

# Confessions of a variance committee member

Dr. Ben Chapman  
NC State University  
June 29, 2016



I put cabbage,  
carrots and





**LeDolci** @LeDolci · 27 Aug 2013

Good Evening All,

Firstly, we'd like to say we are very concerned about what has happened in the past week. We... [fb.me/13KnWAnMs](https://fb.me/13KnWAnMs)



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1



**Ben Chapman**

@benjaminchapman

@LeDolci Can you share the pH and water activity of the maple bacon jam? There's some Internet speculation over contamination at the CNE.

1:00 PM - 28 Aug 2013









**VARIANCE**

# Regulator training

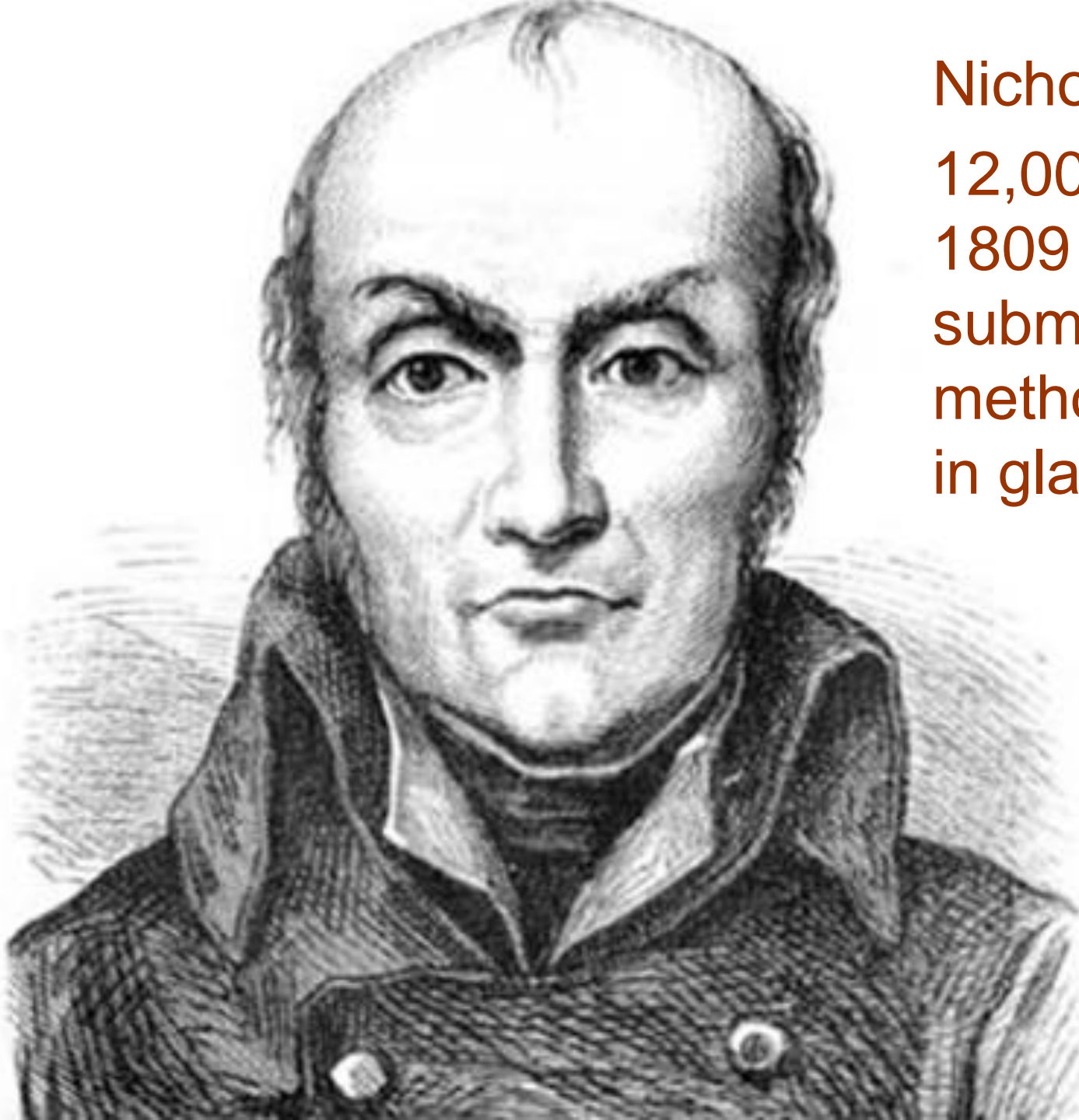
- **Two days**
  - **Day one – principles of HACCP/specialized processes**
  - **Day two – hands on and HACCP plan development**
  - **Yogurt fermentation**
  - **Canning tomatoes**
  - **Acidifying sushi rice**
  - **Sous Vide/ROP**
- **280 state and local EHS since 2014**

