Michigan Food & Agriculture

2nd largest industry in the State

- $91.4 Billion annually to economy
- 73,000+ Farmers
- Food & Ag Sector –
  - 22% of all jobs
Impacts of food contamination

- **1985** - *Salmonella typhimurium*: contaminated pasteurized milk affected 170,000 people

- **1994** - *Salmonella enteritidis* outbreak sickened an estimated 224,000 people (ice cream)

- **2003** – *Hepatitis A* resulted in 660 confirmed cases, 4 deaths; restaurant chain dissolved (green onions)
Impacts of food contamination

- **2007** – *Melamine* and pet foods
  More than 60 million cans of pet food recalled

- **2009** - *Salmonella* and Peanut paste
  8 Deaths, 700+ illnesses, 46 states; recall of 3,200+ products from 200 companies
  (MDARD – significant costs)

- **2010** – *Salmonella* and Eggs
  Over 1,900 illness cases – recall of 550 million eggs
Impacts on food and water contamination

Illnesses at Fairs: Wisconsin, Ohio, Ontario, etc

E. Coli O157:H7
Plant Diseases & Pests

- Plant diseases & insects
- Easy to disperse
- Intentional or unintentional
- Training, scouting, & reporting
Animals & Emergencies

- Animal Diseases:
  - Impact Human Health
  - Zoonotic Diseases
  - Food Supply
  - Impact Economy
  - Impact Environment
Animal Disease & Human Health

- Anthrax
- Botulism
- Plague
- Smallpox
- Tularemia
- Viral Hemorrhagic fevers

Anthrax Webs.wichita.edu
Plague www.imcworldwide.org
Tularemia www.cabq.gov
Animal Disease & Human Health – Emerging Diseases

- Increased global travel and trade
- Ongoing disease outbreaks in animals
- Zoonotic disease potential
Impacts of Animal Disease
1973-74 Michigan PBB

- Accidental contamination of livestock feed with PBB fire retardant
- Cost $708 million (in 2001 study) to slaughter 30,000 cattle, 4,500 hogs, and 1.5 million chickens
- Consumer and farm family health costs unknown; ongoing environmental issue
- Cost of lost citizen confidence in government?
Agro-Terrorism Threat?

Attack likely? –
Maybe…
- but not in my jurisdiction or on my farm!
Intentional Contamination

1985 Intentional Salad Bar Contamination with Salmonella—Oregon
10 facilities: 750 people sickened with 45 hospitalized

2002-3 Intentional Contamination of Hamburger with Nicotine—Michigan
Disgruntled worker contaminated product with potentially lethal doses of nicotine-containing pesticide
124 people sickened
Intentional Contamination

- Ongoing – Adulteration / Substitution of Wheat Gluten & Milk – China
- 2006 – Smuggled Poultry Products – Michigan
- 2009 - Pesticide Contamination of Salsa in Restaurant - Kansas - 48 people sick
- 2010 – 7 Million Vegetable Seedlings – Australia
- 2011 – Pizzeria Owner - Pennsylvania – Mice
Intentional Acts

Louisiana State 4/05
Intentional Acts
1. Фитили (Р. П. Д. Ч.) 4000-мтр.
2. Гранат 200 гром.
3. Фугасный гранат 200 гром.
4. Снаряд кавалерийский 100 гром.
5. Снаряд 200 гром.
6. Мины тяжёлые 50 гром.
7. Мины на 200 гром.
8. Осколочный гранат 200 гром.
9. Патроны Барри 1000 гром.
10. Аммиак 
11. Снаряд кавалерийский 100 гром.
12. Снаряд 1000 гром.
13. Снаряд кавалерийский 1000 гром.
14. Фитили 1440 гром.

Шармо Агм- Удебни к 4- сандук.

4. Компас 8 гром.
2. Дорогами (ногой) 4- гром.
3. Харитан и сакар 12 гром.
4. Луна и сакар 12 гром.
5. Сапёры 30 см-ра 12- гром.
6. Магнит 360 12- гром.
7. Гранат 200 12- гром.

