



Michigan Department of
AGRICULTURE
& Rural Development

**Pesticide and Plant Pest
Management Division
2015 Annual Report**



Introduction by Gina Alessandri, Director

Welcome to the Pesticide and Plant Pest Management Division (PPPM). We are a division within MDARD with a broad and diverse range of responsibilities for protecting human and animal health, the environment, and domestic plant industries; and facilitating international and interstate trade of plant-based commodities. PPPM accomplishes this by regulating the production, distribution, and use of pesticides, animal feed and fertilizer products; by surveying for and responding to detection of invasive species; by inspecting nursery stock and Christmas trees; and by certifying plants, plant products, fruits and vegetables meet grade or phytosanitary requirements of receiving businesses, states, and countries. PPPM's diverse activities are divided into three programmatic sections:

Our **Pesticide Section** is responsible for protecting human health and the environment from unnecessary risks associated with improper pesticide use. Program responsibilities include the certification and licensing of pesticide applicators and firms, registration of pesticide products, monitoring pesticide manufacturing establishments, regulating the sales and distribution of restricted use pesticide products, investigating pesticide use practices and misuse complaints, and enforcement of federal worker protection standards. Additional activities include insect, rodent, and arbovirus management.

Our **Plant Industry Section** is responsible for assuring plant material as well as fruits and vegetables meet specific standards and are free of harmful insects and diseases. Program responsibilities include certifying nursery stock and Christmas trees; inspecting commodities such as dry beans, lumber, fresh produce, nursery stock, and flowers for foreign export; and inspecting and grading fresh fruits and vegetables. Additional responsibilities include enforcement of various state and federal quarantine programs and exotic pest survey and response.

Lastly, our **Agricultural Products/Producer Security Section** is responsible for enforcement of producer and consumer protection laws related to the storage and handling of grain products including the manufacture and distribution of commercial animal feeds, fertilizers, and liming materials. Program responsibilities include licensing and auditing of grain storage facilities; inspection and sampling of animal feeds, remedies, fertilizers, and liming materials for quality assurance and food safety; and inspecting bulk agricultural storage facilities.

This report summarizes the many activities and accomplishments of the PPPM division for fiscal year (FY) 2015. As in previous years, staff worked closely with consumer and commodity groups, industry, and state and federal partners to provide exceptional, high quality service to our stakeholders and the citizens of the state. I am extremely proud of the work performed by division staff each and every day and happy to share this report with you.

***The mission of the Pesticide and Plant Pest Management Division is to:
Protect human health and the environment, while fostering
a diverse, viable Michigan agriculture.***

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Pesticide and Plant Pest Management Division

Pesticide Section – Human Health and Environmental Protection

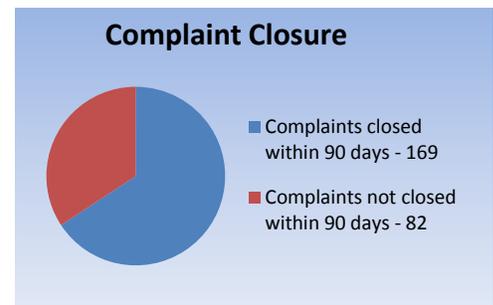


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Legal Authority: Pesticide Control, Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 83, as amended

Description of the Program:

- Protect the public, children and the elderly through pesticide use restrictions in schools, licensed day care centers, commercial buildings and health care.
- Minimize adverse effects relative to pesticide use, protecting human health and the environment.
- Perform a variety of compliance monitoring inspections and conduct enforcement for pesticide use or regulatory requirement violations.
- Conduct investigations on all complaints involving pesticides, whether by consumers, other agencies, licensed firms, etc.



Why It Matters:

- Pesticide misuse may result in adverse effects on children, adults, the environment, domestic animals, and wildlife.
- Assuring appropriate pesticide use results in a safe food supply, a protected environment, an improved quality of life, and an increase in agricultural production to feed a growing population.

Key Stakeholders

- Michigan Agri-Business Association
- Agricultural producers and commodities
- Michigan Pest Management Association
- Michigan landscape and aquatic managers associations
- Public
- U. S. Environmental Protection Agency

Deliverables

- School inspections for pesticide use compliance
- Complaint investigations
- Compliance inspections
- Enforcement actions
- Regulatory Compliance

Accomplishments:

- Implemented a new process for closing some complaint investigations quicker by using an expedited inspection and reporting process and a new complaint/investigation data tracking system.
- Require corrective action based on compliance inspections to assure that children, adults, agricultural workers, environment, wildlife, and domestic animals are protected from adverse effects resulting from pesticide use.
- Increased efficiency by investigating and closing pesticide use complaint cases within 90 days resolving all violations through compliance assistance and enforcement.
- Verify legal pesticide use through complaint investigation and compliance inspections to assure a safe food supply for humans and animals. Non-compliance determinations require corrective action and may include enforcement action.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Timely complaint closure (within 90 days)	-	48%	57%	56%	67%
Complaints investigated	132*	85	168	204	242
Number of compliance inspections performed	427*	344	865	1026	1215
Inspections to monitor pesticide use in schools	-	-	7	33	45

*This data was generated prior to the implementation of an electronic inspection filing and data tracking system; as such, should not be compared to subsequent numbers for measurement purposes.

