
Summary

Pesticide Regulation

Key Facts and Findings:

- The Minnesota Department of Agriculture (MDA) regulates pesticides in the state of Minnesota. (p. 9)
- Of the ten recommendations that the Office of the Legislative Auditor (OLA) made in its 2006 *Pesticide Regulation* report, MDA has fully implemented eight and partially implemented two. (pp. 11-12)
- MDA has developed criteria for when it will conduct a “special registration review” prior to registering a pesticide product, as OLA’s 2006 report recommended. (p. 19)
- MDA does not maintain adequate documentation to support its decisions to issue special local need registrations. (p. 25)
- MDA does not require annual training or reexamination as a condition of license renewal for certain commercial and noncommercial pesticide applicators. (p. 36)
- MDA has ensured that waste-pesticide disposal opportunities are available statewide. (pp. 43-44)
- From 2012 to 2018, MDA investigated an average of 109 pesticide-misuse complaints per year. (p. 52)
- In the complaint files we reviewed, MDA’s written communication with complainants often lacked important details or was difficult to understand. (pp. 56-58)
- MDA has taken some actions to protect pollinators, but other protective measures require legislative action. (pp. 72-73)
- MDA has dramatically expanded its water-quality monitoring program over the last decade. (pp. 83-84)
- Limitations to MDA’s laboratory methods prevent it from analyzing certain pesticides, including three commonly sold pesticide active ingredients or breakdown products that are both high risk and toxic to humans or aquatic life. (p. 84)
- MDA has developed a process for evaluating best management practices and has revised some practices as a result. (pp. 100-102)

Key Recommendations:

- MDA should better document its registration decisions when reviewing special local need registrations. (pp. 24-27)
- MDA should impose more robust annual requirements for license renewal for commercial and noncommercial pesticide applicators. (p. 38)
- MDA should improve the clarity of the laboratory result cover letters and final closure letters it sends to those who make pesticide-misuse complaints. (p. 59)
- The Legislature should revisit the recommendations made in recent state reviews of pollinator health. (p. 73)
- MDA should continue or resume its efforts to test for all high-risk pesticide-related chemicals that are toxic to humans or aquatic life. (p. 86)

MDA has fully implemented most of OLA’s 2006 recommendations. However, we found areas for continued improvement.

Report Summary

Pesticides are substances or mixtures of substances used to prevent, repel, kill, or otherwise control pests. They are used in both agricultural settings (to protect crops from insects or weeds) and nonagricultural settings (to fight diseases, protect golf courses and gardens, and control pest infestations in homes, among other things).

Pesticides can harm human health or the environment, particularly when used improperly. Pesticide labels are legally enforceable and bear detailed use and safety instructions designed to mitigate the risks of the pesticide. Pesticide regulation involves developing or evaluating label restrictions and using inspections to ensure that pesticide dealers, users, and others follow label requirements.

The Minnesota Department of Agriculture (MDA) regulates pesticide use in Minnesota. Its responsibilities include registering pesticide products for use in Minnesota, licensing and certifying pesticide applicators, enforcing pesticide regulations through inspections and investigations, and monitoring Minnesota's waters for pesticide contamination.

MDA has made efforts to improve its pesticide regulation program since 2006.

The Office of the Legislative Auditor (OLA) evaluated pesticide regulation in 2006 and made several recommendations to MDA.¹ This evaluation followed up on—but was not limited to—the recommendations from the 2006 report. We found that MDA fully implemented eight of ten recommendations from the 2006 report. The department has partially implemented two others, though room for improvement remains.

¹ Office of the Legislative Auditor, Program Evaluation Division, *Pesticide Regulation* (St. Paul, 2006).

² If a product contains a new active ingredient or has undergone a label change allowing a new use (such as for a new crop), MDA conducts a more detailed review, as OLA recommended in 2006.

³ *Minnesota Statutes* 2019, 18B.27, subd. 2(a).

MDA needs to improve its documentation when approving products for “special local need” registration.

When MDA registers a pesticide product for use in Minnesota, it generally accepts the label approved by the U.S. Environmental Protection Agency.² In some instances, Minnesota-specific conditions warrant use of a product (for example, to protect a crop or to control a pest) that is not reflected on the federal label. In these cases, product manufacturers (called registrants) can apply for “special local need” registrations.

Since OLA released its 2006 report, MDA has made several improvements to its process for reviewing and approving special local need registrations. However, our file review of special local need registrations revealed that MDA did not maintain evidence that it considered each application with respect to five criteria established in state law.³ We recommend that MDA consider each of the criteria and document its determination, as well as the evidence it used to make that determination.

MDA does not require certain pesticide applicators to take a workshop or examination on an annual basis.

In order to use certain, more toxic pesticides (known as restricted-use pesticides), pesticide applicators must be licensed or certified by MDA. Different types of pesticide applicators have different licensing and renewal conditions.

Licensed applicators who apply pesticides for hire (commercial applicators) or on behalf of their employer (noncommercial applicators) must renew their licenses annually. By law, in order to renew their licenses, these applicators must take an examination, attend a workshop, or meet “other requirements” determined by the

MDA did not always fully document its decisions to register pesticide products for a “special local need.”

commissioner that ensure ongoing competence in the field.⁴

For some license specialties, MDA requires an examination or workshop attendance every two or three years, rather than every year, and it does not impose “other requirements.” We recommend that MDA impose more robust annual requirements for license renewal for commercial and noncommercial pesticide applicators.

