

# ParaSeal®

WeSpeakBananas™

**Commercial & Scientific Analysis**

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The Moment of Truth Happens Here

El momento de la verdad sucede aqui

## **Impact of Crown Protection on Banana Quality and Retail Performance**

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**2026**

# ParaSeal®

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# ParaSeal®

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*As of 2025, more than 56 million boxes of organic bananas are transported annually using ParaSeal® as their crown protection solution, reflecting the industry's need for targeted quality preservation at critical control points.*

*Looking ahead, by 2026, organic bananas are expected to represent approximately 10% of the total banana export volume from Latin America to key global markets. Notably, bananas account for the largest share within the organic fruit category, highlighting both their strategic importance and the increasing demand for sustainable production.*

*This trend reinforces the need for effective, non-chemical solutions to preserve quality throughout the supply chain.*



“Quality is not a cost. It is a growth strategy.”

**In fresh produce retail**, quality is not created at the shelf—it is preserved across the supply chain. **Bananas**, as one of the most visible and frequently purchased products, play a disproportionate role in shaping consumer perception. **In seconds**, customers **evaluate freshness, quality, and trust**—often based on subtle visual clues, particularly at the crown level.

Despite its importance, the banana crown remains one of the most vulnerable points in the product lifecycle. As a biological wound created during the de-handing process, it is highly susceptible to dehydration and fungal development, which directly impact **shelf life, visual appeal, and ultimately, sales performance**.

At the same time, **the industry is undergoing a structural shift** toward more *sustainable and organic production systems*, where **traditional post-harvest** treatments are **limited**. This creates a critical gap between retail expectations for consistent quality and the tools available at origin to deliver it.

This whitepaper explores how a simple yet scientifically grounded intervention—crown protection technology (**ParaSeal®**)—**can bridge this gap**.

By creating a controlled micro-environment at the crown level, **it is possible to reduce deterioration, preserve freshness, and improve retail performance**.

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**Banana production** is one of the most complex and tightly controlled systems within the fresh produce industry.

From harvest to retail, **bananas move through extended global supply chains** that demand strict coordination of temperature, handling, and timing. **Small deviations** at any stage **can accelerate physiological deterioration and directly impact final quality**.

At the same time, the industry is undergoing a **structural shift toward more sustainable and organic production models**. As highlighted in industry research, including the work of Frans Wielemaker, these systems operate under **stricter limitations in post-harvest** intervention due to reduced reliance on synthetic inputs.

As a result, **maintaining consistent quality has become increasingly challenging**—particularly over long transit distances and variable logistics conditions.

This challenge is not theoretical—**it is operational at scale**.

**As of 2025, more than 56 million boxes of organic bananas are transported annually using ParaSeal® as their crown protection solution, reflecting the industry's need for targeted quality preservation at critical control points.** Looking ahead, by 2026, **organic bananas** are expected to represent approximately 10% of the total banana export volume from Latin America to key global markets. Notably, **bananas account for the largest share within the organic fruit category**, highlighting both their strategic importance and the increasing demand for sustainable production. This trend reinforces **the need for effective, non-chemical solutions to preserve quality throughout the supply chain**.

In this context, **quality is not a static attribute**—it is a dynamic outcome of how effectively the product is preserved across the entire supply chain.



**In fresh produce retail**, quality deterioration is one of the most underestimated drivers of lost revenue. While pricing and promotions often dominate decision-making, consumer **research consistently shows that quality is the primary factor** influencing satisfaction and repeat ***purchase behavior***, significantly outweighing price considerations.

