

# Responsible Food Procurement for Changing Times

NVHCA + Incite Strategic Partners



# Agenda

- 01 **What makes a supply chain reliable?**
- 02 **Global challenges in procurement**
- 03 **Risks & pitfalls of improper procurement**
- 04 **Actions to offset rising costs**
- 05 **Key takeaways**

# Learning Objectives

- Understand global factors in a shifting supply chain
- Review common food procurement mistakes and how to avoid them.
- Understand the key elements of a reliable product supply chain.
- Demonstrate how to manage food budgets and programs when census drops or prices and supply chains are unpredictable.

# Today's Speaker

**Mike Dean, MBA, NHA, Dad of 4!**



**Director of Partner  
Development - West  
Incite Strategic Partners**

# What Makes a Supply Chain Reliable?

*“Food safety is an uncompromising priority”\**



# What Makes a Supply Chain Reliable?

## End-to-End Controls

- Product Quality
- Time & Temperature
- Water & Soil Quality
- Producer Audits
- Transportation
- Receiving
- On-site HACCP
- Staff Training



# What Makes a Supply Chain Reliable?

## Food Safety Modernization Act (FSMA)



About 48 million people in the U.S. (1 in 6) get sick, 128,000 are hospitalized, and 3,000 die each year from foodborne diseases, according to recent data from the Centers for Disease Control and Prevention. This is a significant public health burden that is largely preventable.

# What Makes a Supply Chain Reliable?

## Rules

- [Produce Safety \(Final Rule\)](#)
- [Pre-Harvest Agricultural Water \(Final Rule\)](#)
- [Accredited Third-Party Certification \(Final Rule\)](#)
- [Food Traceability \(Final Rule\)](#)
- [Foreign Supplier Verification Programs \(FSVP\) for Importers of Food for Humans and Animals \(Final Rule\)](#)
- [Laboratory Accreditation for Analyses of Foods \(LAAF\) \(Final Rule\)](#)
- [Mitigation Strategies to Protect Food Against Intentional Adulteration \(Final Rule\)](#)
- [Preventive Controls for Human Foods \(Final Rule\)](#)
- [Preventive Controls for Animal Food \(Final Rule\)](#)
- [Sanitary Transportation of Human and Animal Food \(Final Rule\)](#)

# What Makes a Supply Chain Reliable?

Working with broadline food distributors helps to ensure:

## Suppliers

- Held to safety standards via audit
- Regular water and soil testing

## Transportation

- Trained handlers and carriers ensure proper food safety standards including time and temperature controls, contamination controls, hygiene standards, etc are held throughout transport

# Global Challenges to Proper Food Procurement



# Global Influences on Supply & Pricing

Factors that can make proper procurement challenging:

- Conflict/ War/ Politics
- Trade conflicts/ Tariffs
- Labor disputes at manufacturer level
- Weather patterns & disasters
- Disease outbreaks & vectors
- Farmer sentiment, risk acceptance

