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25 YEARS OF NSF FOOD SAFETY

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ABOUT ME



MATTHEW TAYLOR

Senior Manager, Food Consulting



22 YEARS AT NSF

Environmental health practitioner background



FLASHBACK TO 1998



**LET'S CELEBRATE 25 YEARS
OF CFSS!**



NSF FOOD SAFETY CONSULTING SERVICES

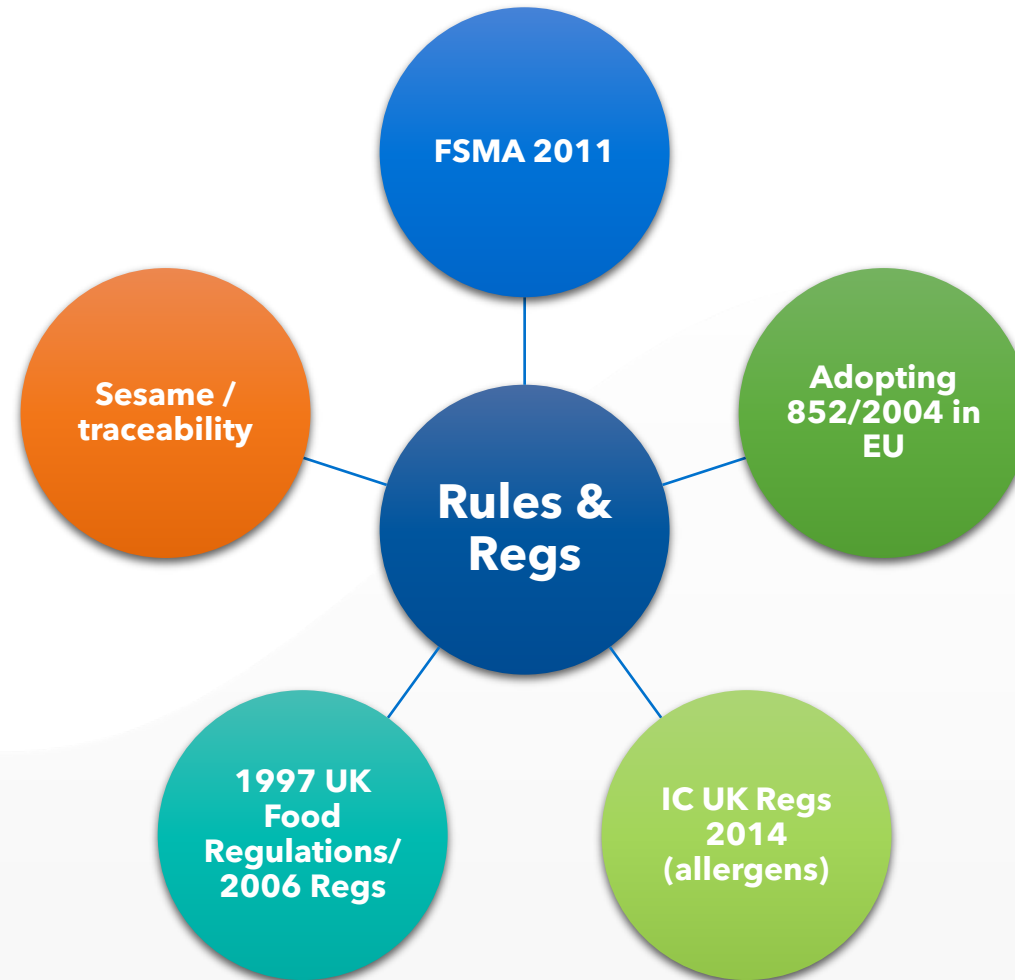
NSF has pioneered food safety for over 75 years. Our people are experts in their field and passionate about what they do - helping businesses to grow and improve.

- Preparing for GFSI (gap assessment)
- Client resourcing
- Policy development/benchmarking
- Health and safety
- Crisis management
- Food fraud

REFLECTIONS OVER THE LAST 25 YEARS



NEW RULES AND REGULATIONS



TECHNOLOGY AND COLLABORATION

- Better testing
- PCR
- DNA
- Identifying source of foodborne illness
- Codex
- Interagency collab - food fraud
- One health initiative
- FSVP/export/import on increase (not to mention disruption)
- Countries looking to improve frameworks



GAPs / GMPs / TRACEABILITY

- widespread adoption of Good Agricultural Practices (GAPs) and Good Manufacturing Practices (GMPs) by food producers and processors, which aim to minimize the risk of foodborne illness by implementing standardized practices throughout the food supply chain.
- Blockchain / easier to trace where a food item comes from
- Helping food industry improve its overall quality and reliability, and improving food safety

Has it led to more accountability for food manufacturers and suppliers?

LOTS MORE CHOICES SINCE 1998!

