Mobility Challenge - MDARD Project

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- Program Overview

- Project/Challenge Overview

- Questions

What and Why

What

- Protect human health and the environment by making sure pesticides are used in a safe and legal manner.

Why

- Everyone uses pesticides.
- Everyone needs pesticides.
- Everyone is impacted by pesticides.

Registration, Certification, and Licensing

- Register Pesticides
  - 16,000 products/year
  - Special Local Needs (SLN/24c registrations)
  - Emergency Exemptions (Section 18's)

- Certify Applicators
  - 24,000 (16,000 commercial , 7,000 private)
  - 18,000 exams/year
  - 1,800 seminar approvals

- License Businesses
  - 2,300 pesticide applicator business licenses
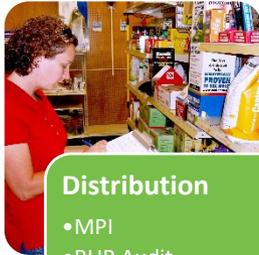 - 260 restricted use pesticide dealer licenses

Compliance Assurance

Manufacturing
- PEI
- Product Sampling

Distribution
- MPI
- RUP Audit

Storage
- Bulk Storage
- MPI

Use
- UI's
- WPS
- Aircraft
- Road Checks
- IPM

Monitoring
- RUP Audit
- USDA/Residue Samples

Compliance Monitoring Work

- Misuse investigations
- Production inspections
- Marketplace inspections
- Worker protection inspections
- Use inspections

- IPM inspections
- Product integrity sampling
- Residue violation investigations
- RUP audits

Pesticide Misuse Can Be Tragic

Father uses potent chemical to kill rodents, accidentally poisons entire family; 4 dead

U.S. NEWS

Delaware family poisoned by pesticide on Virgin Islands vacation will likely never recover: officials

Feds Offer Reward For Information After Pets, Wildlife Poisoned in Northern Wisconsin

Investigators Say Raccoons, Coyotes, Weasel, Dogs, Timber Wolf Were Killed

By Patty Murray

Published: Thursday, April 25, 2019, 4:25pm

Drift Complaints

- Allegation that one party drifted pesticides onto another person or their property.

Drift = Chemical Trespass

- Typically receive about 50 drift complaints/year.
- Drift Complaint Season: May - October
- Locations: Anywhere in state but mostly the lower peninsula.

Drift Investigation Process

- Did drift occur and who is responsible?

- Document facts and collect evidence to support the facts.

- Evidence
  - Pictures
  - Statements
  - Records
  - Physical samples

Sample Collection

- Involves physically collecting plant foliage and/or swab sampling surfaces for lab analysis.

- Very time consuming

- Very Expensive

- Potentially unsafe for the investigator

- Not an exact science
  - What to sample? Where to sample? How much to sample?
  - Sometimes you can see where the drift occurred through visible damage, but often you can't.
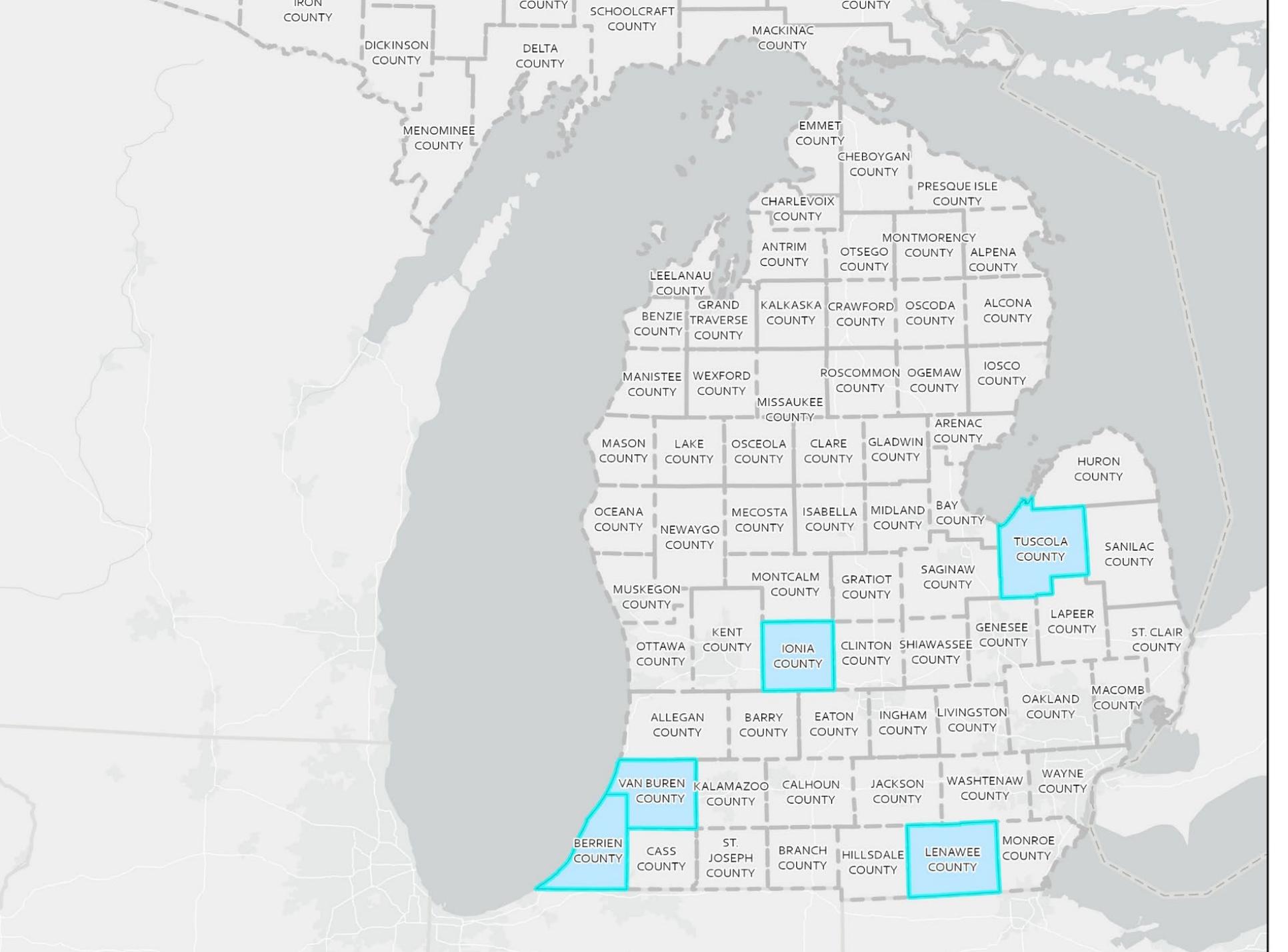
Key Project Objective

