

A Journey Through the Past: Applying Lessons Learned From Food Safety Incidents to Current Strategies

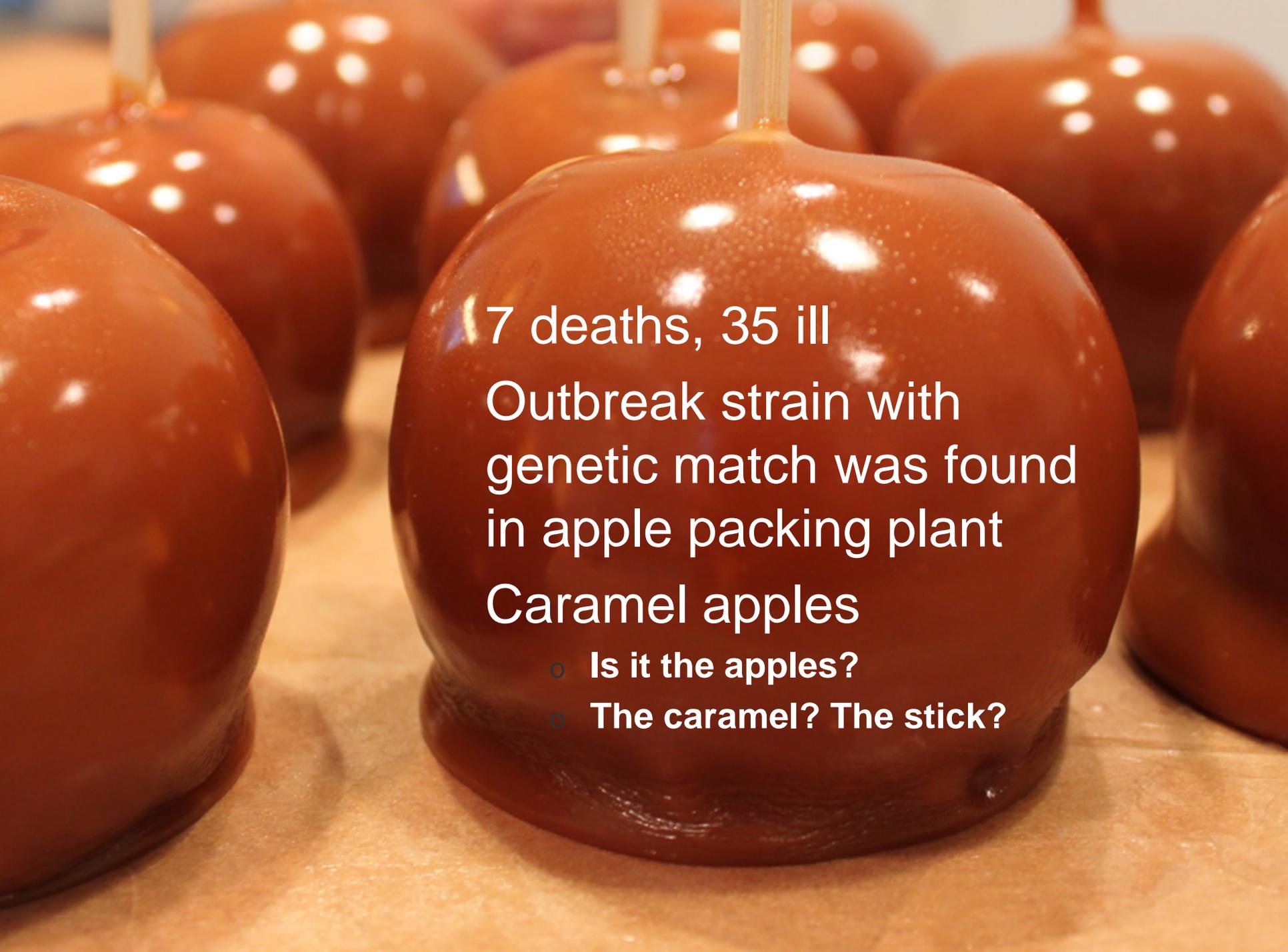
Ben Chapman

North Carolina State University

April 13, 2015





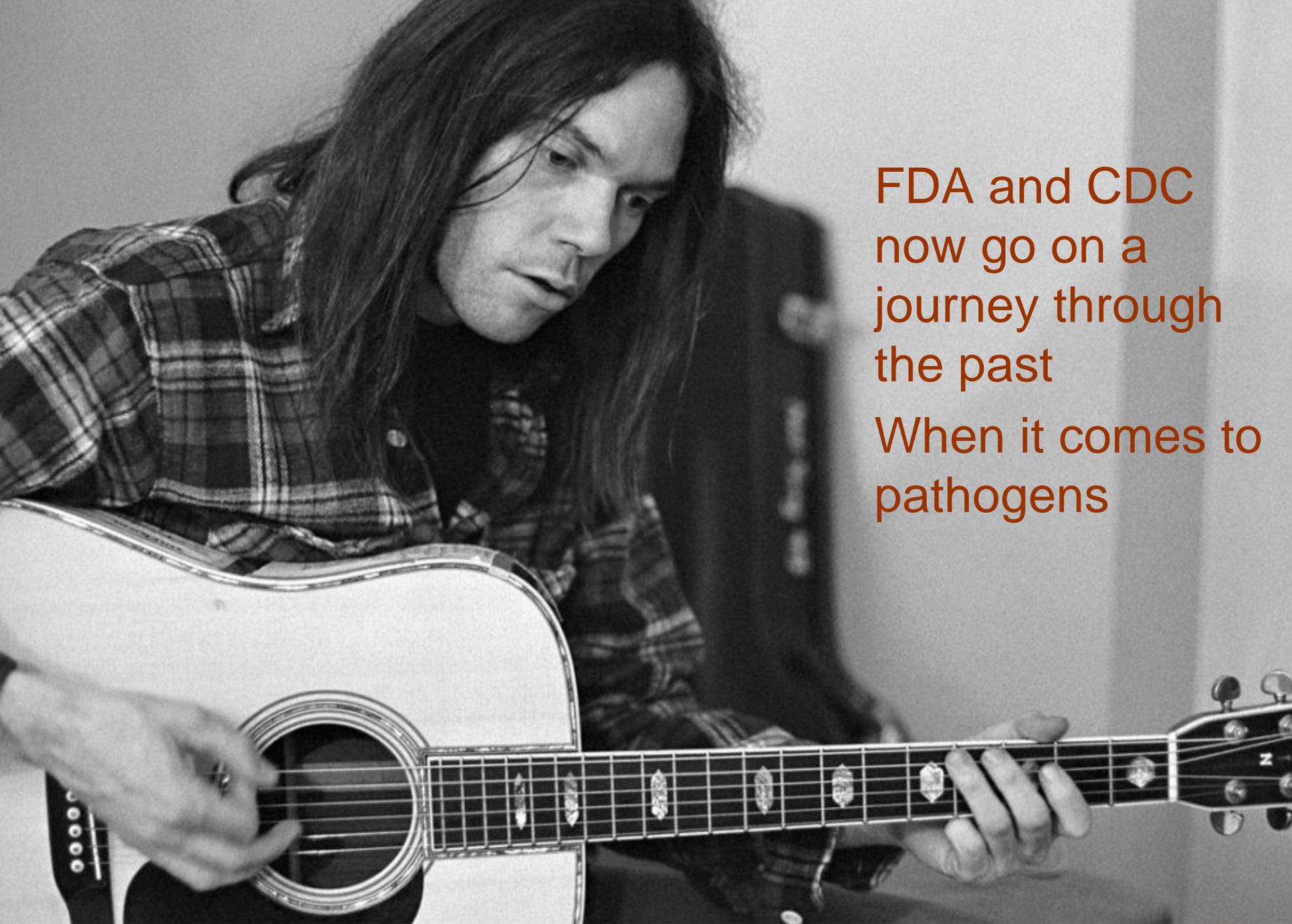


7 deaths, 35 ill

Outbreak strain with
genetic match was found
in apple packing plant

Caramel apples

- Is it the apples?
- The caramel? The stick?



FDA and CDC
now go on a
journey through
the past

When it comes to
pathogens



Press Release

For Immediate Release: March 14, 2012

Contact : [CDC Division of News and Electronic Media](#)

(404) 639-3286

CDC research shows outbreaks linked to imported foods increasing

Fish and spices the most common sources

Foodborne disease outbreaks caused by imported food appeared to rise in 2009 and 2010, and nearly half of the outbreaks implicated foods imported from areas which previously had not been associated with outbreaks, according to research from the Centers for Disease Control and Prevention, presented today at the International Conference on Emerging Infectious Diseases in Atlanta.