Dashboards and Scorecards:

PPPM's scorecard measures the percentage increase of FY 2014 pesticide use investigations closed within 90 days of initiation, measured on December 31, 2014, compared to FY 2013.

Program Goals:

- Investigate every complaint of pesticide misuse to protect human health, domestic animals, wildlife, and the environment from adverse effects related to pesticide use.
- Conduct targeted compliance inspections to assure a safe food supply relative to pesticide use in or around food production areas, protect agricultural workers, and protect children, adults and the environment from adverse effects relative to pesticide use.

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Pesticide and Plant Pest Management Division

Pesticide Section – Pesticide Registration



Managers: Brian Verhougstraete, Pesticide Registration Specialist, 517-284-5655, verhougstraeteb@michigan.gov
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Legal Authority: Pesticide Control, Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 83, as amended

Description of the Program:

- Registration of all pesticides distributed and sold in Michigan.
- Prepare and submit Emergency Exemption requests under Section 18 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).
- Issue Special Local Need registrations under Section 24(c) of FIFRA.
- Review product labels to ensure compliance with state and federal laws.
- Ensure pesticides registered do not pose unreasonable adverse effects to human health and the environment in Michigan.

Did You Know?

- *A pesticide is any substance or mixture of substances intended to prevent, destroy, repel, or mitigate any pest.*
- *Herbicides, fungicides and insecticides are all different types of pesticides.*

Why it matters:

- Pesticide registration ensures growers and other persons have access to the pesticides they need to protect themselves, their crop, or their property from damaging pests like insects, fungi, viruses, bacteria, and weeds.
- Pesticide registration allows Michigan to restrict specific uses, to suspend or cancel a registration in the event adverse environmental effects are detected.
- Funding from pesticide registration helps support critical activities like the investigation of complaints related to the use of pesticides in Michigan.

Key Stakeholders

- Pesticide manufacturers
- Commodity groups, particularly those that represent specialty crops
- Michigan Agri-Business Association
- Pesticide application businesses
- Michigan State University

Deliverables

- Over 15,000 pesticide registrations
- Special Local Need registrations
- Emergency Exemptions
- Registration and labeling inspections of pesticides in the marketplace

Accomplishments:

- In cooperation with the MDARD Pesticide Laboratory, sampled and analyzed five non-EPA registered products for the presence of pesticides. Analysis showed two of the products contained EPA registered active ingredients. The two misbranded products were placed under stop sale and administrative penalties were issued to the products' manufacturers.
- Prepared, submitted, and received three Emergency Exemptions helping apple, peach, nectarine, hop, and carrot growers protect their crop from invasive and destructive pests.
- Conducted 86 marketplace inspections identifying 252 unregistered pesticides.
- Took enforcement action against, and issued administrative penalties to five pesticide manufacturers for illegally distributing pesticide in Michigan.
- Worked with various stakeholders to raise the pesticide registration fee from \$40 to \$100. It was last increased in 2002.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Pesticides registered for sale in Michigan	15,992	15,802	15,551	15,487	15,545
Emergency Exemptions received	5	5	6	3	3
Special Local Need registrations issued	8	6	5	10	0
Marketplace inspections conducted	73	118	108	57	86
Unregistered pesticides found	177	330	247	171	252
Enforcement actions taken	92	225	170	74	178

Program Goals:

- Prepare and submit Emergency Exemption requests on behalf of Michigan's growers.
- Review, issue, and maintain Special Local Need registrations on behalf of Michigan's growers.
- Conduct marketplace inspections to ensure a level playing field and protect consumers.
- Work with industry to ensure they have the pesticides they need to grow safe and pest-free food.

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Pesticide and Plant Pest Management Division

Pesticide Section – Licensing and Certification



Managers: Melvin Poplar, Pesticide Business License Specialist, 517-284-5657, poplarm@michigan.gov
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Legal Authority: Pesticide Control, Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 83, as amended

Description of the Program:

- License commercial pesticide applicator businesses (PAB) applying pesticides for hire so they may legally operate in Michigan in compliance with regulatory requirements.
- License dealers selling restricted use pesticides (RUP) for use by certified applicators in Michigan in compliance with state and federal regulatory requirements.
- License pesticide dealers who are not RUP dealers selling general use, agricultural pesticides for use in Michigan.
- Certify or register commercial applicators applying pesticides as part of their work duties and/or apply pesticides for licensed PAB, and private pesticide applicators using RUP for agricultural production.

Why It Matters:

- Licensing programs give MDARD the ability to regulate businesses to assure they operate in compliance with requirements or risk license suspension/revocation.
- Certification/registration assures applicators are knowledgeable and competent to apply pesticides in accordance with regulatory requirements for human safety and environmental protection.
- Providing exams for certification or registration applicants for employment opportunities.

