



# 2023 Atrazine Use (Legal and Illegal) Inspections Report

Wisconsin Department of Agriculture, Trade and Consumer Protection  
*Agricultural Resource Management Division*  
 Environmental Quality Unit  
 Final (3-22-2024)

## Introduction

The Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) Agrichemical Management (ACM) Bureau is responsible for assuring compliance with Wis. Admin. Code, ch. ATCP 30 - Pesticide Product Restrictions ([Wis. Admin. Code, ch. ATCP 30](#)). Within that chapter, Subchapter VIII deals specifically with the legal- and illegal-use of any herbicide that contain the active ingredient atrazine. This report documents 2023 DATCP ACM inspections associated with atrazine legal- and illegal-use relative to Wis. Admin. Code, chs. ATCP 30.31-30.37, and provides a summary of the inspection program findings and trends.

Wisconsin's general restrictions and requirements for atrazine use have not changed since 2010. It is illegal in Wisconsin to apply any pesticide containing the active ingredient atrazine within an atrazine Prohibition Area (PA). Outside of a PA, atrazine use is restricted but not prohibited. Currently, there are no PAs under consideration for repeal (Wis. Admin. Code, ch. ATCP 30.375), or any active or under consideration research exemptions (Wis. Admin. Code, ch. ATCP 30.38).

Atrazine in drinking water remains a concern. The 2024 DATCP statewide survey report of agricultural chemicals in groundwater indicated atrazine, or one of its metabolites, was detected in 25.0% of private drinking water sample or estimated to exist in 19.9% of wells in Wisconsin<sup>1</sup>. Regarding risk to human health, about 0.2% of the wells contained a total atrazine concentration exceeding the 3.0 micrograms per liter ( $\mu\text{g}/\text{l}$  or parts per billion [ppb]) Enforcement Standard (ES) listed within Wis. Admin. Code, ch. NR 140.

## Atrazine Prohibition Area (Illegal-Use) Inspections

An atrazine PA restricts the ability to use a pesticide that contains the active ingredient atrazine within the designated boundaries. There are currently 101 atrazine PAs covering approximately 1.2 million acres within the state, of which about 247,000 acres are planted in corn (2022 data<sup>2</sup>). PAs are established once a groundwater sample collected from a drinking water well is found to contain greater than 3.0 ppb atrazine plus metabolites, and a subsequent investigation reveals that nearby agricultural practices (non-point source) contributed to the atrazine exceedance. This would not include atrazine contamination associated with a point source.

DATCP ACM Environmental Enforcement Specialists (EES) have performed annual atrazine illegal-use inspections since 2008. An inspection is performed on a field in agricultural production to verify compliance with Wis. Admin. Code, ch. ATCP 30.37, which states that “...no person may apply atrazine in a prohibition

<sup>1</sup> Wisconsin Department of Agriculture, Trade and Consumer Protection, March 2024. Wisconsin Groundwater Quality. ARM-PUB-465

<sup>2</sup> United States Department of Agriculture National Agriculture Statistics Service. CropScape - Cropland Data Layer, 2022 Data. [nassgeodata.gmu.edu/CropScape](https://nassgeodata.gmu.edu/CropScape)

area identified under s. ATCP 30.37...”. The goal for 2023 was to perform at least one atrazine illegal-use inspection for each EES territory with a PA (13 total; one EES territory does not contain any PAs). Inspections are performed during the atrazine application season, between April 1 and July 31, and on an existing field planted with corn.

## PROGRAM APPROACH AND SELECTION CRITERIA

The first step is to select an agriculture field to inspect. Criteria used for field selection are listed below.

- The Environmental Quality (EQ) Unit Program Manager identifies a field(s) within the PA for the EES to inspect based on atrazine concentration trends at nearby private drinking water wells that are not decreasing at an expected or acceptable rate based on a review of data associated with [DATCP’s Exceedance Well Sampling Program](#).
- Referral by neighbors that suggests atrazine may have been used on an agricultural field within the PA.
- Review by EES personnel of herbicide sales records where users of atrazine are known to farm within PAs.
- EES personnel select a field within the PA where corn is currently grown and has not been inspected prior.

