

***ConAgra's Approach to Food Safety: Learning
From the Past... Looking to the Future***

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**ConAgra
Foods®**

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Company Facts

- 2006 Net Sales, \$11,579B
- 33,000 Employees
- 100+ Manufacturing Locations
- Organized Into Three Businesses
 - Consumer Foods
 - Commercial Products
 - International

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Brands

- Over 55 brands marketed in the U.S. and over 40 brands sold in more than 100 countries around the world.
- About 85% of the company's profits flow from the sale of branded and value-added items.
- Popular name brands include:
 - Healthy Choice
 - Hebrew National
 - Chef Boyardee
 - Banquet
 - Gulden's
 - La Choy
 - Egg Beaters
 - Swiss Miss
 - Reddi-wip
 - Van Camp's
 - Parkay
 - Slim Jim
 - Libby's
 - Wesson
 - Peter Pan

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Peanut Butter Characteristics

- Peanut Butter is produced from roasted shelled peanuts.
- Fat content ranges 49-52%.
- Salt is usually added at a 1-2% final concentration (lower in dietetic formulations).
- Moisture content <1%, A_w <0.3%.
- Low A_w precludes the active growth of spoilage organisms and pathogens.

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Peanut Butter Processing

Raw Shelled Nuts Roasted (Continuous or Batch 170 -180 C)



Blanched to Remove Skins



Ground and Milled
(Salt/Dextrose/Stabilizers Added)



Homogenized and Packaged

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Salmonella and Peanut Butter

- Raw peanuts, as with other raw agricultural commodities, are known to be contaminated with *Salmonella* spp.
- Studies have shown that the most heat resistant strain (*Salmonella seftenberg*) is inactivated by peanut roasting.
- Contamination of Peanut Butter with *Salmonella* spp. occurs via post-roasting recontamination.
- Prevention of recontamination depends largely upon effective separation of raw peanuts (and associated dust/fines) and the post-roast processing areas.
- Once peanut butter is contaminated with *Salmonella* spp., it will survive for prolonged periods of time.

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Factors Contributing to the 2007 Recall

- Inadequate separation of pre-roast/post-roast processing areas.
 - Dust/fines present in the post-roast areas.
- Roof leak and faulty sprinkler head leak introduces moisture into the environment allowing for potential growth of *Salmonella* spp.
- During subsequent processing, handling, and filling, *Salmonella* spp. found its way into the product.
- Typical dry cleaning procedures were not able to eliminate the pathogen from the environment.
- Environmental monitoring procedures did not detect the organism in the environment.
- Finished product testing also did not detect the organism.

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Outbreak Chronology

- 02/13/07 – CDC provides an epidemiological study report to FDA statistically linking Peter Pan and Great Value peanut butter (code 2111) to 288 cases of illness in 39 states caused by *Salmonella tennessee*.
- 02/13/07 – FDA informs ConAgra of the situation.
- 2/14/07 – FDA issues a warning to consumers not to consume the product and the company initiates a product recall.
- 2/14/07 – FDA sent a team of microbiologists and field investigators to begin its inspection of ConAgra's Sylvester, GA plant.
- 2/22/07 – ConAgra announces that product testing by several states has confirmed Peter Pan and certain Great Value brands as the outbreak source.

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Outbreak Chronology (con't)

- 02/23/07 - FDA issues a statement confirming that several states found the implicated outbreak strain in finished product.
- 03/01/07 – FDA announces that *Salmonella tennessee* was found in the plant environment by their field team and that it matched the outbreak strain from open product and from ill consumers.
- 03/01/07 – FDA also announces that the recall has been expanded by the company to include peanut butter toppings manufactured at ConAgra's Humboldt, TN plant with Peter Pan peanut butter from the Sylvester, GA plant.