Key Stakeholders

- Michigan Agri-Business Association
- Agricultural producers
- Michigan Pest Management Association
- Michigan landscape and aquatic managers associations
- U.S. Environmental Protection Agency

Deliverables

- Pesticide application business licenses
- RUP dealer licenses and inspections
- Agricultural pesticide dealer licenses
- Commercial applicator certification
- Private agricultural applicator certification

Accomplishments:

- Timely processing of 2,337 license applications so businesses can operate legally in Michigan.
- Monitoring for compliance with business license requirements to assure a fair business environment and protect consumers from illegal business operations.
- Revised certification exams using a new validation process to assure a legally defensible exams and exam integrity when measuring applicator knowledge and competency.
- Monitored sales of restricted use pesticides for use only by certified applicators and conducted enforcement for unauthorized sales violations.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Unlicensed PAB inspections	281	262	273	286	243
Unlicensed PAB enforcement	48	26	53	64	62
RUP sales audit inspections	30	26	27	23	32
RUP sales violation enforcement	9	11	14	9	5
Applicator examinations administered	15,369	14,375	14,801	17,356	18,663
Certification examinations revised	-	1	1	3	4

Program Goals:

- Licensing programs will monitor renewal applications to assure previously licensed businesses maintain business licenses if they remain active.
- Conduct a minimum of 20 restricted use pesticide audits under a grant from EPA.
- Administer 14,000 examinations so applicators can obtain certification or registration credentials making them available for employment.
- Provide 300-400 examination locations, easing accessibility to applicants.

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Pesticide and Plant Pest Management Division

Plant Industry Section - Plant Health Certification and Export



Managers: Michael Bryan, Export and Certification Specialist, 517-284-5648, bryanm@michigan.gov
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Legal Authority: The Insect Pest and Plant Disease Act, Public Act 189 of 1931, as amended

Description of the Program:

- The program facilitates the export and import of nursery stock, plant, and plant products and agricultural commodities to and from other states or countries by developing and implementing programs for the detection, eradication, or control of serious pests and diseases.
- The Plant Health and Export Certification Program area has regulatory responsibility through the inspection of nursery stock, to prevent the introduction and dissemination of serious insects and diseases which are damaging to nursery stock, plants, and plant products.

Why It Matters:

- Certifying plant-based commodities facilitates shipment to other states and countries, supporting Michigan's economy. Nursery stock producers generate about \$291 million in annual sales and distribute about 30% of their products in 35 states. Michigan Christmas tree production has an annual farm gate value of \$41 million.
- Most of the dry beans grown in Michigan, valued at \$139 million, are exported to overseas markets.
- Preventing the introduction of plant pests and other invasive species into Michigan protects our agricultural, urban and natural resources, promotes domestic and international commerce, minimizes control costs, and promotes tourism and outdoor recreational industries.
- Michigan consumers benefit by being assured the nursery stock they purchase is free of pests and diseases.



Key Stakeholders

- Nursery stock growers and dealers
- Fruit and vegetable producers
- Hay, straw and grain exporters
- Log and lumber exporters
- Christmas tree growers
- Greenhouse/floriculture growers
- Michigan citizens

Deliverables

- Annual nursery stock grower inspections
- Nursery stock dealer inspections
- On-time issuance of export certificates for plant and plant product exports
- Christmas tree fields inspected and compliant with federal quarantines
- Seed corn acres inspected to assure freedom from export-significant diseases

Accomplishments:

- Facilitated fresh blueberry exports to Canada by enrolling five growers in the USDA Blueberry Certification Program. Blueberries exported under this program do not have to undergo costly methyl bromide fumigation which has been a standard treatment requirement. Program savings to the exporters include eliminating expensive fumigation costs and most inspection fees.
- Worked with USDA to assure MDARD's Authorized Certification Officials' (ACO) credentials were updated. MDARD's well-trained staff of ACO's assured on-time departure of 4,443 export shipments, facilitating trade to 87 countries worldwide.
- Protected Michigan hemlock resources and blueberry plantations from harmful pests and diseases by intercepting and destroying quarantine-prohibited nursery stock originating from infested states.
- Expanded the market reach of plant-based commodities through active enrollment of firms in audit-based certification programs for foreign export and interstate shipments. These programs resulted in firms easily adding new customers in other states and countries where previously no Michigan product was sold.
- Enrolled firms in programs designed to streamline the export certification process, with a primary outcome of reducing costs to the exporters and state government while maintaining timeliness of shipment. The cost-savings is accomplished by utilizing USDA-approved compliance agreements where record audits and spot inspections are conducted periodically instead of using the standard method of inspecting every single shipment. These programs benefitted lumber, floricultural, and blueberry fruit exporters and expanded their market reach.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Nursery stock acres inspected	8,648	7,532	6,856	6,419	6,579
Nursery stock dealers inspected	64	344	894	692	1,063
Export certificates issued	3,669	3,522	3,822	4,543	4,443
Christmas tree fields inspected	366	356	324	328	319
Seed corn acres inspected	33,209	39,696	47,845	41,415	1,349

Dashboards and Scorecards:

PPPMD Scorecard measures the percentage of inspections of nursery stock dealers whose importing or exporting activities may increase the risk of spreading damaging plant pests. The target is based on inspecting one-half of all dealers eligible for inspection each year. In FY2015, the overall percentage inspected was 30 percent of 3,600 dealers eligible for inspection.