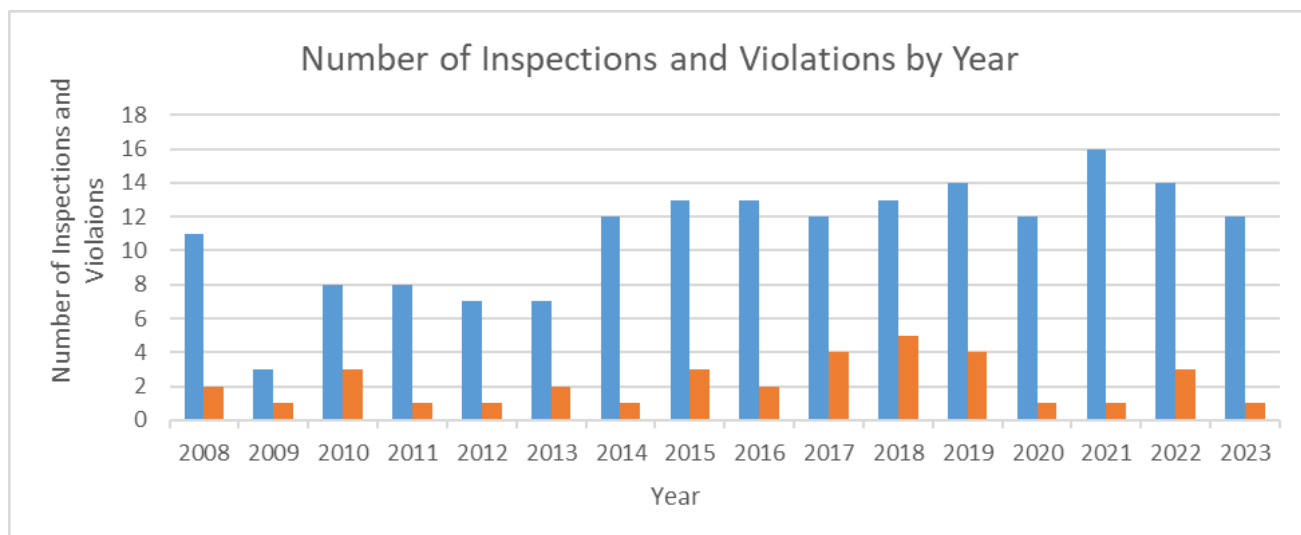
EES personnel meet with the agriculture field operator and/or owner and conducts a records check of the three prior growing seasons (i.e., years), gathers information on the crop(s) grown and the herbicides used on the selected field, and notes whether any herbicide product containing the active ingredient atrazine had been applied. The EES also collects three soil samples; two from the selected field to check for atrazine residue and one from a background location for comparison. These samples are analyzed at DATCP’s Bureau of Laboratory Services (BLS) laboratory. The laboratory results are submitted to the Program Manager for evaluation. EES personnel then prepare a report using form ARM-ACM-453, rev 04/20, with appropriate supporting documentation. Reports are submitted to supervisors and the Program Manager for review, analysis, and memorialization.

## ILLEGAL-USE INSPECTIONS AND VIOLATIONS

In 2023, 12 inspections were performed in atrazine PAs with one violation recorded involving mixing and loading an atrazine product within the PA. This illegal operation occurred within Dodge County; PA 99-14-02 by the owner/grower/applicator (operator). The operator farms fields both within and outside of this specific atrazine PA. He does not apply atrazine to the fields within the PA, but does legally apply atrazine to the fields outside the PA. However, the business operation is located within the PA where the atrazine material is loaded into the application equipment without the use of spill containment unit. No person may mix or load any atrazine product in a prohibition area identified under Wis. Admin. Code, ch. ATCP 30.37, unless the mixing and loading is conducted over a spill containment that complies with Wis. Admin. Code, ch. ATCP 29.45.

Since 2008, 175 inspections were performed in atrazine PAs, yielding an overall violation rate of 20.0% (35 locations). Commercial applicators provided service for 79 (45.1%) of the fields inspected, yielding a violation rate of 26.6%. Self-applicators accounted for the remaining 96 (54.9%) inspected fields, yielding a violation rate of 14.6%. [Figure 1](#) depicts inspection and violations by year. A summary of atrazine illegal-use inspection results over the years is provided in [Appendix A](#).

Figure 1: Atrazine Illegal-Use Inspections and Violations



**Notes:** ■ Number of atrazine illegal-use inspections within stated year.  
 ■ Number of violations associated with an atrazine illegal-use inspection within the stated year.

The atrazine illegal-use inspection program has encountered violations every year since inspections began in 2008. In 2023, the percentage of violations observed were similar to violation rates observed during the previous three years. It is important to note that EES personnel are searching for inspection locations with an increased chance that a violation may occur. This selection process introduces a bias regarding the selection of field(s) where an inspection will occur. A random approach in field selection versus the current field selection process would likely yield fewer violations.

