

LABORATORY DIVISION



LABORATORY FACILITIES

DIVISION DIRECTOR: Craig VanBuren | 517-655-7223 | vanburenc9@michigan.gov

The Geagley Laboratory Services Programs provide analytical, microbiological, diagnostic, and technical services for protecting consumers from accidental and intentional exposure to food-borne pathogens, toxic substance contamination and economic deception; as well as, preventing and controlling animal and plant diseases and pests. In addition, the Laboratory Services program provides analytical services on a fee basis to consumers and businesses.



The EC Heffron Metrology Laboratory provides the highest quality calibration services to the state's Motor Fuels Quality and Weights and Measures enforcement and inspection programs. The laboratory provides mass, volume, and force calibrations. The laboratory also serves Michigan's automotive, pharmaceutical, chemical, service and other high-tech industries requiring traceable calibrations by an accredited source.



Animal Disease Testing

PROGRAM MANAGER: Gina DeWitt | 517-284-0507 | dewittg@michigan.gov

The Animal Disease Testing program provides testing in support of MDARD's efforts to monitor and eradicate livestock disease so that Michigan Animals can be moved and sold throughout the U.S. and internationally.

The Animal Disease Testing program provides Equine Infectious Anemia testing to certify equines traveling in Michigan and throughout the U.S. are free of Equine Infectious Anemia and controlling the spread of the disease.

IMPACT FOR MICHIGAN:

This program helps protect the livestock industry from economic losses due to animal disease transmission.

This program ensures Michigan livestock are free of specific diseases before entering the food chain to protect people, the food supply and animals.

Ensuring animals are free of disease facilitates the free and legal import and export of livestock in Michigan.

ACCOMPLISHMENTS:

- Met 100% of all sample analysis turnaround times. The timely analysis allows for the early detection of animal diseases affecting livestock and public health.
- Certified two new analysts for animal disease testing. This cross training of staff increased program productivity and reduction of costs by leveraging internal talent.
- Program analysts achieved 100% recertification rate for disease testing, this supports MDARD's key goal of protecting human and animal health by ensuring livestock are free of disease before entering the food chain.
- Disease free status maintained for Brucellosis, Pseudorabies and Johnes which is critical for agricultural livestock business growth.

MEASURING SUCCESS:

Metric	FY2018	FY2019
Equine Infectious Anemia Testing	16547	15937
Other Animal Disease Testing	3545	1499
Proficiency Tests	100%	100%
Turn Around Time Met or Exceeded	100%	100%

PROGRAM GOALS:

- One new analyst trained and certified for EIA testing and Brucellosis testing.
- 100% recertification for current analysts
- Meeting 100% of sample turnaround times
- Achieving membership into the National Animal Health Laboratory Network

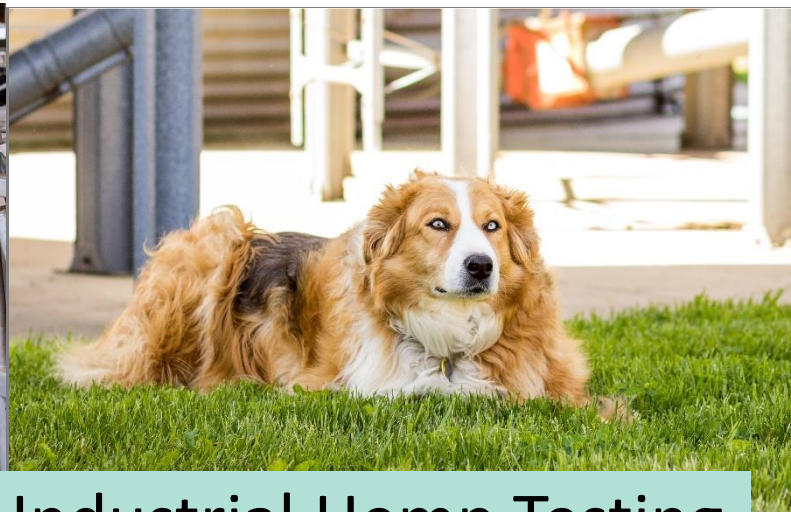
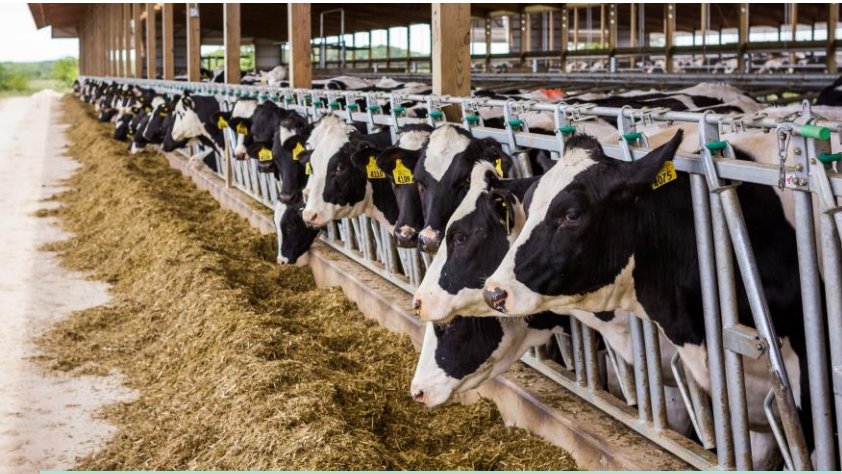
KEY STAKEHOLDERS

