### SECURING THE GLOBAL SUPPLY CHAIN THE DAIRY QUEEN EXPERIENCE

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# **Embrace the Change!**



## History of DQ

• The first *Dairy Queen* store opened in Joliet, Ill. on June 22, 1940





### The Growth of a System

- Dec. 1941 less than 10 stores
- 1955 2,600 stores (Dilly Bar introduced)
- 1961 Mr. Misty debuts
- 1962 International Dairy Queen, Inc. was born
- 1968 Buster Bar is unveiled
- 1972 Peanut Buster Parfait is introduced
- 1985 *Blizzard* Flavor Treat is born
- 1986-87 IDQ Purchases Orange Julius & Karmelkorn Shoppes



### **Global Growth**

 Hans Rosling, Professor of International Health at Karolinska Institute, Stockholm, Sweden





### **World Population Growth**



Source: United Nations Population Division, World Population Prospects: The 2010 Revision, medium variant (2011).

### Growth of a System

- 1998 Purchased by Berkshire Hathaway, Warren Buffett, CEO
- 2011 More than 5,975 units in U.S., Canada and 17 additional countries

### Bahrain



### Indonesia



### Macau



### Thailand



### Mexico



### Panama



## Philippines



## China







### Saudi Arabia – Tahlia







### **Egypt Grand Opening**



### **Foodservice Supply Chain Models**



#### NON-OPTIMIZED SUPPLY CHAIN WITHOUT REDISTRIBUTION



Vendors

#### **OPTIMIZED SUPPLY CHAIN WITH REDISTRIBUTION**





### Illustrating Supply Chain Complexity: The Cheeseburger



### **Cheeseburger Supply Chain**



Bleached white flower Malted barley flour Thiamine Riboflavin Niacin Folic acid Reduced iron Water Corn syrup Sesame seeds Soybean oil Yeast Salt Calcium sulfate Calcium carbonate Calcium silicate Soy flour L ettuce Dehydrated onions



Baking soda Wheat gluten Calcium propionate Enzymes Mono-and diglycerides Diacetyl tartaric acid esters Ethanol Sorbitol Polysorbate 20 **Potassium Propionate** Sodium stearoyl lactylate Corn starch Ammonium sulfate Calcium peroxide Ascorbic acid Azodicarbonamide



Grilled Seasonings Salt Pepper Cottonseed Soybean Oil



Milk Water Sodium citrate Sodium phosphate Artificial color Acetic acid Enzymes

Special Sauce Soybean oil Distilled vinegar Egg yolks Sugar Corn syrup Spice extractive Xanthan gum Prop.gycol alginate Potassium sorbate Garlic powder Caramel color Turmeric EDTA Milk fat Cream Salt Sorbic acid Cheese Culture Soy lecithin Starch







USDA Inspected Beef

Cucumbers Water Vinegar Salt Calcium chloride Alum Natural flavorings Polysorbate 80 Turmeric







Delidoso helado frappé sebor elé merdado con gelleta Chips Ahoyl° Chips Ahoy! es propiedad de Kraft Foods Global Brands



- 40 percent of consumers who suffer food-borne illness come in contact with contaminated food at the restaurant level (according to various CDC and FDA reports)
- Millions are sickened
- Tens of thousands are hospitalized
- Thousands die
- Three pathogens: Salmonella, Listeria and E.coli 0157:h7
- Economic costs ~\$100 billion/year

### **Major Outbreaks**



Sources: Centers for Disease Control and Prevention; Food and Drug Administration

- Changing science New identified risks
- Greater capacity to link food to illness
- Global food supply
- Increased government testing
- Media influence
- Consumer expectations



Consumers Concerned about Quality/Safety of Food Eaten at Establishments Outside the Home



Source: Nation's Restaurant News, May 2010

- Food Safety Modernization Act (FSMA)
  - Shifts focus to prevention
  - FDA enforcement and access to records
  - Traceability
  - Mandatory recall authority



- Increased FDA inspections and testing
- Surveillance
  - Within 18 months: FDA will identify conspicuous locations where retailers will be required to post notices regarding recalled foods

- Posted Restaurant Inspection
  - Study: 66% restaurants had high-risk food safety violations (Source: Center for Science in the Public Interest)
  - Grading: A, B or C
  - NYC, Georgia, LA County
  - NYC bar code program

- CA Food Handler Card Bill (SB602)
  - Effective 7/1/11
  - Required training for food handlers in restaurants
  - Education on foodborne illness, time/temperature, personal hygiene, hand contact, preventing food contamination, cleaning/sanitizing, etc.
  - Card valid for 3 years
  - Goal safer food supply
- Allergens
  - US (Big 8) and CN (Big 10)
  - Local government allergen regulations

- Animal Welfare
  - Pressure from PETA and Humane Society
  - CA All shell eggs cage free by 2015



TA

- OH State moratorium on building any new facilities with cages; ban new gestation crate facilities for sows; mandate all pack producers gestation crate free by 2025
- Unilever, Subway, Panera, Carnival Corporation, Golden Corral, Sara Lee, Pepperidge Farm, Burger King
- McDonald's, KFC say no
- System-wide Education and Emphasis

### International

- Focus for system growth; rapid expansion plans
- Multiple and complex regulations per country and variations within countries; language barriers
- Example, China ingredient concerns; stricter penalties
- Vendor verification materials and challenges
- Approved products list; enforce required ingredients; regional ingredients; local ingredients