### ATRAZINE IN SOIL SAMPLES

Overall, atrazine concentrations in excess of laboratory detection limits have been identified in 16.0% (28 out of 175 locations) of soil samples collected from fields associated with atrazine illegal-use inspections. In 2023, the one location where a violation was identified (e.g. a location where atrazine was illegally mixed and loaded), no atrazine was detected in excess of laboratory reporting limits (0.03 parts per million [ppm]) in any of the soil collected from that location. Over the course of the inspection program, atrazine was detected in soil samples collected from ten of the 31 fields where atrazine was illegally applied to fields (self-reported by operator or applicator). Detected atrazine concentrations in these samples ranged from 0.0346 to 0.949 ppm.

Over the course of the inspection program, the top three compounds that have been detected in soil are metolachlor, atrazine, and acetochlor. Overall, 19 different compounds have been detected in soil samples collected during the inspection program at concentrations greater than laboratory reporting limits. [Table 1](#) identifies the compounds detected more than twice and their maximum detected concentration.

In 2023, concentrations of metolachlor, atrazine, and acetochlor were detected in excess of laboratory reporting limits in soil samples. Acetochlor was detected at a concentration of 3.33 ppm in a soil sample collected during an inspection completed in Walworth County, PA 93-65-01. This is greater than the previous maximum concentration detected for acetochlor (2.18 ppm).

Table 1: Soil Sample Results for the Atrazine Illegal-Use Inspection Program

Analyte	Number of Detections	Maximum Concentration (ppm)
metolachlor	97	1.46
acetochlor	50	3.33
atrazine	45	0.949
pendimethalin	11	2.96
simazine	11	0.587
boscalid	7	1.11
alachlor	5	0.695
tefluthrin	2	0.622
chlordane	2	0.423
chlorothalonil	2	1.76
terbufos	2	3.58
dimethenamid	2	0.146

Notes: ppm = parts per million

Over the course of the inspection program, atrazine was detected in soil samples collected from 14 fields where the operator or applicator either did not admit to using atrazine or had records indicating atrazine was not applied to the field. Two of these atrazine detection instances occurred in 2023. The first, at a location in Jackson County, PA 94-27-01, where atrazine was detected both soil samples at concentrations of 0.129 and 0.398 ppm. The second, at a location in Iowa County, PA 93-25-01, where atrazine was detected in two soil samples at concentrations of 0.0421 and 0.0362 ppm. For most of these 14 sites, the detected atrazine concentrations are considered low. Potential explanations for the detected atrazine detected in soil samples collected during these investigation are as follows:

- Carry-over from previous use within the field (prior to the three-year record review conducted during the inspection);
- Atmospheric desposition;
- Carry-over from equipment that was used at a field where atrazine was applied;
- Residue from atrazine applied at adjacent or nearby fields (that may be inside or outside the PA); or
- Illegal use on that field and not having proper paperwork, or the willingness, to admit to the violation.

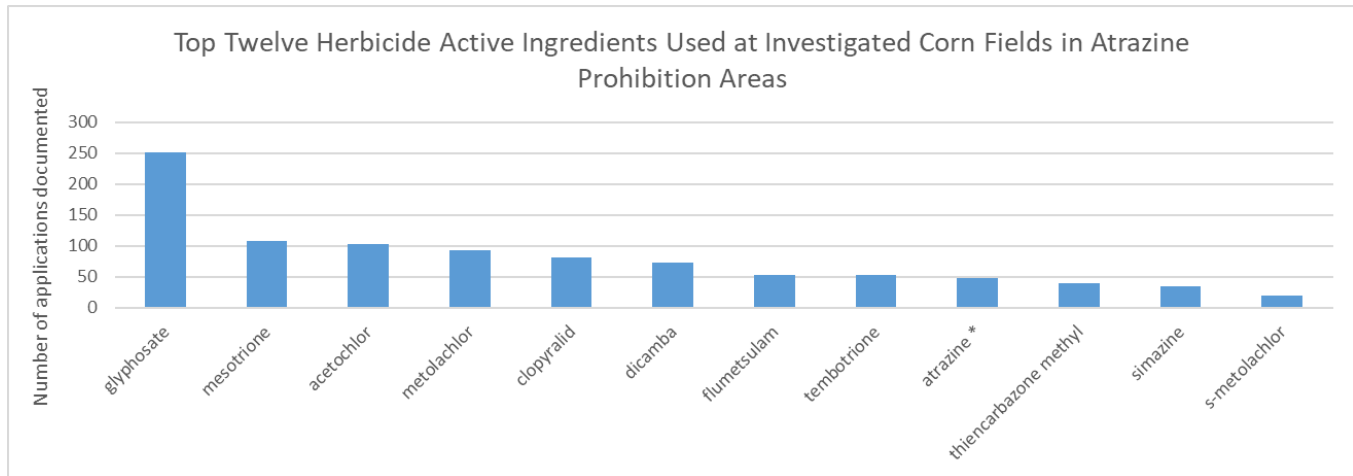
Currently, there is no reliable scientific understanding to explain the atrazine source or time of application in these type of scenarios. It is likely that these low concentrations will have no detrimental effect on local groundwater quality. However, if the detected atrazine concentrations are a result of illegal use (used prior to the three year inspection window, falsified records, or lack of cooperation by violator), the protocol of following up with the field operator and/or applicator would be implemented. Current DATCP protocol is to perform follow-up inspections if atrazine concentrations in a soil sample exceeds a threshold of 0.25 ppm. Prior to 2022, the threshold for follow-up inspections had only been met twice, in 2010 and 2022 associated soil samples collected from two different Iowa County locations. A follow-up investigation is being performed associated with the atrazine detect in the 2023 soil sampling from the Jackson County location.