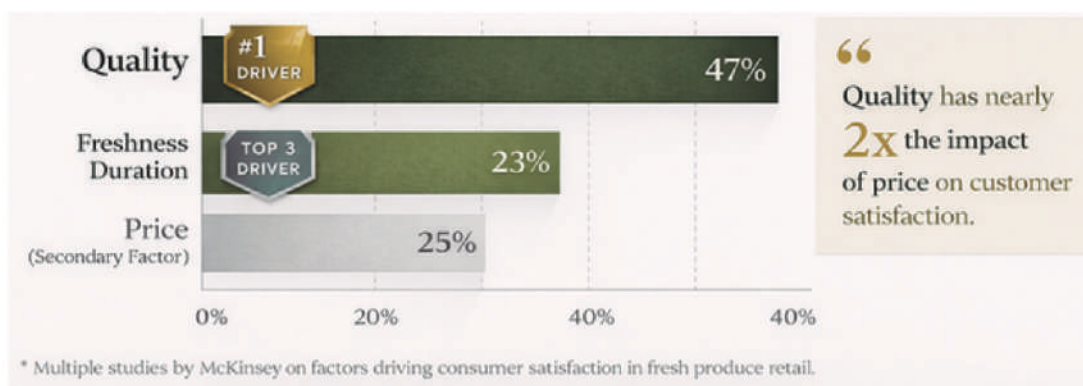
According to McKinsey, ***improving quality in fresh categories*** can **increase sales** by more than **10%**, even in mature or low-growth markets. At the same time, products that “stay fresh longer” rank among the top drivers of customer loyalty and store preference. Bananas, due to their high turnover and visibility, are particularly exposed to the consequences of quality loss. At retail level, ***shrink rates typically range between 5% and 15%***, with a significant portion driven by visual deterioration, dehydration, and crown damage.

More importantly, the impact of quality loss extends beyond waste.

Poor banana quality directly affects:

- Customer perception of freshness
- Purchase conversion rates
- Basket size and cross-category sales
- Overall store trust

***This creates a compounding effect: a single low-quality product can influence how customers perceive the entire produce section —and, in many cases, the store as a whole.***





In **fresh produce retail**, not all products have the same impact on customer perception. **Certain items**—known as **Key Quality Items (KQIs)**—**play a disproportionate role** in shaping how consumers evaluate overall store quality.

A KQI is defined as a product that combines:

- High purchase frequency
- High visibility at the point of sale
- Strong influence on perceived freshness and trust

*“Bananas are not just a product—  
they are a perception benchmark.”*

According to McKinsey, a limited number of products—**particularly bananas**, apples, and tomatoes—**act as primary indicators of quality** in fresh categories. Among them, bananas consistently rank as one of the top 1-2 drivers of customer perception across markets.

This is driven by three key factors:

- Ubiquity - Bananas are present in nearly every shopping trip
- Visual simplicity - Defects are immediately noticeable
- Speed of evaluation - **Consumers assess quality in seconds**

Because of this, **bananas act as a “quality signal”** for the entire store. Customers often use them—**consciously or unconsciously**—as a **reference** point to judge **freshness, handling, and overall product standards**.

This creates a powerful dynamic:

**High-quality bananas → reinforce trust and increase purchase likelihood**

**Low-quality bananas → undermine confidence and reduce conversion**

In this context, **improving banana quality does not only impact a single category—it influences store perception, customer satisfaction, and total basket performance.**

'Key quality items' differ across countries.

### Top 5 fruits by importance of quality for retailer in the summer season<sup>1</sup>

France	Germany	Switzerland	United Kingdom
1. Bananas 0.78	1. Bananas 0.91	1. Bananas 0.87	1. Apples 0.93
2. Peaches 0.74	2. Apples 0.86	2. Nectarines 0.81	2. Bananas 0.81
3. Nectarines 0.72	3. Strawberries 0.84	3. Peaches 0.71	3. Grapes 0.62
4. Strawberries 0.69	4. Nectarines 0.65	4. Apples 0.68	4. Strawberries 0.52
5. Apples 0.68	5. Kiwis 0.65	5. Pears 0.64	5. Raspberries 0.46

### Top 5 vegetables by importance of quality for retailer in the summer season<sup>1</sup>

France	Germany	Switzerland	United Kingdom
1. Courgettes <sup>2</sup> 0.76	1. Tomatoes 0.79	1. Lettuce 0.96	1. Potatoes 1.00
2. Lettuce 0.67	2. Lettuce 0.74	2. Tomatoes 0.87	2. Tomatoes 0.70
3. Tomatoes 0.66	3. Peppers 0.67	3. Courgettes 0.80	3. Mushrooms 0.67
4. Peppers 0.56	4. Fresh herbs 0.66	4. Peppers 0.71	4. Lettuce 0.60
5. Cucumbers 0.49	5. Cucumbers 0.64	5. Potatoes 0.63	5. Cucumbers 0.58

<sup>1</sup> Average of the normalized correlation of the perceived product quality with the perceived quality of fruit-and-vegetable department and a normalized share of customers buying the product.