3 Examples:

- Eggs
- Orange Juice
- Coffee

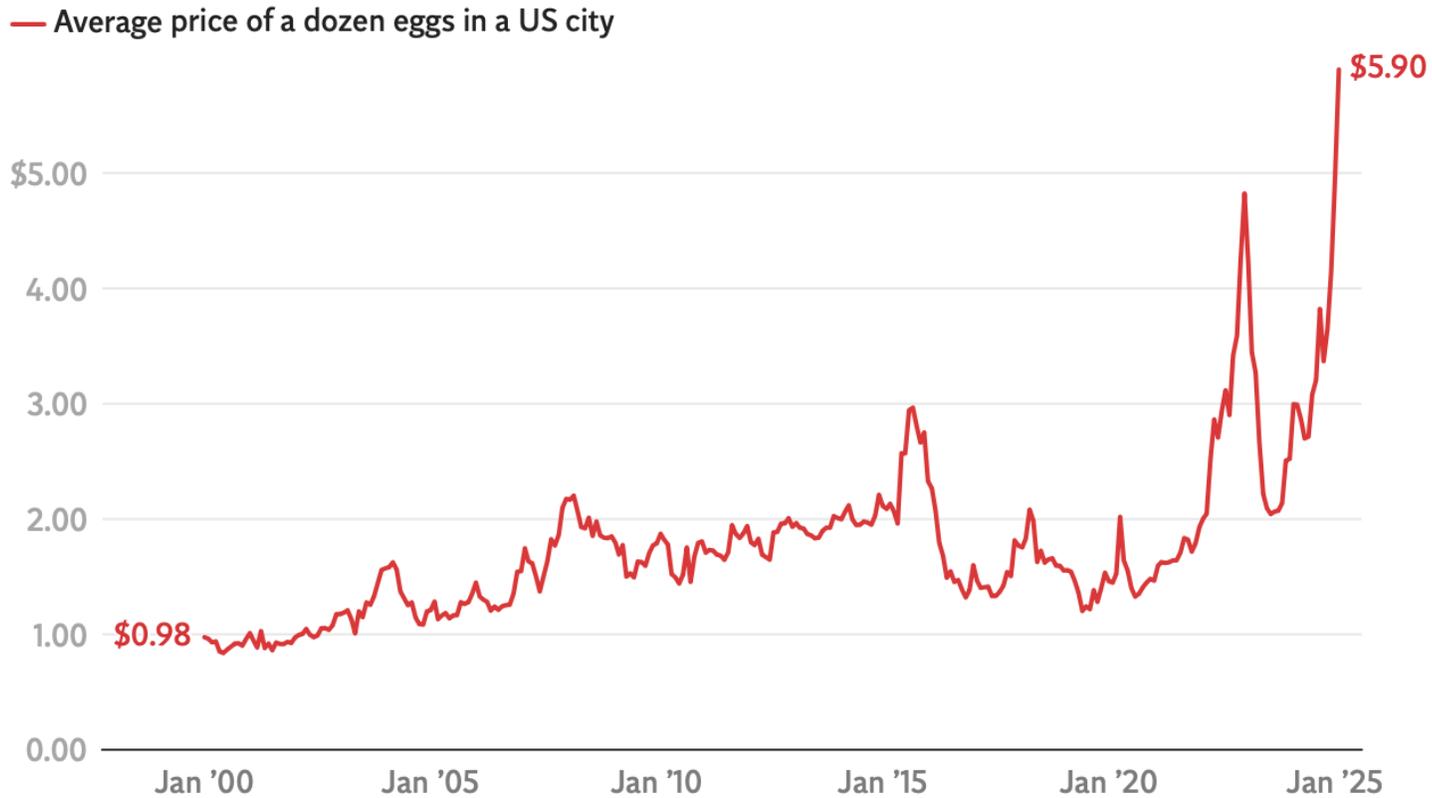
# Global Influences on Supply & Pricing - Eggs

## Avian flu (HPAI)

- Yearly strains – similar to human flu
- Moves across the country in migratory birds
- Passes bird to bird, or via contaminated surfaces/ materials
- When detected at a poultry farm, entire flock is culled
- Highly pathogenic avian influenza strains are deadly to domestic poultry and can wipe out entire flocks within a matter of days.
- Sudden changes in pricing & availability result
- Slow to correct due to quarantine period & animal lifecycle
- May only restock with written USDA/State approval



# Global Influences on Supply & Pricing - Eggs



U.S. Bureau of Labor Statistics, Average Price: Eggs, Grade A, Large (Cost per Dozen) in U.S. City Average, monthly.