- Michigan Citizens.
- MDARD Animal Industry Division
- Private Veterinarians
- USDA
- VDL

LEGAL AUTHORITY:

- Public Health Code, Public Act 368 of 1978
- Part 124, as amended





Food, Feed, Fertilizer, and Industrial Hemp Testing

PROGRAM MANAGER: Gina DeWitt | 517-284-0507 | dewittg@michigan.gov

The Food, Feed, Fertilizer and Industrial Hemp Testing programs support animal and human food safety/security, consumer protection, and economic development by providing analytical data and technical expertise to document the safety, legality, authenticity, identity and quality of human food, animal feed, fertilizers, industrial hemp, alcoholic and non-alcoholic beverages offered for sale in the State of Michigan. This program also provides analytical data to the Michigan Liquor Control Commission (MLCC) for enforcement of under-age drinking laws and detection of adulteration of distilled liquor

IMPACT FOR MICHIGAN:

Drugs and other additives when misapplied can negatively impact animal and human health, livestock animal productivity and marketability of food products by businesses. The data generated assists MDARD, FDA and the MLCC monitoring and enforcement activities related to food and feed safety. Laboratory test data is required to establish and maintain an integrated food safety system. Consumer, livestock and pet health are directly impacted by the safety of the food supply. The food supply is vulnerable to intentional tampering and adulteration and testing can identify those issues to minimize impacts and provide evidence..

ACCOMPLISHMENTS:

- In 2019, MDARD’s Geagley Lab launched the state’s first industrial hemp testing program, allowing for a new crop to be added to Michigan’s agricultural base. The lab tested over 850 hemp samples, ensuring that crops meet the definition of industrial hemp before they could be harvested.
- Developed and validated new testing procedures for identification of Carbadox and Tilimicosin in animal feed, helping fulfill one of MDARD’s key goals of protecting animal health and safety.
- Increased Mycotoxin testing from 3 to 10 strains, this testing plays an important role safeguarding human and animal health.
- Developed a Head Space GC-FID method to allow for quantitation of alcohol levels in carbonated beverages.

MEASURING SUCCESS:

Metric	FY2017	FY2019
Samples Tested	1241	2086
Number of Tests performed	2857	4756
% of Proficiency Tests completed successfully	100%	100%
# of Analytes Tested	9876	10122

PROGRAM GOALS:

- Meeting 100% of sample turnaround times
- Obtain 100% on all proficiency tests
- Increase accreditation to include Hemp and Fertilizer
- Add Fish Speciation to testing scope

KEY STAKEHOLDERS

- Michigan Consumers
- MDARD Food and Dairy Division
- MDARD Pesticide and Plant Pest Management Division





Motor Fuel Quality Testing

PROGRAM MANAGER: Gina DeWitt | 517-284-0507 | dewittg@michigan.gov

The Motor Fuels Quality Testing Program tests gasoline and diesel fuel to ensure product description accuracy, quality, and adherence to state quality standards. This program works in cooperation with the Consumer Protection Section to protect consumers from substandard gasoline. In addition, gasoline sold in certain high population/automobile use areas of the state is monitored for its evaporative properties by the lab to prevent over 28 tons of pollutants per day from being released into the atmosphere. This program benefits plants and people living in these areas by reducing health risks caused by the inhalation of gasoline vapors and/or smog created from the vapors.

