



PESTICIDE AND PLANT PEST MANAGEMENT DIVISION

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Letter from the Director

In 2021, the Michigan Department of Agriculture and Rural Development's Pesticide and Plant Pest Management Division (PPPMD) continued to meet the ongoing needs of Michiganders and industry during a global pandemic. In addition, the division implemented a new industrial hemp regulatory program, modernized the delivery of pesticide applicator certification exams, responded to first-ever detections of two serious exotic pests, and made strides rebuilding our human resources after a decade of chronic understaffing.

PPPMD is responsible for protecting human and animal health and the environment through the regulation of plants and plant products, plant pests and diseases, animal feed, fertilizer, and pesticides. In addition, the division fosters economic growth through the certification of Michigan-grown agricultural commodities and forest products to facilitate interstate and international trade. These programs are key to promoting the interests of Michiganders and supporting the state's \$104.7 billion food and agriculture industry.

I am extremely proud of the work performed by PPPMD's 89 experts and their dedication to public service. This report highlights the results of that expertise and dedication, and I hope you find it useful and informative.

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

Michael Philip, Division Director
Pesticide and Plant Pest Management Division

Plant Health Certification and Export

PROGRAM MANAGERS:

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The Plant Health and Export Certification Program, through the inspection helps prevent the introduction and dissemination of serious insects and diseases injurious to nursery stock and plant products. The program also facilitates the export and import of nursery stock, plant products, and agricultural commodities to and from other states and countries through programs for detection, eradication, or control of pests and diseases.

IMPACT FOR MICHIGAN:

Preventing the introduction of plant pests and other invasive species protects Michigan's agricultural, urban, and natural resources; promotes domestic and international commerce; minimizes control costs; and promotes tourism and outdoor recreational industries.

Certification ensures the safe shipment of plant-based commodities to other states and countries. Nursery stock producers generate over \$290 million in annual sales and distribute over 50 percent of their products to 35 states. Michigan Christmas tree production has an annual farm gate value of \$27 million. Michigan consumers also benefit by having nursery stock free of pests and diseases.

ACCOMPLISHMENTS:

- Assisted firms in the enrollment of new and existing U.S. Department of Agriculture programs.
- Collaborated with MSU Extension in surveying for box tree moth at sites receiving boxwood from an infested out of state nursery.
- Increased enforcement action on firms shipping material into Michigan in violation of Michigan's exterior plant pest quarantines.
- Ensure federal export policy was executed on a uniform basis statewide, resulting in the on-time departure of over 4,400 export shipments and trade to 87 countries worldwide.

MEASURING SUCCESS:

Metric	2020	2021
Nursery Stock Growers Inspected	1,079	874
Nursery Stock Dealers Inspected	359	285
Export Certificates Issued	4,486	5,688
Christmas Tree Fields Inspected	258	223

PROGRAM GOALS:

- Expand the use of a risk-based approach to nursery stock inspections by updating policies and procedures promoting uniform inspections focusing on harmful pests and diseases threatening Michigan nurseries and the environment.
- Increase the efficiency of the export certification program, facilitating savings which can be passed on to industries served.
- Review and revise Michigan's plant health statutes as part of an overall effort to review and modernize Michigan's plant pest laws.



KEY STAKEHOLDERS

- Nursery stock growers and dealers
- Fruit and vegetable producers
- Hay, straw, grain, log, and lumber exporters
- Christmas tree growers
- Greenhouse/floriculture growers
- Michigan residents
- U.S. Department of Agriculture, Animal and Plant Health Inspection Service

LEGAL AUTHORITY:

- The Insect Pest and Plant Disease Act, PA 189 of 1931, as amended
- Insect Pests and Plant Diseases, PA 72 of 1945

Invasive Pest Detection and Response

PROGRAM MANAGER:

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The Invasive Pest Detection and Response Program focuses on the early detection of invasive species and management of these pests. Early detection, pathway analysis, inspections, and outreach programs are essential to the successful eradication or containment of invasive pest populations. Sustained monitoring programs keep national and international markets open to Michigan-produced agricultural and forest commodities.