## HERBICIDES USED IN PAS

As part of the atrazine illegal-use inspection in a PA, EES staff also collect crop and herbicide information for the current year and previous two years. A compilation of this information indicates that over 55 different active agrichemicals have been applied on the investigated corn fields within PAs inspected. By far, the most commonly used herbicide active ingredient is glyphosate. Figure 2 depicts the 12 herbicides most frequently used on the cornfields inspected within PAs. Based on the biased approach for field selection and the

inspection information collected, atrazine is the ninth most common active ingredient used on fields within the PAs.

Figure 2: Herbicide Use Recorded During Atrazine Illegal-Use Inspection Program



Notes: \*Illegal use of atrazine

Number of times agrichemical was reportedly applied to inspected fields.

Note: glyphosate has not been analyzed as part of the inspection program’s soil sampling. Based on chemical composition, it is unlikely that glyphosate will migrate from soil and affect groundwater quality.

## Atrazine Legal-Use Inspections

An atrazine legal-use inspection is completed on a field with agricultural crops to verify compliance with Wis. Admin. Code, chs. ATP 30.31 and ATP 30.32. The goal for 2023 was for each EES to complete at least one atrazine legal-use inspection within their territory (14 total). Typically, inspections are performed during the growing season on an existing field planted with corn. Records for the current season and the two prior years are reviewed as part of the inspection.

### PROGRAM APPROACH AND SELECTION CRITERIA

The first step is to select an agriculture field to inspect. Criteria used for field selection are listed below.

- The Program Manager identifies a field outside of a PA for the EES to inspect either because of an ongoing investigation or atrazine concentrations were detected in nearby private drinking water wells.
- Referral by neighbors that suggest potential atrazine use on the agricultural fields at excessive application rates.
- Review by EES personnel of herbicide sales records indicative of atrazine sales.
- EES personnel select a field outside of a PA that has not been inspected and corn is currently being grown.

EES staff meet with the agriculture field operator and/or owner and conducts a records check, gathers information on the crops grown and the herbicides used on the selected field, and notes whether any herbicide product containing atrazine has been applied. If atrazine is applied, the inspector verifies the rate of application and how the applicator determined that use rate (e.g. soil texture). EES staff then prepares a report (Form ARM-ACM-535, rev 04/20) with figures and appropriate documentation. Reports are submitted to supervisors and the Program Manager for review, analysis, and memorialization.

If a field selected for inspection has the infrastructure for an irrigation system, additional information is obtained to ensure compliance with Wis. Admin. Code, ch. ATCP 30.31(3). Wis. Admin. Code, ch. ATCP 30.31(3)(b) states, “...no person may apply irrigation water to any site to which atrazine product has been applied for a 2-year period following the application of atrazine product, unless the application of irrigation water is conducted in accordance with an irrigation management program that does not cause the field moisture capacity in the root zone of the soil being irrigated to be exceeded.”

If applicable, EES staff then discusses or reviews the Irrigation Management Program. The Irrigation Management Program must demonstrate procedures that ensure irrigation will not cause field moisture capacity in the soil’s root zone to be exceeded.

No soil samples are collected as part of the atrazine legal-use inspection.

