

RETARDER+

Reduces rachis browning by up to 29% and protects the rachis and berries throughout the supply chain.

TECHNICAL DATA SHEET



RETARDER®
Smart Solutions for Fruit Trading



WHAT IS RETARDER+

Retarder+ is an **active packaging solution** specifically developed to **preserve the quality** of table grapes throughout every stage of the **post-harvest** supply chain.

Thanks to its **controlled-release technology**, Retarder+ helps **slow down the physiological processes** responsible for fruit quality deterioration, helping maintain **freshness, firmness** and **commercial value** for longer.

Applied directly inside the package, the system works **gradually** and **continuously**, supporting grape preservation during storage, transport and retail display.

Retarder+ can be easily integrated into existing packing processes and is **compatible with the main packaging solutions** used in the table grape industry.

The benefits:

- A **fresher**, more **stable** product helps reduce claims, waste and product downgrading, improving overall economic returns;
- **Easy to apply** within standard packing processes, without requiring significant modifications to the production line;
- Helps **reduce rachis browning**, maintaining a **fresher** appearance and **higher overall quality** even after extended storage periods;
- Helps **limit berry dehydration**, preserving **firmness, turgidity** and the product's marketable **weight**;
- Helps **reduce berry shattering** from the rachis during transport and handling;
- Maintains the **visual** and **commercial quality** of table grapes for longer throughout the supply chain.

How it works:

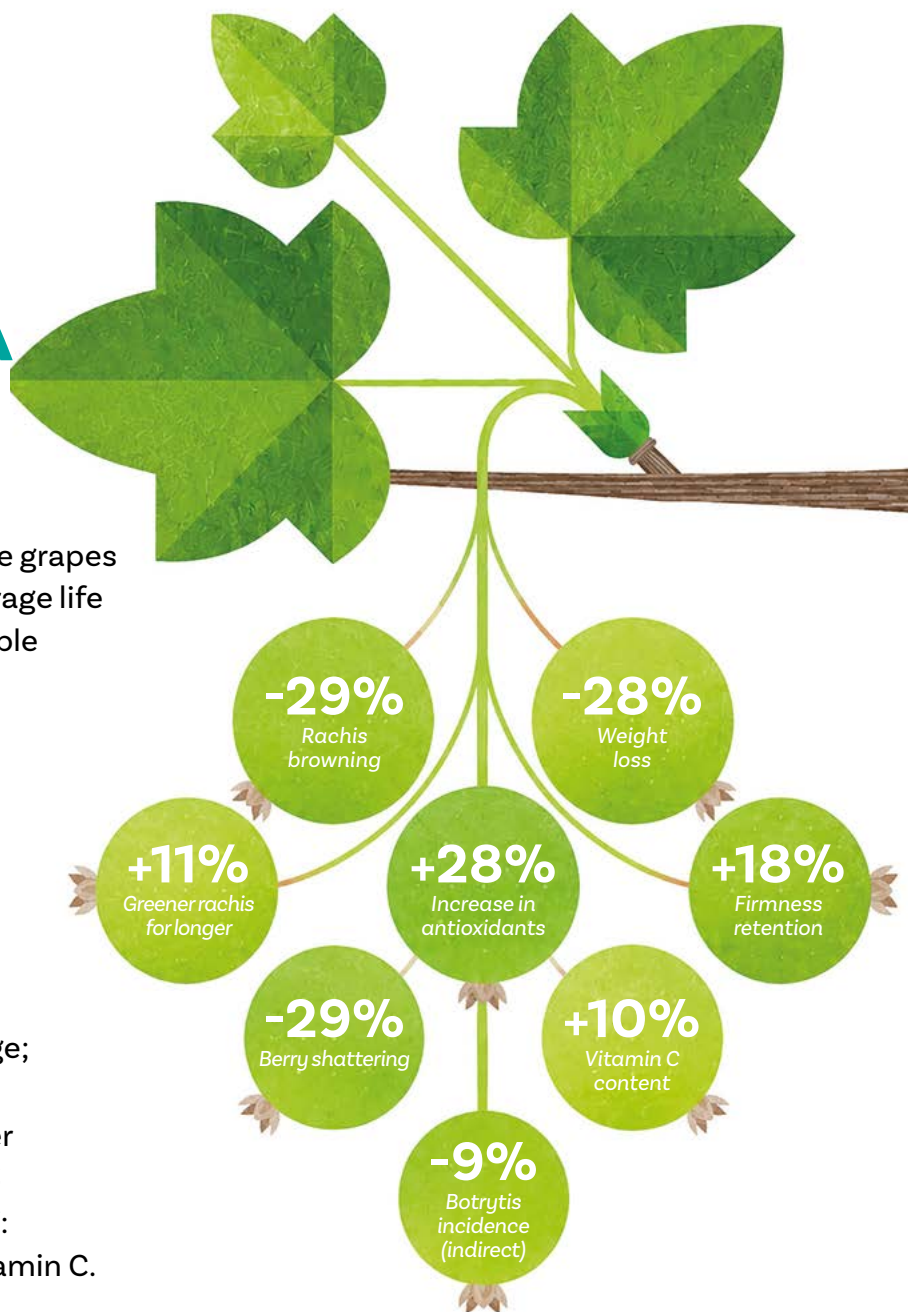
1. Ethylene accelerates the ripening and deterioration processes of the grape bunch;
2. **Retarder+** helps slow down the physiological processes responsible for quality deterioration;
3. The grape bunch maintains its freshness, firmness and commercial value for longer.



