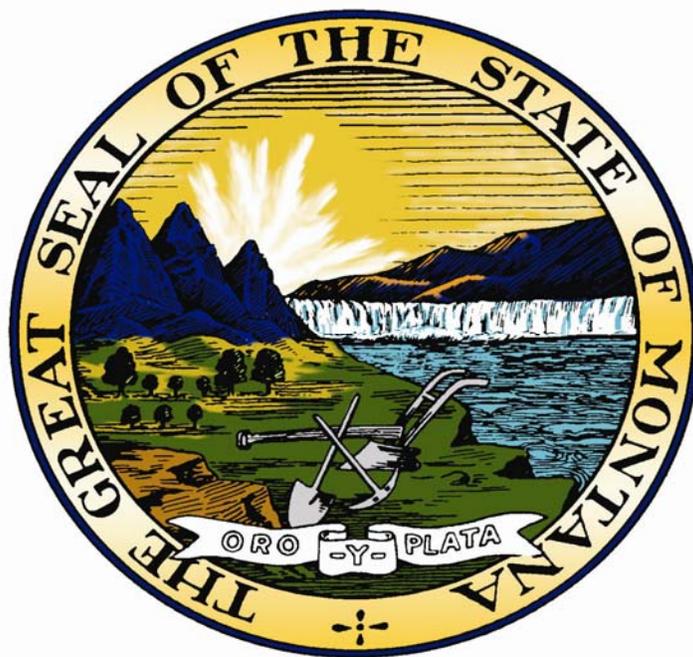


REPORT TO
ENVIRONMENTAL QUALITY COUNCIL ON
PESTICIDE AND GROUND WATER ENFORCEMENT
PROGRAMS
PURSUANT TO TITLE 75, CHAPTER 1, PART 3,
SECTION 314



MONTANA DEPARTMENT OF AGRICULTURE
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Montana Department of Agriculture

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PESTICIDE PROGRAM

The Montana Department of Agriculture (MDA) enforces the Montana Pesticide Act (MPA), Title 80, Chapter 8, Montana Code Annotated (MCA), and portions of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). Enforcement of the federal law is accomplished through a cooperative agreement with the U.S. Environmental Protection Agency (EPA). This agreement provides primacy to Montana acting through the MDA to enforce pesticide use regulations.

Since FY 2000, the MDA has entered into an annual cooperative agreement with the United States Department of Agriculture (USDA) to inspect application records involving the use of restricted-use pesticides by private farms. The MDA conducts approximately 65 initial (new) inspections each year and up to 5 follow-up inspections from the previous year. Follow-up inspections are those inspections where the applicator was found to be in non-compliance the previous year. The MDA and USDA agree that the USDA will handle any formal enforcement actions resulting from these inspections.

1a. Activities and Efforts Taking Place to Promote Compliance Assistance and Education:

Pesticide program staff has undertaken many activities to promote compliance within the pesticide use community. These activities include providing information and education, technical assistance, conducting sampling and inspections, investigating complaints and issuing enforcement actions consistent with statute.

Information/Education:

The pesticide program promotes the use of education to ensure that dealers and applicators are qualified. As required under 80-8-109, MCA, the MDA develops and conducts appropriate educational programs for individual pesticide use/sales categories. The educational programs inform individuals working with pesticides of the correct methods for formulating, applying, storing, disposing, handling and transporting pesticides. These trainings also include information on proper sale/application record keeping.

Along with MSU Extension Service, the MDA conducts these educational programs for pesticide dealers, commercial/governmental applicators and private applicators. The MDA also provides "initial" training and testing for both commercial applicators and private farm applicators. Subject to available funds, the MDA and MSU Extension Service establish educational training programs for the general public and retailers on pest management, pesticide use safety and alternative pest control methods. A variety of training manuals are available to provide education on pesticide sales, handling, use, application, and disposal. Passing a qualification exam is required for the licensing of commercial and governmental applicators. An 80 percent or higher score on the examination is required to be a "certified applicator" and qualifies the licensed individual to use general-use and restricted-use pesticides. Once certified, all license holders must obtain 12 re-certification training credits, over a 4 year period, to remain licensed.