- Modernize MDARD's approach to pesticide drift investigations by equipping drones with remote sensing or similar technologies that can quickly, safely, and reliably help identify if chemical trespass has occurred.

- Remote Sensing: Help MDARD visually identify pesticide residues on plants and other surfaces OR visually identify symptoms of pesticide exposure on plants that cannot be seen by the naked eye.

Project Details

What: Partner will be deployed in tandem with pesticide inspectors during actual drift investigations to test and validate remote sensing capabilities.

When: During peak complaint season (May – August with July being the peak month)

Where: Southern tier of Michigan (see map)

IRON COUNTY

DICKINSON COUNTY

DELTA COUNTY

SCHOOLCRAFT COUNTY

MACKINAC COUNTY

MENOMINEE COUNTY

EMMET COUNTY

CHEBOYGAN COUNTY

PRESQUE ISLE COUNTY

CHARLEVOIX COUNTY

ANTRIM COUNTY

OTSEGO COUNTY

MONTMORENCY COUNTY

ALPENA COUNTY

LEELANAU COUNTY

GRAND TRAVERSE COUNTY

KALKASKA COUNTY

CRAWFORD COUNTY

OSCODA COUNTY

ALCONA COUNTY

BENZIE COUNTY

MANISTEE COUNTY

WEXFORD COUNTY

ROSCOMMON COUNTY

OGEMAW COUNTY

IOSCO COUNTY

MISSAUKEE COUNTY

MASON COUNTY

LAKE COUNTY

OSCEOLA COUNTY

CLARE COUNTY

GLADWIN COUNTY

ARENAC COUNTY

HURON COUNTY

OCEANA COUNTY

NEWAYGO COUNTY

MECOSTA COUNTY

ISABELLA COUNTY

MIDLAND COUNTY

BAY COUNTY

TUSCOLA COUNTY

SANILAC COUNTY

MUSKEGON COUNTY

MONTCALM COUNTY

GRATIOT COUNTY

SAGINAW COUNTY

LAPEER COUNTY

ST. CLAIR COUNTY

OTTAWA COUNTY

KENT COUNTY

IONIA COUNTY

CLINTON COUNTY

SHIAWASSEE COUNTY

GENESEE COUNTY

OAKLAND COUNTY

MACOMB COUNTY

ALLEGAN COUNTY

BARRY COUNTY

EATON COUNTY

INGHAM COUNTY

LIVINGSTON COUNTY

WAYNE COUNTY

VAN BUREN COUNTY

KALAMAZOO COUNTY

CALHOUN COUNTY

JACKSON COUNTY

WASHTENAW COUNTY

BERRIEN COUNTY

CASS COUNTY

ST. JOSEPH COUNTY

BRANCH COUNTY

HILLSDALE COUNTY

LENAWEE COUNTY

MONROE COUNTY

Questions?

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