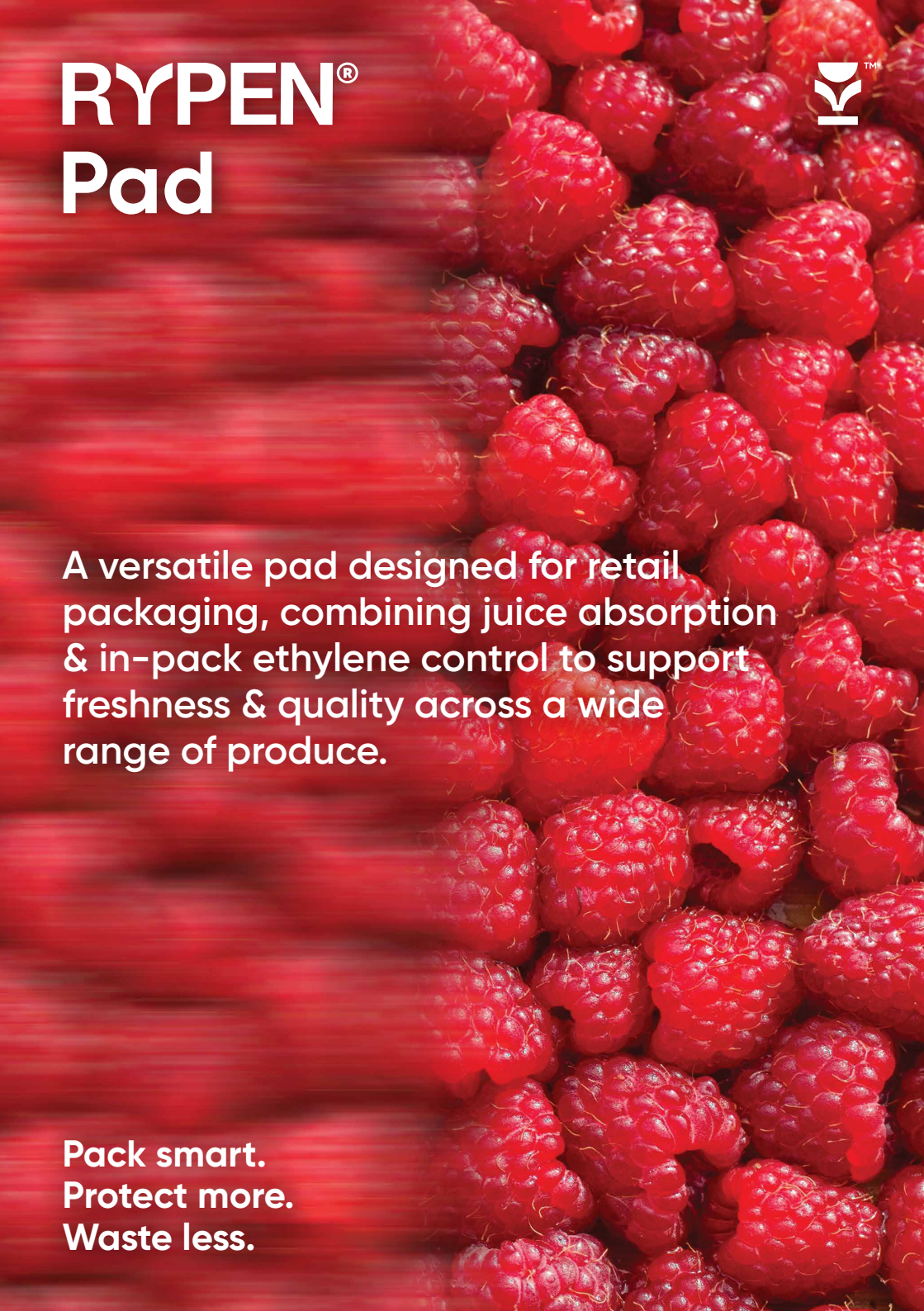
RYPEN® Pad



A versatile pad designed for retail packaging, combining juice absorption & in-pack ethylene control to support freshness & quality across a wide range of produce.

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.