The education component gives the MDA an opportunity to encourage participants to comply with pesticide laws by helping them understand each specific element of pesticide laws. Topics that are discussed range from farm worker safety to properly maintaining equipment. The information provided also informs participants of the environmental effects from illegally used, stored or sold pesticides and the potential consequences of noncompliance (misuse).

In FY2011 special training sessions regarding the use of fumigants for burrowing rodent control and grain storage were conducted for commercial and private pesticide applicators.

In FY2011 the department initiated a Stewardship Program with Dow AgroSciences to address concern regarding the presence of aminopyralid in groundwater and compost that had been found by our groundwater monitoring program and pesticide enforcement program, respectively. The Stewardship Program is providing education directed towards unlicensed applicators, commercial and government applicators, commercial composters, hobby livestock owners, organic growers and others. The program is also providing analytical support through the MDA Analytical Laboratory for MSU Extension Agents who encounter possible aminopyralid-related issues.

Technical Assistance:

The MDA assists the regulated community and the general public by providing information and technical expertise on pesticide related issues. This assistance is available at field offices and from Helena-based Plant Science Specialists through: formal training sessions, testing, routine inspections and compliance assistance inspections.

During this reporting period, the MDA continued to support the Pesticide Intern program. In FY 2010, an intern focused on educating childcare providers on implementation of integrated pest management (IPM) for their facilities. The goal of the program was to assess current pest control practices in the childcare facilities, and to encourage adoption of IPM.

During FY2010 the department provided outreach to veterinarians across the state to ensure that pesticide-related injuries and deaths of animals in their care are reported to the department.

Sampling and Inspections:

The Legislature established authority to sample (Section 80-8-302, MCA), inspect (Section 80-8-304, MCA) and analyze pesticides or devices distributed within the State of Montana to determine whether such pesticides or devices, meet the minimum standards listed on the label. The Analytical Laboratory Bureau, located on the Montana State University campus, performs pesticide chemical analyses for the MDA, Extension Service and the general public.

The inspection and investigation authority granted under Section 80-8-304, MCA, allows department staff or an authorized agent, upon reasonable cause, with a warrant or consent of the inhabitant or owner, to inspect or investigate. Compliance assistance (CA) inspections of licensed dealers and applicators are routinely conducted. Although discretionary, a licensee is eligible for CA through their first inspection. Routine inspections are conducted on a 5-6 year rotation after the initial inspection. Program inspection goals are determined prior to the beginning of the inspection year and average between 650-750 inspection events per year. The routine inspections are conducted with commercial/government applicators, dealers and permitted farm applicators. In addition to the routine inspection program, inspections are conducted with individuals upon the receipt of a complaint (for cause) or if there is reason to believe that someone is in noncompliance with the pesticide laws.

The number of complaint investigations varies from year to year because pesticide use varies greatly with weather conditions, pest outbreaks, rainfall, crop types and commodity prices. The number of complaints, reports of damage and referrals from other agencies also vary from

year to year for the same reasons. Routine marketplace inspections are conducted at retailers to verify that products offered for sale meet the pesticide law registration requirements.

The Legislature also established the authority under Section 80-8-304, MCA, to take residue samples related to either routine inspections or complaint investigations. The number of residue samples per year varies according to the number of inspections/investigations conducted during the use season. The number of samples collected per investigation depends on the number of pesticides involved in the investigation and the scope of the investigation. Analytical results become part of the evidence for enforcement related issues.

Table 1 shows the total number of enforcement samples collected and the number of analyze conducted during 2010-2011:

Table 1

Samples Collected & Analyzed per Year		
Year	Samples Collected	Analysis Conducted
2010	78	264
2011	57	217

History of Compliance:

The MDA conducts comprehensive inspections and investigations. Inspections and investigations cover such topics as use, selling, labeling, registration, storage, records and licensure compliance. Therefore, one inspection can result in multiple categories violations.