"It's too early to say if the recent numbers represent a trend, but CDC officials are analyzing information from 2011 and will continue to monitor for these outbreaks in the future," said Hannah Gould, Ph.D., an epidemiologist in CDC's Division of Foodborne, Waterborne and Environmental Diseases and the lead author.

CDC experts reviewed outbreaks reported to CDC's Foodborne Disease Outbreak Surveillance System from 2005-2010 for implicated foods that were imported into the United States. During that five-year period, 39 outbreaks and 2,348 illnesses were linked to imported food from 15 countries. Of those outbreaks, nearly half (17) occurred in 2009 and 2010. Overall, fish (17 outbreaks) were the most common source of implicated imported foodborne disease outbreaks, followed by spices (six outbreaks including five from fresh or dried peppers). Nearly 45 percent of the imported foods causing outbreaks



- Food industry is not well trusted (outbreaks and recalls contribute to this)

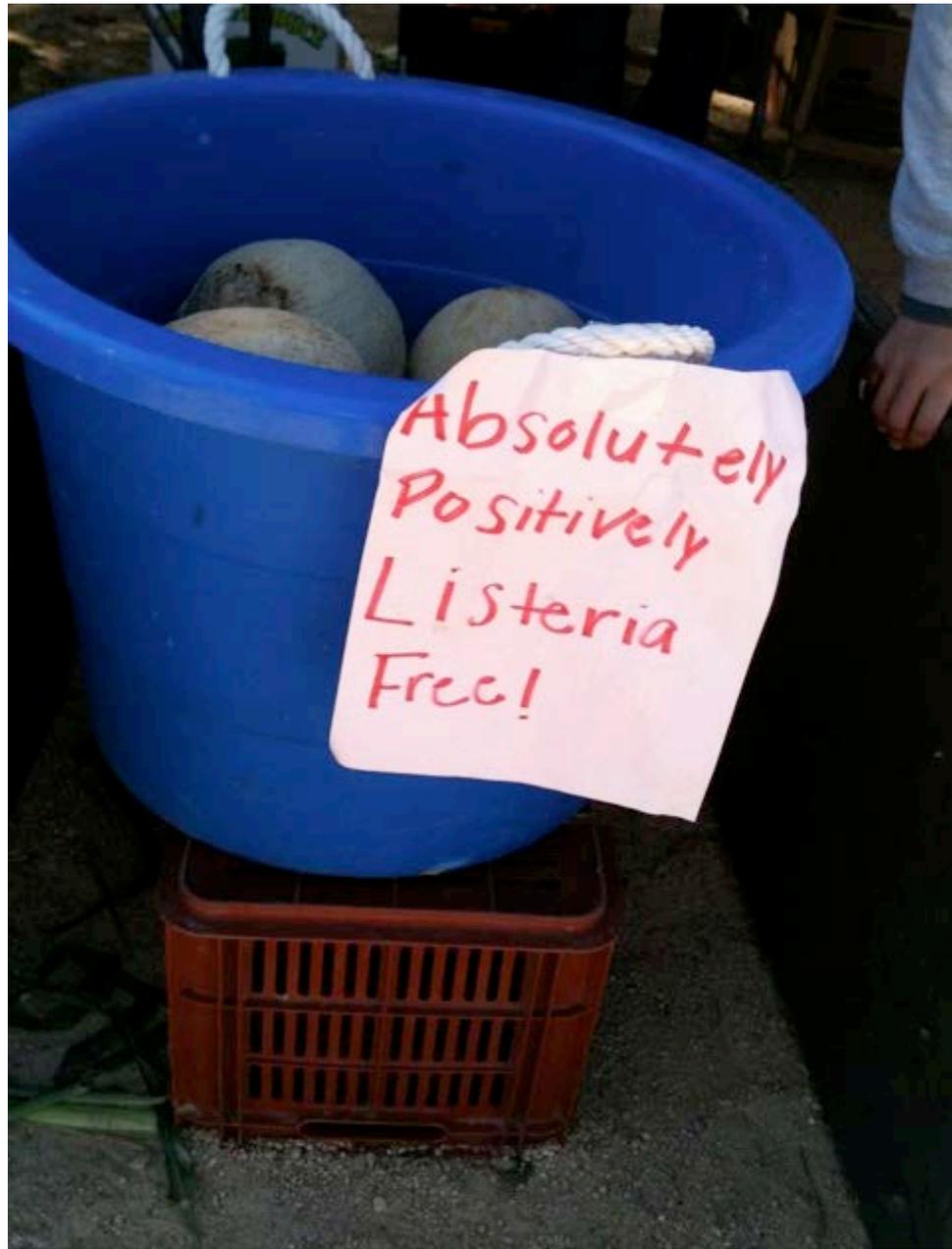


- 84% of Americans pay attention to food recalls
- 81% report to others
- <60% American check their homes for a recall food item.



