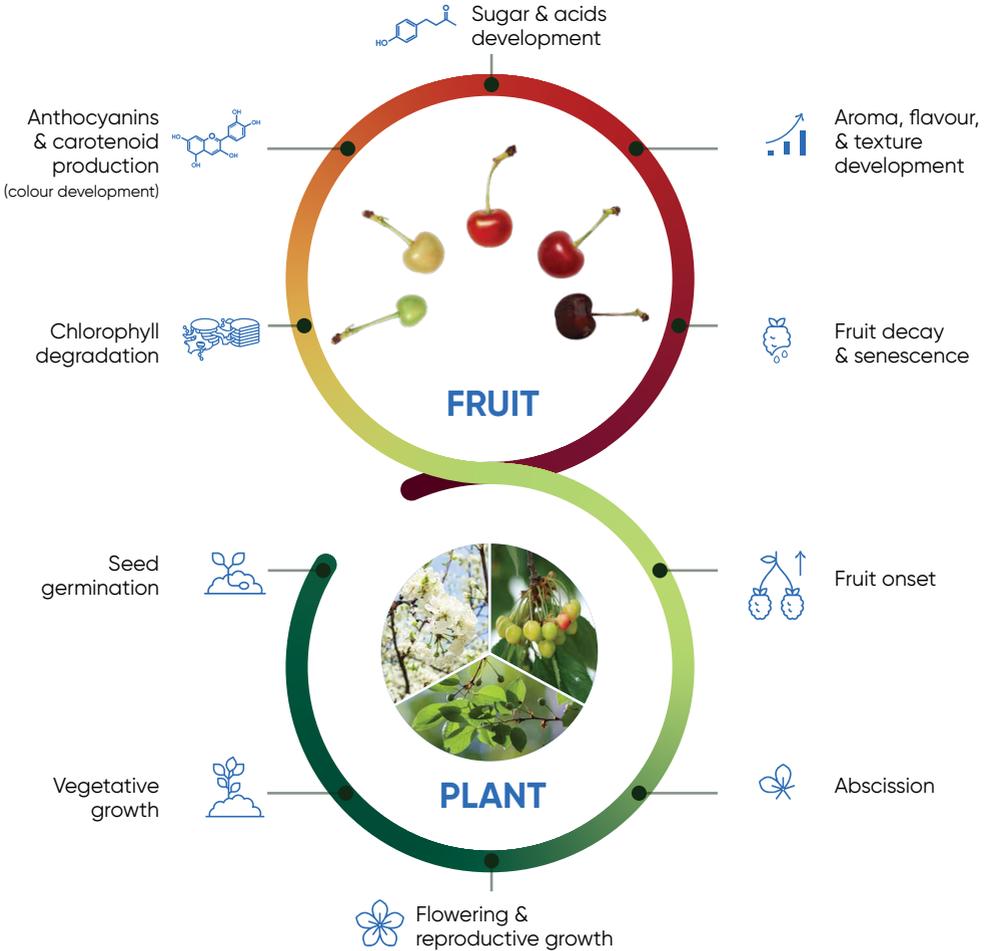
- Drop-in replacement
- Selective ethylene capture
- High capacity
- Moisture & sulphur tolerant

HDPE embedded with the RYPEN® Technology for extended storage & transit of fresh produce.



Protect condition & deliver a better consumer eating experience with RYPEN®

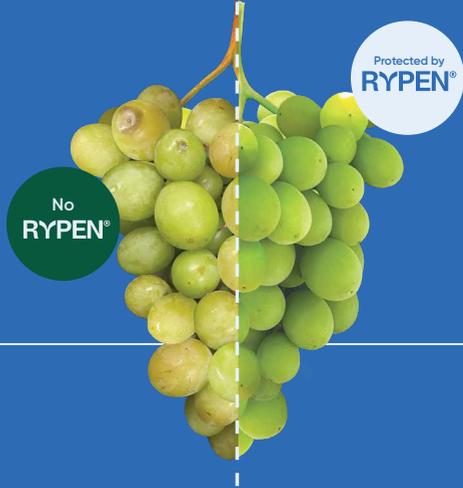
Ethylene's role in the entire produce & plant life cycle



RYPEN® Case liners & Sheets are designed to integrate directly into existing retail packing operations.