Source: U.S. Bureau of Labour Statistics

# Global Influences on Supply & Pricing - OJ

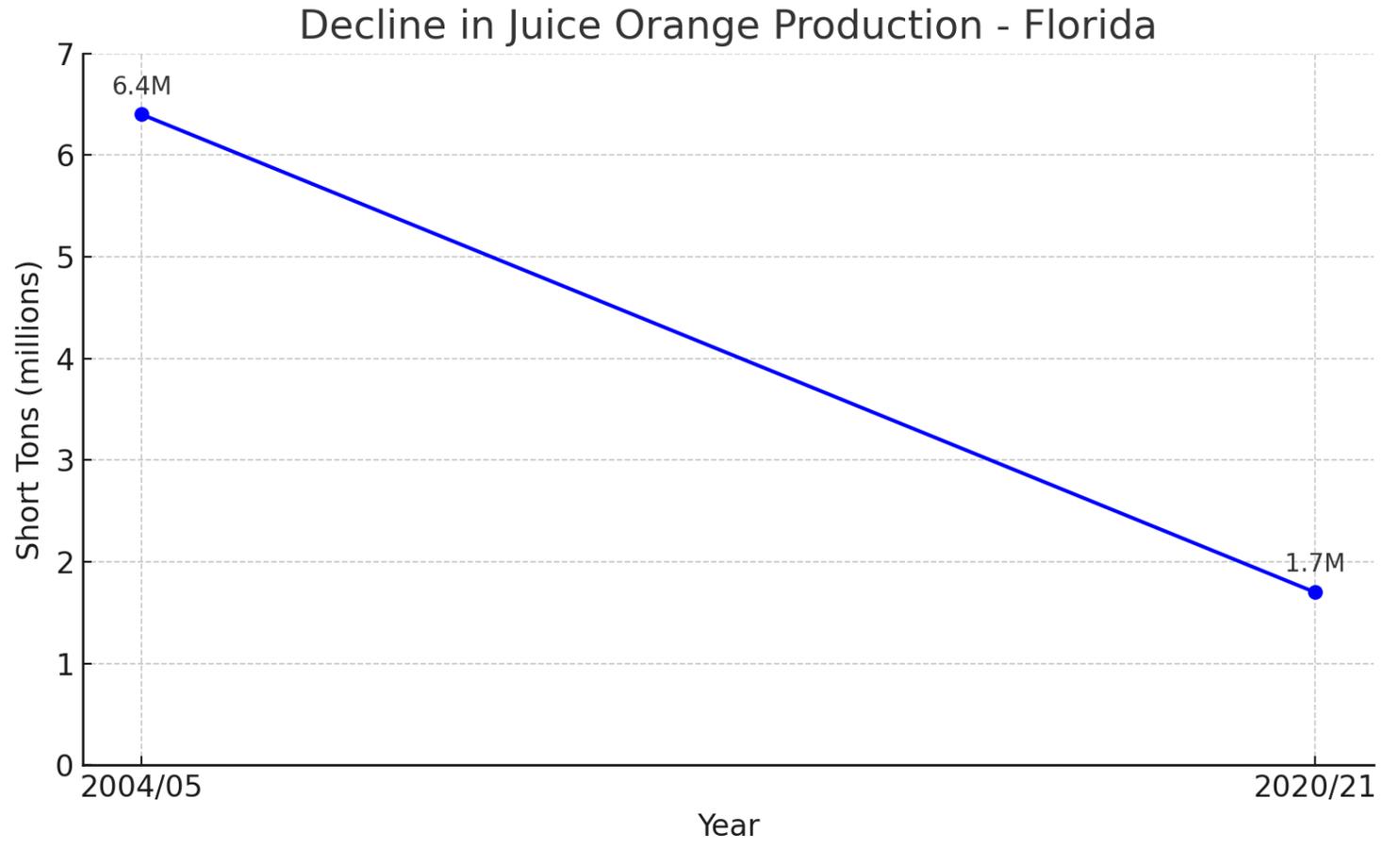
## Greening disease (HLB)

- Spread by Asian citrus psyllid
- Fewer, smaller lopsided greenish colored fruit, bitter
- Tree will die in a few years – no cure
- Spread can be partially controlled



*Image courtesy of USDA*

# Global Influences on Supply & Pricing - OJ



# Global Influences on Supply & Pricing - Coffee

- Unpredictable weather patterns and farmer uncertainty are driving doubts about the long-term viability of coffee production
- U.S. Consumes 16% of world's coffee
- Brazil – Arabica (60-70% global production)
  - Drought, Frost
  - Suitable land could decrease from 75% to 25%
  - Stockpiles are recovering; Exports increasing
- Vietnam – Robusta
  - 20% production drop 2023-2024: Droughts and typhoon
  - Farmers leaving industry for more profitable crops (durian)
- Colombia
  - Improved pest control and climate-resilient varieties have led to increased production/ protection from losses



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# Global Influences on Supply & Pricing - Coffee

## Coffee prices are heating up

Coffee futures prices (US cents per pound) for **New York Arabica** and **London Robusta**



Source: London Stock Exchange Group (LSEG)



# Pitfalls & Risks of Improper Procurement



With shifts in supply chain, inflation, access, and changing resident preferences, what are some common pitfalls that increase risk?