IMPACT FOR MICHIGAN:

The Motor Fuels Quality Testing program monitors and verifies the standards that all gasoline must meet to protect businesses and consumers from economic harm caused by costly engine repairs from substandard gasoline. Testing gasoline reduces health risks caused by the inhalation of gasoline vapors and pollutants. Monitoring vapor pressure levels in high population/automobile use areas helps prevent over 28 tons of pollutants per day from being released into the atmosphere.

ACCOMPLISHMENTS:

- Became the first and only state laboratory in the nation to become accredited to run octane testing under the International Standards Organization's 17025:2017 standard by the American Association for Laboratory Accreditation. This is the gold standard for certification, removing ambiguity and ensuring accurate and reliable lab results. This program is dedicated to excellence and ensuring Michigan motorists are getting the quality of gas they are paying for at the pump.
- Increased both capacity and efficiency in MDARD's Motor Fuels testing lab by analyzing more samples than ever before while also improving upon how quickly they were tested – Meeting 100% of sample turnaround goal.
- Installed Digital Detonation Meters on CFR engines which decreased engine tuning time and allowed for improved cross training of staff.

MEASURING SUCCESS:

Metric	FY2018	FY2019
Gasoline Samples Tested	4436	4545
Diesel & Kerosene & E-85 Samples Tested	633	720
Proficiency Test	100%	100%
Turn Around Time met or exceeded	100%	100%

PROGRAM GOALS:

- Achieving 100% on all proficiency check samples
- Meeting 100% of sample turnaround times
- Maintain ISO 17025 Accreditation for the Motor Fuel Quality Testing Program



KEY STAKEHOLDERS

- Michigan Citizens.
- Michigan Fuel Business
- MDARD Consumer Protection Program

LEGAL AUTHORITY:

- Public Act 44 of 1984, as amended,
Michigan Motor Fuels Quality Act

MEASURING SUCCESS:



PESTICIDE DATA PROGRAM

Jessica Pruett | 517-284-0475 | pruettj@michigan.gov

The Pesticide Data Program (PDP) collects high-quality, statistically based, pesticide residue data from a variety of food products destined for grocery store shelves throughout the United States. The data provides EPA with information to help determine which pesticides may be registered for use on food products and to set tolerance levels of these pesticides. Findings of tolerance violations are reported to FDA to aid them in making programmatic plans for future years of testing imported products. The data produced by PDP are available to the general public in a web-based database and in an annual summary.

IMPACT FOR MICHIGAN:

The PDP provides reliable data to help assure consumers that food they feed their families is safe. The data published each year provide regulators, scientists, registrants, farmers, processors and consumers with important insights into the actual pesticide residue levels in a variety of widely consumed foods. PDP data have been helpful in identifying crops where alternative pest management practices are needed to increase yield and quality of the produce. PDP data are also useful in promoting export of U.S. commodities in a competitive global market and addressing food safety issues helping Michigan farmers market their products world-wide.

ACCOMPLISHMENTS:

- Validated extraction and analysis methodology on Mustard Greens as a new commodity. Validation proves effectiveness for providing accurate data for each commodity assigned by USDA.
- Renewal of accreditation to ISO 17025:2017 which ensures results are viable and defensible.
- Aided State program in analyzing some misuse samples against large pesticide screens used for PDP, this assists in timely investigation closure and reduces the harmful impact to consumers

MEASURING SUCCESS:

Metric	2018	2019
Number of Samples	1041	1014
Average turnaround	79	74
Satisfactory proficiency testing	100%	100%

PROGRAM GOALS:

- Increase pesticide screens by adding requested commodity specific compounds during validation
- Validate next assigned commodities (eggplant and carrots)
- Cross-training of newer staff to improve turnaround times



KEY STAKEHOLDERS

- USDA
- US EPA
- US FDA
- Agriculture industry
- Consumers of agricultural products

LEGAL AUTHORITY:

- Agricultural Marketing Act of 1946
- US Food Quality Protection Act of 1996



PESTICIDE & ENVIRONMENT

PROGRAM MANAGER: Jessica Pruett | 517-284-0475 | pruettj@michigan.gov

MDARD has the responsibility of regulating the safe use of pesticides. This responsibility is supported by the Laboratory's Pesticide and Environment program through both residue and formulations testing. Formulations testing verifies label claims on commercial pesticide products to prevent consumer fraud and/or misuse of pesticides. Residue testing includes testing of soil, foliage, water and swab wipes for evidence of the misuse of pesticides in samples collected while investigating citizen complaints. This program is also called upon for testing of food products and animal feeds for pesticides and other toxins in conjunction with investigations into human and animal illnesses or deaths.