2015 Recalls, Market Withdrawals & Safety Alerts

Date	Brand Name	Product Description	Reason/Problem	Company	Details/Photo
04/10/2015	Baxter	Sodium Chloride, Dextrose, and Lactated Ringer's Injections	Particulate Matter	Baxter International Inc.	
04/09/2015	Texas Pecan Company Inc.	Macadamia Nuts	Salmonella	Texas Pecan Company Inc.	 
04/08/2015	Sabra	Classic Hummus	Listeria monocytogenes	Sabra Dipping Co., LLC	 
04/08/2015	Central Market	Teriyaki Salmon Jerky	Undeclared Soy and Wheat	World Wide Gourmet Foods	 
04/08/2015	La Guadalupana	Salsa Verde Vegan Tamales	Undeclared eggs	La Guadalupana Wholesale Co., Inc.	 
04/08/2015	La Guadalupana	Salsa Verde Vegan Tamales	Undeclared eggs	La Guadalupana Wholesale Co., Inc.	 
04/07/2015	Blue Bell	Ice cream and sherbet	Listeria monocytogenes	Blue Bell Creameries, LP	
04/07/2015	Nature's Eats and Central Market	Macadamia nut products	Salmonella	Texas Star Nut and Food Co., Inc.	
04/06/2015	Deer	Cumin powder	Undeclared peanut	Best Foods	



Survival of *Salmonella enterica*, *Escherichia coli* O157:H7, and *Listeria monocytogenes* on inoculated walnut kernels during storage.

Blessington T¹, Mitcham EJ, Harris LJ.

Author information

¹Department of Food Science and Technology, Department of Plant Sciences, University of California, Davis, Davis, CA 95616, USA.

In some cases, the time of storage at 23° C did not influence bacterial levels, and in other cases the calculated rates of decline for *Salmonella* (0.05 to 0.35 log CFU/g per month) and *E. coli* O157:H7 (0.21 to 0.86 log CFU/g per month) overlapped and were both lower than the range of calculated declines for *L. monocytogenes* (**1.1 to 1.3 log CFU/g per month**).





Salmonella Paratyphi B
71 illnesses
9 hospitalizations
Pathogen traced to starter
culture