Program Goals:

- Inspect all nursery stock growers in the state.
- Refine the use of a pest-risk based approach in the inspection of nursery stock dealers.
- Increase the efficiency of the export certification program thereby facilitating savings which can be passed on to industries served.
- Finalize development and fully implement data tracking of the nursery inspection program as part of the department-wide Accela system.

Michigan Department of Agriculture & Rural Development

Pesticide and Plant Pest Management Division

Plant Industry Section - Invasive/Exotic Pest Detection and Response



Managers: John Bedford, Pest Response Program Specialist, 517-584-5650, bedfordj@michigan.gov
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Legal Authority: Plant Pest and Disease Acts: Public Act 189 of 1931 and Public Act 72 of 1945

Description of the Program:

- The goal of the Exotic and Invasive Pest Detection and Response programs is for the early detection of exotic and invasive pests of agriculture and forestry and the management of these pests before they become established in the state.
- Early detection is accomplished through pathway analysis and risk-based trapping and inspection programs for high-risk target species statewide.
- Recent pest discoveries include plum pox virus, a disease of stone fruits, and hemlock woolly adelgid, an insect pest of hemlock.
- The most serious pest to be detected in Michigan in recent years is the Emerald Ash Borer, an exotic wood-boring beetle native to Asia, which most likely arrived hidden in solid-wood packing material (pallets, crating, or dunnage) in the early 1990s.



Why It Matters:

- Invasive and exotic insects and plant diseases are on average more economically and ecological destructive than their native counterparts. Nationwide, their annual economic impact is estimated at \$80 billion.
- They reduce agricultural yields, increase input costs, lower the volume and quality of timber, reduce forest biodiversity, imperil threatened and endangered species, and impact property values in forested urban and suburban communities.
- Early detection and response is critical for the implementation of mitigation actions to effectively eradicate or contain invasive pest populations and minimize their impacts.
- Sustained monitoring programs keep national and international markets open to Michigan-produced agricultural and forest commodities.

Key Stakeholders

- Agricultural and forest products producers
- Citizens engaged in recreational activities in native forests
- Property owners, municipalities, and businesses maintaining turf and landscape plants
- Nursery plant, Christmas tree, and floriculture producers

Deliverables

- Surveys for exotic and invasive pests
- Educational workshops and outreach materials
- Certification of commodities for export
- Compliance agreements
- Targeted pesticide applications

Accomplishments:

- Facilitated the export of 307 acres of seed potatoes valued at approximately \$1.25 million through intensive soil sampling for exotic cyst nematodes.
- Issued 125 EAB compliance agreements to allow for the continued utilization of ash timber, primarily in the Upper Peninsula, allowing for growth of the timber industry.
- Protected Michigan's valuable hemlock resource through continued pesticide applications and/or monitoring surveys at six locations where the eradication of hemlock woolly adelgid, a destructive invasive insect that has eliminated hemlock from much of the eastern U.S., has taken place.
- Responded to four newly identified hemlock woolly adelgid infestation sites in Ottawa and Muskegon counties with delimiting surveys, pesticide applications, and outreach.
- Completed surveys for exotic forest and fruit pests at 98 sites statewide, increasing the likelihood of early detection and subsequent mitigation of their economic and environmental impacts.
- Responded to numerous phone and e-mail reports of exotic and invasive pests, including Asian longhorned beetle, emerald ash borer, and hemlock woolly adelgid. Concerned citizens remain important participants in pest detection efforts and have been responsible for several major pest discoveries.

Measuring Success:

Metric	2011	2012	2013	2014	2015
HWA eradication sites	4	5	6	6	10
Forest, fruit, and field crop survey sites	105	59	176	154	98
Seed potato acreage certified for export	700	490	499	346	307
EAB survey sites	2,006	260	301	230	142
EAB compliance agreements	120	120	125	118	120

Program Goals:

- Focus on targeted education of industry professionals to facilitate the early detection and reporting of high-priority exotic pests.
- Eradicate or contain newly introduced, high-priority exotic pests like Asian longhorned beetle, hemlock woolly adelgid, and plum pox virus.
- Shift survey work away from full-time MDARD staff by granting federal survey funding to MSU, allowing MDARD staff to focus on more technically demanding work and simultaneously increasing cost effectiveness of pest surveys.
- Continue to facilitate export of seed potatoes through participation in USDA-funded potato cyst nematode surveys.

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Pesticide and Plant Pest Management Division

Plant Industry Section – Fruit and Vegetable Inspection



Manager: Robin Rosenbaum, Plant Industry Section Manager, 517-284-5646, rosenbaumr@michigan.gov

Legal Authority: Market Conditions, Public Act 91 of 1915

Description of the Program:

- The Fruit & Vegetable inspection program offers an unbiased, third-party inspection service for the produce industry in Michigan and throughout the United States.
- Inspections are based on federal and state standards, processor specifications, and/or industry requests. USDA standards are used nationwide as a basis for purchase, and to resolve disputes.
- All F&V staff must be licensed by USDA on each commodity they inspect.