IMPACT FOR MICHIGAN:

Pesticides are needed by the agricultural industry for higher yield of crops that are healthier and more desirable to the consumer and to control pests in structures that can carry disease or do extensive damage to the structure. Misuse of pesticides poses a health risk to citizens and animals and can cause environmental damage.

ACCOMPLISHMENTS:

- Met turnaround goals in 100% of samples, ensuring inspectors have timely data needed to complete thorough and efficient misuse investigations
- Renewal of accreditation to ISO 17025:2017 which ensures results are viable and defensible
- Gained program perspective and improved communications by attending PPPM Spring and Fall Inspector Training

MEASURING SUCCESS:

Metric	2018	2019
Number of misuse samples received	390	429
Average turnaround for misuse samples	36	33
% Misuse samples reported on time (60 days)	100%	100%
Number of formulation samples received	12	11
% Satisfactory proficiency testing	100%	100%

PROGRAM GOALS:

- Cross train additional analysts to improve turnaround times for samples
- Add diquat dibromide method and improve glyphosate extraction method
- Participate in paraquat dichloride proficiency test in order to add test to scope of accreditation



KEY STAKEHOLDERS

- Michigan citizens
- Agriculture industry
- US EPA
- Consumers of agricultural products
- MDNR
- MDEQ

LEGAL AUTHORITY:

- Federal Insecticide, Fungicide and Rodenticide Act, 7 U.S.C s/s 136 et seq (1996)
- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, Part 83



FOOD and DAIRY MICROBIOLOGY

PROGRAM MANAGER: Ted Gatesy | 517-284-0502 | gatesyt@michigan.gov

The Microbiology Section tests Grade “A” Dairy Products, Manufactured Dairy Products and Glycol Waters to provide analytical data to the Food and Dairy Division to enforce the Michigan Grade A Milk Law of 2001 and Manufacturing Milk Law of 2001. This provides documentation to the dairies as to the safety and cleanliness of their products and processes. The Grade A Pasteurized Milk Ordinance, is designed to protect and improve the nation’s milk supply through continued monitoring from production through distribution, including laboratory testing for bacterial counts, somatic cell counts, phosphatase enzyme production and inhibitory substances, i.e., antibiotics. Food Pathogen Programs, including testing for pathogens in Ready to Eat foods, fresh produce through Michigan’s Food Assurance Program and environmental samples from production and retail facilities provide analytical data to the Food and Dairy Division in support of its enforcement of the Michigan Food Law.

IMPACT FOR MICHIGAN:

Food safety and economic interests of the people of the State of Michigan are two of the top MDARD missions. Detection of pathogens in food is an important step in removal of contaminated products from commerce and consequently eliminates sources of potential illnesses. These programs help to ensure production of safe food and dairy products by Michigan manufacturers and will insure continued sales of Michigan agricultural products within the state, across the nation and through exports.

ACCOMPLISHMENTS:

- Recovery of *Salmonella* spp. in jalapeños and *Listeria monocytogenes* in serrano peppers, both from MDARD Food Assurance samples, lead to voluntary recalls by the distributors.
- Fourteen different serotypes of *Salmonella* were recovered by MDARD from pig ear pet treats which lead to a nationwide FDA warning not to purchase or sell pig ears.
- The dairy laboratory added testing for ‘Percent Fat in Milk’ to ensure Michigan milk consumers receive the product they intended to purchase.

MEASURING SUCCESS:

Metric	2018	2019
Number of food related samples tested for pathogens	2835	2854
Number of dairy tests performed	12,626	13,360
Average turnaround time	4 days	4 days
Proficiency test results	100%	100%

PROGRAM GOALS

- Validate test methods for *Campylobacter spp.* and *Cyclospora cayetanensis*
- Attend FDA training on the identification of Foodborne viruses Hepatitis A and Norovirus
- Become certified by CDC PulseNet in Whole Genome Sequencing
- Validate test method for Added Water in Milk

KEY STAKEHOLDERS:

- Dairy and food farmers and growers, producers, manufacturers, distributors and retail food and dairy establishments.
- Citizens of and visitors to the State of Michigan.
- FDA and USDA FSIS
- MDARD's Food and Dairy Division and Plant and Plant Pest Management Division

LEGAL AUTHORITY:

- PA 92 of 2000, as Amended, Michigan Food Law
- PA 266 of 2000, as Amended, Grade "A" Milk Law of 2001 and the Michigan Manufacturing Milk Law of 200





FEDERAL GRANTS and COOPERATIVE AGREEMENTS

PROGRAM MANAGER: Ted Gatesy | 517-284-0502 | gatesyt@michigan.gov

The FDA and USDA FSIS Food Emergency Response Network (FERN) is supported by a collaboration of federal, state and local regulatory laboratories. This program expands and improves lab capacity for surveillance and outbreak investigations of foodborne pathogen and threat agent testing. The MDARD and MDHHS microbiology laboratories have partnered to provide this capability to the State of Michigan. Through a Food and Dairy Division contract with FDA, MDARD's microbiology laboratory provides pathogen testing for environmental samples from food production facilities. The MDARD microbiology laboratory is the recipient of the FDA ISO17025 grant which is provided to maintain accreditation and enhance and expand our scope of accreditation, the FDA Genome Trakr Grant for Whole Genome Sequencing, and the FDA Animal Feed Regulatory Program Standards Grant.

IMPACT FOR MICHIGAN:

Food safety and economic interests of the people of the State of Michigan are two of the top MDARD missions. Detection of pathogens in food is an important step in removal of contaminated products from commerce and eliminates sources of potential illnesses. These programs help to insure production of safe food and dairy products by Michigan manufacturers and will ensure continued sales of Michigan agricultural products within the state, across the nation and through exports. Accreditation of laboratories helps to ensure proper test methods are performed by qualified, trained personnel, producing accurate and timely results.

ACCOMPLISHMENTS:

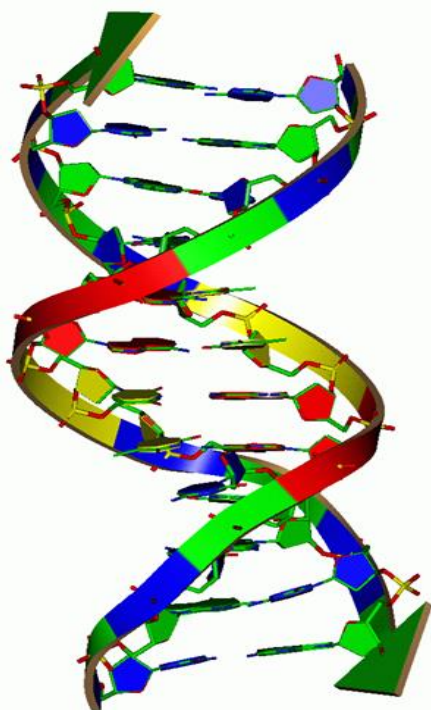
- The microbiology section sequenced over 400 historical isolates for the FDA GenomeTrakr Whole Genome Sequencing program. This testing provides location specificity for outbreak investigations, helps identify sources of contaminated food, and assists in the reduction of foodborne illnesses across the State.
- Through FDA FERN surveillance samples, the microbiology section recovered *Salmonella infantis* in baby spinach samples, which led to a voluntary product recall. This surveillance provides an early means of detecting threat agents implicating human health and safety.
- Aided by the FDA ISO 17025 Grant, the microbiology section added two test methods to their scope of accreditation.

MEASURING SUCCESS:

Metric	2018	2019
FDA FERN Proficiency Test (PT) Results	100%	100%
FDA Environmental samples related PT results	100%	100%
Average Turnaround Time	6 days	6 days
FDA FERN Surveillance samples/environmental samples tested	143 / 811	426/646

PROGRAM GOALS:

- To sequence a minimum of 400 food related isolates for the FDA Genome Trakr program through the FDA WGS grant and attain CDC PulseNet analysis certification.
- Maintain and enhance ISO 17025 accreditation through the ISO Grant.
- Sample and analyze 200 cut melons and 200 hummus/tahini samples in FY20 as foodborne pathogen surveillance projects for FDA FERN. This surveillance sampling provides for an early means of detecting threat agents in the American food supply.
- Add *Cyclospora cayentanensis*, a foodborne parasite, to food testing to increase Michigan's overall ability to detect and deter foodborne illnesses.