<sup>2</sup> Zucchini.

Source: McKinsey's European Retail Benchmark on Fresh Quality, July 2017



## Quality drive measurable retail performance

### Retail KPI

**Shrink**

**Freshness Score**

**Customer Satisfaction**

**Sales per sqm**

**Loyalty**

### ParaSeal Impact

**Reduced Waste**

**Improved shelf appearance**

**Better purchase experience**

**Higher rotation, more sales**

**More repeat**

**One of the most critical**—and often underestimated—drivers of **banana quality loss is crown deterioration.**

**The banana crown**, formed during the cutting and de-handing process, is essentially a natural biological wound. This exposed tissue becomes highly vulnerable to dehydration, oxidation, and microbial contamination from the moment it is created.

Throughout the supply chain, this vulnerability is amplified by:

- Temperature fluctuations
- High humidity environments
- Mechanical handling
- Extended transit times

*“The crown is the first point of failure—  
and the first opportunity for control.”*

These conditions create **an ideal environment for fungal development**, particularly from pathogens such as **Colletotrichum and Fusarium**, which are commonly **associated** with **crown rot, and other diseases.**

At retail level, the consequences become visible:

- **Browning and tissue breakdown**
- **Mold development at the crown**
- **Fruit detachment within clusters**
- **Loss of visual freshness**

Importantly, **crown deterioration is not just a cosmetic issue**—it is a **primary trigger of shrink and consumer rejection.** Even when the fruit itself remains edible, visible damage at the crown significantly **reduces purchase** intent.

This makes the crown a critical control point in the banana value chain—where **small improvements can generate significant gains in quality preservation and retail performance.**





**While organic banana** production has advanced significantly, **post-harvest protection remains structurally limited**—particularly at the crown level.

Organic systems **operate under strict constraints** that **restrict the use of conventional** post-harvest treatments. The **absence of synthetic fungicides** places greater reliance on alternative methods such as natural extracts, sanitation protocols, and controlled environments.

However, these approaches present inherent limitations:

- **Indirect mode of action**
  - Most solutions aim to reduce overall microbial load or slow deterioration at a system level, but do not directly protect the exposed crown surface, where infection typically initiates.
- **Short-lived effectiveness**
  - Natural and biological treatments tend to have limited persistence, particularly under long transit times and fluctuating logistics conditions.
- **Operational sensitivity**
  - Their success depends heavily on consistent execution across multiple handling stages, making outcomes vulnerable to variability in real-world supply chains.
- **Incomplete coverage of the crown micro-environment**
  - As described in post-harvest research, **the crown behaves as a localized biological interface**—one that is not effectively stabilized by broad environmental controls alone.

This results in a recurring industry challenge:

**Even when best practices are applied, crown deterioration remains a leading cause of variability and quality loss at retail.**

The gap is therefore not a lack of effort—but a lack of targeted protection at the exact point where deterioration begins.



In a supply chain where quality loss begins at a precise and vulnerable point—the crown—**effective protection requires a targeted solution.**

**ParaSeal® is a crown protection technology** specifically designed by **Banana experts** to address this critical point of exposure.

Applied directly at the crown immediately after de-handing, ParaSeal® **creates a localized protective barrier that transforms an exposed biological surface into a controlled micro-environment.**

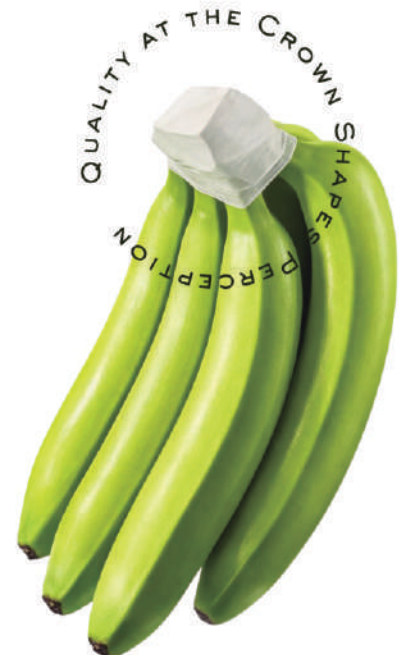
This enables:

- Reduced oxygen exposure at the crown
- Lower risk of fungal development
- Preservation of tissue hydration
- Stabilization of visual quality throughout transit

Unlike system-level approaches, ParaSeal® acts exactly where deterioration begins, providing **consistent protection** regardless of external variability in handling or logistics.

**Its effectiveness is not theoretical— it is proven in real-world operations.**

***More than 56 million boxes of organic bananas have been protected with ParaSeal® annually across global supply chains.***





# ParaSeal®

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*At retail, the impact becomes visible:*

- *Cleaner, fresher crowns*
- *Improved visual appeal*
- *Reduced shrink*
- *Higher purchase confidence*

*ParaSeal® bridges the gap between organic production constraints and retail quality expectations—delivering a simple, scalable, and effective solution at the point that matters most.*

*Using ParaSeal® as an alternative to pesticides provides benefits across the entire value chain.*

*For packinghouse personnel, it reduces exposure to chemical treatments, improving safety and working conditions. From an environmental perspective, it supports more sustainable practices by minimizing chemical use.*

*For consumers, it aligns with the growing demand for cleaner, safer food with lower pesticide residues—enhancing trust and perceived quality.*



### STORE

Supermarket: **Publix**

Location: 8145 Vineland, Orlando, FL  
USA

Date: March 2026

Brand: Chiquita Bananas

Origin: Ecuador

### PRODUCT CONDITION ASSESSMENT

(0 - 5) 0 None, 1 low quality index.

- Crown condition: 5
- Visual freshness: 4.5
- Presence of mold: 0
- Fruit detachment: 0
- Overall appearance: 4.8

### OBSERVATIONS

Bananas **with ParaSeal®** showed clear advantage in **crown integrity and visual freshness.**

Bananas without protection showed signs of dehydration / browning & a few mold.

We would like to **highlight the exceptional work observed at this location. A produce associate was actively restocking and handling the bananas with remarkable care and precision**—comparable to practices typically seen at packing facilities in origin.

The produce manager also engaged with us and explained that this item receives a dedicated “quality check” due to its high turnover and strong profitability.

This level of attention to detail **reflects best-in-class retail execution.** We commend both team members for their outstanding performance and commitment to maintaining **high-quality standards in the produce department.**



**STORE**

Supermarket: **BJ's Wholesale Club**  
 Location: 4697 Mil Plaza Way, Orlando, FL, USA  
 Date: March 2026  
 Brand: Del Monte  
 Origin: Ecuador

**PRODUCT CONDITION ASSESSMENT**

(0 - 5) 0 None, 1 low quality index.

- Crown condition: 5
- Visual freshness: 5
- Presence of mold: 0
- Fruit detachment: 0
- Overall appearance: 5

**OBSERVATIONS**

At this BJ's location, **Del Monte organic bananas were observed in excellent condition**, predominantly at a green maturity stage—likely aligned with retailer strategy to meet targeted consumer preferences for **longer shelf life**.

The fruit showed *strong overall quality, with no visible mold or crown deterioration*. Crown protection appeared properly applied, maintaining integrity and reducing exposure to dehydration or contamination. The clusters were **uniform, clean, and well-presented**.

From a retail perspective, the display generated a **strong halo effect: the overall appearance was fresh**, vibrant, and consistent, reinforcing a perception of quality across the **entire produce section**. This visual impact creates an inviting shopping experience and positively influences purchase intent, particularly within the organic segment.



### STORE

Supermarket: **Target**

Location: 746 Northwest, San Antonio, TX, USA

Date: March 2026

Brand: Dole (With Parafilm) & Good & Gather (with ParaSeal)

Origin: Colombia

### PRODUCT CONDITION ASSESSMENT

(0 - 5) 0 None, 1 low quality index.

