Michelle Jacokes, Produce Safety Technician
Manistee Conservation District

Empowering growers with on farm assistance in developing proactive measures for safe produce
Michigan On-Farm Produce Safety

- Proactive Approach to Produce Safety through On-Farm Technical Assistance
- Free, Voluntary and Confidential
- Can be done through the following:
  - Produce Safety Risk Assessment
  - On-Farm Readiness Review
  - Farm Produce Safety Plan Development
  - On-Farm Technical Assistance
FSMA Produce Safety Rule

- Finalized in 2015
- First time, science based minimum standards on:
  - Growing
  - Harvesting
  - Packing
  - Holding

Of note:

- FDA Food Safety Modernization Act (FSMA) is transforming nation’s food safety system by shifting the focus from responding to foodborne illness to preventing it” - Food & Drug Administration

- Fruits + veg that is typically consumed raw
- Requiring the risk of food borne illness
“Food Safety Scares Are Up In 2018. Here’s Why You Shouldn’t Freak Out”

“Should Sprouts Come With A Warning Label?”

“It’s not easy being green: Romaine lettuce E.coli outbreak rattles food, grocery industries”

“Peak Summer: More Than One In Six People Likely To Get Food Poisoning”

Case Study
Outbreak of *E. coli* in Spinach, 2006

“Hedgehogs or lettuce, outbreak investigations are complex”
Unsuspected Culprits

diamond Just five species of bacteria responsible for 90% of foodborne illness

diamond Contamination can stem from many things

diamond Microorganisms are not easily detected (Bacteria, Viruses and Parasites)

diamond Can multiply and persist in various conditions

<table>
<thead>
<tr>
<th>Common sources of food poisoning</th>
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<tbody>
<tr>
<td>Estimated total illnesses from outbreaks in 1998-2012</td>
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</tbody>
</table>

- Salmonella
- E. Coli
- Campylobacter
- Listeria

- Beef
- Pork
- Chicken
- Turkey
- Other meat
- Seafood
- Dairy
- Eggs
- Vegetables
- Fruits
- Grains/Beans
- Sprouts
- Other produce

*Includes estimated total illnesses for only outbreaks that could be attributed to a single pathogen and food category

SOURCE: Centers for Disease Control and Prevention
Impact

- Consumers
- Producers
- Land
- Accessibility

Figure 3. Risk-Based Approach to Food Safety
Adapted from FDA
Each year 1 in 6 Americans get Sick from Foodborne Illnesses

- CDC estimates 48 million people get sick every year from foodborne diseases
  - 128,000 are hospitalized
  - 3,000 die

- Known Foodborne Illnesses
  - 31 pathogens known to cause foodborne illness
  - Many of these tracked by public health systems that track diseases and outbreaks

- Unspecified Agents
  - Agents with insufficient data to estimate agent-specific burden
  - Known agents not yet identified as causing foodborne illness
    - Microbes, chemicals and other substances in food but not yet proven to cause illness
    - Estimates for this group started with the health effects or symptoms that they are most likely to cause
Community Action

- **ACCOUNTABILITY** - everybody eats!
- Support local food systems
- Take personal responsibility in safe food
  - The ‘Core Four’ (Clean, Separate, Cook, Chill)
- Consider asking what food safety practices a farm utilizes
- Aim to understand the many moving parts of a farm
Food Safety Is...?

- Food Security
- Availability, Access, Utilization and Stability
- Agri-food Chain Resilience
- Responsibility
- Science-based
- Prediction and Prevention
Conclusions

- Food Safety is important for:
  - Individuals General Health & Daily Life
  - Economic Development, Trade and Tourism
  - Social Stability and Socio-Economic Development
  - Availability of Fresh Fruits & Vegetables
- Promote health and resilient food systems through reduction of microbial contamination

Food safety, everyone’s business.
Questions
Resources

- https://www.thepacker.com/article/hedgehogs-or-lettuce-outbreak-investigations-are-complex
- https://www.npr.org/sections/thesalt/2016/02/25/468032778/should-sprouts-come-with-a-warning-label
- http://www.beachwoodreporter.com/people_places_things/peak_summer_more_than_one_in_s.php