Table 2 illustrates the number of inspections conducted yearly and shows the percent of non-compliance.

Table 2

History of Compliance		
Year	Total Number of Inspections	Percent Non-Compliance
2010	524	<5%
2011	651	<5%

Private Applicator Records Inspection:

In FY 2010 and FY 2011, inspections were conducted to check records of restricted use pesticide applications that were conducted by private farm applicators. This program is unique in that it allows for compliance assistance during an inspection to help applicators reach the record keeping goals of USDA. Approximately 50 percent of those inspected for the first time needed some type of compliance assistance during the inspections to meet law record requirements. Overall compliance, including those reaching compliance with assistance, averages above 95 percent. The program is funded through a Cooperative Agreement between the USDA and MDA. MDA staff conducts approximately 65 of these inspections per year following guidelines set forth by the USDA.

Routine Commercial, Governmental and Marketplace/Dealer Inspections:

Table 3 represents the number of routine inspections conducted in fiscal years 2010 and 2011. The inspections are classified according to the licensee type (marketplace, agricultural

applicator, non-agricultural applicator, etc.) or by purpose of the inspection. For example, follow-up inspections are “for-cause” inspections, usually a citizen tip or complaint. Generally, the number of inspections is the result of an effort to meet department goals and generate a uniform enforcement presence in the regulated community. For the two years demonstrated below, the distribution of inspections among various parts of the regulated community has remained relatively constant.

Table 3

2010-2011 Routine Inspections		
Inspection type	2010	2011
Ag-Use	100	123
Ag Follow Up (for cause)	19	19
Non Ag-Use	92	116
Non Ag Follow Up (for cause)	25	12
Experimental Use	1	1
PE	10	9
Marketplace	68	101
Imports	0	0
Exports	1	1
Cert. App. Records	158	199
RUP Dealer Records	49	70
Total	524	651

1b. The Regulated Community and Portion in Compliance:

Pesticide manufacturers and formulators are businesses that repackage or actually produce pesticides. They can be identified because they are required to register as a Producer Establishment with the EPA. Approximately 121 Producing Establishments (PE) are currently registered with EPA and doing business in Montana. The MDA conducts between 10 and 15 inspections per year that specifically target these facilities.

Pesticide dealers are required to become licensed in order to sell ag-use pesticides. The number of licensed pesticide dealers has remained stable during 2010 and 2011 ranging from 452 to 490, respectively. Dealers who sell pesticides for home, lawn and garden use only are referred to as marketplaces and are not required to be licensed; however, they remain part of the regulated community. On average, staff conducted approximately 100 routine dealer/marketplace inspections each year.

Commercial and governmental applicators are also required to obtain a Montana license. Commercial applicators are persons who apply pesticides for hire, and governmental applicators are persons who apply pesticides for a public entity (city, state or federal). Operators are persons who apply pesticides under the supervision of a certified applicator. The supervising applicator is required by law to train and license their operators.

Non-commercial applicators are individuals who choose to use restricted use pesticides and cannot be classified as a commercial, public utility, government applicator or private applicator. A certified non-commercial applicator may only use restricted use pesticides on lands owned, rented, or leased by his employer or himself/herself. The total number of people licensed as non-commercial applicators in 2010 and 2011 basically remained the same.

Table 4

Licenses					
Year	Non-commercial, Public Utility	Dealer	Government	Commercial	Private
2010	144	452	821	1060	6420
2011	149	490	839	1059	6146

Private farm applicators are required to obtain a license only if they wish to apply “restricted-use” pesticides. The license is good for 5 years and requires 6 credit hours of recertification training over the 5 year period to remain qualified. Montana maintains a yearly average of approximately 6,300 licensed private (farm) applicators. There are an unknown number of people who apply general use pesticides such as home lawn and garden products to their own property and are not required to become licensed.