Форма: Тюнерига
Emergency Preparedness: A Community Priority

- Natural Disasters
  (severe storms, snow, ice, flooding, tornadoes, wind)
August 2003
Blackout in Southeastern Michigan

- 21,000 food establishments without power for at least 24 hours
- Food losses estimated at $105,328,541
Challenges – Food & Ag Sector

- Systems v. Sites
- Open System
- Diversity of the Sector
  - Size, Ingredients, & Imports
- Government
  - Laws & Regulations that don’t keep up
  - Laws & Regulations with unintended consequences
Limitations of Traditional Security Approaches
Animals & Emergencies

- Livestock - Importance to the Economy & Public Health
- Pets – A New Area
- Plans, Programs & Efforts
Animals & Emergencies: A New Area - & New Era

- Animal Components in Emergencies
  - Evacuation with pets / Refusal to leave without pets
  - Re-entry to retrieve/rescue
  - Abandoned animal issues – pets & livestock
Partnership & Networks

- Local & State Police
- Local Health Depts.
- Local Fire / Emergency Response
- Conservation Districts
- Private Sector / Industry
- Private Veterinarians
- MSU Extension & AgBio Research
- Federal Agency Partners locally
MDARD & Partner Efforts

- Commodity Executives / Industry meetings
- MI Veterinary Corps
- State Animal Response Team
- Michigan Agriculture Environmental Assurance Program
- Food & Agriculture Defense Working Group
MDARD & Partner Efforts

- Multi-State Partnership for Security in Agriculture
- Nat’l Animal Health Emergency Mgmt System
- National Plant Board
- Great Lakes Border Health Initiative
- Association of Food & Drug Officials
  - and many more!
Multi-State Partnership for Security in Agriculture

- All-Hazards Preparedness for Rural Communities
Plans, Programs & Efforts

- Federal
- State
- Local
State Plans

- Food/Feed Emergency Management Plans
- Animal Health Emergency Management Disease Response Plan
- Mass Carcass Disposal Plan
- Avian Emergency Disease Manual
- Plant Pest Plan
- Arbovirus Plan
- National Veterinary Stockpile Plan
- Energy Emergency Response Plan

- **Animals & Diseases – State Roles**
  - Quarantine & Stop Movement Orders
  - Bio-Security
  - Veterinary Response
  - Euthanasia & Disposal

- **Animals & Diseases – Local Roles**
  - Assisting with Enforcement
  - Logistics / Resources for Response
MEMP: Animal Issues Support Plan

- Animals & Emergencies – Local Roles
  - Sheltering for People
    - Co-Located Animal Sheltering
  - Response
    - Accidents
    - Natural Disasters
    - Loose Animals
    - Hoarding
Preparedness – pets and livestock

Rescue after a mud storm www.ext.colostate.edu
MDARD Response & Preparedness

- Michigan Emergency Veterinary Network
  - 3500+ Veterinarians and Licensed Veterinary Technicians
  - Critical Disease Issue Information & Training Materials
MDARD Response & Preparedness: Michigan Veterinary Corps

- Veterinarian & veterinarian technician volunteers
- Familiarity with foreign animal diseases
- Biosecurity
- Communication
- Incident Command System
Poultry Sampling
Poultry Sampling
Michigan Foot & Mouth Disease Exercise - 2008
State Animal Response Team
MI-SART

- Sheltering Exercises
- Training Courses
- Purchase of Trailers / Cages
- State Asset – 1st Deployment
  - 2010 Oil Spill Response
  - www.michigansart.org
Michigan’s Rapid Response Team

- Multi-Year Food & Drug Administration grant
- Hired specialists - technical expertise and surge capacity
  - Environmental Sampling
  - Animal Feed
  - Laboratory capabilities
  - Work on risk assessments
- Coordination with Food & Drug Administration
  - 2010 & 2012 – Feed/Food Contamination Tabletop Exercise
Agri-Chemicals

- Fertilizer Security & Regulation
  - Containment
  - Locks
  - Liability

- Pesticide Training & Regulation
Future & Next Steps - Industry

- Traceability & Audits – farm to fork
  - Food Safety Modernization Act
  - SARA Title 3 and Chemical Security
  - Michigan Agriculture Environmental Assurance Program
- Improving connections with local, volunteer & private sector partners
Future & Next Steps

- 2012 Freezes – Impact to Fruit Industry
- Planning & Training, including Incident Command System
- SART preparedness & training – CARTs?
- Exercises – Private Sector, Local, Regional, & State with focus on infrastructure interdependencies
Challenges

www.1clipart.com
CREDITS

- United States Department of Agriculture
- Freefoto.com
- Iowa State University, Center for Food Security and Public Health
- USAHA Gray Book
- Michigan Humane Society
- Other photo credits indicated by photos
Contact

Brad Deacon, Emergency Management Coordinator
Michigan Department of Agriculture & Rural Development
deaconb9@michigan.gov
(517) 241-4085

www.michigan.gov/mdard