Why It Matters:

- Process inspections protect Michigan farmers by providing them with an unbiased, third-party inspection upon which they are paid fairly for their produce. Processing plants are also protected from receiving poor-quality produce from Michigan farmers and consumers are protected from receiving poor-quality produce in processed goods.
- Market inspections protect the buyer, broker, and consumer from receiving poor-quality produce or produce not meeting the promised grade or condition from anywhere in the world. Market inspections are used to resolve disputes which may end up in court and are vital to the survival of the state's buyers, brokers, and receivers of Michigan produce worldwide.
- Shipping point inspections assure the quality and condition of Michigan produce prior to shipment. Verifying the produce meets the grade marked.
- Good Agricultural Practices and Good Handling Practices (GAP/GHP) provide set guidelines designed to minimize microbial contamination of fresh produce. GAP and GHP audits verify Michigan produce has been produced and handled in ways minimizing food safety concerns, thereby opening markets for Michigan producers and handlers.



Key Stakeholders

- Michigan fruit and vegetable growers
- Michigan processors
- Michigan shippers
- Buyers, brokers, and consumers.
- Food retailers
- U.S. Department of Agriculture

Deliverables

- Shipping point inspections
- Terminal market inspections
- Process inspections
- Controlled atmosphere storage inspections
- Good Agricultural Practices audits
- Good Handling Practices audits

Accomplishments:

- Shipping point inspections were completed within 24 hours of the anticipated shipment date, enabling Michigan producers and brokers to ship fresh produce across the globe in a timely fashion. Additionally, it ensures consumers receive consistent, wholesome and high quality produce.
- Responded to all terminal market inspection requests within 12 hours of the request. Timely response assures Michigan consumers receive produce meeting USDA standards and that Michigan does not become a dumping ground for sub-standard produce.
- Completed 249 GAP and GHP food safety audits, reducing the risk of microbial contamination of produce and opening markets for Michigan producers who must verify that their crop has been grown or handled in a safe manner.
- Participated with seven other states nationwide in a "Group GAP" pilot project in the Upper Peninsula. The information obtained by this project will make the program more accessible to small volume producers by reducing the cost of the audit per farm.
- Achieved stringent continuing education requirements to maintain GAP & GHP audit certifications in strategic areas of the state. This assures the availability of trained staff in key locations so excellent response times can be maintained and the cost of inspection to the producer/firm can be minimized.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Market inspections	581	563	621	796	800
Shipping point certificates Issued	917	545	947	595	742
Total hundredweight inspected	627,687	463,409	475,613	563,535	483,034
GAP/GHP audits performed	283	81	267	249	248

Program Goals:

- Continue training of the two new staff with a goal of getting them restricted licenses for market inspection, licensed on all commodities for shipping point and eligible to undergo GAP & GHP training.
- Participate in the development and launch of "Group GAP" in the state of Michigan.
- Maintain or exceed excellent response times for market and shipping point inspections.

Michigan Department of Agriculture & Rural Development

Pesticide and Plant Pest Management Division

Agricultural Products – Animal Feed



Manager: April Hunt, Feed and Fertilizer Specialist, 517-284-5644 hunta9@michigan.gov
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Program website: www.michigan.gov/mda-feed

Legal Authority:

- Commercial Feed Law (PA 120 of 1975)
- Livestock and Poultry Remedies (PA 134 of 1929)

Description of the Program:

- Protect the animal and human food supply by assuring animal feeds and feed ingredients are safe and nutritious, properly labeled and free of contaminants and harmful residues.
- Regulate over 1,300 manufacturers and distributors of 3 million tons of commercial feed and feed ingredients.
- Monitor the manufacturers of medicated feeds, review formulation and dosages of medicated feeds, ensure compliance with current good manufacturing practices, and sample these feeds to ensure compliance with state and federal regulations.
- Conduct a variety of activities, including:
 - licensing feed manufacturers, distributors and animal remedy products
 - reviewing product labels to ensure compliance with state law
 - examining ingredients, sampling products, and verifying claims through laboratory analysis
 - inspecting manufacturing processes, storage facilities, product security, equipment and transport vehicles
 - investigating animal illnesses and deaths where feed may be implicated

Why It Matters:

- Safe and nutritious feed and remedy supplements free of contaminants and harmful residues is the overarching goal of the Feed Program. Michigan farmers produce an estimated \$2.3 billion worth of meat, milk, and eggs, and base their livelihood on the effectiveness of this program.
- Millions of pet owners depend on the nutritional and safety provisions of this program. Over 50 percent of U.S. households have one or more pets.
- Recent feed contamination incidents and recalls demonstrate the need for product surveillance, rapid response capabilities and strong feed enforcement programs for pet food and feed for food-producing animals. Examples include:
 - 2007 Melamine Contamination. Resulted in unprecedented international recalls for pet food.
 - 2012 Diamond Pet Food Investigation. Michigan's finding of *Salmonella* Infantis in pet food linked an outbreak of 53 human illnesses to the contamination and resulted in the recall of over 2 million bags of pet food.
- The safety of the food supply chain is enhanced by monitoring manufacturers of commercial feeds; and the animal feed supply is protected from the use of unapproved feed additives such as drugs, micro-organisms, and pesticide contaminants, which reduces the risk of unsafe drug residues in meat, milk, and eggs.