IMPACT FOR MICHIGAN

Michigan is home to numerous agricultural industries, producing more than 300 commodities on a commercial basis. The Port of Detroit is one of the busiest commercial border crossing in the world, placing Michigan at exceptional risk for the introduction, establishment and impacts of invasive pests. Left undetected and unmanaged, these pests can 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.

ACCOMPLISHMENTS:

- Verified the presence of the destructive forest pest balsam woolly adelgid in Kent County. the invasive pest was eradicated. Intensive detection survey found no additional evidence of the pest.
- Engaged with the Michigan Department of Natural Resources, the USDA-Forest Service, Michigan State University (MSU), and Cooperative Invasive Species Management Areas to protect the state's hemlocks from hemlock woolly adelgid.
- Collaborated with U.S. Department of Agriculture to conduct the first annual survey for Asian longhorn beetle in 38 counties across the state.
- Worked with the U.S. Department of Agriculture and MSU to conduct a statewide survey of 47 pest species threatening our environment and food production.

MEASURING SUCCESS:

Metric	2020	2021
Invasive Species Awareness (audience hours)	291	1,308
Seed Potato Acreage Certified for Export	296	267
Forest, Fruit, and Field Crop Survey Sites	115	249

PROGRAM GOALS:

- Protect Michigan environment and agricultural lands and crops from exotic invasive pests.
- Coordinate and implement the statewide strategy to protect Michigan's hemlock resource in response to hemlock woolly adelgid.
- Continue to develop response plans and strategies for Asian longhorned beetle and spotted lanternfly.
- Continue education of industry professionals and public on exotic/invasive forest pest detection and reporting to ensure residents can help discover new pests and have the knowledge to recognize them and report their findings.
- Respond to new reports of exotic/invasive pests, including hemlock woolly adelgid, Asian longhorned beetle, spotted lanternfly and balsam woolly adelgid.
- Continue to facilitate the export of seed potatoes through surveys of exotic potato cyst nematodes.



KEY STAKEHOLDERS:

- Agricultural producers
- Forest products producers
- Property owners, municipalities, and businesses maintaining turf and landscape plants
- Nursery plant, Christmas tree, and floriculture producers
- Michigan residents
- USDA-APHIS, USDA-Forest Service, MDNR, MSU, Environment Great Lakes & Energy (EGLE).

LEGAL AUTHORITY:

- The Insect & Plant Disease Act, PA 189 of 1931, as amended
- Insect Pests and Plant Diseases, PA 72 of 1945
- Natural Resources and Environmental Protection Act, PA 452 of 1994, as amended, Part 413

Industrial Hemp

PROGRAM MANAGER: MOLLY MOTT

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Industrial hemp is defined at the state and federal level as *Cannabis* containing 0.3% or less tetrahydrocannabinol (THC). The 2018 Farm Bill removed hemp as a Schedule I controlled substance and allowed for commercial hemp cultivation under approved state plans or USDA authority. In response, MDARD gained approval from the USDA for the Michigan's first Hemp Production Plan, with implementation beginning on December 1, 2020. PPPM also licenses hemp processor-handlers that process, broker, or market hemp in the state.

IMPACT FOR MICHIGAN

Hemp is an emerging industry in Michigan and is grown for fiber, grain, biomass, and cannabinoid production. Laws regulating hemp are constantly changing, growers are still learning best practices, and the industry is developing supply chains and watching market stability. Continued research will provide valuable data on the future of this industry.

ACCOMPLISHMENTS:

- Revamped and received approval for Michigan's Hemp Production Plan to meet USDA Final Rule requirements.
- 43 inspectors became certified as hemp sampling agents.
- Completed all industry sampling requests and 79 percent of assigned grower inspections.
- Developed 24 procedures; released 26 news updates; published 9 resources bulletins; participated in 3 podcasts.

