



INSTITUTE FOR
FOOD SAFETY
AND HEALTH
ILLINOIS TECH

Innovation Through Collaboration



LOW MOISTURE FOODS SAFETY TASK FORCE

Tuesday, September 3, 2024

1:00 PM – 4:45 PM CDT

Overarching Goal of Task Force

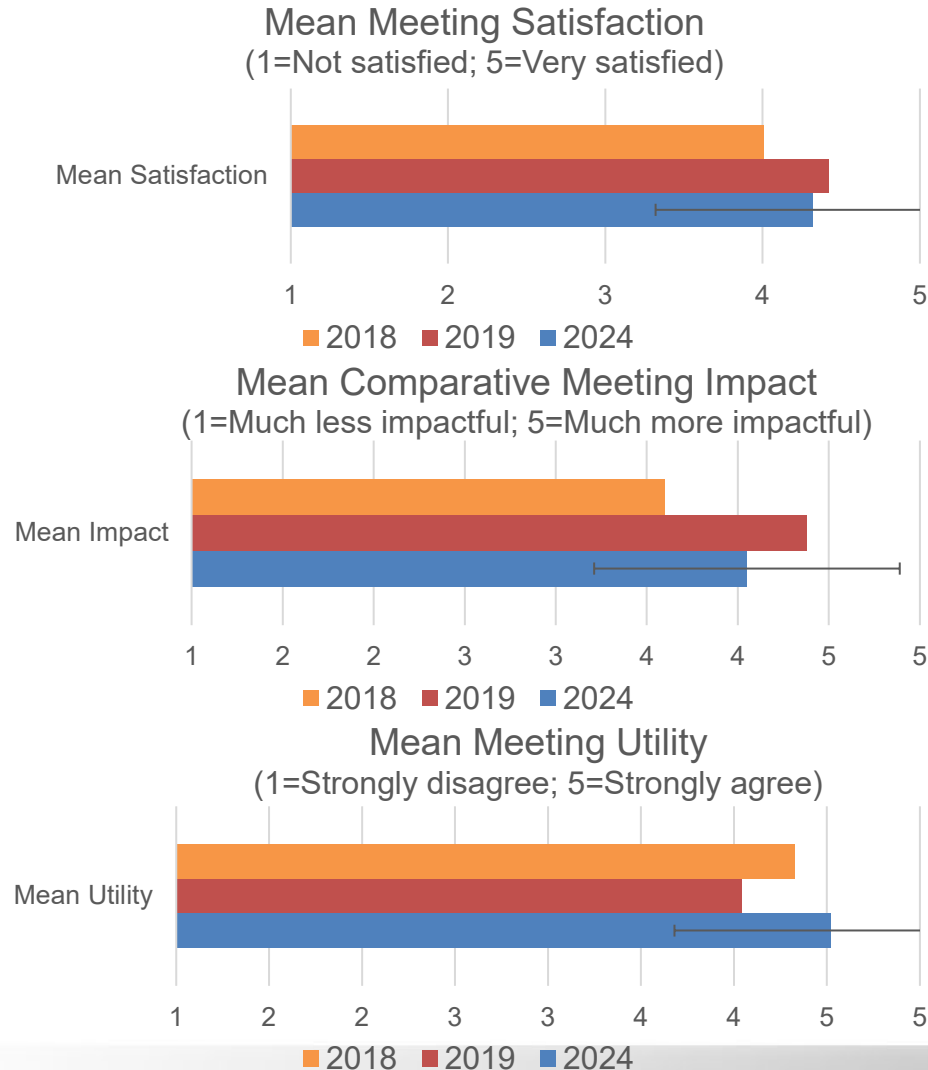
Build a “toolbox”

- Process validation
- Pathogen control
- Allergen control
- Consumer practices/outreach
- Risk assessment
- Decision support tools
- Process control



2024 IAFP Workshop - Evaluation

Validating Pasteurization Processes for Low-Water Activity Products



“The whole workshop was outstanding. Thanks for the work organizing and hosting this as it is a challenging topic, but very important”

“Surrogate selection; Statistics and their application; How and when to use modeling”

“[Through] a credible source, **readily available models for kill step calculation do not take into account for the effect of dynamic water activity changes**”

“Networking”

“Now I know the proper process to follow for thermally validating a low moisture food.”

“Having so many professionals with so much experience related to food safety”

2024 IAFP Workshop - Anticipated Impact

Validating Pasteurization Processes for Low-Water Activity Products

“We are preparing to conduct a validation study on a new process so this knowledge will be of great help for that.”

“The outcomes I got from the workshop will be useful in developing and improving current designs in pathogen inactivation.”

“I work with others that do this work so it helps me understand better.”

“During commissioning and qualification of new plant and process lines”

“Use information learned to **push for changes** that there are resistance to.”

“Highly effective”

“Use when planning and reviewing validation work with 3rd parties hired to handle the validation.”

“New knowledge and the spiral notebook as reference material”

Meeting Goals

- Focus on process validation for low moisture foods
- Shed light on current research developments in LMF
- Evaluating and validating “silver bullet” technologies
- Identify challenges and knowledge gaps where research can lead to improvements in low moisture food safety

Agenda

- 1:00 PM – 1:15 PM **Welcoming Remarks & Meeting Goals**
Nathan Anderson, Ph.D., FDA
- 1:15 PM – 1:45 PM **5 Questions in Designing a Validation Study**
Erdogan Ceylan, Ph.D., Mérieux NutriSciences
- 1:45 PM – 2:15 PM **Key Factors in Evaluating Potential Technologies**
Juliany Rivera Calo, M.S., Ardent Mills
- 2:15 PM – 2:30 PM **A Decision-Support Tool for Economic Valuation of Food Safety Technology Investments**
Carly Gomez, Ph.D., Michigan State University
- 2:30 PM – 2:40 PM **Powdered Infant Formula Update**
Brian Schaneberg, Ph.D., Illinois Tech/IFSH
- 2:40 PM – 3:00 PM **Networking Break**

Agenda

3:00 PM – 3:45 PM **Research Updates: Lightning Round – Moderated by Xiyang “Sunny” Liu, IFSH**

Isothermal Inactivation Kinetics of Salmonella Montevideo on Partially Dried Apple Cubes

Xiyang Liu, M.S., Illinois Tech/IFSH

Critical Factors for Practical Dry Cleaning Applications on Low-Moisture Food Contact Surfaces

Ian Klug, M.S., FDA

Biofilm Formation of Cronobacter sakazakii in Powdered Infant Formula at Different Water Activity Levels

Megan Fay, M.S., FDA

Influence of relative humidity on bacterial survival in powdered infant formula during long term storage

Joelle Salazar, Ph.D., FDA

3:45 PM – 4:30 PM **Roundtable: Process Validation for Low Moisture Foods – Moderated by Xiyang Liu, Illinois Tech/IFSH and Nathan Anderson, FDA**

Elizabeth Grasso-Kelley, Ph.D., FDA – *Regulatory Perspective*

Bradley Marks, Ph.D., Michigan State University – *Process Modeling and Decision Support Tools*

Ian Hildebrandt, Ph.D., Michigan State University – *Surrogate Suitability and Validation Statistics*

Juliany Rivera Calo, M.S., Ardent Mills – *Industry Insights on Silver Bullet Technologies*

Erdogan Ceylan, Ph.D., Mérieux NutriSciences – *Industry Insights on Conducting Validation Studies*

4:30 PM – 4:45 PM **Wrap Up and Survey**

Nathan Anderson, Ph.D., FDA

Lindsey McGowen, Ph.D., North Carolina State University

THANK YOU!