And here's a reason why supplier verification is highlighted

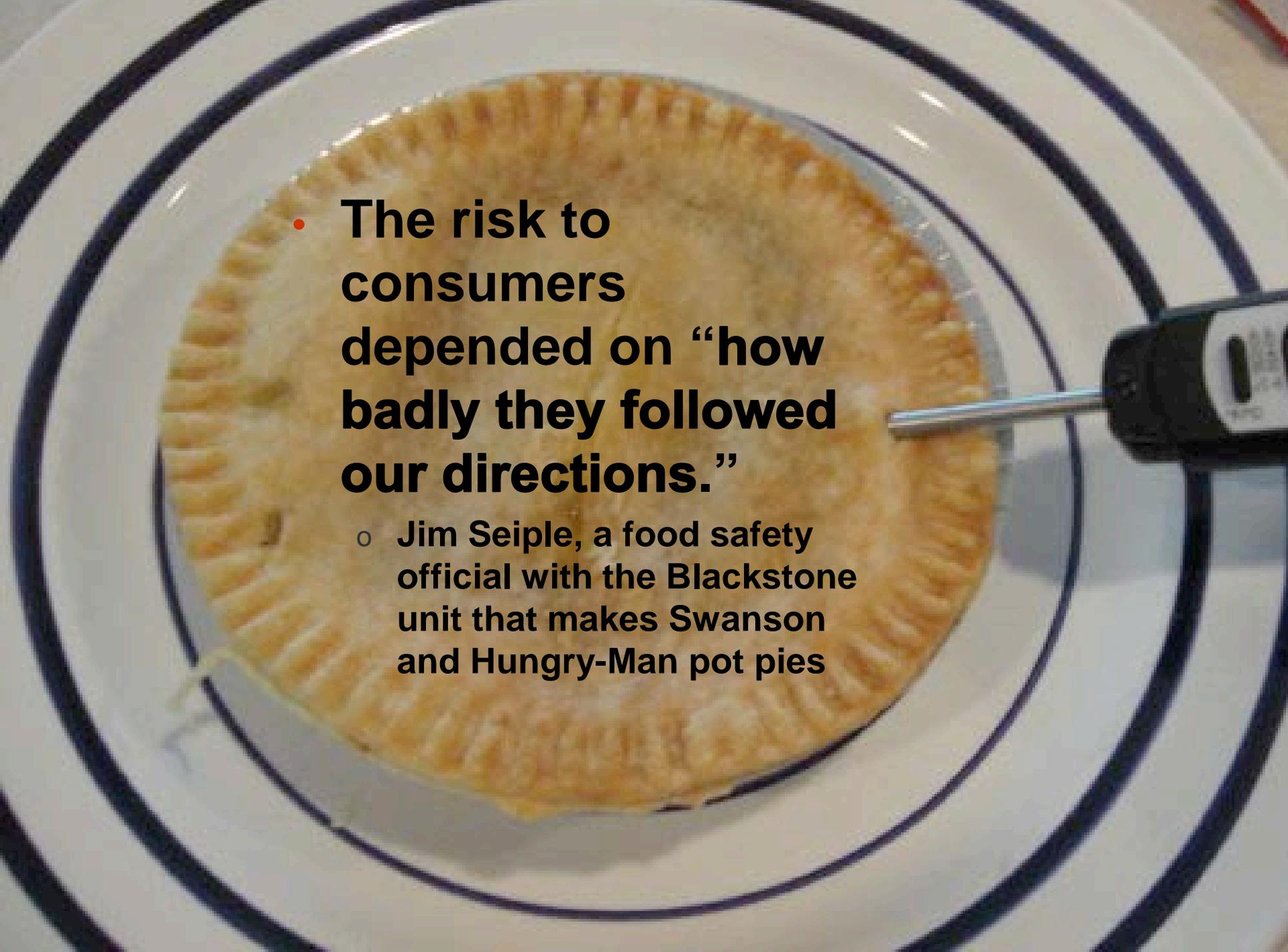
"For us it means that we've identified the point of entry. It had nothing to do with our sanitation, protocol or Blue Ridge Food Ventures. It did not originate in Asheville and it was unknowingly passed along to us. So it's a big relief to us. Now we can look at moving forward — it's up to the FDA to trace this further."



ConAgra Pot Pie outbreak 2007

- Over 400 ill
in 41 states



- 
- **The risk to consumers depended on “how badly they followed our directions.”**

- **Jim Seiple, a food safety official with the Blackstone unit that makes Swanson and Hungry-Man pot pies**



FOOD
SAFETY
CULTURE



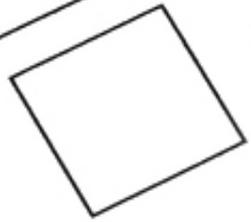
AUDIT CHECKLIST



Audit Satisfactory



Nonconformances Found



Observations Made

Third-Party Audits



- “The contributions of third-party audits to food safety is the same as the contribution of mail-order diploma mills to education. ... I have not seen a single company that has had an outbreak or recall that didn't have a series of audits with really high scores.”
- – Mansour Samadpour, president, IEH Laboratories, Seattle



“No one should rely on third-party audits to ensure food safety.”

– *Will Daniels, food safety, Earthbound Farm*





DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY VETERINARY COMMAND
2050 WORTH ROAD
FORT SAM HOUSTON, TEXAS 78234-6000

REPLY TO
ATTENTION OF

August 6, 1996

Approved Sources
Division

Odwalla
1900 Davis Drive
Dinuba, California 93618

Gentlemen:

We received the report of the June 6, 1996,
initial sanitary inspection of your establishment.

We reviewed the deficiencies noted in the report,
which our inspector discussed with you at the time of
the inspection. As a result, we determined that your
plant sanitation program does not adequately assure
product wholesomeness for military consumers. This
lack of assurance prevents approval of your
establishment as a source of supply for the Armed
Forces at this time.

We reviewed the deficiencies noted in the report,
which our inspector discussed with you at the time of
the inspection. As a result, we determined that your
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Forces at this time.