# Risks of Improper Procurement

## Accepting eggs from backyard chickens

### Outbreaks of *Salmonella enteritidis* Infections in the United States, 1985-1991

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in 82% of outbreaks. Case-fatality rates in nursing homes and hospitals were 70 times higher than in other settings. Cultures of environmental or animal specimens from all farms tested yielded *S. enteritidis*. Eggborne *S. enteritidis* infections are a major public health problem. Preventive measures, including educating consumers about proper handling of eggs, using pasteurized eggs, and controlling infections on egg farms, may stem the impact of this disease.

#### Abstract

The spread of *Salmonella enteritidis* infections in the United States was tracked to identify potential risk factors and preventive measures. Isolation rates and

outbreaks of *S. enteritidis* from 1985 through 1991 were tracked through the national *Salmonella* surveillance system and through the outbreak surveillance system. From 1985 through 1991, 380 outbreaks involving 13,056 ill persons and 50 deaths. The percentage of outbreaks fell from 81% in 1985 to 55% in 1991 as the number of outbreaks in other areas increased. Grade A shell eggs were implicated in 70% of outbreaks. Case-fatality rates in nursing homes and hospitals were 70 times higher than in other settings. Cultures of environmental or animal specimens from all farms tested yielded *S. enteritidis*. Eggborne *S. enteritidis* infections are a major public health problem. Preventive measures, including educating consumers about proper handling of eggs, using pasteurized eggs, and controlling infections on egg farms, may stem the impact of this disease.

# Risks of Improper Procurement

## Accepting eggs from backyard chickens – Better Solution

When egg prices are high or in short supply:

1. Prioritize other breakfast proteins to conserve eggs
2. Balance costs with menu engineering – serve more of items that are lower in cost, at various dayparts
3. Innovate with plant-based solutions



# Risks of Improper Procurement

## Using Raw Milk/ Dairy Products

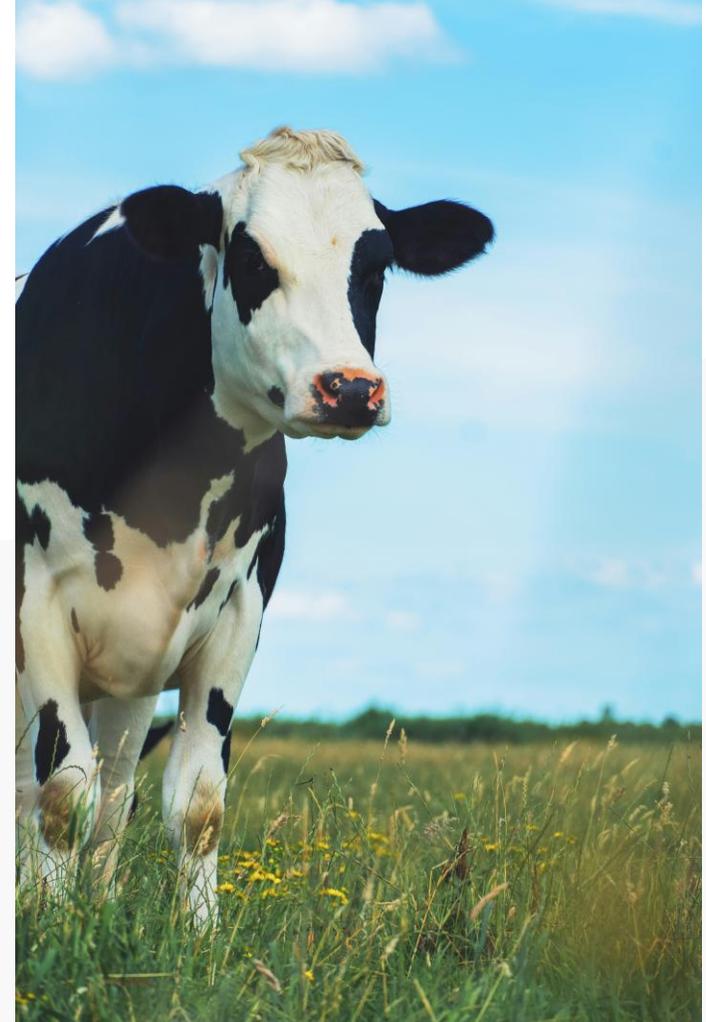
### *Campylobacter fetus* foodborne illness outbreak in the elderly

In June 2021, a cluster of seven cases of *Campylobacter fetus* infections occurred in a rehabilitation center and caused significant morbidity in elderly patients including five with bacteremia and two with osteoarticular medical device infections. The genetic identity identified by whole genome sequencing of the different *Campylobacter fetus* strains confirms a common source. This foodborne illness outbreak may have resulted from the consumption of unpasteurized dairy products, such as a cow's raw milk cheese resulting from a farm-to-fork strategy.