Dole / Good & Gather

- Crown condition: 3 / 5
- Visual freshness: 3 / 4.5
- Presence of mold: Few / None
- Fruit detachment: Several / None
- Overall appearance: 3 / 4.5

### OBSERVATIONS

Two brands were observed, both sourced from Colombia: Dole (using parafilm) and Good & Gather (using ParaSeal®).

**Bananas protected with ParaSeal® showed healthier crowns, more consistent quality, and proper film application—securely covering and protecting the crown as intended.**

In contrast, *bananas using parafilm exhibited performance issues: the film was frequently broken or partially detached, with poor adhesion to the crown.* As a result, crown protection was compromised, leading to lower visual quality. Overall, the Dole bananas appeared less attractive to customers at the point of sale.

SOLD  
**OUT**

At this store, only one cluster of organic bananas remained at the time of observation. Upon inquiry, store staff confirmed that the last batch had already been brought out from the cold room.

Staff also indicated that, despite daily replenishment, the organic banana shelf typically experiences rapid turnover.



**STORE**

Supermarket: **Publix**

Location: 5265 S John Young Pkwy, Orlando,  
32839-5025, FL, US

Date: March 2026

Brand: Chiquita Bananas

Origin: Ecuador

**PRODUCT CONDITION ASSESSMENT**

(0 - 5) 0 None, 1 low quality index.

- Crown condition: 4
- Visual freshness: 3.5
- Presence of mold: 0
- Fruit detachment: 0
- Overall appearance: 4

**OBSERVATIONS**

Bananas show acceptable overall ripeness, with some visible browning and deterioration along the peel.

However, the crown remains fresh and turgid. Despite being the last cluster on the shelf, the product still presents an acceptable overall quality balance.

**Potential retail impact:**

- Higher sales per sqm
- Higher shelf appeal
- Improved purchase likelihood



### STORE

Supermarket: **Target**

Location: 4750 Millenia Plaza Way, Orlando FL

Date: March 2026

Brand: Good & Gather

Origin: Colombia

### PRODUCT CONDITION ASSESSMENT

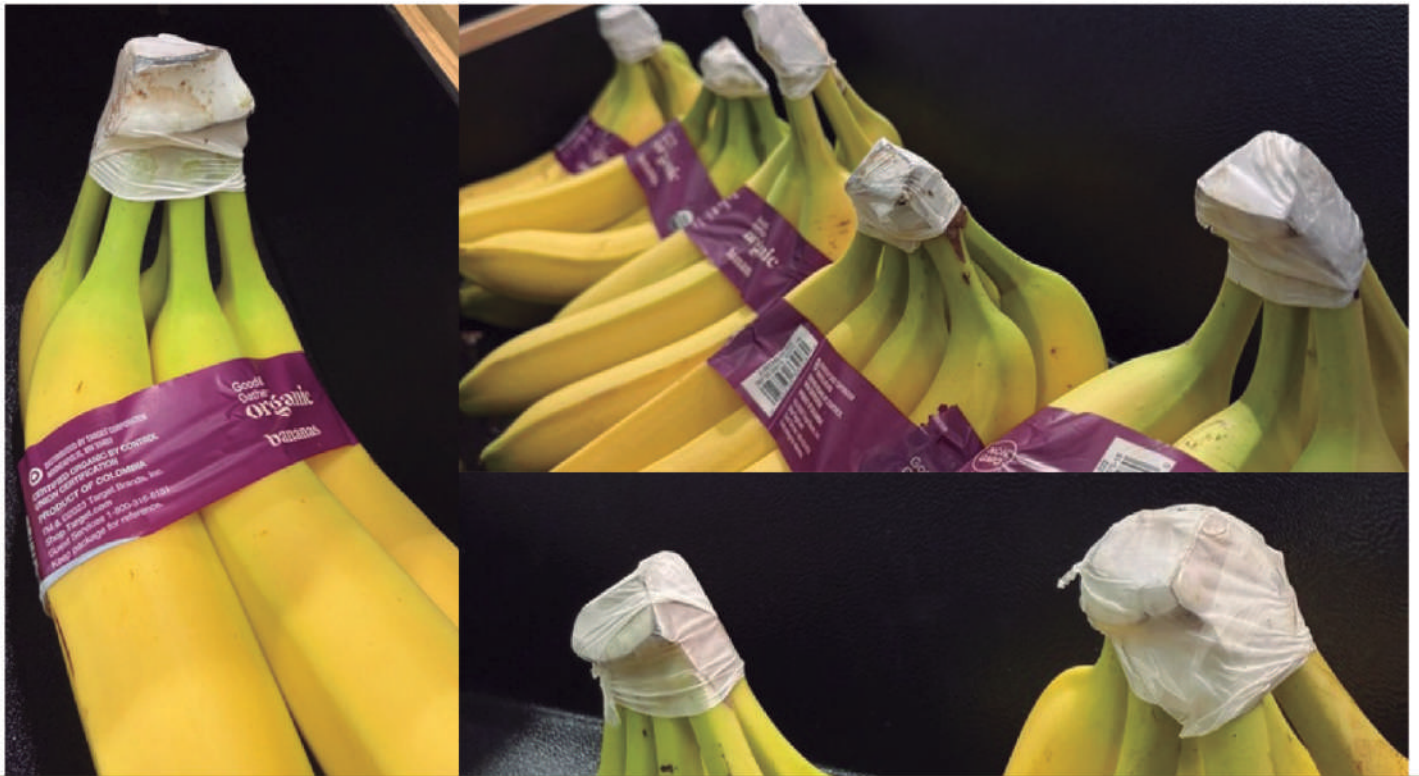
(0 - 5) 0 None, 1 low quality index.