Key Stakeholders

- Feed manufacturers and distributors
- Pet owners
- Michigan Agri-Business Association
- Agricultural producers
- U.S. Food and Drug Administration

Deliverables

- Feed and animal remedy licenses
- Feed sanitation inspections
- Federal contract inspections
- Feed tonnage reporting
- Medicated feed inspections

Accomplishments:

- Amended the Michigan Commercial Feed Law for the first time in 40 years as Public Act 83 of 2015. The amendments allow Michigan's feed law to be more in line with the Association of American Feed Control Officials model feed bill and supports increased feed security, safety and surveillance.
- Sampled and analyzed 184 pet food and livestock feed samples for pathogens; five pet foods were positive for *Listeria*; three pet foods and one livestock feed were positive for *Salmonella*. Each positive was investigated by field staff and the pet food products were recalled by the manufacturers. One product also resulted in the recall of ready-to-eat lunchmeat due to *Listeria*. The *Salmonella* serotype for the livestock feed was found to be non-pathogenic to animals. There were no reports of human illness linked to these findings.
- Organized three tabletop discussions for public health officials and veterinarians on the interconnection between pet food and human foodborne illnesses.
- Received an FDA Team Award for leading a multi-division, multi-agency investigation in 2014 linking over 50,000 turkey deaths at a Michigan farm to out of state waste oil loads of soy oil containing Lascadoil, an industrial processing waste oil, which was intended for non-food product or bio-fuels but used as a feed ingredient.
- Shared guidance on proper rodenticide use at food establishments, including grain elevators and feed mills with stakeholders. Conducted inspections at food establishments to ensure compliance.
- Issued 160 violation notices, 12 advisory letters, 17 warning letters to firms to ensure compliance with feed safety and consumer protection requirements.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Feed licenses	1,213	1,286	1,329	1,347	1,415
Animal remedies licenses	1,704	1,756	1,025	1,121	1,094
Feed mill and grain elevator sanitation inspections	353	346	363	336	384
State medicated feed inspections	62	80	61	67	93
Federal contract BSE and medicated feed inspections	85	84	85	76	5
Feed samples	1,542	704	959	787	795
Investigations	12	12	12	6	8

Program Goals:

- Implement and communicate to stakeholders the Michigan Feed Law changes and updates.
- Prepare Michigan's feed program and work with industry on the upcoming federal Food Safety Modernization Act, Preventative Controls for Animal Feed and Animal Feed Regulatory Program Standards.
- Continue to focus feed surveillance, inspection and auditing activities to protect food safety and consumers and promote a level playing field.

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Pesticide and Plant Pest Management Division

Agricultural Products - Fertilizer and Liming



Manager: April Hunt, Feed and Fertilizer Specialist, 517-284-5644 HuntA9@michigan.gov
Program website: www.michigan.gov/mda-fertilizer

Legal Authority:

- Part 85, Fertilizers, Natural Resources Environmental Protection Act (PA 451 of 1994, as amended)
- Part 87, Groundwater, Natural Resources Environmental Protection Act (PA 451 of 1994, as amended)
- Liming Materials, (PA 162 of 1956)

Description of the Program:

- Assure fertilizers meet label claims and guarantees and are stored securely in an environmentally protective manner.
- Regulate approximately 700 manufacturers and distributors of 1.4 million tons of fertilizers, soil conditioners, and liming materials for both farm and non-farm use.
- Conduct a variety of activities, including:
 - licensing manufacturers and registering specialty products
 - reviewing product labels to ensure compliance with state law
 - examining ingredients, sampling products, and verifying claims through laboratory analysis
 - inspecting manufacturing processes, storage facilities, product security, equipment and transport vehicles
 - monitoring phosphorus use on turfgrass

Why It Matters:

- Michigan producers and industry rely on this program to purchase accurately labeled fertilizers and to maximize yields and maintain a profitable agricultural operation. Current inspection data indicates violation rates for grade guarantees are in the 16 percent range.
- Part 85 has phosphorus restrictions to prevent unnecessary applications of phosphorus fertilizer to turf helping maintain and protect Michigan's vast water resources.
- Fertilizer is the most widely used agrichemical and is agronomically applied on about 5.5 million acres of Michigan farmland.
- Residents purchasing home and garden fertilizers rely on this program to protect them from fraud.