# Risks of Improper Procurement

## Using Raw Milk/ Dairy Products – Better Solution

1. ALWAYS use pasteurized dairy products in senior living
2. Powdered milk can be used as a replacement for dairy milk in case of supply shortage or high cost
3. Ensure cheeses are pasteurized/ aged for culinary use or special events
4. Raw dairy is a particularly high-risk food for the elderly to consume



# Risks of Improper Procurement

## In-house or Home-canned products

### Three Outbreaks of Foodborne Botulism Caused by Unsafe Home Canning of Vegetables—Ohio and Washington, 2008 and 2009 †

Foodborne botulism is a potentially fatal paralytic illness caused by ingestion of neurotoxin produced by the spore-forming bacterium *Clostridium botulinum*. Historically, home-canned vegetables have been the most common cause of botulism outbreaks in the United States. During 2008 and 2009, the Centers for Disease Control and Prevention (CDC) and state and local health departments in Ohio and Washington State investigated three outbreaks caused by unsafe home canning of vegetables. We analyzed CDC

# Risks of Improper Procurement

## In-house or Home-canned products – Better Solution

1. Never accept home-canned goods from staff, visitors, residents, etc.
2. Do not attempt canning in your senior living kitchen
3. In-house pickles can be safely created using a tested recipe and always stored under refrigeration



# Risks of Improper Procurement

## Produce Direct from Home Garden

### Legacy Lead in Urban Garden Soils: Communicating Risk and Limiting Exposure

#### Miscommunication and Confusion About Soil Contamination and Risk

Unfortunately, trace metal contamination is common in urban soils and is a major constraint on urban agriculture (Gupta et al., 2019). In addition to Pb, contaminants found in urban soils include pesticides, petroleum products, asbestos, creosote, and radon (Alloway, 2004). Contaminated soils have the potential to produce contaminated plants, which can then be consumed by humans (Rai et al., 2019). There are many publications on the topic of trace element pollution (Hough et al., 2004; Pelfrène et al., 2013, 2019;



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# Risks of Improper Procurement

## Produce Direct from Home Garden – Better Solution

1. Work with your existing food distributor to source more locally-grown produce from vetted producers
2. Learn about the pros and cons of conventionally- and organically-grown produce.
3. Invite a farmer to speak to residents and guests about produce farming including safe practices

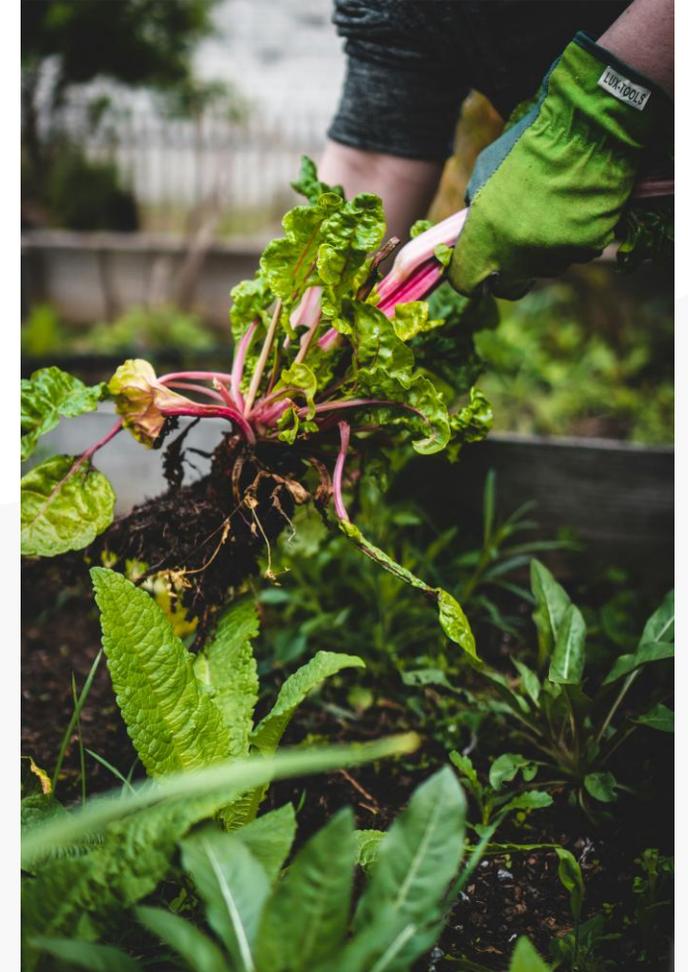


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# Risks of Improper Procurement

