



Soil & Water Conservation Society Michigan Chapter

March 6, 2013

Michigan Food & Agriculture

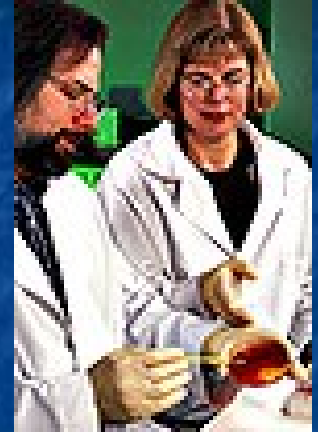
2nd largest industry in the State

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



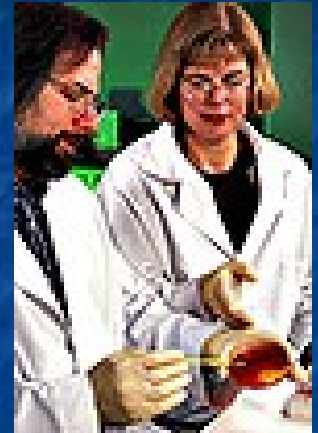
Impacts of food contamination

- **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



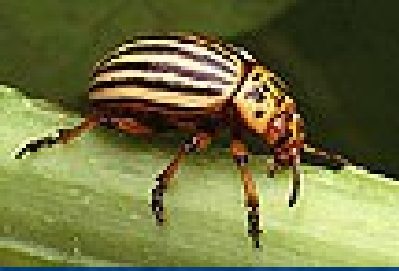
Impacts on food and water contamination

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



Tularemia www.cabq.gov



Plague www.imcworldwide.org

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?



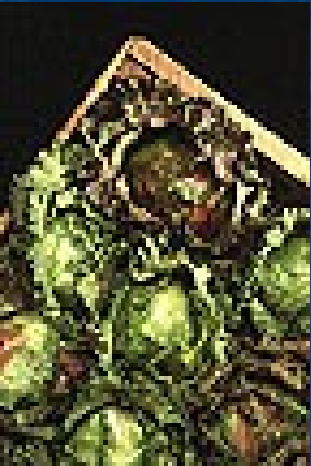
Agro-Terrorism Threat?

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

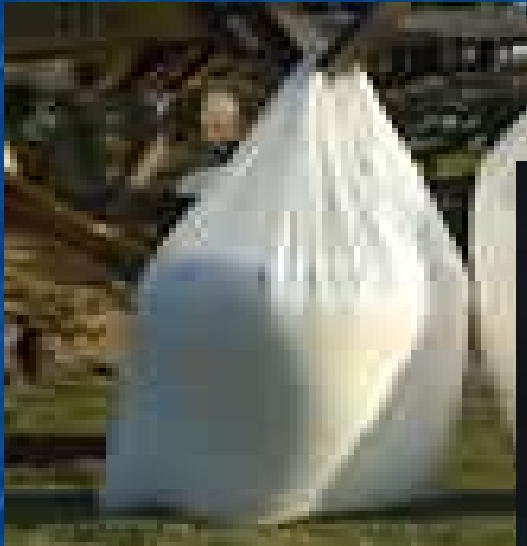
Intentional Acts



Louisiana State 4/05



Intentional Acts



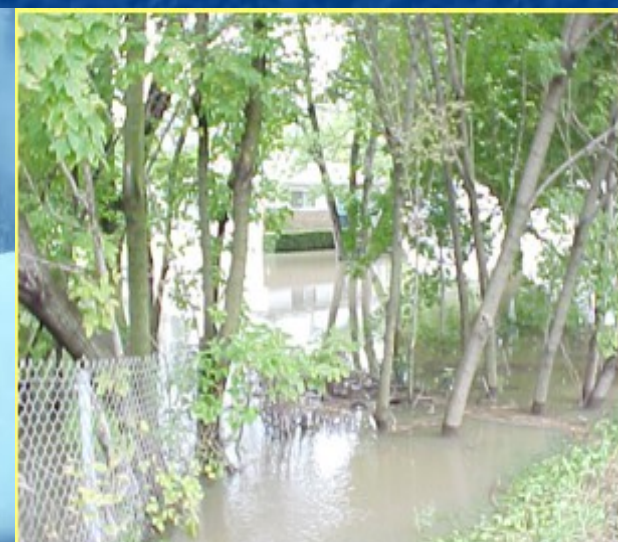
АД - 50 кс.