MEASURING SUCCESS:

Metric	FY 2020	FY 2021
Collection of official regulatory samples for THC compliance testing	NA	274
Confirmation of disposal of noncompliant lots	NA	22
Registered industrial hemp growers inspected	NA	67
Registered industrial hemp growers (2020 – ag pilot program)	NA	175

PROGRAM GOALS:

- Continue to work with legislators to ensure proposed hemp legislation meets the needs of the people of Michigan.
- Utilize the hemp core team and inspectors as subject matter experts in hemp inspection and enforcement.
- Collect 100% of requested preharvest and remediation samples in a timely manner.
- Conduct comprehensive inspections with at least 50% of registered growers.
- Develop performance-based sampling processes and gain USDA approval to allow for reduced sampling of proven fiber crops, microgreens, clones/transplants, and research crops.
- Develop an enforcement process for the program that meets state and federal requirements.
- Revise sampling payment process to ensure site visits and lab testing service fees are paid.
- Assess processor law needs to best regulate hemp manufacturing and products.
- Conduct outreach sessions with stakeholders to ensure awareness of Michigan hemp laws and continue to maintain good communication with the industry regarding program activities.



KEY STAKEHOLDERS:

- Hemp and marijuana growers, propagative material suppliers, manufacturers, retailers, food and feed processors and retailers
- Industry associations
- College and university hemp researchers
- Michigan residents
- Michigan Marijuana Regulatory Agency (MRA)
- U.S. Department of Agriculture (USDA)
- Economic development-related businesses

LEGAL AUTHORITY:

- Industrial Hemp Growers Act, PA 220 of 2020, as amended
- Industrial Hemp Research and Development Act, PA 547 of 2014, as amended

Fruit and Vegetable Inspection

PROGRAM MANAGER: PATRICIA BIZOUKAS

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The Fruit and Vegetable (F&V) Inspection Service offers unbiased, third-party grading services and verification of fruit and vegetable quality based on government standards and/or processor specifications. In addition, this program provides Good Agricultural Practices (GAP), Good Handling Practices (GHP), third-party food safety audits, and licensing and inspection of controlled atmosphere storage facilities.

IMPACT FOR MICHIGAN:

The F&V program protects buyers, brokers, and consumers from receiving poor quality produce or produce that does not meet the promised grade or condition from anywhere in the world. In addition, it protects farmers by providing them an unbiased, third-party inspection upon which they are paid fairly for their produce. Processing facilities are also protected from receiving poor-quality produce in processed goods. The F&V inspection staff also perform GAP/GHP food safety audits, opening markets for Michigan producers and handlers.

ACCOMPLISHMENTS:

- Responded to all requests for inspection and audit services in a timely fashion despite the many challenges brought by the pandemic.
- Facilitated U.S. Department of Agriculture's Food Purchase and Distribution Program by meeting the increased demand for necessary inspections in a timely manner. These purchases enabled food banks and local hunger relief agencies to provide additional food to families in need in local communities.
- Increased the number of licensed auditors
- Hosted field visits with USDA Federal Program Manager on two occasions
- Participated in GAP/GHP audit training
- Completed a strategic plan for the program

MEASURING SUCCESS:

Metric	FY 2020	FY 2021
Federal Market Inspections	757	458
Shipping Point Inspections	2,037	2,345
Total Hundredweight of Produce Inspected	948,056	822,198
Audits (GAP/GHP, Harmonized & Harmonized Plus+)	262	316

PROGRAM GOALS:

- Increase services provided to auditees through education/outreach
- Implement additional process improvement changes to continue our level of customer service.
- Develop electronic forms to provide efficiencies for field and office staff.
- Implement an electronic inspection system for Shipping Point inspections
- Continue developing relationships with our stakeholders, to understand what their needs are and how we can assist them.



KEY STAKEHOLDERS

- Michigan fruit and vegetable growers and processors
- Michigan shippers
- Buyers, brokers, and consumers
- Food retailers
- U.S. Department of Agriculture - Agriculture Marketing Services
- MAY NOT ACTUALLY INCLUDE MICHIGANDERS

LEGAL AUTHORITY:

- Market Conditions, PA 91 of 1915
- Cooperative Agreement with the United States Department of Agriculture

Agrichemical Bulk Storage

PROGRAM MANAGER: Jarrod Fletcher
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The Agrichemical Bulk Storage Program regulates commercial facilities storing bulk agrichemicals and private facilities storing bulk liquid fertilizers. Inspections help 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. Construction plans are reviewed, and site consultation and inspections are conducted to help facilitate new projects and ensure bulk quantities of agrichemicals are stored properly and securely.