Through July 1, 2011, the total number of individual Montana license holders on an annual basis is approximately 9,000.

1c. Number, Description, Method of Discovery:

During FY 2010 and 2011, the number of follow-up (for cause) investigations has maintained an average of 25-35 per year. Most pesticide use violations are discovered through complaint investigations resulting from tips and complaints from the public. Case significance or severity depends on a number of factors including the type of violation and potential or actual occurrence of harm from pesticides. Each case has its own unique set of circumstances and is investigated according to department Standard Operating Procedures.

Significance of Noncompliance and Enforcement Options:

Section 80-8-211, MCA, establishes violations that are cause for revoking or modifying a license. Section 80-8-303, MCA, authorizes the MDA to embargo pesticides that are adulterated, misbranded, or unregistered. Section 80-8-304, MCA, authorizes compliance orders requiring a person to correct violations and clean up pesticide spills. Upon completion of the investigation, a review process determines if there is sufficient evidence to support enforcement action. Section 80-8-306, MCA, authorizes the department to issue written warnings or propose administrative civil penalties to settle a case. The department may also seek judicial civil penalties or criminal penalties under the same section. Minor violations often involve general use pesticides or record keeping violations that do not result in harm to humans or the environment.

The Montana Pesticide Act defines a major or serious violation as one that is subject to civil penalties in Section 80-8-306 (5) (e), MCA. The Act specifically states that the department, in determining an appropriate amount of civil penalty, shall consider the effect on the person’s ability to continue to stay in business, the degree of harm, certain gravity factors associated with the violation, and the degree of care taken by the offender. The MDA considers all of these factors when determining the amount of the civil penalty for a violation. All enforcement actions are subject to appeal (or can be contested) according to provisions of the Montana Administrative Procedure Act.

The table below combines all major and minor violations as well as other enforcement actions taken by the department for FY2010 and FY 2011.

Table 5

Major, Minor & Other Enforcement Actions	
Year	Number of Actions
2010	23
2011	15

1d. Unresolved Noncompliance Issues:

Very few cases go unresolved past the fiscal year end. On an average, only 5-7 cases are in what would be called “unresolved” status. Generally, these are cases resulting from complaints received by the department late in the use season and are in the final stages of completion or are contested and in negotiation for settlement.

GROUND WATER PROTECTION PROGRAM:

The Montana Agricultural Chemical Ground Water Protection Act (MACGWPA) was enacted in 1989. Program accomplishments include:

- Adoption of rules.
- Increased capacity of statewide ground water monitoring system.
- Promotion of research of Montana’s aquifers.
- Building cooperative working relationships with private and government groups.
- Completion of a General Management Plan for state driven pesticide-groundwater issues and a Generic Management Plan for federally mandated pesticide-groundwater management plans. Both of these documents are meant to serve as the foundation for Specific Agricultural Chemical Management Plan (SMP) and Pesticide Management Plans (PMP’s).
- Major river system-associated ground water monitoring projects.
- Relational database of monitoring results.

1a. The Activities and Efforts Taking Place to Promote Compliance Assistance and Education

The Ground Water Protection program has undertaken the following to promote compliance with the statutory goals of the program:

Information/Education

The ground water program promotes research and technical assistance. The department is dedicated to providing information and assistance to prevent ground water contamination by agricultural chemicals. Through education and outreach, the department provides information on ground water and agricultural chemical characterization, Best Management Practices (BMP) and Specific Management Plans (SMP). These plans provide for the management of agricultural chemicals to prevent, minimize and mitigate their presence in ground water. The department is involved in an ongoing process of identifying environmentally sensitive areas, soil, and aquifers. Information about agricultural chemicals in Montana ground water is provided through analytical results from the MDA’s statewide monitoring program. Public meetings and pesticide certification training are used as a venue to inform the public about the locations and extent of the vulnerable or sensitive aquifers in Montana. Special project reports, detailing our monitoring of major river systems for pesticides and nitrate, are available on our web site.

