

Bugs and Diseases, Oh My! How LHDs Work with Other MDARD Programs Beyond Food Inspections

Moderator:

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Panelists:

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Laboratory Division

Chemistry

- Animal Disease Testing
- Food and Feed Safety
- Hemp
- Liquor
- Fertilizer



Pesticide

- Pesticide Data Program
- Pesticide & Environmental Testing
- Formulations



Metrology Lab

- Mass and Volume Calibrations



Food & Dairy Microbiology

- Food and Feed Microbiology
- Dairy Testing



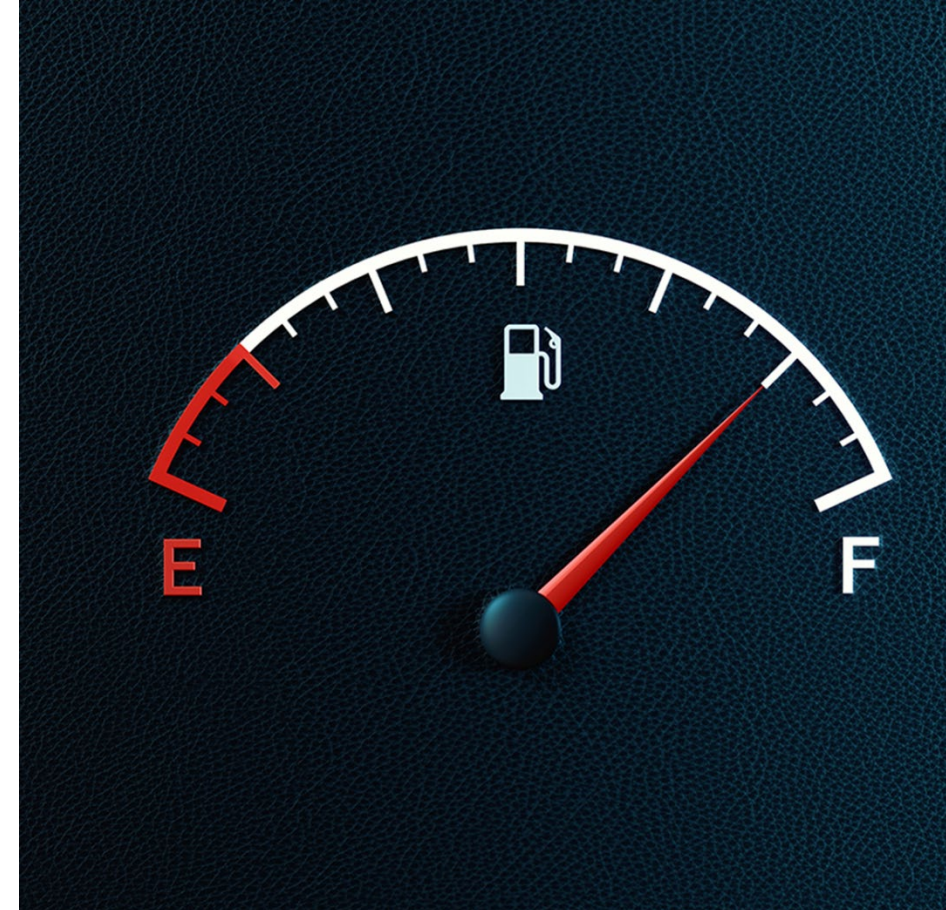
Weights & Measures

- Weights & Measures Act Enforcement
- Shopping Reform & Modernization Act



Motor Fuel Quality

- Motor Fuels Quality Act Enforcement



CSC/CLU

- MDARD Customer Service Center
- Central Licensing Unit



Animal Industry Division



Role of State Veterinarian

Protect, regulate, and promote animal health.

- 1.15M Cattle
- 1.24M Swine
- 26.3M Poultry
- 89,000 Sheep
- 29,000 Goats
- 64,000 Horses
- 1.8M Horses
- 2.4M Dogs



Core functions



Reportable diseases



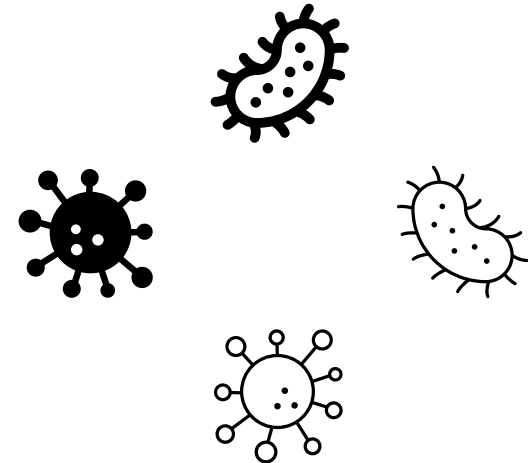
Animal traceability



Licensing

Purpose of Having Reportable Diseases

- Monitor for new/foreign conditions
- Protect public health
- Support eradication
- Enable control, if eradication is not feasible
- Assist in safe trade
- Monitor for changes in agent
- Encourage preventative measures
 - Vaccination
 - Biosecurity and other preventative measures



