



# FRUIT AND VEGETABLE FOOD LOSS AND WASTE

INNOVATIVE SOLUTIONS ACROSS THE SUPPLY CHAIN

Nelia Alamo | November 13, 2024



# WHO IS MARKON?

Markon Cooperative was founded in **1985** by independently owned  
broadline distributors

- Global sourcing leverage for fresh produce
- Our Brands set the standard in Foodservice
- Today owned by foodservice distributors



Strong industry brand  
presence known for  
high quality product



Over 45 Million  
cases/year are  
sourced by Markon



# UNDERSTANDING FOOD LOSS AND WASTE IN THE FRESH PRODUCE INDUSTRY

Nearly **1/3** of food produced globally is lost or wasted, with fruits and vegetables accounting for 44% of this loss.

- Impact on Resources
- Economic Impact
- Environmental Consequences

# UNDERSTANDING FOOD LOSS AND WASTE IN THE FRESH PRODUCE INDUSTRY

This presentation will focus on **3 key areas** where we can make a significant impact on reducing FLW in the fruit and vegetable supply chain:



# IN THE FIELD PLANT BREEDING TO IMPROVE HARVEST EFFICIENCY

- **Goal:** Improve crop characteristics for higher yield and better resistance to pests/diseases

## Techniques

### *Genetic Improvements*

Develop crops that are more resilient, uniform, and capable of handling environmental stress

### *Early Maturing Varieties*

Reducing risks of spoilage during harvest

### *Better Yields*

Increased harvest efficiency can minimize losses during the growing phase

# AUTOMATION IN HARVESTING

**Automation Advances:** Robots and machines to automate the harvesting of fruits and vegetables.

## Challenges

- Complexity of harvest conditions: Robots may not be as adept at handling irregularly shaped or fragile produce
- Yield loss: Harvesting automation can affect the timing and quality of harvests

## Opportunities

- More consistent harvesting times
- Reduced labor costs

# MEASURING AND MANAGING FOOD LOSS AT THE FIELD LEVEL

- WWF Waste Calculator: A tool to measure FLW
- **How it Works**: Tracks where and when losses occur in the growing process
- **Benefits**
  - Identifying specific points of loss to target solutions
  - Better tracking and reporting to guide decisions
- **Goal**: Optimize field practices and reduce FLW through accurate measurement

# AT THE FACILITY PRODUCT INNOVATION AND SECONDARY MARKETS

## Product innovations

- Broader spec range

## Secondary Markets

- Smoothies and Juices: Use misshapen or overripe produce for smoothies, juices, and purees
- Frozen Produce

## Benefits:

- Reduces waste
- Increases product shelf life and offers more accessible products to consumers



# AT THE FACILITY-SPILL POINTS/DIVERSION

**Spill Points:** Once produce hits the floor, it's often culled, creating waste

## Divert

- Food Banks
- Animal Feed
- Compost
- De-packaging

## Benefits

- Reduces food waste while addressing food insecurity
- Maximizes product value before it goes to waste
- Diverts a significant portion of food that would otherwise be wasted

# AT THE FACILITY-PACKAGING

## Research and Development

- Focus on packaging innovations that maintain product quality and shelf life while reducing waste

## Key Innovations

- Biodegradable or recyclable packaging
- Modified Atmosphere Packaging (MAP) to extend freshness
- Smart packaging to track freshness and prevent premature disposal

# OUR MEMBERSHIP-DISTRIBUTION EFFICIENCIES

## Regional Partnerships

- Controlled Environment Agriculture
- Regional producers

## Reduce Food Miles

- Shorter distribution routes mean faster delivery and less spoilage

## Inventory control

- Optimize supply chains and avoid overstocking or excess inventory

# KEY TAKE AWAYS-NEXT STEPS

## Reducing FLW

- A holistic approach across the entire food supply chain is necessary to minimize food loss and waste

## Innovative Solutions

- Advances in technology, packaging, and partnerships are essential to reducing FLW in fruit and vegetable production

## Collective Responsibility

- Every player in the supply chain, from field to consumer, plays a role in reducing FLW

**THANK YOU!**



**MARKON®**

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