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Outbreak Chronology (con't)

- 03/07/09 – The CDC issues their last web update stating that as of March 7, 2007 425 persons were infected with outbreak strain from 44 states.
 - Among 351 patients with known clinical information, 71 (20%) were hospitalized.
 - No deaths have been attributed to the implicated product.
 - Onset dates, known for 301 patients, ranged from August 1, 2006 to February 16, 2007, and 61% of these illnesses began after December 1, 2006.
- 03/09/07 – ConAgra announces that it is extending the recall to all Peter Pan peanut butter, and all Great Value peanut butter (code 2111), including peanut butter toppings, back to October 2004.

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Outbreak Chronology (con't)

- 04/05/07 – ConAgra announces comprehensive plans to continuously improve the safety standards for all of its food products and steps underway to reopen the Sylvester, GA plant.

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Looking to the Future

- ConAgra Foods is committed to the highest possible standards of food safety throughout our operations and have taken significant measures to that end:
 - Established a new created position, Vice President of Global Safety, to bring additional focus and leadership to developing and implementing programs that continuously improve product safety and design.
 - Created a Food Safety Advisory Committee chaired by Dr. Michael P. Doyle, University of GA, CFS, who will provide guidance to the company on issues of food safety.

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Looking to the Future (con't)

- Implementing significant upgrades in the Sylvester, GA plant including:
 - Installation of state-of-the art equipment and process redesign
 - Complete separation of raw ingredients from post-roast processing areas.
 - Implementation of an aggressive environmental monitoring program for *Salmonella* spp. in the plant.
 - Implementation of FDA II sampling plan for finished product testing on all lots of finished product.
 - Use of the latest leading-edge detection technologies for all pathogen testing.

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Looking to the Future (con't)

- Sponsorship of leading-edge research for control of *Salmonella* spp. in foods such as peanut butter.
- Proactive leadership in external committees, trade organizations, and research institutions to promote food safety.
- Conduct in-depth safety and quality system and capabilities assessments using cross-functional teams and independent technical experts at targeted manufacturing plants.
- Assess overall recall and traceability processes across our supply chain.
- Assess organizational capabilities across Operations to ensure proper resource allocation.

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Looking to the Future (con't)

- ConAgra is committed to our operating principles of:
 - Simplicity
 - Accountability
 - Collaboration
- These following principles guide our efforts in all we do:
 - **Learn** from our mistakes and institute corrective actions to make our products right the first time.
 - **Do** what's necessary to close our gaps, improve our processes, and ensure that our customers only receive the safest, highest-quality products.
 - **Teach** and train our employees to be more knowledgeable in the principles of food safety.
 - **Create** a culture of prevention, sharing our best practices and showing every employee how they affect and ensure safety and quality.

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Lessons Learned

- Perceived “low risk” products can cause major problems.
 - Just because a product will not support “growth” of pathogen does not mean it cannot be a risk.
- Open, honest, forthright, and frequent communications with the regulatory agencies is of paramount importance during a recall.
 - FDA, CDC, States
 - Work collaboratively with the agencies to ensure a smooth and expeditious recall.
- Internal communications are equally as important.
 - Need to coordinate communication between a number of parties including Legal, Operations, Distribution, Sales, Quality, Engineering, R&D, Regulatory Affairs, Public Relations, Sanitation, and MFS.
- Use of outside experts is valuable to act as an independent checkpoint for corrective actions.
- Be open and honest with your consumers... keep them informed on what is happening and the steps that being taken to correct the situation.

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Lessons Learned (con't)

- A thorough product traceability plan is extremely crucial to a successful product recall.
 - Conduct mock recalls to ensure that your plan is viable and the best it can be.
 - Know where all of your product is going, e.g. toppings.
- Need to invest in infrastructure to ensure the equipment and associated physical surroundings are designed to protect the product against cross-contamination.
- Employee awareness training across the supply chain is vital to protecting the product.
- Simplify the system where possible without compromising safety.
 - Complexity leads to mistakes or problems.
- Centralized oversight of your food safety systems is essential.



one company growing by nourishing lives

and finding a better way today

...one bite at a time!

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