6. 50 кс.
7. П. 8000 1000-гона
8. Патоки Барки 1000 гона
9. осколочный гранат 200 гон
10. фугасный гранат 200 гон
11. майни тар навви зиди афрод 100 гон - 100 гон
12. майни зиди танк 50 гон
13. Взрывной устройства (шахидатун кхрabo) 4-5 гон олмонии р
14. фитили одди сокизсиз 2000 метр.
15. фитили таркидан (К. Р. Д. Х.) 4000-метр.

- 1 - шохис - 9-гона
- 2 - партапи - 80-гона
- 3 - обтарозуи гаскари 50 дараза - 2-гона
- 4 - обтарозуи гаскари дотомчишам 2-гона
5. марши АКМ - угебний 4 - сандук
масота : типография
- 1 - Компас - 8 гона Амрикон ва айти
- 2 - Доиракишон (Нозим) - 4-гона
- 3 - Харитаи гаскари ахди мазори шариф вази муваскар
- 4 - Задвалии калам, маккал, серкучи дарбасг. 7-накка
- 5 - Задвалии 30 см-ра 12-гона.
- 6 - манган 360° 12-гона
7. Дурбч олмони даразадори STEINER 15X80-452

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

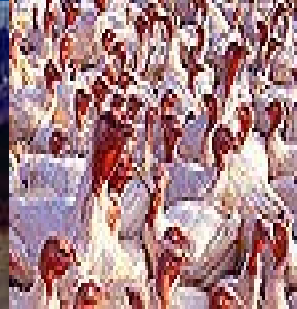
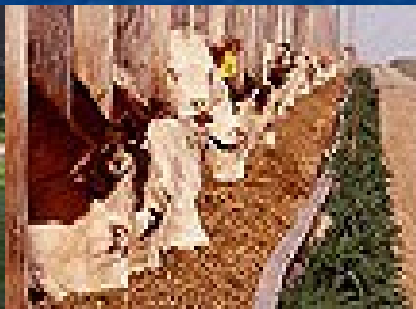
- Systems v. Sites
- Open System
- Diversity of the Sector
 - Size, Ingredients, & Imports
- Government
 - Laws & Regulations that don't keep up
 - Laws & Regulations with unintended consequences

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



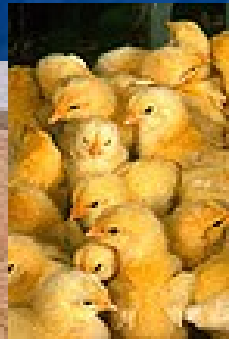
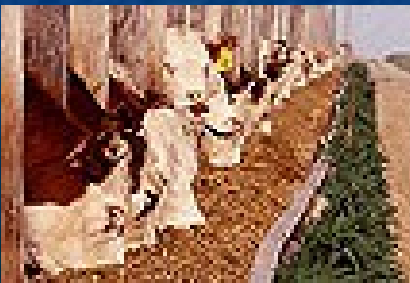
Partnership & Networks

- 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



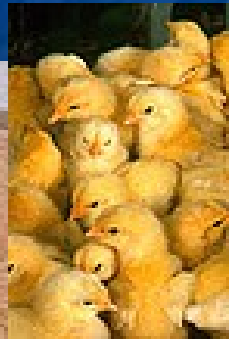
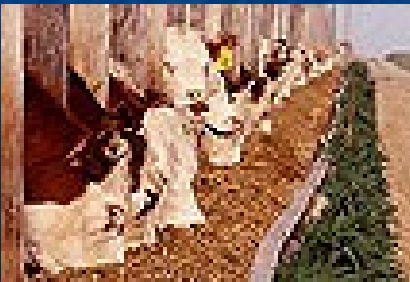
MDARD & Partner Efforts