## Donation of hunted wild game/ roadkill

### Food Safety Considerations Related to the Consumption and Handling of Game Meat in North America

#### Abstract

Emerging foodborne pathogens present a threat to public health. It is now recognized that several foodborne pathogens originate from wildlife as demonstrated by recent global disease outbreaks. Zoonotic spillover events are closely related to the ubiquity of parasitic, bacterial, and viral pathogens present within human and animal populations and their surrounding environment. Foodborne diseases have economic and international trade impacts, incentivizing effective wildlife disease management. In North America, there are no food safety standards for handling and consumption of free-ranging game meat. Game meat consumption continues to rise in North America; however, this growing practice could place recreational hunters and game meat consumers at increased risk of foodborne diseases. Recreational hunters should follow effective game meat food hygiene practices from harvest to storage and consumption. Here, we provide a synthesis review that evaluates the ecological and epidemiological

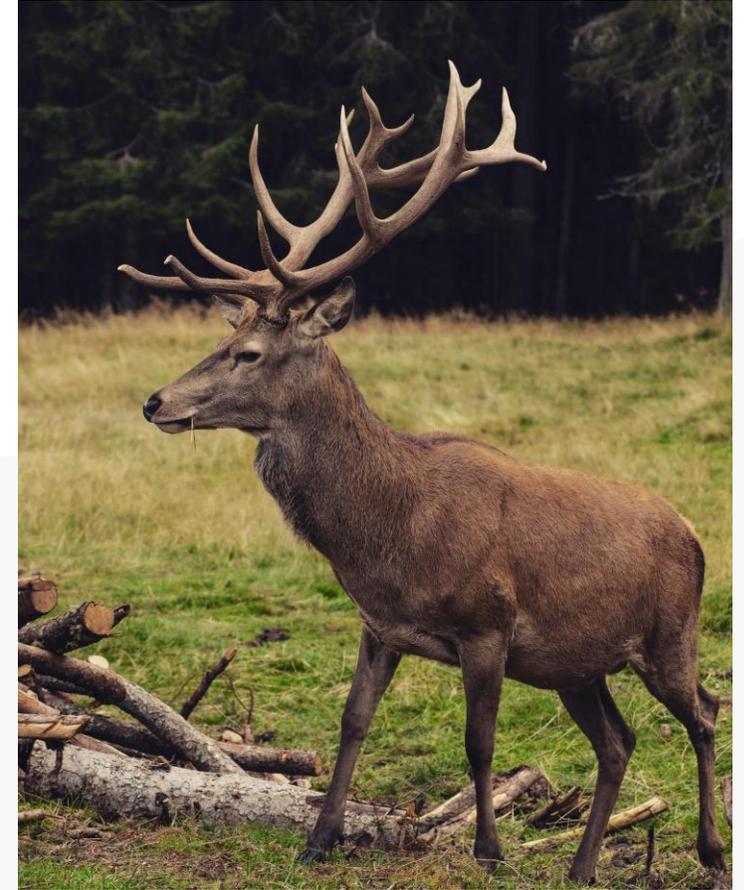


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# Risks of Improper Procurement

## Donation of hunted wild game/ roadkill – Better Solution

1. If a hunter wants to donate game to your operation, politely decline. Then help that person determine where might be a suitable location for donation of game
2. Your food distribution and broker partners can help you source responsibly raised wild game meats if you need to meet a resident need or preference
3. Contact your food procurement lead to learn about meat and poultry pricing fluctuations, and engineer your menu to prioritize lower-cost meats when prices are high