Reportable Animal Diseases

- Internationally: 86 diseases
- United States: 53 of 86 diseases are present
 - 42 (79%) have a potential wildlife component
 - 21 (40%) are known to be zoonotic

What the Law Says

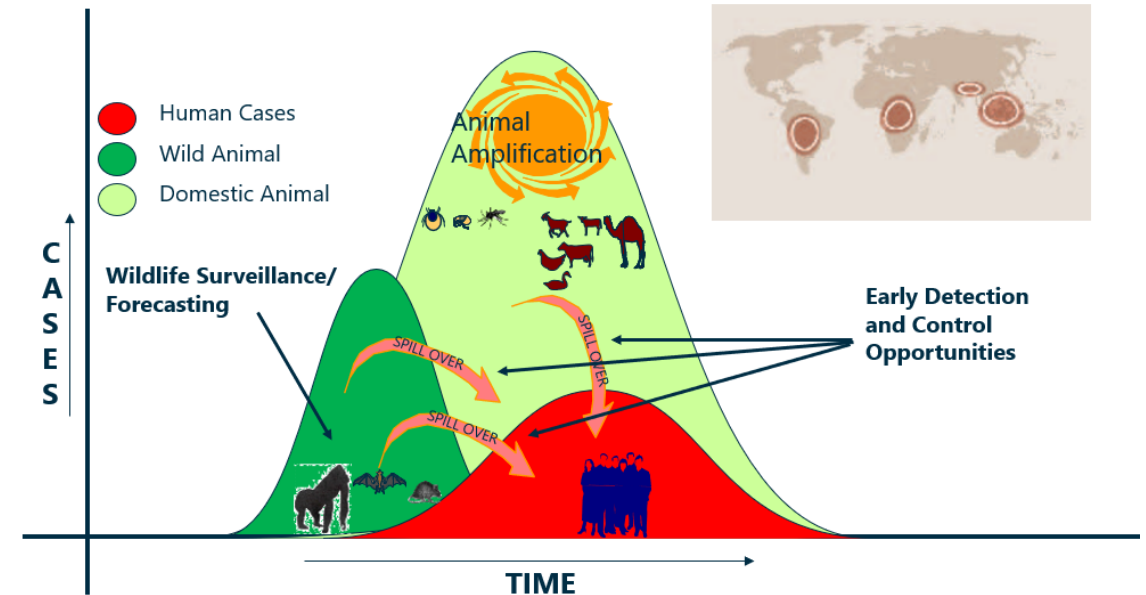
Pursuant to Act 466 of 1988, MCL 287.709, a person who **discovers or suspects** or has reason to believe that an animal is either affected by a reportable disease or contaminated with a toxic substance shall immediately report this to the Michigan Department of Agriculture and Rural Development.

Reportable Animal Disease List

CAPRINE/OVINE	
EMERGENCY Must be reported immediately.	REGULATED Must be reported within 24 hours.
Akabane (congenital arthrogryposis) Contagious caprine pleuropneumonia (CCPP) (<i>Mycoplasma capricolum capripneumoniae</i> , <i>Mycoplasma biotype F-38</i> , <i>M. mycoides capri</i>) Crimean Congo hemorrhagic fever* Foot and mouth disease (FMD) Goat and sheep pox Heartwater (<i>Ehrlichia ruminantium</i>) Mange (<i>Sarcoptes scabiei var ovis</i>)* Melioidosis (<i>Burkholderia pseudomallei</i>)* Nairobi sheep disease* Peste des petits ruminants Rift Valley fever* Rinderpest Theileriasis (<i>Theileria annulata</i> , <i>T. parva</i>) Screwworm* Surra (<i>Trypanosoma evansi</i>)	Anaplasmosis (<i>Anaplasma caudatum</i> , <i>A. centrale</i> , <i>A. marginale</i>)* Anthrax (<i>Bacillus anthracis</i>)* Brucellosis (all <i>Brucella</i> species)* Echinococcosis/hydatidosis (<i>Echinococcus spp.</i>)* Enzootic abortion of ewes (ovine chlamydiosis, <i>Chlamydia psittaci</i>)* Ovine epididymitis (<i>Brucella ovis</i> infection)* Listeriosis (<i>Listeria monocytogenes</i>)* Pseudorabies (Aujeszky's Disease, PRV) Rabies* Scrapie Tuberculosis (all <i>Mycobacterium</i> species)* Tularemia (<i>Francisella tularensis</i>)* Toxic substance contamination Q fever (<i>Coxiella burnetii</i>)*
	MONITORED Must be reported within 7 days.
	Bluetongue Contagious agalactia (<i>Mycoplasma agalactiae</i>) Salmonellosis (<i>Salmonella abortus ovis</i>)* West Nile virus (WNV)*