- Crown condition: 5
- Visual freshness: 4.5
- Presence of mold: None
- Fruit detachment: None
- Overall appearance: 4.8

### OBSERVATIONS

Good & Gather bananas from Colombia, protected with ParaSeal®, were observed with excellent film application and overall presentation. The crowns appeared well protected, with no visible disorders, and the fruit showed consistent, high-quality appearance—suggesting strong product rotation.

Store personnel indicated that these mobile displays are strategically placed at main entrances and checkout areas to introduce customers to the fresh produce section and drive engagement with the category.



### STORE

Supermarket: **Target**

Location: 11619 Daryl Carter, Orlando FL

Date: March 2026

Brand: Good & Gather

Origin: Colombia

### PRODUCT CONDITION ASSESSMENT

(0 - 5) 0 None, 1 low quality index.

- Crown condition: 5
- Visual freshness: 4
- Presence of mold: 0
- Fruit detachment: 0
- Overall appearance: 4.5

### OBSERVATIONS

Bananas with ParaSeal® showed clear advantage in crown integrity and visual freshness.

Bananas without protection showed signs of dehydration / browning & a few mold.

### Potential retail impact:

- Lower shrink risk
- Higher shelf appeal
- Improved purchase likelihood



### STORE

Supermarket: **Walmart**

Location: 8101 S John Young Pkwy,  
Orlando, FL

Date: March 2026

Brand: MARKETSIDE

Origin: (X) Ecuador with Parafilm /  
(Y) Dominican Republic with ParaSeal

### PRODUCT CONDITION ASSESSMENT

(0 - 5) 0 None, 1 low quality index.

X / Y

- Crown condition: 2 / 5
- Visual freshness: 3 / 4.5
- Presence of mold: Several / None
- Fruit detachment: Several / None
- Overall appearance: 3 / 4.5

### OBSERVATIONS

At this Walmart location, the Marketside brand was observed with two origins: Ecuador (using parafilm) and the Dominican Republic (using ParaSeal®).

A clear difference in crown condition and overall presentation was evident. **Bananas protected with ParaSeal® showed well-covered, intact crowns, with a cleaner and more uniform appearance.** In contrast, the bananas using *parafilm* exhibited exposed crowns, with the film frequently loose or insufficiently adhered, resulting in limited protection.

This lack of effective coverage increased the risk of dehydration and visible deterioration at the crown level, negatively impacting visual quality.

