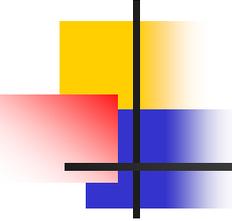


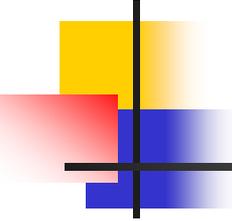
Where Does Your Food Come From?

Byron Beerbower
Compliance Manager
**Michigan Department of Agriculture,
Food and Dairy Division**



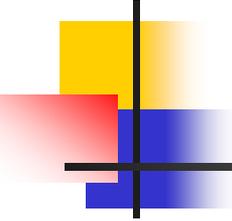
Definitions

- **Epidemiological Investigation**
- **Environment Assessment**
- **Recall**
- **Market Withdrawal**
- **Traceback**
- **Farm to Fork Assessment**
- **Rapid Response Team (RRT)**



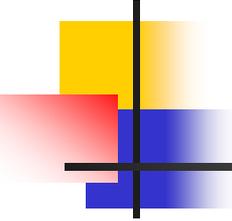
Partners

- **FDA - Food and Drug Administration**
- **USDA-FSIS – United States Department of Agriculture Food Safety Inspection Service**
- **CDC – Centers for Disease Control**
- **MDCH – Communicable Disease**
- **LHD – 45 Local Health Agencies**
- **MDE, MDC, State Depts. of Ag or Health**



Roles and Responsibilities

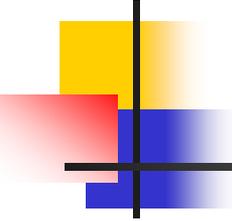
- **LHD starts and leads investigation in response to an alleged Food borne Illness**
- **MDCH coordinates with CDC, LHD and Regional Epidemiologists.**
- **MDA coordinates with MDCH and LHD to complete FBI environmental assessments with FDD staff, Federal Partners (FDA/USDA-FSIS), and other state partners as applicable.**



The hidden work, starts

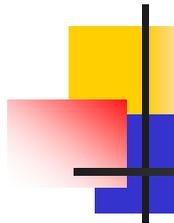
- Once MDCH/LHD have identified a suspect food through the epi process,
- MDA now steps up to investigate on two tracks:
 1. Where does the suspect food product come from and what is in it.
 2. What facilities have had a hand in processing that food.





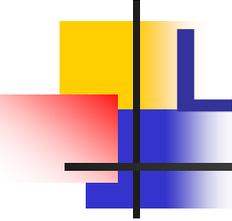
The hidden work, continues

- **Starting the investigation with the source of the suspect food product,**
 - many times this is the LHD – enviro/cd staff who are conducting patient interviews
 - and are requesting invoices from the firm/s involved
 - don't forget to include accurate meal dates/times
- **Key to this work is getting the identification of the product involved nailed down as accurately as possible.**



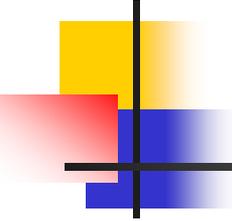
Lots, codes, descriptions, etc.

- **Why does MDA keep asking you to go back and talk to the patient or the restaurant? To be effective we need the most accurate info we can get, e.g.:**
 - **Salad – green, house, Caesar, spring mix, mesculun...**
 - **Turkey – smoked, roasted, baked, flavored, brand, type: whole breast or formed...**
 - **Lot codes, pack dates, expiration dates...**



Lots, codes, descriptions, etc.