### **DQ** Vendor Verification Documents

- 1. A complete copy of supplier's most recent (within the last year) outside plant inspection performed by a recognized industry expert third party auditor. Federal, state or local agency inspections are not accepted.
- 2. Corrective Action Plan for third party audit
- 3. A copy of supplier's most current product recall process
- 4. A copy of the HACCP plan for the plant in which the proposed product will be manufactured
- 5. Detailed description of supplier's most current quality systems and controls
- 6. A copy of supplier's most current food defense plan
- 7. Allergen Control Program
- 8. Completed contact information sheet









AIB INTERNATIONAL Since 1919	
Rating Analysis	
Date of Audit: March 27, 2008	
Type of Audit: Announced	
Overall Rating: SUPERIOR	
ADEQUACY OF FOOD SAFETY PROGRAM	175
PEST CONTROL	195
OPERATIONAL METHODS AND PERSONNEL PRACTICES	175
MAINTENANCE FOR FOOD SAFETY	175
CLEANING PRACTICES	190

TOTAL 910




### The Consumer

- Consumers are changing their eating habits, focusing more on functional foods, health and diet as well as expanding their culinary tastes.
- They seek products, often minimally processed foods or semi prepared foods that offer higher convenience.
- Consumers are becoming more concerned about nutrition, taste, free range ("Freedom Food") and organic.

#### **The Consumer Evolution**

 Consumers are increasing their demand for companies to prove that appropriate systems are in place to ensure that food safety and quality are addressed.

- The trends that the food industry is being called on to ensure:
  - Balanced value (Price vs. Quality)
  - Confidence and transparency
  - Consistency and predictability
  - Regulatory compliance
  - Adequate control over product recall and traceability
  - Above all else, the food that consumers eat is safe

# The Emerging Trends

- In addition to food safety and quality issues we see a growing number of emerging trends:
  - Sustainability in food production
  - Protection of the environment
  - Animal welfare
  - Food security (Terrorism Related)

#### Food Safety vs. Food Defense

- Food Safety
  - -Unintentional
  - -Ongoing
  - -"Real" Threat

- Food Defense
  - -Intentional
  - -Sporadic
  - Plausible but unknown threat

#### Food Safety vs. Food Defense

Issues	Food Safety	Food Defense
Microbiological	•Salmonella, etc.	<ul><li>Bacillus anthraces</li><li>Botulinum toxin</li><li>Others</li></ul>
Chemical	<ul> <li>Mercury</li> <li>Melamine</li> <li>Acrylamide</li> <li>BPA</li> <li>Colors</li> </ul>	<ul><li>Ricin</li><li>Cyanide</li><li>Others</li></ul>
Physical	•Filth	<ul><li>Plant Security</li><li>Personnel</li></ul>
Radiological	<ul><li>"Natural"</li><li>Reactors</li></ul>	<ul> <li>Dirty Bomb</li> </ul>

# Why the concern?

- According to the intelligence community terrorists have discussed components of the food sector.
- Manuals for intentional contamination of food are widely available.
- Food and agriculture are critical assets and concern exists for exploitation of soft targets, such as the food supply.
- Use of biological or chemical weapons against our food supply could cause mass casualties.
- Even an ineffective attack could cause significant economic and psychological damage.

#### Challenges to Food Safety

- Organizations are being forced to take even more ownership for food safety and to protect their brands.
- Tighter controls are being established to safeguard the food supply chain.
- Traceability and integrated management programs are now an essential part of the food chain.

 However, problems remain and food safety and security concerns continue to increase globally.

 Governments are tightening regulations, reducing MRL's (Maximum Residue Levels) and engaging more with Third Party Providers to gain more control on the food supply chain.

# The Future Approach

- The food industry is being forced to establish a holistic and integrated approach with initiatives which target risks and have impact on the food safety and quality.
- A holistic and integrated approach with a stronger drive by all stakeholders in the food industry to work closer together, developing initiatives that benefit all stakeholders.
- This, more than ever, must include the public sectors cooperating to ensure a safe food supply chain.

# Manufacturers

- Many manufacturers still tend to consider one control in their food chain in anticipation that their manufacturing chain is under control and their food safety and quality issues adequately addressed.
- This predominately is not the case, in fact there is a strong likelihood that a single control would not in fact mitigate risks to an acceptable level.
- Many manufacturers often source raw materials from various suppliers; creating initiatives with suppliers can lead to safer and more consistent raw materials which supports the achievement of safer food products.

## Producers

- With consumers' eating habits changing, their developing taste for more exotic flavors and fresher more natural products, we could expect to see increasing food safety issues.
- If we look at recent world events with respect to tomatoes, peppers, cantaloupe, lettuce or even melamine in milk, we must question if a single solution could have controlled the situation.
- With globalization of the food chain, farming can often be on the opposite side of the world to consumption and consumers are concerned as to the safety of the farming practices.

# Regulators

- The overall trend continues to have tighter controls on food supply chain by governments
  - EU New rules on Maximum Residue Levels (MRL's) for pesticides will drive additional testing in Europe as well as exporting countries
  - China New food safety legislation is expected to open further
  - US Government will invest in the FDA to substantially increase the number of food inspectors and modernize food safety labs
  - US FDA is changing its approach and engaging third parties to strengthen controls on the food chain
    - Voluntary Third-Party Certification Programs
    - Guidance for Industry of Voluntary Third-Party Certification Programs for Foods

## The Future

#### REACTIVE

#### PROACTIVE

# "He who is most free from danger, who, even when safe is on guard"

Syrus Publilius (~ 100 BC)

# "We've got to hold on ready or not, You live for the fight when it's all that you've got"

Bon Jovi "Livin on a Prayer"