- Regulated diseases should be reported to MDARD within 24 hours.
- Regulated diseases generate a range of responses.
- Responses may include working with the veterinarian to ensure appropriate measures are taken, an on-farm visit, or possibly a quarantine—depending on the disease.

One Health – Part of the “Ecosystem”



Emerging Threats Program



Bovine Tuberculosis (TB)

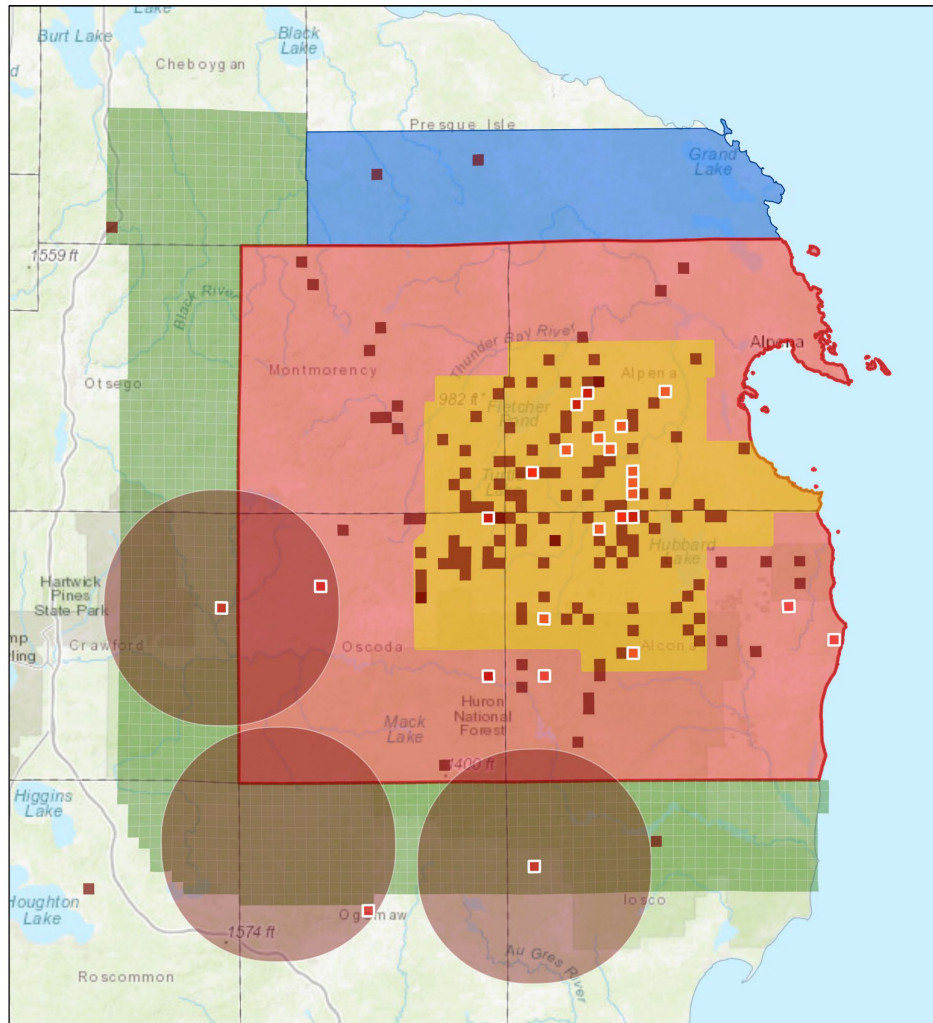


Bovine Tuberculosis (TB)