Overall, the ParaSeal®-protected bananas demonstrated superior performance and greater shelf appeal.



### STORE

Supermarket: **Walmart**

Location: Jones Maltsberg RD, SAT, TX,  
USA

Date: March 2026

Brand: Walmart Organic

Origin: Mexico - Coliman

### PRODUCT CONDITION ASSESSMENT

(0 - 5) 0 None, 1 low quality index.

- Crown condition: 1.5
- Visual freshness: 2
- Presence of mold: 0
- Fruit detachment: 0
- Overall appearance: 1.8

### OBSERVATIONS

At this Walmart location, only organic bananas from Mexico were observed, with **no use of ParaSeal® or equivalent crown protection.**

The crowns showed clear signs of deterioration, including **visible damage, dehydration, and mold presence.** In several cases, the tissue appeared significantly degraded, accompanied by a strong off-odor consistent with advanced crown rot.

This level of deterioration suggests that a *considerable portion of the product is at high risk of being unsellable, likely leading to increased shrink and in-store waste.* The compromised crown condition also negatively impacts visual quality and consumer perception, reducing purchase intent at the point of sale.



**STORE**

Supermarket: **H E B**

Location: E Basse Rd 150, SAT, Texas, USA

Date: March 2026

Brand: (X) Dole with ParaSeal & (Y) Robinson’s (No Protection)

Origin: Colombia (with ParaSeal) & México (No protection)

**PRODUCT CONDITION ASSESSMENT**

(0 - 5) 0 None, 1 low quality index.

- |                       |                |
|-----------------------|----------------|
|                       | X / Y          |
| • Crown condition:    | 4 / 2          |
| • Visual freshness:   | 4 / 1.5        |
| • Presence of mold:   | None / Several |
| • Fruit detachment:   | None / Several |
| • Overall appearance: | 4 / 2          |

**OBSERVATIONS**

At this store, two origins were observed under the Dole brand: Colombia (protected with ParaSeal®) and Mexico (without crown protection).

A clear contrast in quality was evident. ***Bananas from Mexico, without protection, showed visible mold development and early stages of crown rot, indicating active deterioration.*** In contrast, the ***ParaSeal®-protected fruit from Colombia maintained a cleaner, more stable crown condition with no visible disorders.*** Notably, despite Texas’ geographic proximity to Mexico, the unprotected fruit exhibited significant damage, highlighting that ***transit distance alone does not guarantee quality preservation without effective crown protection.***

From a retail perspective, *the deteriorated crown condition negatively impacts visual appeal and consumer confidence, directly influencing purchase decisions. This reinforces the halo effect, where poor crown quality in a single item can diminish the perceived freshness of the entire display—ultimately affecting sales performance.*



**STORE**

Supermarket:

**WHOLE FOODS MARKET**

Location: 255 E Basse Rd Suite  
130, San Antonio, Texas, USA

Date: March 2026

Brand: Whole Foods Market  
(No protection)

Origin: México

**PRODUCT CONDITION**

**ASSESSMENT**

(0 - 5) 0 None, 1 low quality index.

- Crown condition: 1
- Visual freshness: 2
- Presence of mold: High
- Fruit detachment: Several
- Overall appearance: 1.5

**OBSERVATIONS**

At this location, the organic bananas observed—sourced from Mexico and ***without any form of crown protection—presented the most severe quality deterioration among all stores evaluated.***

The fruit exhibited **advanced crown damage, with visible mold and fungal development already progressing into the fruit tissue.** This condition not only compromises product integrity but also accelerates further deterioration. From a post-harvest perspective, fungal activity generates volatile organic compounds (VOCs) that can stimulate ethylene production, potentially accelerating ripening and **facilitating the spread of decay across adjacent fruit on the display.**

This creates a compounding effect at shelf level:

- Increased risk of cross-contamination
- Accelerated ripening and quality loss
- Higher probability of unsellable product
- Elevated shrink and waste



**In fresh produce retail, improving *quality is one of the most effective levers to drive growth*—and one of the most underestimated.**

According to McKinsey, **quality outweighs price as the primary driver** of consumer preference in fruits and vegetables. Within this context, bananas consistently rank as a Top 1–2 Key Quality Item (KQI) across major European markets, acting as a visible benchmark for freshness and overall store standards.