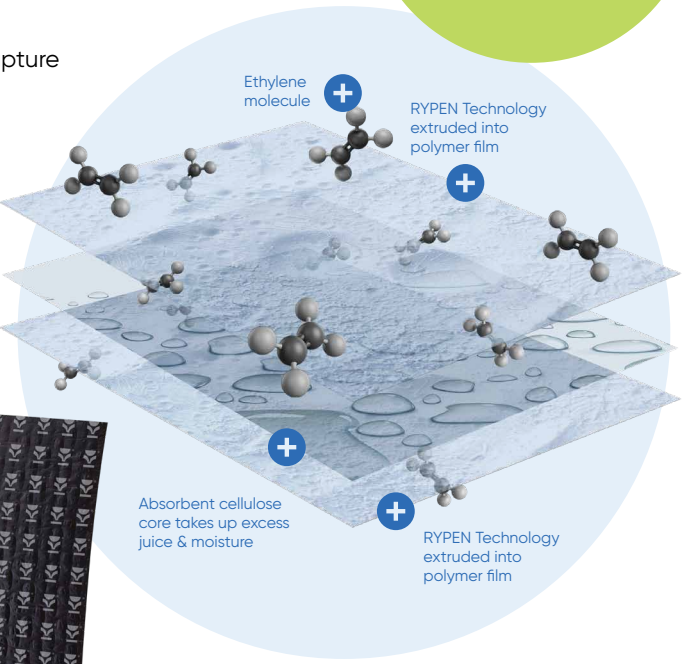
The RYPEN® Pad

Delivers dual-action protection for retail-packed fresh produce by absorbing excess juices and capturing ethylene that accumulates inside the packaging.

A highly customisable solution, available in a range of sizes, shapes, and colours – with adjustable levels of ethylene capture and juice absorbency to suit specific product or shelf-life requirements.

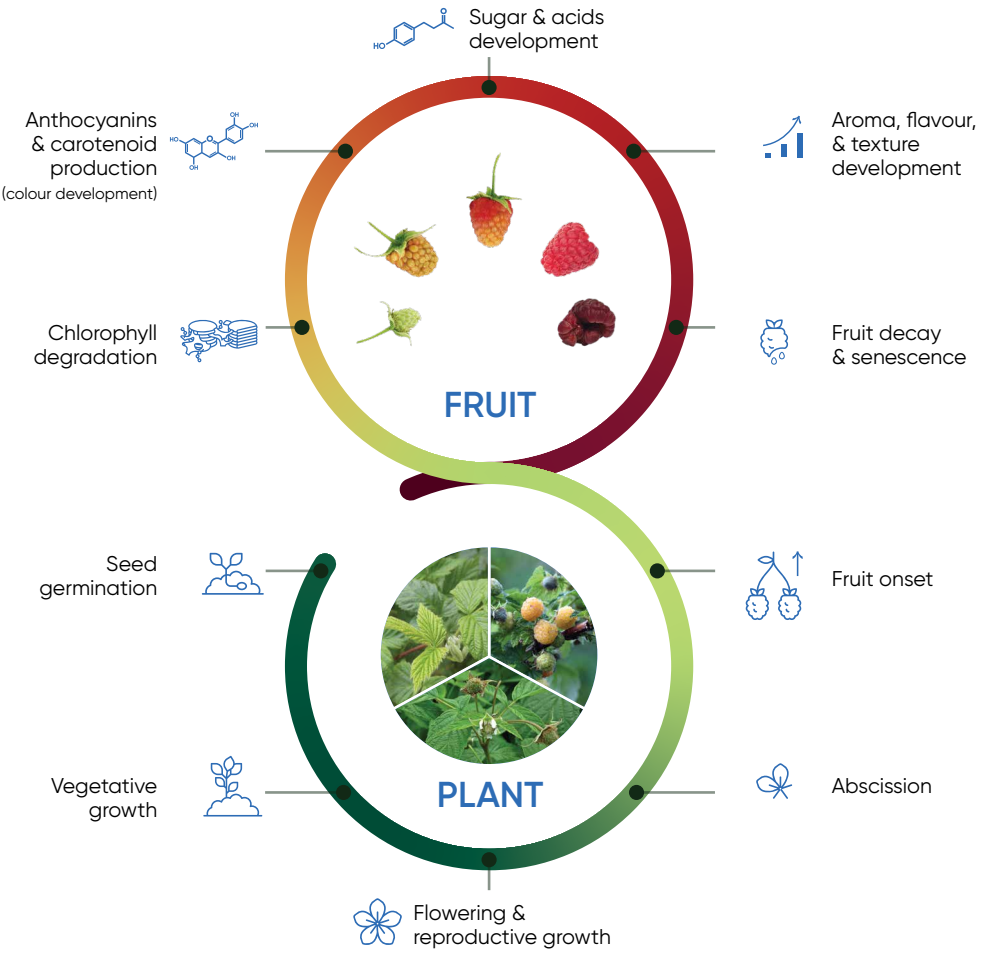
- Drop-in replacement
- Selective ethylene capture
- Juice absorbent

An absorbent cellulose layer sandwiched in-between two layers of **RYPEN®** embedded HDPE film.