- Typically for every interview there is at least 1, usually 2/3 implicated products from differing restaurants,
 - Ideally a restaurant would have 1 supplier
 - And that same supplier would supply multiple implicated restaurants 😊
 - The reality is that most restaurants have multiple suppliers of the same types of products 😞



Product and supplier are identified, first steps

- **FDD staff are now tasked to begin their investigations,**
 - **Review of suppliers identified by LHD.**
 - **Review of products identified by LHD.**
 - **Review of invoices to suspected restaurants, to determine what products actually delivered to the restaurants**

Product and supplier are identified, second steps

- Identification of ingredients in products
- Identification of suppliers of the ingredients



Product and supplier are identified, second steps

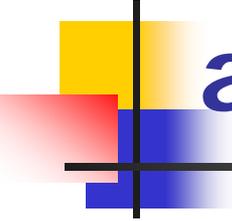
- Environmental assessment (EA) of facility to identify food handling practices
- Review of EA to determine potential sources of contamination



Product and supplier are identified, third steps

- After review of EA, determine need for collection of samples:
 - Environmental swabs,
 - Equipment, FC surfaces, Non-FC surfaces, drains, floors, walls, ceilings, cooling units,
 - finished product,
 - raw ingredients,
 - package materials





Product and ingredient suppliers are identified, fourth... steps

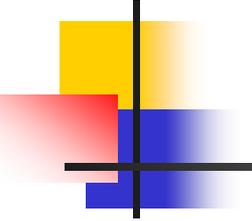
- **Follow up investigations at suppliers of ingredients, including:**
 - **Environmental Assessment**
 - **Distribution lists for products delivered to other buyers**
 - **Lists of Suppliers/farms for products delivered to firm**

Product and ingredient suppliers are identified, ... fifth steps

Farms are evaluated for GAP/GHP, Good Agricultural/Handling Practices

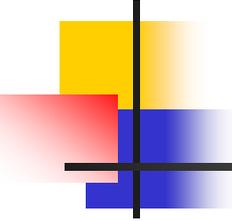
- Field management
- Manure management
- Irrigation management
- Processing in field or
in packing shed
- Cooling practices
- Equipment maintenance
- Employee management





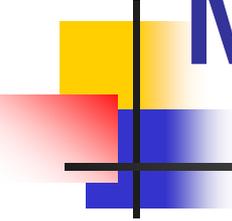
Case Study: Fall 2008, MI Lettuce Recall and FBI for E. coli

- 38 ill in Michigan
- 21/38 (55%) Hospitalized, 1 HUS
- Involved >5 states, 9 MI counties
- One firm mixing and distributing
- >30 suppliers to local restaurants and cafeterias across the state



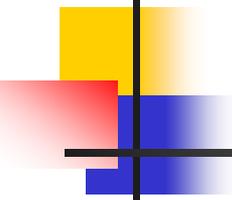
What about Tracebacks and Recalls

- All of the investigation work described previously is essentially a traceback or traceforward.
- The goal of any traceback/traceforward is to identify all of the places a product has been or will be going and the ingredients in the product



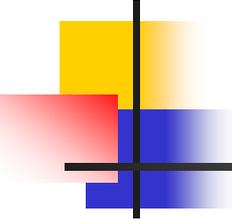
MDA – Rapid Response Team

- **Tasked to do many things:**
 - **Evaluate commodity chains from farm to fork.**
 - **Evaluate both food safety and food security of those commodities**
 - **Enhance traceback and recall work**
 - **Enhance communications with MDCH, LHD's, Feds and food manufacturers**
 - **And a lot more stuff**



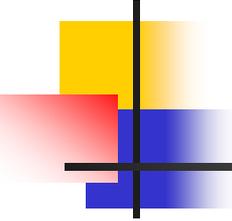
Food Safety Planning and Response Unit and RRT team members

- **John Tilden - Manager**
- **Lisa Hainstock – 517/241-0930**
- **Siobhan Kent Analyst**
- **RRT Team**
 - **Jennifer Bonsky – Food Specialist**
 - **Brenda Brennan - Epidemiologist**
 - **John Buchweitz - Toxicologist**
 - **Tim Lyons – Feed Specialist**



Take Home Items

- More detail about a product is better,
- Descriptions are/can be very useful,
- Accurate lot codes from firm are most useful,
- Don't forget multiple suppliers of the same products to the firm,
- Ingredients need to be included in your thinking and on your questionnaire,
 - remember peppers vs. tomatoes.



Questions

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