IMPACT FOR MICHIGAN:

The Agrichemical Bulk Storage Program safeguards approximately 76 million gallons of Michigan agrichemicals and ensures fertilizers and pesticides are properly identified, stored, and secured to prevent misuse and environmental discharges. The program promotes economic development by enforcing regulations, providing environmental protections, and maintaining a strong relationship with agribusiness companies expanding their operations. This regulatory oversight benefits industry and producers by preventing environmental contamination and prevents product losses and clean-up costs if a spill or release were to occur. This program initiates proactive efforts to help provide a safer environment through proper storage of agrichemicals.

ACCOMPLISHMENTS:

- Performed commercial consultations with businesses building new containment and renovating existing containment.
- Conducted outreach activities to inform staff, industry, and producers about on-farm fertilizer storage and poly tank integrity.

MEASURING SUCCESS:

Metric	2020	2021
Bulk Storage Facility Registrations Issued	204	204
Facilities Inspected	93	87
State Liquid Agrichemical Storage Capacity (gallons)	76 Million	76 Million

PROGRAM GOALS:

- Inspect 50 percent of registered bulk storage facilities.
- Increase construction and site 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 ways to deter illicit use of agrichemicals such as anhydrous ammonia, while protecting their safe, intended use.
- Register all bulk storage facilities electronically.
- Respond to emergencies where there is a release of fertilizer and/or pesticide product to the environment.
- Identify aging and/or failing infrastructure and work with firms to implement a plan to update failing systems.



KEY STAKEHOLDERS

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

LEGAL AUTHORITY:

- Natural Resources Environmental Protection Act, PA 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

Fertilizer and Liming Materials

PROGRAM MANAGER: JARROD FLETCHER

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The Fertilizer Program regulates approximately 942 manufacturers and distributors of approximately 1.89 million tons of fertilizers and soil conditioners, as well as 91 licensed liming materials from 44 manufacturers, for both farm and non-farm use. The program ensures fertilizers meet label claims and guarantees and are stored securely in an environmentally protective manner.

IMPACT FOR MICHIGAN:

- Fertilizer is the most widely used agrichemical and is agronomically applied on 10 million acres of Michigan farmland.
- Michigan producers rely on this program to purchase accurately labeled fertilizers, maximize yields, and maintain a profitable agricultural operation.
- Restrictions limiting phosphorus applications on turf help maintain and protect Michigan's vast water resources.
- Residents purchasing home and garden fertilizers rely on this program to protect them from misbranded and adulterated products.

ACCOMPLISHMENTS:

- Reviewed and analyzed 33 turfgrass fertilizers with “zero phosphorus” claims, 29 of which were found to be accurate.
- Issued stop sale violation notice to three manufacturers selling misbranded products with a false claim.
- Sampled and analyzed 235 fertilizer samples for 874 analytes, of which, 72 were found violative, an 8.2 percent violation rate. Violation notices were sent to all retailer and manufacturer locations with violative samples.

MEASURING SUCCESS:

Metric	2020	2021
Fertilizer Licenses Issued	833	885
Specialty Fertilizers Registered	6,287	6,750
Liming Material Licenses Issued	108	91

PROGRAM GOALS:

- Help prevent illegal trade and sale of unapproved and unregistered products to homeowners, professional applicators, and farmers.
- Increase fertilizer sampling and analysis activities to verify label guarantees for industry and consumers.
- Continue to focus on fertilizer and water quality reports and fee payment auditing to ensure manufacturing facilities are complying with fertilizer laws and regulations.
- Work with industry and other agencies on approval of recycled products for use as fertilizer, liming and soil conditioners products as allowed under P.A. 451 of 1994, Part 115.



KEY STAKEHOLDERS

- Fertilizer manufacturers
- Agricultural producers
- Turfgrass application businesses, including golf courses
- Michigan Agri-Business Association

LEGAL AUTHORITY:

- Natural Resources Environmental Protection Act, PA 451 of 1994, as amended:
 - Part 85, Fertilizers
 - Part 87, Groundwater
- Liming Materials, PA 162 of 1956
- Regulation 634, Commercial Fertilizers

Animal Feed Safety Program

PROGRAM MANAGERS:

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Michigan has approximately 1,400 commercial feed licensees distributing over 4 million tons of commercial feed and feed ingredients. The goal of the Animal Feed Safety Program is to protect human and animal health through inspection and sampling, ensuring feeds are produced using approved ingredients and additives, free of contaminants, and labeled properly. Inspectors evaluate feed facilities, ensuring compliance with Current Good Manufacturing practices. Review of feed formulations and sampling of feeds confirm compliance with state and federal regulations. Inspectors also investigate complaints involving animal deaths, illnesses, or issues with products impacting public health.