Approved Sources Division



NC STATE UNIVERSITY

NC State University
A&T State University
**COOPERATIVE
EXTENSION**
Empowering People • Providing Solutions



What do they do?

How do they do it?

What do they
value?

Take experts to visit

Provide buyers
more than gene

Be familiar with
specific risks/st
up to date on
literature



Audit? Sure, but do something with it

- Try not to make people sick
- Create a culture of food safety in your organization
- Embrace evidence-based microbiologically safe food
- Market it (and back it up)
- Be the bug





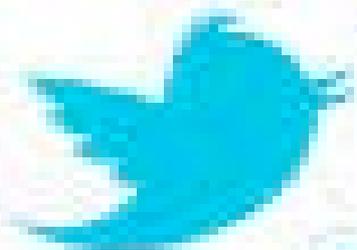
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tumblr



yelp

LOTS OF
ACCESS TO
REAL PEOPLE

Pink Slime For School Lunch: Government Buying 7 Million Pounds Of Ammonia-Treated Meat For Meals

First Posted: 03/05/2012 4:19 pm ; Updated: 03/08/2012 1:56 pm

React >

Amazing

Inspiring

Funny

Scary

Hot

Crazy

Important

Weird

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SHARE THIS STORY

63,000

797

3,284

489



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Pink slime -- that ammonia-treated meat in a bright, Pepto-bismol shade -- may have been rejected by fast food joints like McDonald's, Taco Bell and Burger King, but is being brought in by the tons for the nation's school lunch program.

The U.S. Department of Agriculture is purchasing 7 million pounds of the "slime" for school lunches, *Daily reports*. Officially termed "Lean Beef

THE ELECTRIFYING SOUNDS OF THE KNEEJERK REACTIONS



■ SILENT DISORDER ■ BORN DAMAGE FOR ME ■ WISDOM'S SLAP ■ THROW A STONE, HIT YOUR MIND ■ YOU ELECTRIFY ME ■ VINCE THE STRICK MEET
■ TELL FOR US ■ I AM THE KING OF THE WORLD ■ I ONLY WANT YOU ■ BORN TO DESTROY YOU LOVE ■ NOW LET YOU GO ■ SCALP BY MONO

GO TO
WHERE PEOPLE
ARE



**DUDE IT'S
BEEF!**





ENGAGE

PROVIDE

EVIDENCE

Yogurt Juggernaut Chobani Has Mold Problem

Sept. 5, 2013

By ALAN FARNHAM via [GOOD MORNING AMERICA](#)



Mucor circinelloides

noun

1. A mold commonly found in the dairy environment.



Cho
Like

Through exte
consultation,
the set of pro
week is a spe

Please find m

Like · Comment

👍 547 people

💬 432 shares



Brigid S
take car
me and
surroun
and pay
blessing
milk to
Like · Re



Liz Har
actually



Chobani 
835,178 likes · 2,071 talking about this



Food/Beverages
We believe everyone deserves delicious, nutritious yogurt made with only natural ingredients. Grab a spoon and share your love for Chobani with us!



5



Tammy Flowers Had the blueberry one, tasted like rotten milk! Horrible 😞

Like · Reply ·  1 · August 25 at 11:47pm via mobile



Chobani Tammy, we are sorry to hear you got anything less than a perfect cup. Would you mind shooting us an email at care[at]chobani dot com? We will gladly work to make it up to you if you'd like to chat. Thanks!

Like · August 26 at 11:08am



Write a reply... 



If I was them



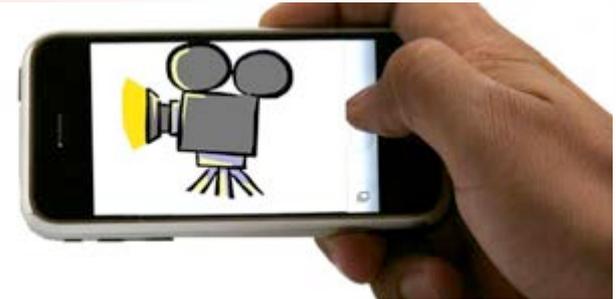
- Would have immediately been a partner in the discussion
 - **instead of responding to complaints begin to tell a story.**
- Starts at the first complaint they had (consumer/retail) get the people involved to sit and say what they heard and what they did