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

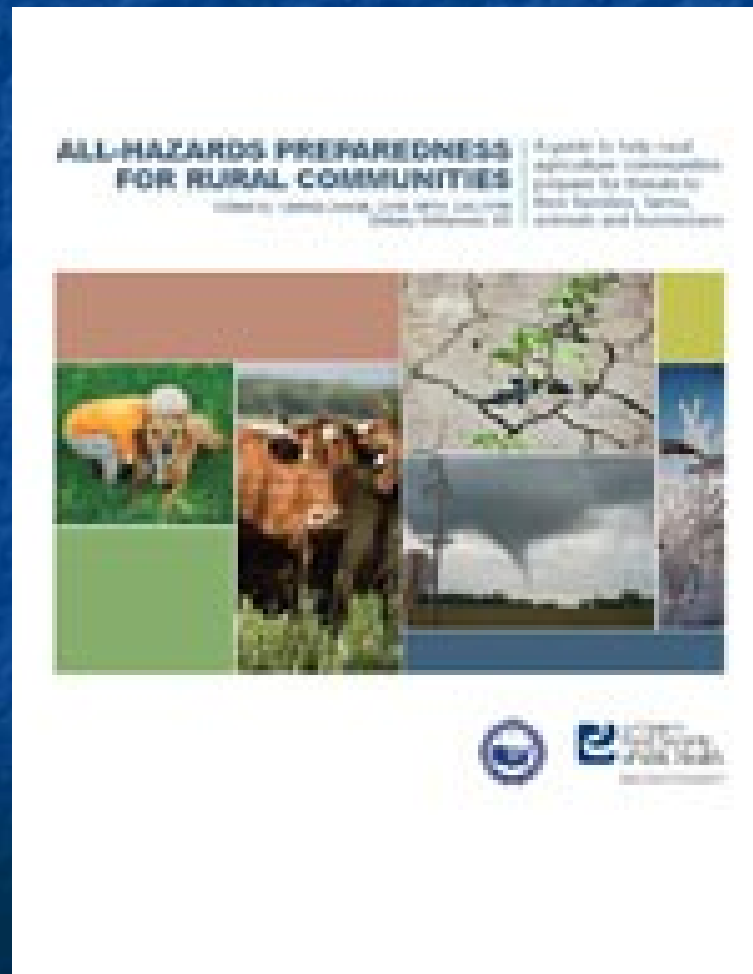


MDARD & Partner Efforts

- 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!



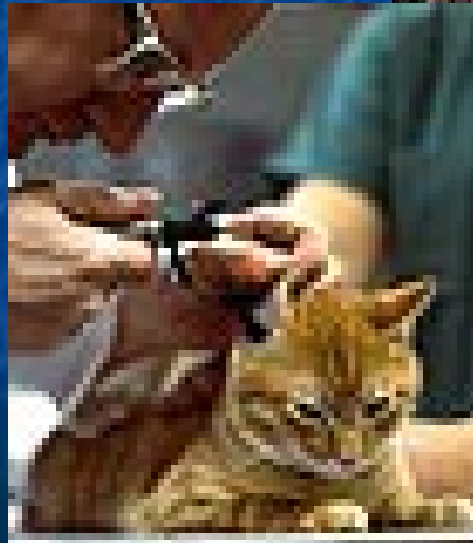
Multi-State Partnership for Security in Agriculture



- 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

MI Emergency Management Plan: Animal Issues Support 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

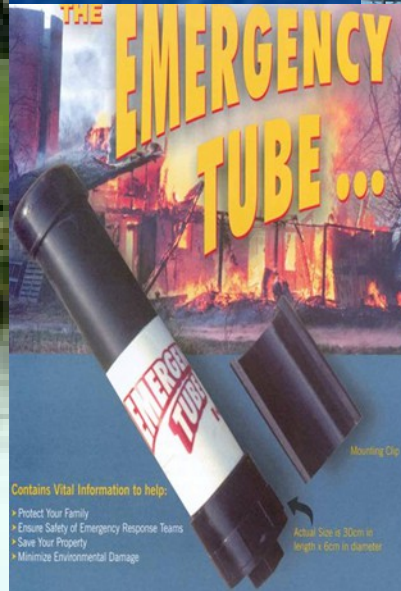


MDARD - Prevention & Mitigation



Michigan
CREP

Conservation Reserve
Enhancement Program



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