Helping deliver table grapes with enhanced freshness, better shelf-life & superior flavour to your markets, globally



Grape growers & exporters are reporting return on investments of 3x – 5x in commercial use

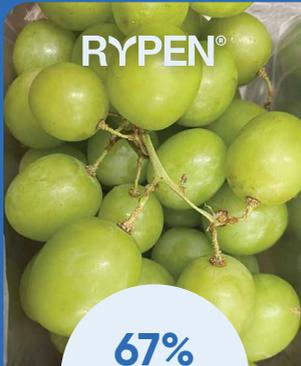
Greater weight retention¹

Less deductions & wastage¹

Better condition¹



3%
less
dehydration



67%
fewer
defects



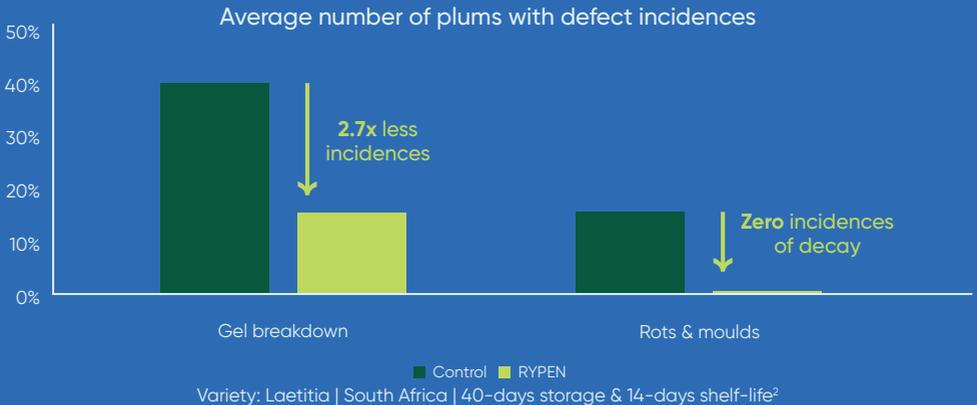
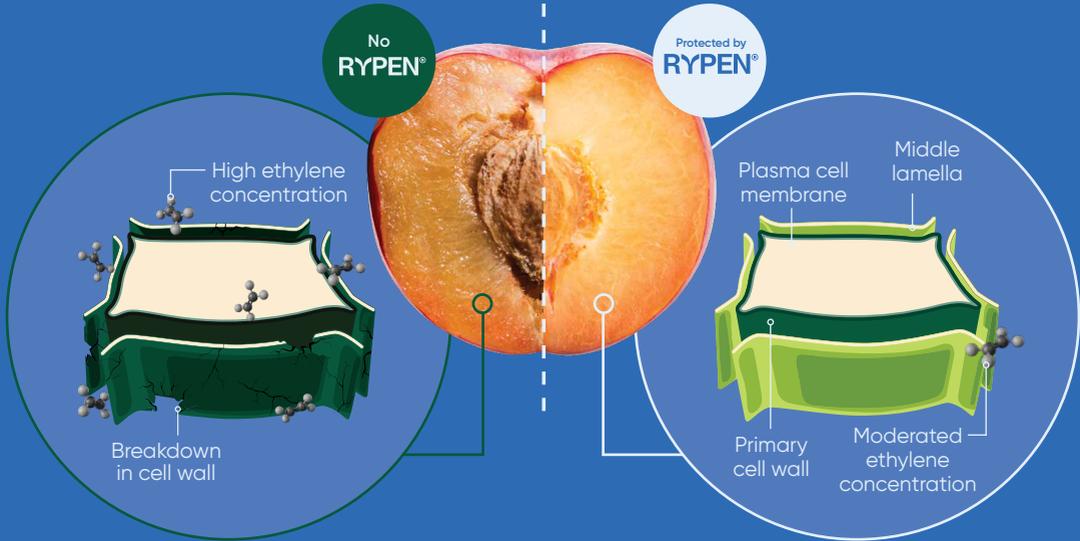
25%
improvement
in rachis
scores



¹ Aggregated results from origins: South Africa, Chile, & Peru | 2024–2025 grape seasons | Arrivals at six global destinations | 15 to 73 days transit duration, 10 varieties | 5,500 tonnes of fruit.

Stone fruits & ethylene

Independent trials—and results from multiple commercial shipments—have demonstrated ethylene’s role in the degradation of pectins, post-harvest. This then impacts cell wall structure, integrity and function, leading to the onset of various internal issues. In stone fruits, this causes gel breakdown and the onset of internal browning, rots and moulds.