KEY STAKEHOLDERS:

- Citizens of and visitors to the State of Michigan.
- FDA and USDA FSIS
- MDARD's Food and Dairy Division

LEGAL AUTHORITY:

- PA 92 of 2000, as Amended, Michigan Food Law
- PA 266 of 2000, as Amended, Grade "A" Milk Law of 2001 and the Michigan Manufacturing Milk Law of 200



METROLOGY LABORATORY

PROGRAM MANAGER: Craig VanBuren | 517-655-7223 | vanburenc9@michigan.gov

The E.C. Heffron Metrology Laboratory directly supports all legal metrology activities of the weights and measures programs. The lab houses Michigan's primary standards for weight, measure, and temperature, and is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to conduct Echelon I mass calibrations. The lab supports state, county, city, and highway weight limit enforcement programs by certifying vehicle axle scales (wheel load weighers). The lab also provides traceability to national standards for Michigan's wide variety of high-tech, manufacturing, and heavy industries by offering fee-based testing and calibration services. The lab's high level of accreditation, expertise, and accessibility makes it one of the busiest precision mass laboratories in the nation.

IMPACT FOR MICHIGAN:

Benefits of the Lab include: ensuring accuracy and stability in the commercial measurement system; technical support of other state agencies; the facilitation of high tech and precision manufacturing; protecting Michigan's roads from overweight vehicles through the use of portable wheel load scales; and the promotion of safety.

ACCOMPLISHMENTS:

- NIST Certificate of Measurement Traceability renewed
- National Voluntary Laboratory Accreditation
- Conformance with the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC), including ISO/IEC 17025 and Guide 58

All three of the above allow the lab to support many Michigan industries and businesses. Without the accomplishments above, many businesses would be forced to look for the lab's services out of state, which would increase their down-time and cost the businesses significantly more.

MEASURING SUCCESS:

Mass Standard Testing			Echelon 1	Echelon 2	Echelon 3
Internal			43	102	147
External			-	2,054	6,029
Volumetric Standards	Gravimetric	LP Gas	Small Volume Provers	<= 5 Gallon	> 5 Gallon
Internal	13	4	-	39	5
External	19	7	10	135	51
Other			Wheel Load Weighers		
External			366		

PROGRAM GOALS:

- Renew NIST Certificate of Traceability
- Maintain NVLAP Accreditation
- Retain ISO and IEC conformance
- Calibration of State Field Standards
- Calibration of Registered Service Agency Equipment
- Support Michigan’s Manufacturing Industry



KEY STAKEHOLDERS

- Michigan Public (ensuring correct weights and measures in the marketplace)
- Weights & Measures/Motor Fuel Quality Programs
- Multiple Michigan industries



START PROGRAM

WEIGHTS AND MEASURES PROGRAM

PROGRAM MANAGER: ROBERT DeRUBEIS | 517-655-7227 | derubeisr@michigan.gov

MDARD's Weights and Measures Program is the only agency charged with protecting both consumers and industry from economic harm caused by unfair, unscrupulous, or fraudulent business practices for goods and services based on weight, measure, or count. The program enforces well-established, uniform weights and measures practices; investigates complaints; ensures the proper operation of commercial weighing and measuring devices; determines the accuracy of the net content of packaged commodities of packaged commodities; conducts undercover investigations; and initiates civil or criminal actions when necessary. The Weights & Measures Program registers servicepersons ensuring industry "best practices" are used and provides trade assistance when exporters require state weight, measure, or device certification for export.

IMPACT FOR MICHIGAN:

It is estimated the sales of products and services impacted by weights and measures represents approximately 50 percent of Michigan's Gross Domestic Product. The Weights and Measures Program ensures equity and a level playing field within the market between both business to business transactions and the business to consumer transactions. The program works closely with the State Police, Federal Bureau of Investigations and United States Secret Service, to protect consumers from electronic credit card fraud as a result of credit card skimming devices.

ACCOMPLISHMENTS:

- Worked with federal, state, county and local law enforcement in preventing approximately \$2,000,000 of fraudulent credit card purchases and an unknown number of identity thefts.
- Performed 92,445 tests on 26,334 unique devices while conducting 4,153 commercial devices inspections.
- 8,584 total packages checked
- Registered 122 service agencies and 492 servicepersons.