It is the public policy of the state, Section 80-15-103, MCA, to protect ground water from impairment, allow for the proper use of pesticides and to provide education and training to pesticide applicators and the general public. As required under Section 80-15-106, MCA, the department is required to develop and conduct appropriate educational programs. Ground water protection is a component of all pesticide applicator training, which assures that dealers and applicators have the necessary knowledge to safely apply pesticides in Montana. The MDA provides education and training for commercial, non-commercial and governmental applicators and the general public on ground water protection, agricultural chemical use, and the use of alternative agricultural methods.

The MDA, in cooperation with MSU Extension Service, provides initial and recertification training and testing of farm applicators. One of the major topics covered during the pesticide recertification training courses is how to protect Montana's ground water from pesticide or fertilizer contamination. A variety of training manuals are available at a nominal charge to provide education on agricultural chemical handling, use, application, and disposal. The Montana General Agricultural Chemical Ground Water Management Plan is a comprehensive strategy for Montana to protect ground water from agricultural chemicals. The Generic Management Plan discusses the philosophy; requirements, development and implementation of federally mandated management plans and outlines the process to be used in their development.

The "*Pesticide and Fertilizer Use Around the Home, Effects on Water Resources and Alternatives to Chemical Controls*" pamphlet, developed in cooperation with MSU Extension Water Quality Program, provides information to homeowners on good stewardship practices to protect ground and surface water resources from lawn and garden chemical impacts.

Technical Assistance

The position of the MDA, as guided by the Montana constitution and statute, is that agriculture and ground water in the state can be protected. The department dedicates most of its assistance efforts to prevention of ground water contamination by agricultural chemicals through the use of MDA, EPA, and MSU Extension Service bulletins, brochures, reports, other training aids, participation in educational programs, direct contact with the regulated community, and sharing our analytical data with other agencies and organizations working to protect Montana's water quality.

The Montana Agricultural Chemical Ground Water Protection Program (MACGWPA) is presently a research and technical assistance program. General statewide ambient ground water monitoring for contamination by agricultural chemicals has been ongoing since 1984, before the law was passed. The MACGWP Act required the development of the General Management Plan principally as a tool to identify environmentally sensitive areas, soils, and aquifers and to develop Best Management Practices for the use of agricultural chemicals in Montana.

Section 80-15-202, MCA, directs the MDA to conduct monitoring to determine if agricultural chemical residues are present in ground water resources and to determine the likelihood of agricultural chemicals to enter ground water. The department initiated a ground water monitoring program in 1984. The department established a Permanent Monitoring Well network in 1991. The network has grown from the initial eight dedicated monitoring wells to its present size of 44. Wells are located in areas that are representative of Montana agricultural production, as well as areas with extensive noxious weed management. The department also

conducts project specific monitoring to augment permanent well monitoring efforts, generally as a response to new scientific research or to meet state identified needs.

Monitoring results indicating the presence of an agricultural chemical are evaluated to determine an appropriate response. An appropriate response may include well owner notification, recommendations, additional monitoring, referral to the Department of Environmental Quality, referral for enforcement action, investigation or study, and development of a Montana Specific Agricultural Chemical Ground Water Management Plan (SMP) pursuant to Section 80-15-212, MCA. Monitoring activities and data are also incorporated into technical, educational and compliance assistance activities to promote awareness and resource stewardship.

Inspections

The Act allows routine inspection of persons subject to the Specific Management Plans. The MDA has authority (Section 80-15-401, MCA) to sample, conduct inspections, collect samples for analysis, inspect monitoring equipment, and inspect and copy records required by the Montana Agricultural Chemical Ground Water Protection Act. The MDA can investigate conditions relating to compliance with agricultural chemical labels, management plans, monitoring requirements, groundwater protection requirements and violations of plans or compliance orders. The MDA Laboratory Bureau located on the Montana State University campus conducts laboratory analysis for the MDA, MSU Extension Service and the public.