72% slower onset of gel breakdown severity

50% improvement in assessment scores

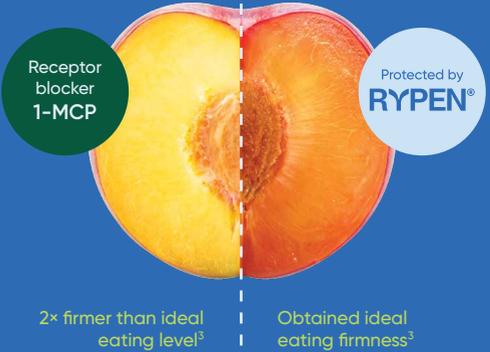
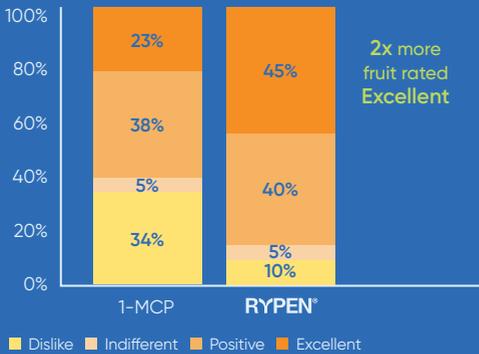
²South Africa | Independent trial conducted by Provar | 2025 | Cold sterilisation protocol: 10 days at -0.5°C, 7 days at 75°C, followed by 23 days at -0.5°C | Final phase included 14 days under simulated retail conditions at 10°C.

Why inhibiting ethylene receptors isn't the answer

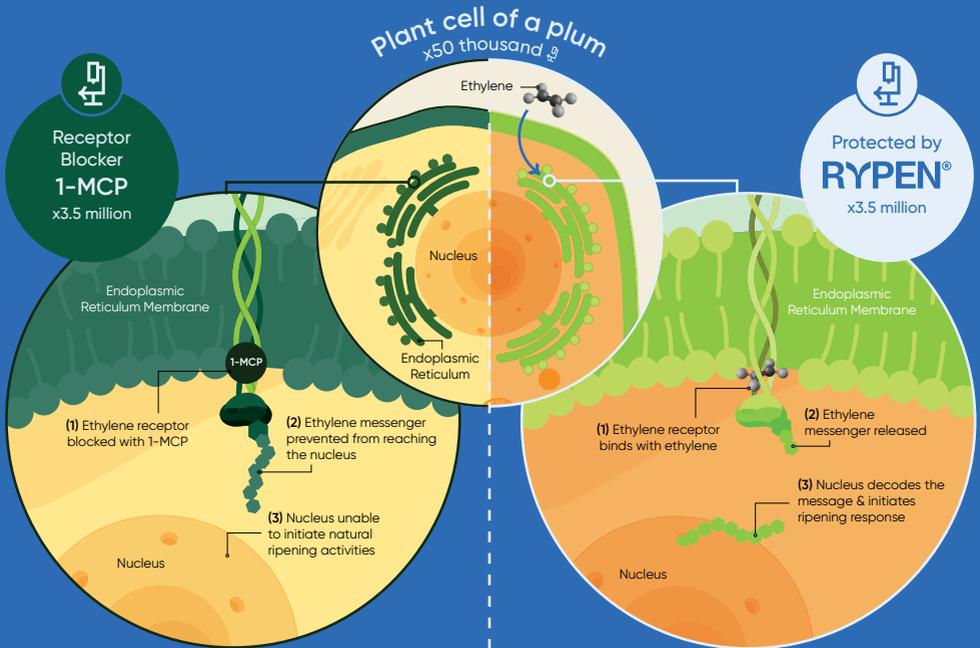
1-MCP blocks the ethylene receptor, disrupting the natural ripening process. Produce can therefore remain overly firm, less juicy and with less flavour development.

RYPEN captures ethylene, reducing the exposure to enable more gradual, flavourful and natural ripening. Moderated exposure to ethylene also supports the produce's natural defence mechanisms, enabling better condition for longer.

Overall plum taste panel results³



Ideal firmness for eating plums is below 14kgf



³ Variety: Larry Ann | Spain | Independent trial conducted by IRTA | 32-days storage & 4-days shelf-life | 2025 | Storage (0°C – 1°C) & Shelf-life (20°C) RYPEN Case liner size 1050 x 650 & 1.2% micro-perforation.