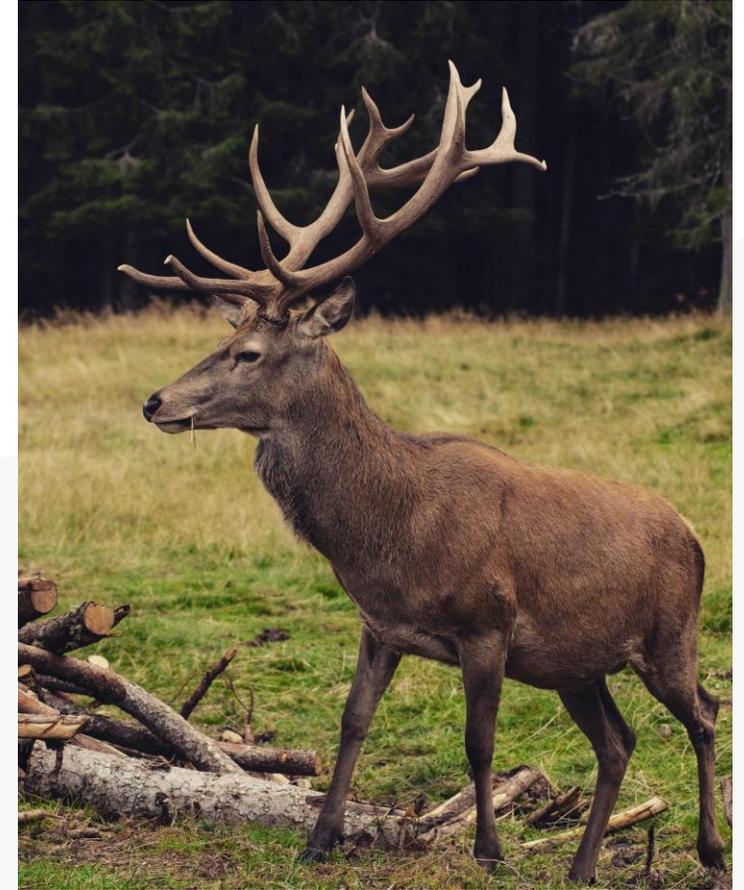


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# Risks of Improper Procurement

## Grocery, restaurant or big box store

- Less risky option than unverified sources
- Another link in the chain of procurement
- Best saved for emergencies, occasional stopgaps, special activities
  - Pay close attention to recall notices!
  - Procuring food outside of approved sources means a likely gap in time from a recall announcement to your awareness of it

# Food Production Risks - Recalls

## Outbreak Investigation of *Listeria monocytogenes*: Frozen Supplemental Shakes (February 2025)

COMPANY ANNOUNCEMENT

### Trader Joe's Sesame Miso Salad with Salmon Voluntarily Recalled Due to Undeclared Milk Allergen

COMPANY ANNOUNCEMENT

### Duda Farm Fresh Foods, Inc. Issues Advisory for 1,587 Cases of 4 in/1.6 oz Bundle Marketside Celery Sticks Because of Possible Health Risk

Recall Reason Description
May contain undeclared milk
Potential presence of small stones
Potential Foodborne Illness - Botulism
Undeclared allergen - peanut, soy, sesame, and wheat.
May contain undeclared milk, soy and yellow FD&C # 5
Undeclared milk
Undeclared milk
Undeclared fish and wheat allergen
Due to visible black particulate matter
Microbial contamination of the product with <i>Staphylococcus aureus</i> (S. aureus)

# Food Production Risks - Recalls

## Benefits of Distributor Partnerships

- In the event of a recall, many sophisticated producers and distributors utilize advanced data analytics to alert consumers of risk.
- Non-commercial customers are often among the first to receive notice of a food recall, owing to the large number of vulnerable people we serve
- Circumventing reliable procurement removes this safeguard and opens your residents up to unnecessary risk in the event of a recall

# Cultural Considerations

## Cultural 'big deal': Seal oil makes menu at Alaska care home

ANCHORAGE, Alaska (AP) — Seal oil has been a staple in the diet of Alaska's Inupiat for generations.

The oil — ever-present in households dotting Alaska coastlines — is used mainly as a dipping sauce for fish, caribou and musk ox. It's also used to flavor stews and even eaten alone.

But when Inupiat elders entered nursing homes, they were cut off from the comfort food. State regulations didn't allow seal oil because it's among traditionally prepared Alaska Native foods that have been associated with the state's high rate of botulism, which can cause illness or death.