MDA has expanded access to waste-pesticide disposal opportunities.

OLA’s 2006 report found that the residents of about one-third of Minnesota’s counties did not have waste-pesticide collection sites available to them. MDA has since entered into cooperative agreements with counties or regional organizations that establish locally run collection opportunities for *nonagricultural* pesticides in all 87 counties. Seventy-four counties are covered by agreements for the collection of *agricultural* pesticides.

Statutes require that MDA “designate a place that is available at least every other year” for residents of the counties that are not covered by cooperative agreements for agricultural waste-pesticide disposal.⁵ MDA accommodated these 13 counties, located mostly in northwestern Minnesota, by hosting five one-day collection events in 2016 and six events in 2018. The locations were selected in consultation with each of the target counties, and they were advertised to all residents in the region.

MDA’s written communications with citizens alleging pesticide misuse are often unclear or incomplete.

When an individual submits a formal complaint to MDA alleging that the pesticide from a neighboring property or field drifted onto their property, the department may conduct a pesticide-misuse investigation. MDA investigated an average of 109 complaints of pesticide drift

or other misuse each year from 2012 to 2018.

Complaint investigations often involve taking vegetation or other samples from the complainant’s property and testing them for pesticide residues. In the complaint files we reviewed, MDA routinely sent letters explaining those results, but the boilerplate language the department used was unclear.

In the files we reviewed, MDA consistently sent final case-closure letters to the complainants. This shows improvement over its practice at the time of OLA’s 2006 report. However, most of these letters lacked important details. We recommend that MDA improve its written correspondence with those who make pesticide-misuse complaints by using clear language and ensuring that all important details are included.

Pesticides can be detrimental to pollinators.

While the Legislature did not act on a 2006 OLA recommendation to require notification of beekeepers prior to pesticide applications, it did amend statutes to provide compensation for pesticide-related bee kills.

Since our last evaluation of pesticide regulation, a number of state agencies have studied the effect of pesticides—particularly neonicotinoid insecticides—on pollinators. They have found that pollinators—which have important benefits—can be negatively impacted by pesticide exposure. MDA studied the issue at the direction of the Legislature and made recommendations for department action as well as legislative action. A committee formed by Governor Dayton also made many recommendations related to pollinator protection.

MDA has taken a number of actions based on its own report, including reviewing the labels of neonicotinoid products and developing best management practices for

MDA’s written communications with respect to pesticide misuse-complaints need improvement.

⁴ *Minnesota Statutes* 2019, 18B.32, subd. 4; 18B.33, subd. 5; and 18B.34, subd. 4.

⁵ *Minnesota Statutes* 2019, 18B.065, subd. 2a(a).

MDA uses monitoring results to suggest improved pesticide-use practices.

their use. The Legislature has not addressed changes to law recommended in the reports.

We recommend that the Legislature revisit the recommendations in the relevant state reports and consider whether to take further action to protect pollinators.

While MDA’s analytical capacity has increased over time, it does not monitor for a handful of toxic pesticide-related chemicals.

MDA monitors groundwater supplies as well as surface water (streams, rivers, and lakes) for pesticide contamination. The number of samples tested and the number of chemicals for which MDA tests have increased significantly over time.

In 2018, MDA tested water-quality samples for 155 distinct pesticide ingredients or breakdown products. The list of chemicals analyzed included many of the pesticide ingredients sold most commonly in Minnesota. However, there were three pesticide-related chemicals for which MDA did not test that were both commonly sold and have medium-to-high toxicity to humans or aquatic life.

MDA’s laboratory has explored the feasibility of analyzing these chemicals in the past. We recommend that MDA renew its efforts to find ways to monitor for these chemicals.

Despite MDA’s increased monitoring, the percentage of results that exceeded recommended maximum limits for drinking water has remained stable over time. In addition to exceedances, MDA tracks instances of pesticide concentrations that *approach* recommended limits. It uses this information to determine which pesticide chemicals require mitigating action.

When MDA determines that a pesticide requires mitigation (because it is detected frequently or in large concentrations), it develops “best management practices” (BMPs). BMPs are voluntary practices, designed in partnership with agricultural experts, with the goal of mitigating the impacts of a pesticide. MDA has developed 21 BMPs for various pesticides.

Not long after the release of OLA’s 2006 report, MDA developed a process for evaluating BMPs. Its evaluation efforts have resulted in revisions to multiple BMPs.

Summary of Agency Response

In a letter dated March 16, 2020, Minnesota Department of Agriculture Commissioner Thom Petersen stated that most of OLA’s key recommendations were “constructive” and that MDA would implement them “as scientific technology and financial resources allow.” He added that MDA had begun implementing some minor recommendations that would help the department better regulate pesticides, and that it would work with the Legislature to provide additional clarity regarding others. Commissioner Petersen also noted that OLA made a recommendation for the Legislature to address pollinator protection. He said that MDA looks forward to being “a fact-based resource” for the Legislature, should it consider further policy making related to pollinator protection.

The full evaluation report, *Pesticide Regulation*, is available at 651-296-4708 or:
www.auditor.leg.state.mn.us/ped/2020/pesticide2020.htm