Key Stakeholders

- Fertilizer manufacturers
- Michigan Agri-Business Association
- Agricultural producers
- Turfgrass application businesses

Deliverables

- Fertilizer facility licenses
- Specialty fertilizer & soil conditioner registrations
- Liming material licenses
- Fertilizer tonnage reporting

Accomplishments:

- The Michigan Fertilizer Law was amended in July 2015. The updates include the addition of resident agent language, establishment of a fertilizer advisory committee, a research grant program and tonnage and water quality fee increases. It has been 40 years since the fertilizer tonnage fee has been increased.
- To help Michigan companies collaborate with state officials, MDARD is piloting a national, industry-wide project - Paperless Tonnage Reporting Project. Currently, 47 states require 47 different sets of forms and fees. This innovative partnership offers a streamlined and more efficient way to report fertilizer tonnage.
- Amended the fertilizer and liming materials laws in 2014 to include additional testing and labeling requirements in order for beneficial use industrial by-products, such as wood ash, coal ash and flue gas desulfurization gypsum to be approved for use on agricultural land. The labeling and testing criteria include agronomic application rates and limits on heavy metals, semi-volatile organic compounds and dioxins.
- Sampled 24 turfgrass fertilizers with “zero-phosphorus” claims, 23 of which were found to be truthful. Issued Stop Sale violation notices to one manufacturer selling misbranded products with a false zero-phosphorus claim. Issued three administrative fines to firms not meeting product application requirements.
- Sampled and analyzed 256 fertilizer samples for nitrogen, available phosphate, soluble potash, calcium, magnesium and sulfur. The Iowa Department of Agriculture and Land Stewardship conducted the sample analysis for Michigan; 37 of the samples were violative, a 14.5 percent violation rate. Violation notices were sent to all retailer and manufacturer locations with a violative sample.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Fertilizer licenses	602	585	666	728	756
Specialty product registrations	4,609	4,839	5,086	5,469	5,604
Liming materials licenses	98	97	86	97	100
Fertilizers sampled	0	0	208	244	256
Violative samples detected	0	0	35	37	36

Program Goals:

- Increase marketplace surveillance inspections of fertilizers to help prevent illegal trade and sale of unapproved, unregistered, and potentially dangerous products to homeowners, professional applicators, and farmers.
- Increase fertilizer sampling and analysis activities to ensure consumer protection and a level playing field for industry.
- Increase auditing of fertilizer and water quality reports and fees to help assure a level playing field.

Michigan Department of Agriculture & Rural Development

Pesticide and Plant Pest Management Division

Agricultural Products Section – Agrichemical Bulk Storage



Managers: April Hunt, Feed and Fertilizer Specialist, 517-284-5644, HuntA9@michigan.gov
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Legal Authority:

- Natural Resources Environmental Protection Act, Public Act 451 of 1994, as amended
 - Part 83, Pesticide Control
 - Part 85, Fertilizers
 - Part 87, Groundwater and Freshwater Protection
- Regulation 640, Commercial Pesticide Bulk Storage
- Regulation 641, Commercial Fertilizer Bulk Storage
- Regulation 642, On Farm Fertilizer Bulk Storage

Description of the Program:

- Review construction plans and conducts site consultations as well as inspections to facilitate new business projects and ensure bulk quantities of agrichemicals are stored properly and securely.
- Ensure bulk fertilizer and pesticide containments are constructed, installed, and maintained in a safe manner with the least possible impact on people, property, and the environment.
- Require commercial facilities storing bulk agrichemicals and private facilities storing bulk liquid fertilizers to have tank containment, a mixing and loading pad, and an emergency response plan.

Why It Matters:

- Promotes economic development by assisting new and expanding agribusiness companies to comply with state regulations.
- Benefits industry and producers by preventing environmental contamination and saving thousands of dollars in product losses and clean-up costs if a spill or release were to occur.
- Makes proactive efforts to help provide a safer environment through proper storage of agrichemicals.
- Safeguards over 70 million gallons of Michigan agrichemicals.
- Ensures fertilizers and pesticides are properly identified, stored, and secured to prevent misuse.

Key Stakeholders

- Fertilizer and pesticide manufacturers
- Fertilizer and pesticide distributors
- Michigan Agri-Business Association
- Agricultural producers

Deliverables

- 228 registered bulk storage facilities
- 2,600 bulk tanks protected

Accomplishments:

- Conducted numerous producer security outreach activities to inform staff, industry, and producers about on-farm fertilizer storage and poly tank integrity.
- Performed numerous site visits and consultations with firms building new containment and renovating existing containment.
- Conducted 136 bulk storage inspections and issued two warning letters, and three notices of intent for improper notification, storage, and failure to use operational containment pads.

Measuring Success:

Metric	2011	2012	2013	2014	2015
Bulk storage facility registrations	222	220	219	226	228
Facility inspections conducted	8	43	48	125	136
Agrichemical storage tank capacity (gallons)	43 million	66 million	69 million	72 million	74 million

Program Goals:

- Increase plan reviews and on site consultations to ensure proper agrichemical containment construction and promote Michigan's economic development.
- Increase outreach efforts to advise agricultural dealers and farmers on how they can help deter illicit use of agrichemicals while protecting their safe, intended use.
- Inspect at least 50 percent of registered bulk storage facilities.