That's changing for 18 residents at Utuqqanaat Inaat — in English, a place for elders — a part of the Maniilaq Health Association in the Chukchi Sea community of Kotzebue, about 550 miles northwest of Anchorage. The association has worked with partners in Alaska and the Lower 48 to develop a process to kill the toxin in seal oil and make it safe for consumption.

# Actions to Offset Rising Costs



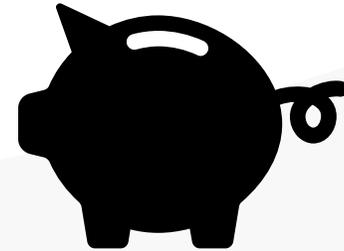
# Procurement Optimization

Work with your GPO on order guide optimization

- Assessing which supplier contracts best meet your needs and budget
- This may mean switching between brands of certain products

If you don't work with a GPO currently, join one!

Contact your dietary management if you do not manage these relationships, or if you have order guide questions regarding optimization.



# Savings Potential - GPOs

**\$55B**

Savings

GPOs can reduce healthcare costs nationally by \$55 Billion/year

**13.1%**

Reduction

GPOs have been found to reduce supply-related purchasing costs by 13.1% in hospitals and nursing homes

**\$15.5B**

Savings

GPOs have been projected to save Medicare and Medicaid approximately \$15.5 Billion per year

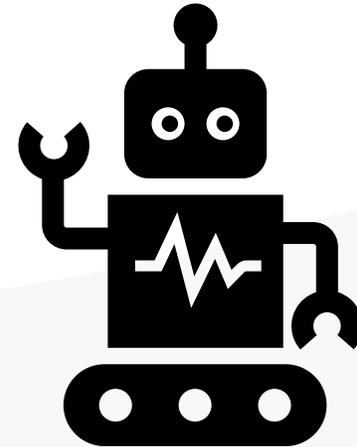
# Tech/ Systems updates

## Advanced menuing/ alternatives

- Streamlined menu updates and changes
- Links to order guide & inventory

## Modernized tech/ systems

- E-procurement
- Accounts payable software
- Workforce management software
- Robotics/ AI-driven data efficiencies



# Savings Potential - Tech

**124%**

**Labor Cost ROI**

A pilot program in 1 senior living community saw a labor cost ROI of 124% using robotic food runners

**\$7.88**

**Return/ \$1**

One study found that for every dollar spent on workforce management software, a return of \$7.88 was seen

**80%**

**Time Saved**

One data set suggests that using an E-procurement system could save up to 80% of the time it takes to place an order manually

# Optimizing the Resident Experience

## Preferences

- Updated and specific
- Menu tech to support
- Options for plant-based
- Dementia-specific dining interventions

## Food Waste

- Plate waste study
- Presentation & garnishing
- Updated recipes, cultural influences and trends to reflect today's resident
- Composting Digester



# Savings Potential – Resident Experience

**\$0.59**

**Savings per Tray**

One hospital system that implemented a plant-based menu as the main option at lunch & dinner saw an average \$0.59 savings per tray

**\$229,569**

**Savings**

One study found a savings of \$229,569 across a 6-hospital system by implementing strategies managed by the Food Service Dietitian, attributed to reductions in food waste

**15%**

**Reduction in Plate Waste**

A study on plate waste in memory care found a reduction of plate waste simply by using various colors of plates – a drop from 26% plate waste down to 9% was seen using a particular color combination

# Labor & Energy Optimization

## Speed Scratch vs Scratch Cooking

- Labor savings > Product costs?
- Resident satisfaction, reduced waste?

## Staffing Efficiency

- Scheduling software
- Reducing agency usage
- Consulting partner

## Energy Conservation

- Water usage
- Electricity & Gas bills
- Reduced food waste =

Reduced waste hauling costs

Reduced cooking energy

Reduced water usage

# Key Takeaways

Even in the face of shortages and rising costs, there are ways to optimize your operation to absorb costs without turning to improper procurement

1. Many factors affect price and availability of goods & services. Learning more about these factors may help you plan ahead and stay nimble to manage costs
2. Taking a short cut by ordering or accepting potentially hazardous foods is never the right choice in senior living. Take a bigger picture approach to departmental expenses instead of risking resident safety
3. Work with your partners and upper management to innovate, streamline operations, and manage labor solutions

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Thank  
You!