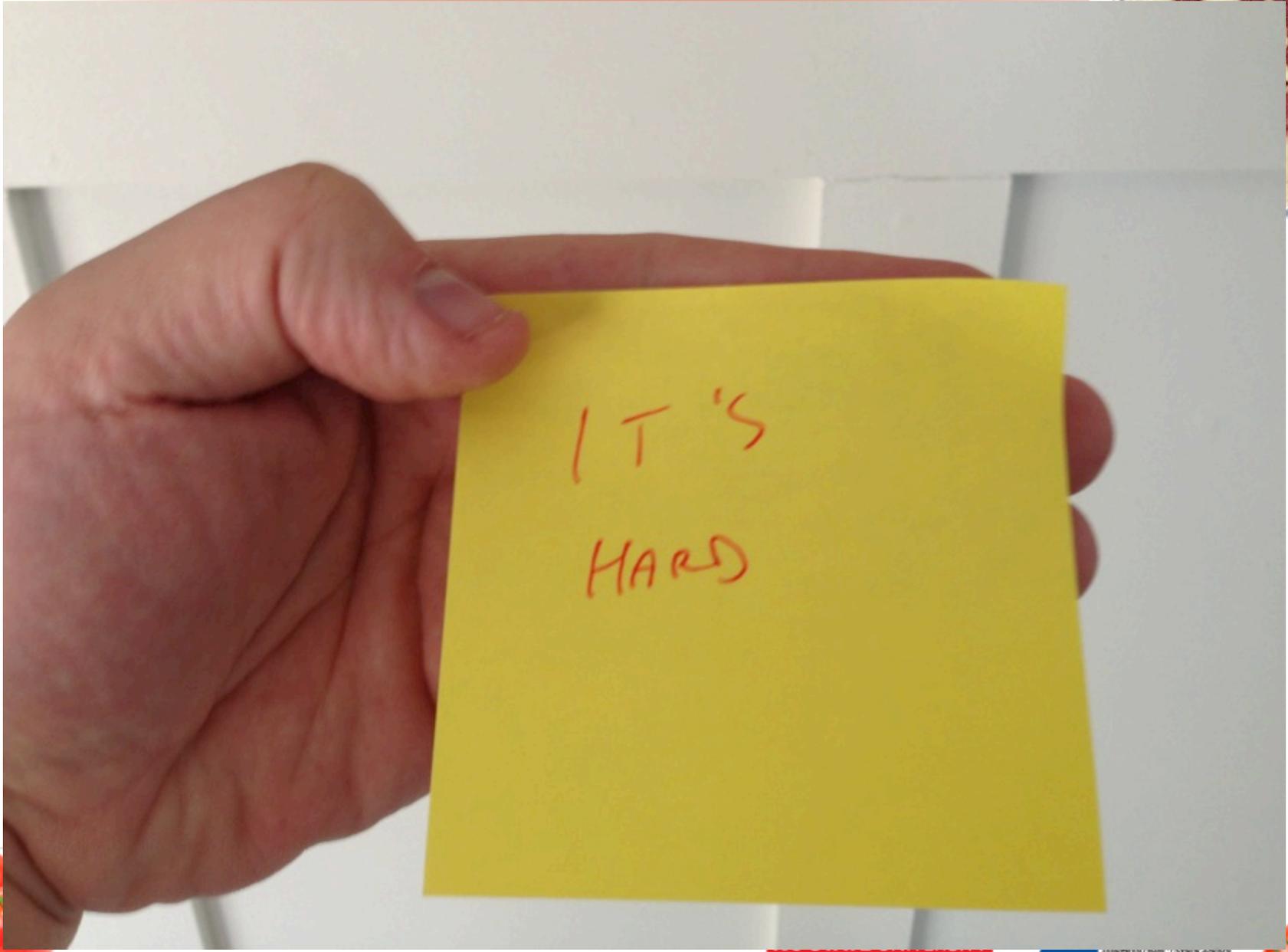


Chobani continued



- 1-2 min vignettes from customer service, QA/food safety, COO
 - Say how they got from Aug 24 to today. And continue these vignettes through the process of figuring out what the issue was
 - Explain the mold, what the possible sources are and exactly how they are trying to find the problem/fix it





IT'S
HARD



Have a story

Have science/data to back that story up

- There is never zero risk – consumers have been led to believe that there are guarantees

Tell your story in a genuine way

The End

Dr. Ben Chapman

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Follow me on twitter [@benjaminchapman](https://twitter.com/benjaminchapman)

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www.foodsafetytalk.com

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