Specific Management Plans (SMP)

Section 80-15-212, MCA, requires the MDA to adopt "Specific Agricultural Chemical Ground Water Management Plans" when necessary to protect groundwater. The 2005 Legislature passed HB 107, which clarified conditions requiring a Specific Management Plan (SMP). This gave the department more flexibility in addressing the presence of low level of agriculture chemicals in ground water through educational measures to prevent, minimize and mitigate pesticide presence in ground water that would be more appropriate and cost effective than development of a Specific Management Plan under administrative rule. Under provisions of HB 107, a SMP is required when an agricultural chemical is found at 50 percent of the concentration level believed to cause a human health risk.

To date, the department has adopted one SMP, which was developed under provisions prior to passage of HB 107. That SMP was for the wild oat herbicide imazamethabenz-methyl, and it applied to persons in the Fairfield Bench area who use this pesticide. The SMP established voluntary procedures, because of the low levels of chemical present on the bench, including irrigation management, chemical rotation, calibration, integrated pest management and record keeping. The SMP was evaluated in 2005. Statistical analysis of four years of monitoring data showed that levels of imazamethabenz-methyl did not increase in the area. A survey of users showed that Best Management Practices (BMP) have been implemented by a majority of producers. The Voluntary Advisory Committee for the SMP found that the educational approach of the SMP was successful for the Fairfield community. ARM 4.11.1201 through 4.11.1209 relating to the specific agricultural ground water management plan was repealed on August 26, 2006.

1b. The Size and Description of the Regulated Community and the Estimated Proportion of that Community that is in Compliance

The Size and Description of the Regulated Community

All persons licensed as pesticide dealers, fertilizer dealers, commercial, government and farm pesticide applicators and an unknown number of persons who sell or apply general use pesticides and fertilizers but are not required to be licensed are regulated. In general, they are required to use agricultural chemicals in a manner that does not violate ground water standards or result in ground water impairment.

The regulated community is not as easily identifiable as with other programs. The regulated community is essentially the landowners above the potentially affected aquifer or the person(s) who use agricultural chemicals that could contaminate an aquifer. These include chemical applicators, chemical dealers or manufacturers (through spills and mishandling) and individual landowners. Pesticide dealers, fertilizer dealers, and some pesticide applicators are required to be licensed by the MDA and would be identifiable for training and possible regulation. The same is true for landowners who desire training on ground water pollution prevention techniques or Best Management Practices (BMPs) and Best Available Technology (BATs).

1c. The Number, Description, Method of Discovery and Significance of Non Compliances, Including those Non Compliances that are pending

Number, Description and Significance of Noncompliance

The MDA has issued administrative orders requiring cleanup of pesticide spills, sampling soils and ground water, and some soil removals. Orders are issued using authority of the Montana Pesticide Act. The department has issued informative letters to fertilizer facilities where soils may be contaminated with high levels of nitrate that have the potential of impacting ground water. The letters provided information to improve operational activities to minimize further contamination. The information contained Best Management Practices for handling and storage containment of fertilizers.

Method of Discovery

Monitoring results are used to determine if a pesticide is present in ground water resources. Additional sampling is conducted to verify all initial detections. Verified detections are further evaluated to determine the relative health and environmental risk that an agricultural chemical presence represents. The Department of Environmental Quality is responsible for development of human health and environmental standards. The relative significance of an agricultural chemical residue in ground water is related to the percentage of the Montana Water Quality Standard met. The Department of Agriculture determines the source(s), extent and magnitude of impaired or contaminated ground water. Dependent upon the contamination source, (i.e., point or non-point source) the Department discusses and implements an appropriate enforcement and/or mitigation response.

1d. Description of How the Department has addressed the Non Compliance Identified in Subsection (1)(c) and a List of the Non Compliance Left Unresolved

At the time of this report, there are no significant non-compliance issues related to non-point source ground water contamination from agricultural chemicals.