



11th Annual Purdue/USDA Food Safety Engineering Meeting

Welcome!

Richard H. Linton
Director, Center for Food Safety Engineering
October 27-28, 2009



Meeting Agenda

- ✓ October 27
 - Travel to Forestry Center
 - Welcome
 - Purdue University led project reports
 - Lunch (provided for all attendees)
 - Purdue University led project reports (con't)
 - Travel to Purdue Food Science Building
 - Afternoon scientific poster session
 - Building and lab tours
 - Dinner (Purdue PIs, USDA staff, Chinese visitors)
- ✓ October 28
 - Travel to Forestry Center
 - Presentations from Chinese visitors
 - Lunch (provided for all attendees)
 - USDA-ARS ERRC led project reports
 - Meeting adjourn



Other Logistics

- ✓ Bathrooms
- ✓ Breaks/Food
- ✓ Phones/Cell Phones
- ✓ Notebook Content



INTRODUCTIONS.... AND WELCOMING REMARKS



Welcome!



Dr. Suzanne Nielsen, Head
Food Science Department
Purdue University



Our Numbers...

- ✓ Department is 26 years old
- ✓ 120 Undergraduate Students
- ✓ 60 Graduate Students
- ✓ 22 Faculty
 - **Food Chemistry:** Molecular structure and function, Enzymology
 - **Food Microbiology:** Safety, Nanotechnology, Molecular biology
 - **Food Processing:** Engineering, Modeling, In-line sensors, Packaging, Sensory
 - **Food and Health:** Phytochemicals, Obesity



What Are We Known For?

- ✓ Facilities
- ✓ Industry interactions
- ✓ Large undergraduate program
- ✓ Research centers
- ✓ Interdisciplinary research
- ✓ Aseptic processing
- ✓ Workshops for industry
- ✓ Solid focus on food science
- ✓ Risk taker/Leader



Centers of Excellence

- ✓ Center for Food Safety Engineering
- ✓ Whistler Center for Carbohydrate Research
- ✓ Center for Integrated Food Manufacturing



11th Annual Purdue/USDA Food Safety Engineering Meeting

Overview of CFSE

Richard H. Linton
Director, Center for Food Safety Engineering
October 27-28, 2009



Center Goals

- ◆ The purpose of the CFSE at Purdue University is to *"develop new knowledge, technologies, and systems to detect and prevent microbial and chemical contamination of foods"*
- ◆ Primary goal of detection is to build technology platforms to detect:
 - ◆ Low numbers
 - ◆ Accurate and specific
 - ◆ Viable vs. non-viable
 - ◆ Infectious vs. non-infectious
 - ◆ Manageable costs
 - ◆ *L. monocytogenes, Salmonella, Campylobacter, E. coli*



Center Structure/Involvement

- ◆ Purdue (5 Schools)
 - ◆ Agriculture (Home – AGAD)
 - ◆ Engineering
 - ◆ Consumer and Family Sciences
 - ◆ Science
 - ◆ Veterinary Sciences
- ◆ Industry
 - ◆ Food production and manufacturing
 - ◆ Testing
- ◆ Regulatory/Government
 - ◆ USDA-ARS Cooperative Agreement



Research Objectives

1. Development of diagnostic tools for rapid identification of biological and chemical foodborne contaminants
2. Development of models to predict and track foodborne contaminants
3. Identification, design and evaluation of alternative processing, handling, packaging, transport, and storage systems to minimize and/or reduce food contaminants
4. Development of technology transfer of information and knowledge related to food safety for the food industry, government agencies, academia, and the public



CFSE WEBSITE
(www.cfse.purdue.edu)

The Center for Food Safety Engineering

◆ Annual Research Report
◆ Current CFSE News
◆ Information about food safety and detection

“Collaborating to make our food safer!”

PURDUE

ACKNOWLEDGEMENTS..