IMPACT FOR MICHIGAN:

Michigan farms are home to an estimated 15 million livestock animals including dairy cows, beef cattle, hogs, turkeys, chickens, goats, and sheep primarily raised for food. Furthermore, it is estimated 55 percent of Michigan households have one or more pets who would be directly impacted during a feed safety incident. Feed safety incidents and recalls demonstrate the need for product surveillance, rapid response capabilities, and strong enforcement for pet food and livestock feed.

ACCOMPLISHMENTS:

- The program responded to animal illness and death investigations, completed Food and Drug Administration (FDA) contract obligations and completed high priority routine work.
- Worked with a custom software developer to replace legacy software scheduled to be released in April of 2022.
- Worked with Food and Drug Administration and Animal Industry Division to investigate a feed adulteration event after a feed manufacturer issued a voluntary recall.

MEASURING SUCCESS:

Metric	2020	2021
Current Good Manufacturing Practice Inspections	126	100
Medicated Feed Inspections	51	64
Veterinary Feed Directive Inspections	57	59
Preventative Control Inspections	33	133
Feed Samples	1,038	1,038*

*6,993 total analytes tested.

PROGRAM GOALS:

- Continued focus on feed safety through risk-based inspections and the routine surveillance of feed products through sampling to determine compliance.
- Conduct outreach promoting animal feed safety awareness and compliance activities while implementing and communicating Feed Law changes to stakeholders.
- Assure market access for Michigan food and agricultural products by updating the Feed Law to maintain national and global consistency.
- Continued development and review of internal policies and procedures to ensure the implementation of the Animal Feed Regulatory Program Standards.



KEY STAKEHOLDERS

- Feed manufacturers and distributors
- Michigan Agri-Business Association
- Michigan Farm Bureau
- U.S. Food and Drug Administration
- Livestock producers
- Pet and specialty pet owners

LEGAL AUTHORITY:

- Michigan Feed Law, PA 120 of 1975
- Regulation 635, Commercial Feed

Pesticide Registration

PROGRAM MANAGER: KEVIN KERN

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Pesticide registration is an important aspect of protecting human health and the environment. The registration of pesticides provides the mechanism to identify and track the use and sale of pesticides in Michigan. Funding from pesticide registration is key in supporting inspection and monitoring programs that promote compliance with state and federal laws and regulations and helps mitigate misuse.

IMPACT FOR MICHIGAN:

Registering pesticides ensures producers, businesses, and residents have access to the pesticides they need to protect themselves, their crops, and their property from damaging pests including insects, vertebrates, fungi, bacteria, and weeds. Registration also provides MDARD with the means to cancel or restrict the use of a pesticide in the event it causes adverse effects on human health or the environment.

ACCOMPLISHMENTS:

- Issued one new, and maintained 45 existing, Special Local Needs registrations to Michigan growers, giving them additional pesticide tools to protect their crops from damaging pests.
- Requested two emergency use exemptions from the Environmental Protection Agency (EPA); Quali-Pro Imidacloprid 2F(imidacloprid) for the control of hemlock wooly adelgid on hemlock in state managed lands and Ultra Blazer Herbicide (acifluorfen) on glyphosate resistant weeds in sugar beets.
- Conducted 99 state marketplace inspections to ensure pesticides being offered to consumers are properly labeled and registered with MDARD and the EPA.
- Identified 11 unregistered pesticide products as part of a state formulation sampling project.
- Conducted 6 federal producer establishment inspections at facilities that manufacture, reformulate or repackage pesticides.
- Conducted 9 federal marketplace inspections at facilities that distribute pesticides.