# Industry training

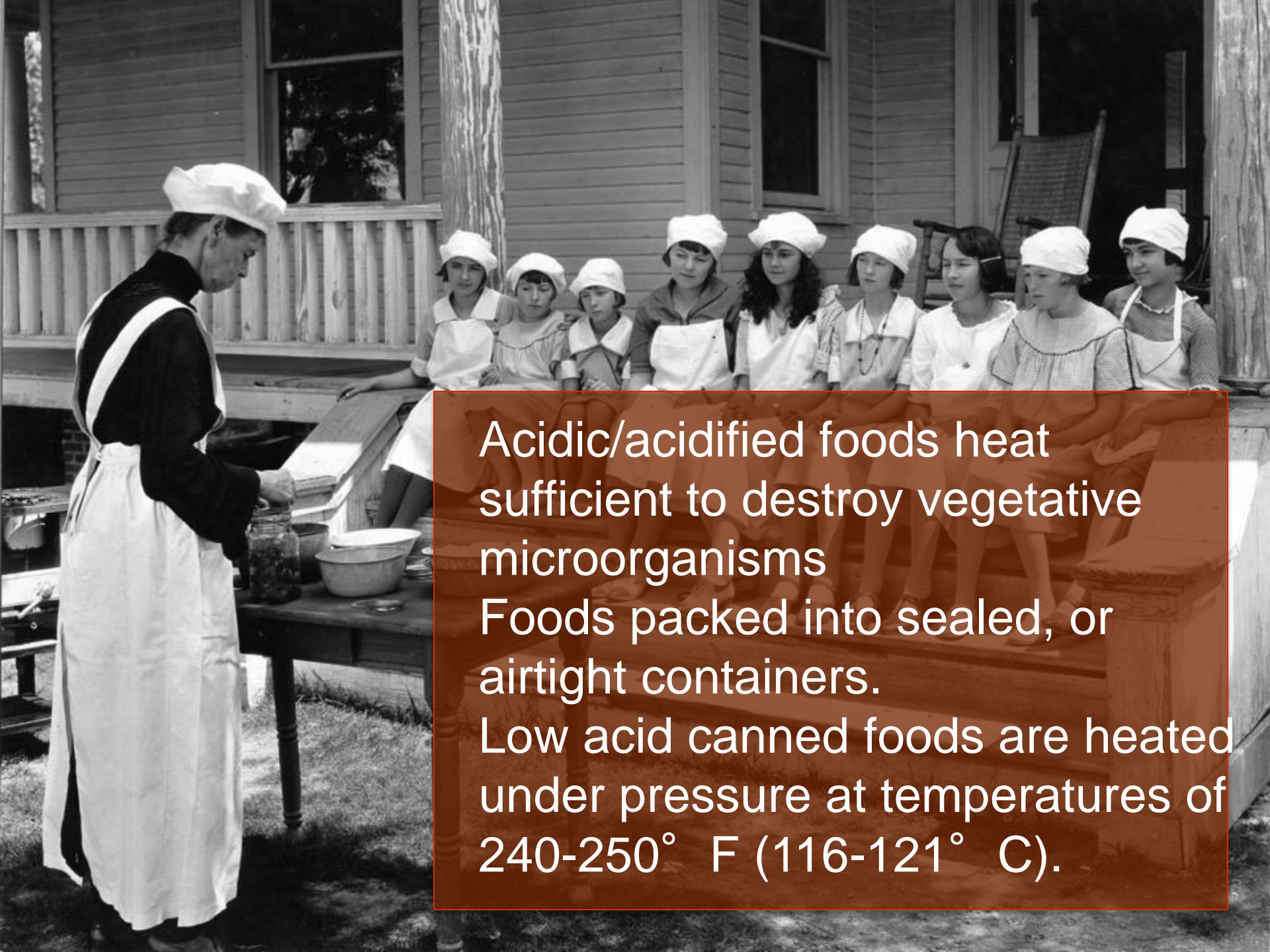
- Industry training
- One-day
- Limited numbers
- Specific to charcuterie



Too many CCPs  
Not enough science  
Lack of understanding  
how/what to manage  
Home recipes



Nicholas Appert  
12,000 francs, in  
1809 when he  
submitted his  
method of “food  
in glass bottles.”



Acidic/acidified foods heat sufficient to destroy vegetative microorganisms

Foods packed into sealed, or airtight containers.


Low acid canned foods are heated under pressure at temperatures of 240-250° F (116-121° C).




Majority of home canners have reported not following science-based home preservation methods

Receive much of their home preservation information through friends and family

Only 45% of respondents thought that home canned foods could be spoiled without obvious signs of spoilage

A photograph of a man with short dark hair and a mustache, smiling and holding a large white plastic bag filled with a yellowish liquid. He is wearing a dark t-shirt with a graphic. The background is a plain, light-colored wall. A semi-transparent blue box with a red border is overlaid on the right side of the image, containing white text.

2012 CDC surveillance  
160 cases  
25 cases foodborne  
12 were linked to 2  
pruno outbreaks

The image shows several glass jars filled with small, round, yellowish potatoes. The potatoes are submerged in a liquid, likely brine or oil. Some jars have white labels with black text. One label in the foreground reads "From The Muehli's Kitchen", "Potatoes", and "Canned Sept. 1, 2009". Another label on a jar in the background also reads "From The Muehli's Kitchen" and "Potatoes". The jars are arranged on a wooden surface.

**Clostridium botulinum**  
**Lancaster, Ohio**  
**One death and 24 illnesses**  
**Linked to a church potluck**  
**Canned potatoes in potato**  
**salad**

From The Muehli's  
Kitchen

Potatoes  
Canned Sept. 1, 2009

From The  
Kitc

Potat  
Canned Sept





I'm just making  
tempeh, not  
fermenting



Sprouting in the kitchen





How do I validate?

The end