MEASURING SUCCESS:

Inspections	Approved	Condemned	Compliance*
Net Content Inspections	8,929	4,451	66.73%
Retail Motor Fuel Dispensers**	64,748	6,207	91.25%
Non-Gas Weighing and Measuring Devices	1,222	100	92.44%
* Does not include re-inspection of condemned devices			
Complaints			Investigations
Gasoline Short Measure**			459
Other Weights and Measures			50
Item Pricing / Shopping Reform			84
** Motor Fuel complaints were jointly investigated with MDARD's Motor Fuels Quality Program			

PROGRAM GOALS:

- Continue providing oversight of Michigan's \$700 billion weights and measures commerce at a rate of about 15 cents per Michigan resident.
- Serve as a deterrent to potential violators through the use of warning letters and civil penalties.
- Test 25% of all retail gasoline dispensers annually while maintaining a 97% compliance rate.
- Test 12,000 packages every year for accuracy to protect consumers from economic harm by monitoring compliance with net content requirements for packaged commodities
- Conduct 250 audits of work performed by service persons and agencies who work on installing and maintaining weights and measures commercial devices.
- Ensure credit card readers are secure at retail motor fuel devices, in order to prevent the theft of personal information.
- Investigate consumer complaints related to motor oils at Michigan oil change facilities, including car dealerships, involving misbranding and quality.



KEY STAKEHOLDERS

- Consumers and producers in Michigan
- Michigan Independent Retailers Association
- Michigan Grocers Association
- Michigan Agri-business Association
- Michigan Propane Gas Association
- Michigan Petroleum Association/Michigan Association of Convenience Stores
- Michigan Oil Change Association

MOTOR FUELS QUALITY PROGRAM

PROGRAM MANAGER: TIM WHITE
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The Motor Fuels Quality Program ensures Michigan's motoring public can be confident they are receiving quality gasoline and diesel fuel that meet minimum state standards. Further, the Motor Fuels Quality Program ensures gasoline sold in eight county Southeast Michigan Region meets the low vapor pressure requirement for summertime gasoline helping the region to maintain compliance with the Federal Clean Air Act. The Motor Fuels Quality Program investigates complaints related to motor fuel quality, randomly samples retailers to ensure motor fuels meet state standards, monitors the entire motor fuel distribution chain from refinery to distributor/wholesaler to retail, provides technical guidance and assistance to motor fuel retailers as necessary, and licenses approximately 4,700 motor fuel retailers.

IMPACT FOR MICHIGAN:

Michigan's motoring public purchases more than 5 billion gallons of motor fuel annually, sight unseen. Receiving sub-standard motor fuel can damage automobile engines resulting in significant repair costs. The low vapor pressure program assists the Southeast Michigan region in maintaining compliance with the Clean Air Act; enabling people in Southeast Michigan to breathe clean air.

ACCOMPLISHMENTS:

- Maintained a 97.3 percent compliance rate for gasoline sold throughout Michigan; and a 93.6 percent compliance rate for gasoline meeting the low vapor pressure standard in Southeast Michigan. This ensured those purchasing fuels were getting the product they paid for and helped reduce smog producing emissions by 28 tons per day, respectively.
- Maintained a 97.5% compliance rate for diesel fuel.
- Through testing and sampling of product, embargoed 45,000 gallons of substandard or contaminated motor fuels with a value of over \$150,100. This prevented the product from being used in vehicles and potentially causing both vehicle and monetary damage.

MEASURING SUCCESS:

Metric	2018	2019
Official Samples Procured	4,395	5,333
Vapor Recovery Samples*	648	753
Field Octane Audits	1,800	2,346
1-800-MDA-Fuel Complaints**	1,303	1,119

PROGRAM GOALS:

- Obtain motor fuel samples at 75% of motor fuel retailers annually.
- Conduct low vapor pressure testing at 20% of the retailers in the Southeast Michigan region.
- Obtain 5,000 motor fuel samples annually.



KEY STAKEHOLDERS

- Michigan Consumers and producers of fuel
- Associated Food and Petroleum Dealers-Michigan
- Michigan Petroleum Association/Michigan Association of Convenience Stores
- Associated Petroleum Industries of Michigan
- Michigan Retailers Association

LEGAL AUTHORITY:

- [The Motor Fuels Quality Act, Public Act 44 of 1984](#), as amended and applicable regulations

** Motor fuels quantity complaints were jointly investigated with the Michigan Department of Agriculture and Rural Development's Weights and Measures Program.