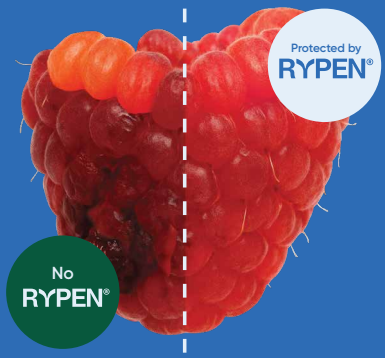
Protect condition & deliver a better consumer eating experience with RYPEN®

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



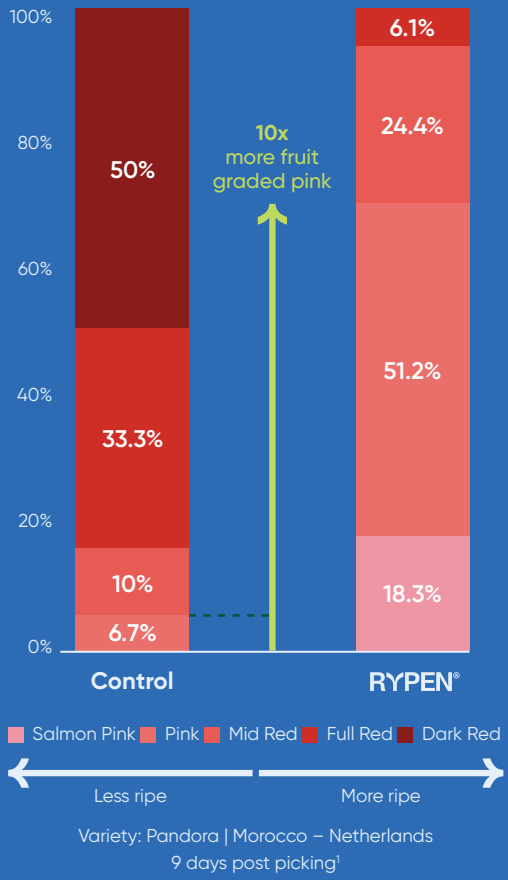
The RYPEN® Pad is designed to integrate directly into existing retail packing operations.

Gently slow raspberry & fresh berry ripening - pick later for heavier & more developed fruit, leading to lower labour costs, increased marketable yield & better tasting fruit, without increasing waste



- Faster picking = lower labour cost per punnet
- Heavier fruit = more marketable yield per hectare
- Less damage, better condition, fewer deductions throughout the supply chain
- Longer shelf-life, less waste
- Riper fruit = a better eating experience & increased repeat purchasing

Raspberry colour grading distribution

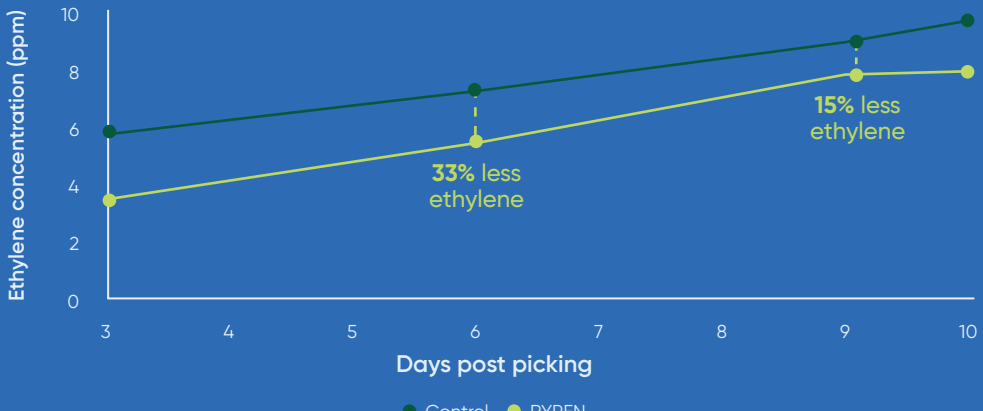


Variety: Pandora | Morocco – Netherlands
9 days post picking[1]

[1] Morocco - Netherlands | 2024 | Transported by lorry for 5 days, followed by 4 days of storage under retail conditions | RYPEN samples were packed in retail punnets with RYPEN Pads | Control samples were also packed in retail punnets but with standard pads

RYPEN® lowers in-pack ethylene concentration levels

This approach naturally slows ripening, thereby extending shelf-life.