- Public health impact
- Agricultural impact
- Societal impact



TB-Infected Wild Deer: 2016 to 2022



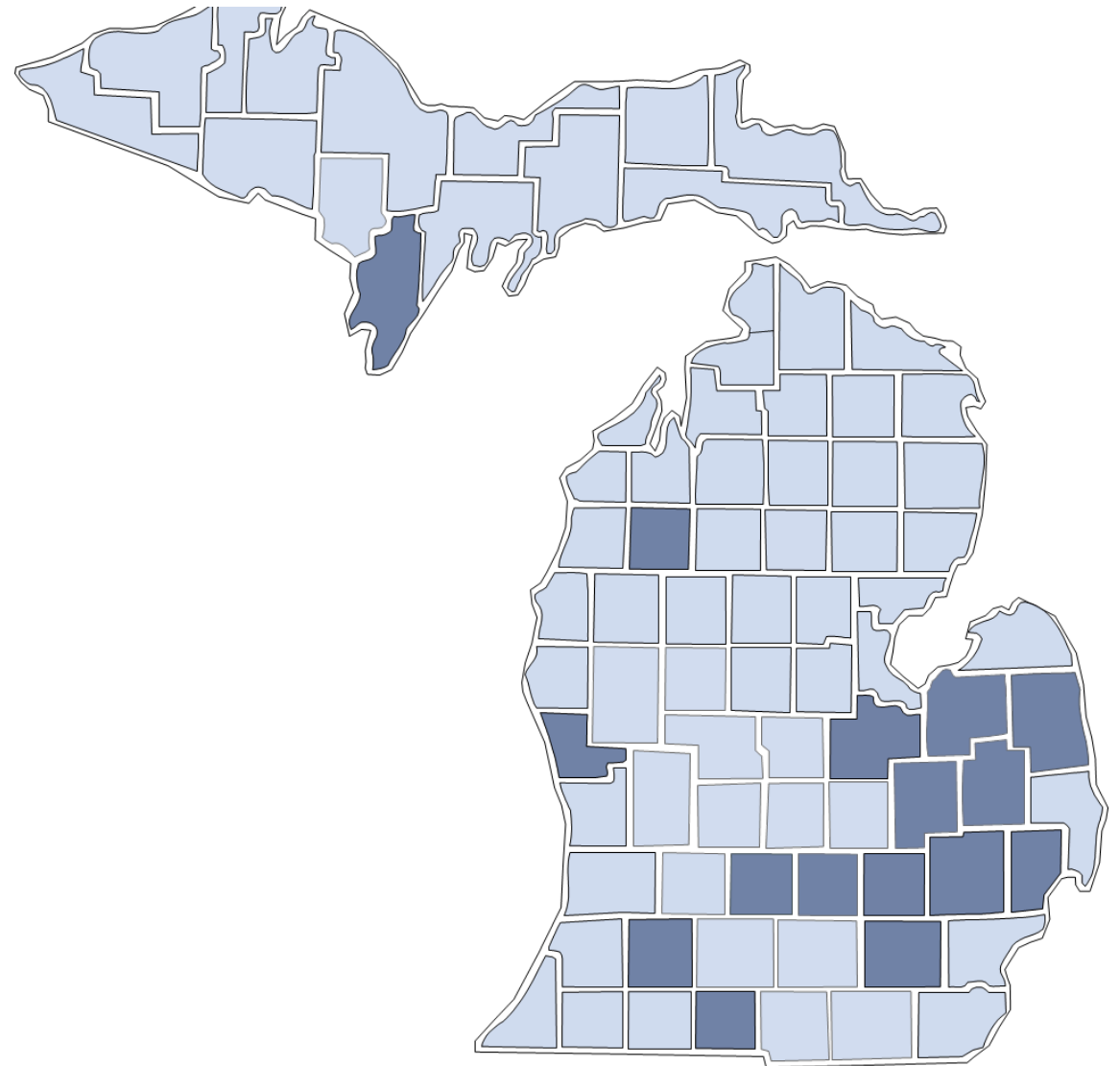
- TB Infected Wild Deer Sections (2022)
- TB Infected Wild Deer Sections (2016-2021)
- 10-Mile Buffer Areas
- AFZ Buffer Area
- EWB Boundary
- PI Buffer Zone
- MAZ
- Counties

**Highly
Pathogenic
Avian
Influenza
(HPA)**



Counties with HPAI-Infected Domestic Flocks


- Branch
- Eaton
- Genesee
- Ingham
- Kalamazoo
- Lapeer
- Livingston
- Macomb
- Menominee
- Muskegon
- Oakland
- Saginaw
- Sanilac
- Tuscola
- Washtenaw
- Wexford



Arboviruses: EEE and WNV



Arboviruses: EEE and WNV

Protect your animals from mosquitoes! 