MEASURING SUCCESS:

Metric	2020	2021
Pesticides Registered for Sale in Michigan	16,220	14,537
State Marketplace Inspections Conducted	85*	99
Unregistered Pesticides Found	219*	570
Enforcement Actions Taken	31*	108
Federal Producer Establishment Inspections Conducted	2*	6
Federal Marketplace Inspections Conducted	2*	9
Federal Samples Collected	9*	13

* Inspection and sample numbers lower due to pandemic restrictions

PROGRAM GOALS:

- Prepare and submit an Emergency Exemption requests on behalf of Michigan's agricultural producers.
- Review, issue, and maintain Special Local Need registrations on behalf of Michigan's agricultural producers.
- Promote a fair business environment by conducting at least 100 state marketplace inspections at pesticide retailers to ensure pesticides being sold are registered by MDARD.
- Protect human health and the environment by inspecting facilities, reviewing pesticide labels and conducting federal marketplace inspections at pesticide retailers.



KEY STAKEHOLDERS:

- Pesticide manufacturers
- Commodity groups, particularly those that represent specialty crop growers
- Michigan Agri-Business Association
- Michigan State University

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, PA 451 of 1994, Part 83, as amended, Pesticide Control

Pesticide Business Licensing

PROGRAM MANAGERS:

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Businesses applying pesticides for hire, dealers of restricted use pesticides, and dealers of agricultural pesticides all play key roles in Michigan business and agriculture. MDARD has the responsibility of supporting these businesses while promoting the safe use of pesticides. MDARD licenses and routinely inspects these businesses to ensure compliance with all applicable pesticide laws and regulations to protect human health and the environment.

IMPACT FOR MICHIGAN:

In FY2021, MDARD issued 2,085 pesticide applicator business licenses, 260 restricted use pesticide dealer licenses and 344 agricultural pesticide dealer licenses. Licensing of these businesses enhances compliance with all pesticide laws and regulations.

ACCOMPLISHMENTS:

- Monitored for compliance with pesticide application business license requirements to ensure a fair business environment and protect consumers from illegal operations.
- Monitored sales of restricted use pesticides to ensure they were only sold to certified applicators.

MEASURING SUCCESS:

Metric	2020	2021
Pesticide Applicator Business Licenses Reviewed	351	331
Restricted Use Pesticide Sales Audit Inspections	32	15
Restricted Use Pesticide Sales Violation Enforcement	4	4

PROGRAM GOALS:

- Ensure business and individuals can legally operate in Michigan by issuing licenses and certification credentials in a timely matter.
- Conduct at least 15 restricted use pesticide audits.
- Develop compliance assistance documents such as self-inspection guides and how-to-comply manuals to help business understand and comply with pesticide laws.



KEY STAKEHOLDERS

- Agricultural producers and commodity organizations
- Michigan Agri-Business Association
- Michigan pest management, landscape, and aquatic plant management associations
- Michigan residents
- U.S. Environmental Protection Agency

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, PA 451 of 1994 as amended:
 - Part 83 Pesticide Control
 - Part 85 Fertilizers
- Regulation 633, Restricted Use Pesticides
- Regulation 636, Pesticide Applicators
- Regulation 637, Pesticide Use

Pesticide Enforcement

PROGRAM MANAGER: CAITLIN BURKMAN

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Pesticide investigations and inspections are conducted in numerous settings where pesticides are used, sold, and manufactured in Michigan. The Pesticide Enforcement Program protects human health, animals, and the environment by utilizing a combination of education and enforcement to promote compliance with state and federal laws and regulations.

IMPACT FOR MICHIGAN:

Misuse of pesticides can result in human exposure, property and crop damage by drift, illegal residues on food crops, wildlife and pet illness or death, and other impacts to the environment. PPPMD monitors pesticide use, provides compliance assistance, and takes enforcement action to ensure pesticide applicators and firms meet regulatory requirements. Types of activities conducted include investigations of pesticide misuse allegations, spill response, agricultural and non-agricultural inspections, integrated pest management inspections in schools and day cares, Federal Worker Protection Standard compliance inspections, Pesticide Notification Registry compliance inspections, and restricted use pesticide sales, licensing, and monitoring inspections.

ACCOMPLISHMENTS:

- For cases started within FY2021, issued enforcement in the form of two advisory letters, one compliance conference, 85 warning letters, 77 notices of violation, and 27 final administrative penalties (as of January 2022).
- Provided inspector guidance to help prioritize investigation requests and achieve more timely responses for field activities and enforcement decisions.
- Established coordination of investigations with the Marijuana Regulatory Agency (MRA) regarding marijuana samples that are positive for pesticide active ingredients on MRA's banned list.