This creates a powerful dynamic:

**Banana quality does not only impact banana sales—it defines how shoppers perceive the entire fresh produce department.**

As a result, improving banana quality generates a **measurable halo effect**, influencing:

- Customer perception of freshness across categories
- Trust in product handling and sourcing
- Purchase conversion and basket size
- Overall store preference and loyalty

McKinsey findings further indicate that improving a limited number of key items (fewer than 10 KQIs) can **increase fresh produce sales by more than 10% annually**, even in mature or low-growth markets.

ParaSeal® directly impacts the core attributes that define banana quality from a consumer perspective:

- **Post-purchase freshness**
- **Visual appearance at shelf**
- **Shelf life and sellable days**
- **Consistency across batches**

*By protecting the crown—the primary point of deterioration—ParaSeal® stabilizes these attributes and reduces variability at the shelf level.*



### **1. Quality is a Growth Lever, Not a Cost Center**

Retailers that prioritize quality—particularly in high-impact items like bananas—can unlock measurable growth. Improving a small number of KQIs can drive disproportionate gains in sales, customer satisfaction, and loyalty.

### **2. The Halo Effect is Real—and Actionable**

Banana quality directly shapes the perception of the entire fresh produce department. Investing in visible freshness at the crown level enhances the overall image of the store and increases purchase confidence across categories.

### **3. Consistency Drives Trust**

Shoppers do not evaluate quality once—they evaluate it repeatedly. Reducing variability in banana condition across stores and over time is critical to building long-term customer trust and brand reliability.

### **4. Control the Point of Failure**

Most quality loss originates at specific, predictable points—such as the banana crown. Strategic advantage comes from controlling these points directly, rather than relying solely on system-wide conditions.

### **5. Shift from Reactive to Preventive Quality Management**

Traditional approaches focus on managing defects once they appear. Leading retailers are shifting toward preventive strategies that stabilize product quality before deterioration becomes visible.

### **6. Redefine Supplier Specifications**

Retailers have the opportunity to elevate standards by incorporating crown protection into their sourcing requirements. This transforms quality from a variable outcome into a controlled input.

***Banana quality is not a minor operational detail—it is a strategic driver of retail performance.***

As demonstrated throughout this study, **bananas function as a Key Quality Item (KQI) that shapes customer perception, influences purchase decisions, and impacts the overall image of the fresh produce department.**

The evidence is consistent:

- Quality drives customer preference more
  - than price
- Visual freshness directly affects conversion
- Variability in product condition reduces
  - trust and loyalty
- A limited number of key items can
  - significantly impact total category
  - performance



**At the center of this dynamic lies a critical factor: the banana crown.**

As the primary point of deterioration, the crown determines not only product shelf life, but also how quality is perceived at the point of sale. When left unprotected, it becomes a recurring source of variability, shrink, and consumer rejection.

Current organic post-harvest systems, while essential, are not sufficient to control this specific point of failure.

**This is where ParaSeal® creates measurable value.**

By providing targeted protection at the crown level, ParaSeal® transforms a vulnerable biological interface into a controlled micro-environment—stabilizing quality, reducing deterioration, and improving consistency across the supply chain.

# ParaSeal®

WeSpeakBananas™

## ***Quality Is Not a Detail— It Is Your Competitive Advantage***

### ***The Halo Effect Starts at the Crown.***

- ***Bananas are your #1 Quality Signal (KQI)***
- ***Crown condition defines purchase perception***
- ***Small improvements drive >10% category impact***
- ***Consistency builds trust—and trust drives sales***

***Evidence collected across more than 14 supermarkets in the United States (TEXAS: Target, Walmart, WholeFoods, HEB) (FLORIDA: Target, Walmart, Aldi, BJ's, Publix), complemented by field observations and insights from certified quality experts. Scientific foundation based on the work of Frans Wielemaker, with retail insights informed by McKinsey research.***

***Cultivo de banano orgánico y sostenibilidad***

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***In fresh-food retailing, quality matters more than price***

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