Variety: HHP01 | United Kingdom | Days 3-10 post picking[2]

With RYPEN®, raspberries maintain their natural, early-harvest colour for longer — arriving at retail in peak condition

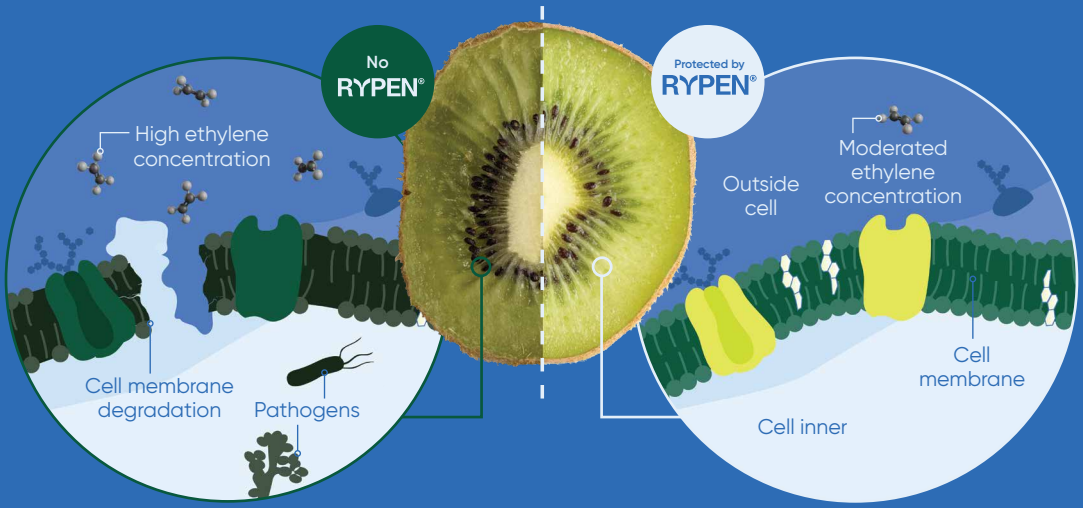
Indicative of metabolically younger fruit.

Variety: Adelita® | Mexico - USA (California) | 6 days post picking[3]

[2] United Kingdom | 2024 | Stored & transited for 3 days, followed by 7 days of storage under retail conditions | RYPEN samples were packed in retail punnets with Modified Atmosphere Packaging (MAP) & RYPEN Pad | Control samples identically packed but with standard pad. | [3] Mexico - USA (California) | 2024 | Transported by lorry for 2 days, followed by 4 days of storage under retail conditions | RYPEN samples were packed in retail punnets with RYPEN Pads | Control samples were packed identically but with standard pads.

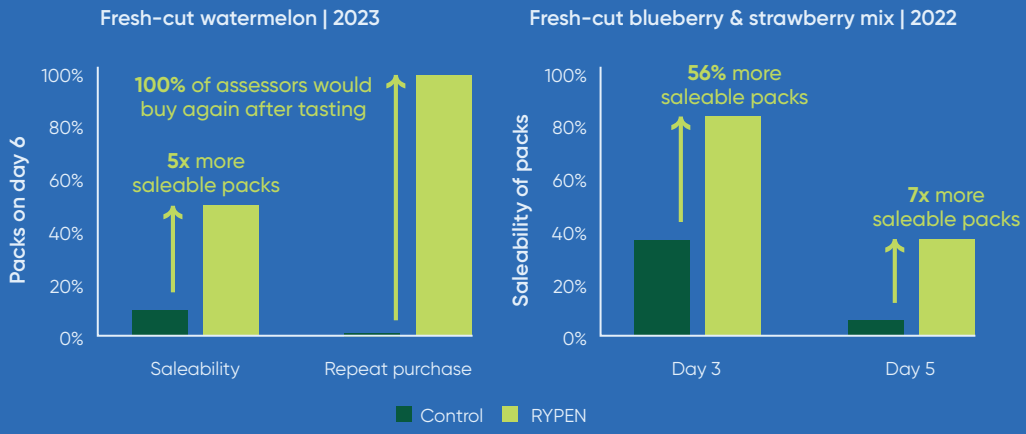
Fresh-cut fruit & ethylene

Wound ethylene—the release of which is triggered by a 'wounding' event (i.e., cutting of the fruit)—which can quickly have a negative impact on quality. This wound ethylene can lead to rapid degradation, excess moisture (juice) loss and increased risk of microbial infection[4]



Fresh-cut fruit with extended freshness & appearance

Resulting in improved on-shelf appeal & repeat purchasing[5]



[4] Nieuwenhuizen, N.J., Chen, X., Pellan, M. et al. Regulation of wound ethylene biosynthesis by NAC transcription factors in kiwifruit. BMC Plant Biol 21, 411 (2021) |
[5] USA | Independent trials conducted by The Dawson Company | 2022 & 2023 | Retail shelf-life trial at 6°C | RYPEN samples packed in retail punnets with RYPEN Pad | Control samples packed in retail punnets with no pad.