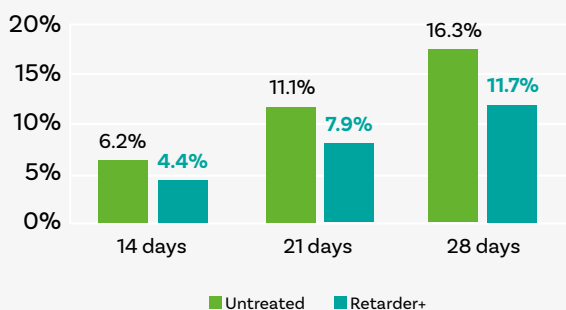
TECHNICAL DATA that make a difference

The results of trials conducted on table grapes show that Retarder+ helps extend storage life by reducing the main factors responsible for loss of commercial value.

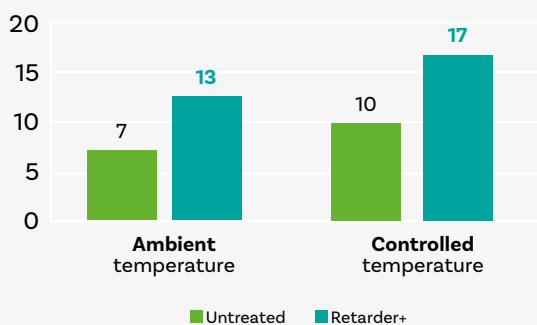
- **GREENER RACHIS:**
up to 29% reduction in browning;
- **REDUCED WEIGHT LOSS:**
up to 28% less;
- **LESS BERRY SHATTERING:**
reduction of up to 29%;
- **EXTENDED SHELF LIFE:**
up to 10-14 additional days of storage;
- **HIGHER COMMERCIAL YIELD:**
better quality, less waste and greater value all the way to the point of sale;
- **PRESERVED NUTRITIONAL QUALITY:**
higher levels of antioxidants and vitamin C.



WEIGHT LOSS (%)



COMMERCIAL SHELF LIFE (additional days)



Average results obtained from trials on different table grape varieties.
Values may vary depending on variety and storage conditions.

REAL VALUE ACROSS THE SUPPLY CHAIN

Higher quality at every stage of the supply chain

Retarder+ helps reduce quality deterioration in table grapes from post-harvest handling through to the point of sale, improving commercial yield, shelf life and customer satisfaction.



FOR GROWERS

Retarder+ helps preserve the value of the crop immediately after harvest by reducing quality losses and maintaining a fresher, more marketable appearance.

- reduced post-harvest deterioration;
- greener rachis;
- improved perceived quality;
- greater product value.



FOR PACKERS AND EXPORTERS

During transport and storage, **Retarder+** helps maintain bunch stability and quality, reducing quality claims and complaints.

- reduced weight loss;
- reduced berry shattering;
- improved stability during handling and transport;
- greater consistency in product quality.



FOR RETAILERS AND DISTRIBUTORS

A **longer shelf life** means less waste, better shelf presentation and greater end-consumer satisfaction.

- less waste;
- longer shelf life;
- improved visual appeal;
- reduced markdowns.

Harvest • Packing • Transport • Retail

Consistent quality at every stage of the supply chain.



PRACTICAL APPLICATION, CONTINUOUS PROTECTION

Retarder+ is designed to integrate easily into standard table grape packing processes, without requiring significant modifications to production lines. Applied directly inside the package, it helps **maintain quality** and **freshness** from harvest through to retail.

Retarder+ is applied directly **inside the package** during standard packing operations. The system works gradually and continuously throughout the supply chain, helping preserve the commercial quality of the grape bunch for longer.



Compatibility:

Packaging:

Retarder+ can be integrated into different packaging configurations commonly used in the table grape industry: **Clamshell • Flow-pack • Sealed trays • Liner bags • Export cartons • MAP packaging**

Supply chain:

Retarder+ can be used in combination with: **cold storage • controlled atmosphere MAP • refrigerated export systems • standard logistics processes within the fresh produce supply chain**

Intended use:

Retarder+ is designed for use in the **post-harvest handling of fresh produce** and supports quality management during storage and transport

RETARDER[®]

Smart Solutions for Fruit Trading



Packaging and technologies to extend the shelf life of fruit and vegetables

Retarder is an Italian company based in Verzuolo, in the province of Cuneo, specializing in solutions for the **storage, packaging** and **quality control of fresh produce**. For over a decade, the company has supported growers, storage facilities, packers and supply chain operators with technologies, products and expertise designed to extend the shelf life of fruit and vegetables.

The company offers a comprehensive range of solutions combining **post-harvest preservation, professional packaging, data loggers, machinery** and **technical equipment**, with the aim of protecting produce, reducing waste and improving efficiency throughout the supply chain.

Through a network of agents and technical specialists across the region, **Retarder works closely with its customers**, turning real-world needs and operational feedback into **practical, advanced and tailor-made solutions**.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. In the bottom left corner, there is a faint, light gray watermark or logo consisting of a stylized circular shape with a vertical line through it.

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