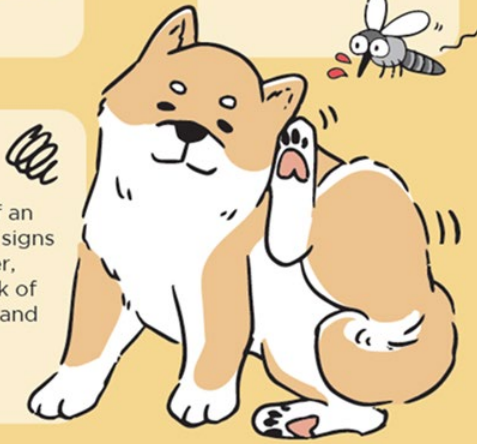
Talk to a veterinarian about **vaccinating horses** against mosquito-borne diseases such as **West Nile virus** and **Eastern Equine Encephalitis**.

Place livestock in a barn under fans (as mosquitoes are not strong flyers) and **bring pets indoors** during peak mosquito activity from dusk to dawn.

Use an **topical insect repellent** on an animal that is approved for the species. Ask your veterinarian for more information.

Eliminate standing water on the property—i.e., fill in puddles, repair eaves, and change the water in buckets and bowls at least once a day.

Contact a veterinarian if an animal shows signs of illness: fever, weakness, lack of coordination, and stumbling.



If you suspect an animal may have a mosquito-borne disease, call MDARD at 800-292-3939 to report the case and see if there is funding available to cover testing costs.

Arbovirus Cases

MDARD actions:

- Notification of Public Health and industry stakeholders
- MDARD Equine Program Manager communicates as needed with DVM
- No field visit from MDARD DVM or quarantine



Official Identification



Official Identification

- Official ID must not be removed
- Official ID has a US shield
- Official U.S. Department of Agriculture (USDA) premises identification or scrapie flock ID (sheep/goats) required

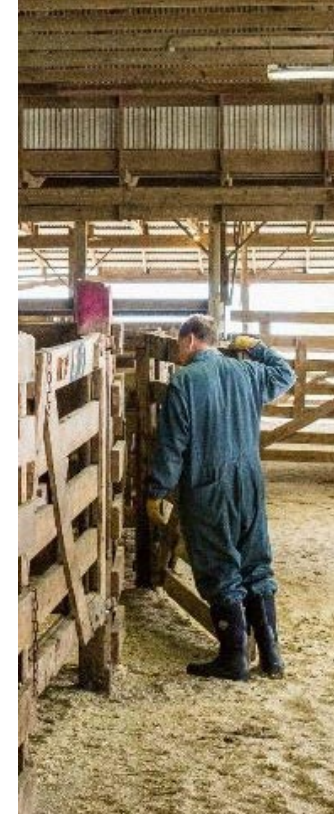


Licenses and Registrations



Licensing and Registration

- Animal Shelters
- Aquaculture Facilities
- Dead Animal Dealer/Renderer
- Livestock
Markets/Dealers/Truckers



Pesticide and Plant Pest Management Division



Pesticides

- Product Registration
- Applicator Certification
- Marketplace Surveillance
- Integrated Pest Management
- The Worker Protection Standard
- Misuse Investigations



Fertilizer

- Product Licensing
- Marketplace Surveillance
- Adulterants
- Beneficial Use 3
- Biosolids



Animal Feed

- Inspections
- Marketplace Surveillance
- Medicated Feed
- Veterinary Feed Directives
- Investigations



Invasive Species

- Prevention, Detection, Response
- Spotted Lanternfly
- Hemlock Woolly Adelgid
- Balsam Woolly Adelgid
- *Ralstonia solanacearum* R3B2



Emergency Management



Emergency Management

- Sample Team Exercise: Surge capacity field staff exercise; every three years
- Demonstrate capacity in:
 - Activation / practice of Incident Management Teams
 - Just-in-time training & safety
- Incident Command System classes
- Risk & Hazard Communication



Recent MDARD IMT Activations

- March 2020: COVID-19
- April 2020: Ralstonia in Geraniums
- October 2020: COVID-19 in Mink
- March 2021: Mobile Vaccination Units
- August 2021: Balsam Woolly Adelgid
- February 2022: Highly Pathogenic Avian Influenza
- March-September 2022: Sampling Team
- August 2022: Spotted Lanternfly
- Summer 2022: Fast food E. coli with locals

Emerging Contaminants

- Toxicology
- MPART
- Additional resources



Thank you!