MEASURING SUCCESS:

Metric	FY2020	FY2021
Complaints investigated alleging pesticide exposure, drift, off-target direct discharge, or other misuse*	153	158
Complaints investigated alleging violations of business licensing, applicator certification, or other customer and/or public notification requirements*	91	61
Establishments monitored for compliance with federal agricultural Worker Protection Standards, including marijuana growers	28	60
School and daycare facilities monitored for pesticide and disinfectant use	42	50

*Allegations could involve both tallied categories. Total complaints received was 227 in FY2020 and 210 in FY2021.

PROGRAM GOALS:

- Conduct at least 20 outreach sessions with stakeholders regarding pesticide regulations.
- Conduct 15 agricultural and non-agricultural (i.e., commercial pest control) planned pesticide use inspections to monitor compliance. Include focus on pollinator protection and cannabis with agricultural facilities and fumigation with pest control operators.
- Conduct 100 school and daycare pesticide use inspections, prioritizing traditionally underserved populations, with a focus on compliance assistance and education.
- Lead the project of overhauling the inspection procedures manual to effectively manage data collection, procedures, policies, forms, and compliance assistance documents.
- Update internal metrics regarding the timeframe of case closure for complaints depending on the type of allegations and the investigated industry.



KEY STAKEHOLDERS:

- Agricultural producers and commodity organizations
- Michigan Agri-Business Association and other Michigan pest management, landscape, and aquatic associations
- The public, pesticide application businesses, and pesticide applicators
- U.S. Environmental Protection Agency

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended:
 - Part 83 Pesticide Control
 - Part 85 Fertilizers
- Regulation 633, Restricted Use Pesticides
- Regulation 636, Pesticide Applicators
- Regulation 637, Pesticide Use

Pesticide Applicator Certification

PROGRAM MANAGER: KEVIN KERN

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Pesticide applicator certification is a bedrock of a pesticide regulatory program. The certification of applicators ensures that baseline proficiency standards are maintained for applicators who apply pesticides for both private and commercial purposes. To become certified, applicators must demonstrate an understanding in various categories related to pesticide use, including how to use pesticides safely, environmental protection, and label comprehension.

IMPACT FOR MICHIGAN:

Michigan has approximately 24,000 applicators certified by the Michigan Department of Agriculture & Rural Development (MDARD). Computer and paper-based testing opportunities, as well as approved recertification seminars, provide avenues for applicators to increase their understanding of proper pesticide applications and ensures that MDARD's certification program is of the highest caliber. Ensuring certified applicators have the knowledge and skills required to safely apply pesticides is core to fulfilling MDARD's mission of protecting human health and the environment.

ACCOMPLISHMENTS:

- Extended expired credentials by emergency rule change until June 30, 2021, due to the pandemic.
- Implemented remotely-proctored exam process to allow applicators to take exams in their home or office.
- Oversaw administration of over 11,700 computer-based exams in 2021, of which more than 2,100 were remotely-proctored.
- Approved 1,434 continuing education courses that promote relevant educational opportunities for certified pesticide applicators and allow for renewal of required certification credentials.

MEASURING SUCCESS:

Metric	2020	2021
Total Applicators Certified in Michigan	23,012	21,498
Commercial Applicators	15,156	13,870
Private Applicators	6,731	6,006
Registered Applicators	1,125	1,622
Recertification by Seminar Sessions Approved	1,085	1,434

PROGRAM GOALS:

- Make computer-based and online exams as convenient and reasonably priced as possible.
- Monitor at least 20 recertification training events to ensure course time, length, and content is appropriate and relevant to certification credit categories.
- Eliminate the use of bubble sheets for recertification by seminar training events.



KEY STAKEHOLDERS:

- Agricultural producers and commodity organizations
- Michigan Agri-Business Association and other Michigan pest management, landscape, and aquatic associations
- Michigan residents
- pesticide application businesses, and pesticide applicators
- U.S. Environmental Protection Agency

LEGAL AUTHORITY:

- Natural Resources and Environmental Protection Act, PA 451 of 1994, Part 83, as amended, Pesticide Control