Michigan Department of Agriculture & Rural Development

Pesticide and Plant Pest Management Division

Producer Security Section – Licensing and Review Services



Manager: Jeff Haarer, Producer Security and Agricultural Products Section Manager, 517-284-5642, haarerj@michigan.gov

Legal Authority:

- Grain Dealers Act, Public Act 141 of 1939, as amended
- Farm Produce Insurance Act, Public Act 198 of 2003, as amended
- Wholesale Potato Dealers Act, Public Act 158 of 1964
- Grade A Milk Law of 2001, Public Act 266 of 2001
- Manufacturing Milk Law of 2001, Public Act 267 of 2001, as amended
- Licensing Livestock Dealers, Public Act 284 of 1937, as amended
- Agricultural Marketing and Bargaining Act, Public Act 344 of 1972, as amended
- Agricultural Commodities Marketing Act, Public Act 232 of 1965, as amended

Description of the Program:

- The Grain Dealers Act regulates the storage, warehousing, and sale of farm produce in Michigan and the licensing of grain dealers.
- The Farm Produce Insurance Authority administers the collection of producer assessments, payment of producer claims, and investment of producer funds.
- The Wholesale Potato Dealers Program protects Michigan potato growers from dealers and processors who default on payments and licenses dealers.
- The Grade A Milk and the Manufacturing Milk Program protect Michigan milk producers from processors who default on payments. These acts are administered by the Food and Dairy Division, and the Producer Security unit reviews the security provided by licensees.
- The Livestock Dealers Program protects producers transacting with licensed livestock dealers. This act is administered by the Animal Industry Division, and the Producer Security unit reviews the dealers' accounting of proceeds for livestock producers.
- The Agricultural Marketing and Bargaining Act requires handlers and associations to establish marketing and processing pricing for asparagus and apple crops grown in Michigan. The Producer Security unit administers the program, oversees arbitration if negotiations are not successful, and investigates unfair practice complaints.
- The Producer Security unit provides financial, compliance and assessment review services for legislatively enacted commodity marketing associations.



Why It Matters:

- Licensed grain dealers hold and protect the grain deposits of producers. Grain dealer failures would result in significant losses to producers who might be unsecured under bankruptcy laws. Producers might only receive cents on the dollar many years after the failure. Over the past 30 years, farmers have lost over \$10 million through numerous insolvencies at grain dealers in Michigan.
- Grain dealer, wholesale potato dealer, livestock dealer, and dairy plant insolvencies adversely impact communities, businesses, and farmers through loss of jobs, income, and market.
- The Farm Produce Insurance Act was enacted to protect farmers in the event of a farm produce dealer's financial failure.
- Licensing programs give MDARD the ability to regulate businesses to assure they operate in compliance with requirements or risk license suspension/revocation.
- Legislatively enacted commodity marketing associations require government oversight of financial and operational provisions.

Key Stakeholders

- Agricultural producers
- Michigan Agri-Business Association
- Michigan Farm Bureau
- Michigan agricultural commodity marketing associations

Deliverables

- Grain dealer and grain merchandiser licenses
- Wholesale potato dealer licenses
- Risked-based audits
- FPIA Fund management and oversight
- Commodity marketing associations oversight

Accomplishments:

- Performed 180 risked-based audits on an 18-month cycle.
- Measured inventory from bins with licensed capacity of 221,857,161 bushels.
- Garnered the participation of more than 99.8 percent of the estimated 17,000 eligible producers in the voluntary Farm Producers Insurance Fund.
- Paid 207 producer insurance claims since 2005, totaling \$404 million.
- Recovered \$600,000 from probate, bankruptcy, estates, and bonds.
- Made 100 percent of the payments determined by the FPIA Board within 60 days. Received 100 percent response from licensees for FPIA administrative assessments since January 2013.
- Performed 100 Corn Marketing Program and Soybean Promotion Committee check-off audits bi-annually.
- Conducted producer security reviews for 13 wholesale potato dealers and eight manufacturing and fluid milk processors.

Measuring Success

Stage 1: ExamNet Software Distribution			
Statistics	FY2013	FY2014	FY2015
Licensed capacity (bushels)	228,791,814	258,191,772	221,857,161
Capacity of software holders (bushels)	165,939,174	258,191,772	221,857,161
Percentage capacity of holders with software	73%	100%	100%
Licensed facilities	233	221	208
Facilities with software	93	178	172
Facilities exempt from licensing	28	28	38
Out-of-state facilities	15	15	11
Percent of facilities with software	40%	100%	100%
Stage 2 Metric: Confirmed Utilization ExamNet Software			
Statistics		FY2014	FY2015
Facilities with software		178	172
Confirmed utilization at facilities		58	119
Percent of facilities utilizing ExamNet		33%	69

Program Goals:

- Licensing programs will monitor renewal applications to assure previously licensed businesses maintain business licenses if they remain active.
- Confirm utilization of ExamNet software.
- Move site review emphasis toward balance sheet audit and away from inventory audits.
- Provide support for Farm Produce Insurance Authority in liquidation, claim payment, and recovery regarding financial losses to producers from grain dealer failure in Thumb area.