- Growth of organic and locally sourced food movements, which place a greater emphasis on food safety and sustainability
- Plant based, vegan, vegetarian and other choices
- The range now in retail is amazing compared to 25 years ago

QUICK FACTS:

- **The retail market for plant-based food in 2022 is worth \$7.4 billion, which is \$5.5 billion more than in 2019.***
- **10% of U.S. adults identify as vegan or vegetarian.**
- **The number of vegans worldwide reaches approximately 79 million.**
- **From 2004 to 2019, the number of vegans in the US increased 30-fold.**
- **The plant-based market grew by 27% during the pandemic.**



EDUCATION AND SOCIAL MEDIA

- Increased focus on food safety education and outreach, including initiatives to educate consumers about the importance of safe food handling practices and the proper storage and cooking of food
- Social media is playing a part (not always positive): education, brand damage, brand awareness – growing your business



BREXIT IN THE UK

- Did we see it coming?
- Supply chain disruption initially
- Admin burden on borders
- Delays at borders
- Price rises / product shortages
- Sunset on Brexit laws this year – retain, remove, missed opportunity to update, innovate and renew
- Windsor deal

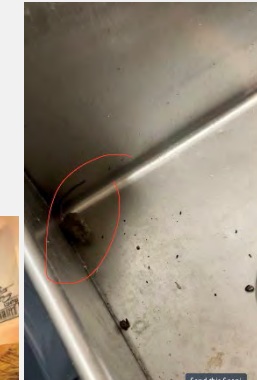
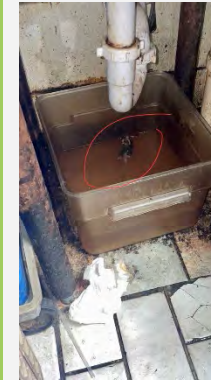
CRISIS IN THE INDUSTRY

- Covid pandemic
- Listeria and other foodborne outbreaks
- Recalls
 - recall of infant formula resulted in two deaths
 - major recall of peanut butter products impacted 21 different food items and led to recall of 12.2 million units)
- Food fraud - Horsemeat scandal (10 years)
- Vulnerable supply chains / supply chain disruption
- Perfect storm now - geopolitical, inflation
- Criminals find a way (and still do) - monthly fraud reports and what they tell us



WHERE ARE WE NOW?

- Are we getting the basics right?
- An inspector calls
- FDA recalls still an issue
 - FDA food recalls rose marginally (2.2%) from 414 recalls in 2021 to 423 recalls in 2022
- While events remained constant in 2022, defective units surged 700.6% from 52.1M to 416.9M
- Leading cause of FDA recalls?
- USDA recalls decreased - foreign bodies
- Health crisis
- Promoting health/product choice



WHERE ARE WE HEADING IN THE NEXT 25 YEARS?

- Admin burden vs. data
- Pandemic recovery
- Labor issue in food and drink sector (globally)
- Another covid
- Labor challenge to enforce (esp. UK)
- New countries exporting...are they safe?
- CDC estimates 48 million people get sick, 128,000 are hospitalized, and 3,000 die from foodborne diseases each year in the United States
- Food fraud challenges
- Climate change
- Health/obesity
- Sustainability
- We still have work to do



WHERE COULD WE BE HEADING?

- Greater emphasis on food security and food systems resilience, with a focus on ensuring that food systems can withstand and recover from disruptions caused by natural disasters, climate change, and other factors.
- Food fraud has not gone away; it's happening right now. What are you doing to review this - comply with the law or go a little further to become best in class?
- Increased use of technology, including artificial intelligence and the Internet of Things (IoT), to enhance food safety through improved traceability, risk assessment, and outbreak detection and response.
- Greater international cooperation and harmonization of food safety regulations, as global trade and travel become increasingly prevalent, and countries work to prevent the spread of foodborne illness across borders.





A CONTINUED FOCUS

- Preventing contamination at all stages of the food supply chain, including the implementation of new and innovative food safety interventions, such as high-pressure processing and ultraviolet light technology
- Expansion of the "farm-to-table" movement, with a focus on locally sourced food that is produced and processed with food safety in mind.
- Regulatory changes for new products, but also novel foods
- Collaboration between us is key
- Training - let it be fun! Include all levels, not just those on the shop floor
- Traceability rule
- Allergens and recalls

FOOD SAFETY CULTURE / SOCIAL MEDIA

- Increased emphasis on the importance of food safety education and outreach, including initiatives aimed at educating consumers, food workers, and food producers about safe food handling practices and the proper storage and cooking of food
- Using social media as a tool to learn
- Getting closer to what culture means and how to measure it



TECHNOLOGY

- Development of new and innovative food packaging materials and technologies
 - Intelligent packaging that can detect and indicate the presence of harmful contaminants in food
 - Sustainability is becoming even more important (PFAS!!)
- Vegetable based coatings for produce to extend shelf life
- Addressing the labor shortage (robotics and automation?)
- Weird and wonderful products (growing meat in a lab, bugs)
- Greater attention to food safety in low- and middle-income countries, where foodborne illness is a significant public health challenge, through the implementation of food safety programs, capacity building, and technical assistance (particularly those new to export)





BLOCKCHAIN

Expansion of the use of blockchain and other digital technologies to improve food safety, traceability, and accountability throughout the food supply chain.

Data will be useful but don't forget the risks

PREPARE FOR THE WORST / DO YOUR BEST / SHARE

- Pre-incident - what can you do?
- Move to data - it will help!
- Cyber security - got it covered?
- Let's share what we do well.
- Test your recall plan.



VISIT US AT BOOTH #408

THANK YOU.

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