### LEGAL-USE INSPECTIONS AND VIOLATIONS

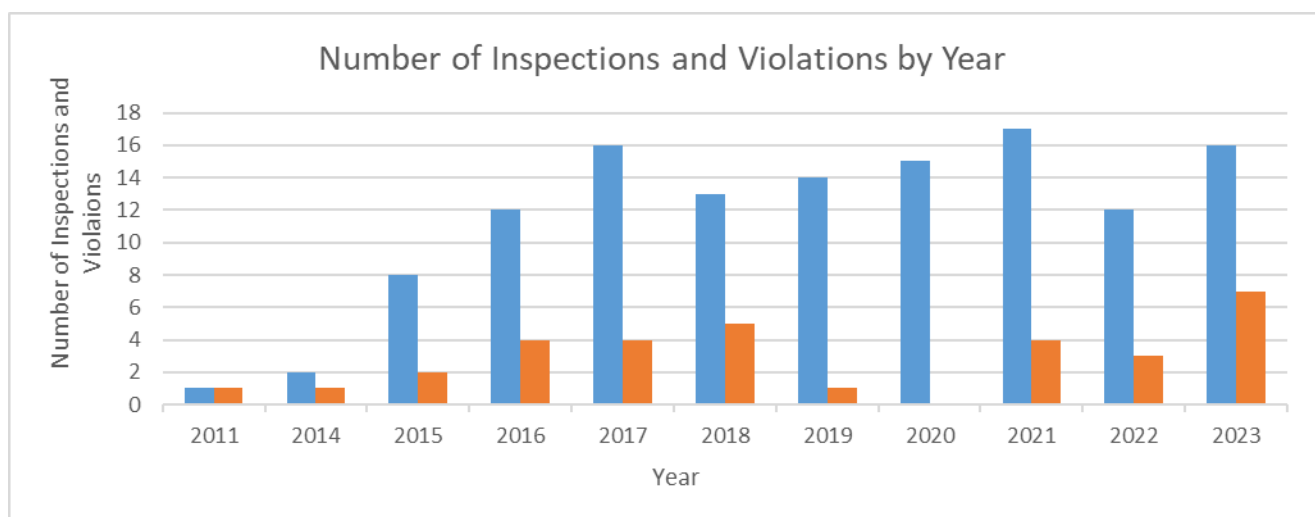
In 2023, 16 inspections were completed for atrazine legal-use outside PAs with seven violations recorded. Six of the violations were associated with improper or incomplete recordkeeping; no violation resulting from improper application rates were observed. The seventh violation was associated with an atrazine-applied site that was irrigated but did not have an Irrigation Management Plan.

Since 2014, there have been 126 legal-use inspections completed yielding a violation rate of 25.4% (32 locations). [Figure 3](#) provides a summary of violations versus inspections by year. Commercial applicators provided service at 59 of the 126 (46.8%) fields inspected, with a violation rate of 13.6%. Self-applicators accounted for the remaining 66 fields, with a violation rate of 40.7%. Recorded violations can be separated into three categories described below:

- 78% of the violations (25 fields) are due to incomplete or improper recordkeeping (this would include no or poorly developed/executed Irrigation Management Plans);
- 16% of the violations (five of the fields) are due to atrazine over-application (i.e. applying at rates for fine or medium soil texture on course soil fields); and
- 12.5% of the violations (four fields) were solely for no or poorly developed/executed Irrigation Management Plans.

A summary table of the atrazine legal-use inspections over the years is included in [Appendix B](#).

Figure 3: Atrazine Legal-Use Inspections and Violations



Notes: ■ Atrazine legal-use inspections  
■ Violations determined

With the exception of 2020, violations have been recorded in every year of the program. For legal-use inspections, the violation rate for self-applicators applicators (40.7%) is greater than commercial applicators (13.6%). The opposite trend was observed for illegal-use inspections. The greater violation rate for self-applicators outside of PAs is likely related to familiarity with the rules. Commercial applicators may be more familiar with atrazine illegal-use rules, and more aware of the requirements because they work both within and outside of PAs. Because self-applicators work mostly outside of PAs, they may not be as familiar with the applicable rate rules or documentation requirements.

## IRRIGATION MANAGEMENT PLANS

Since EES staff started conducting atrazine legal-use inspections, 13 inspections were completed at fields that required an Irrigation Management Plan. In prior years, it was noted that the reviewed plans were inconsistent with varying levels of detail, and little to no description of processes. Only two of the sites were issued warnings due to an absence of a plan and a poorly developed and executed plan. However, EES staff reported that over half of the existing plans could use improvements.

In 2023, one of the sites inspected (located in Waushara County) was using irrigation along with applying atrazine. However, the operator did not have any sort of an Irrigation Management Plan. They were unaware of the code requirements or the appropriate procedures to implement a compliant plan. Once the operator was informed of the code requirements and the reasoning for the required actions, he indicated he would immediately work towards compliance. He was issued a written warning and will be revisited in 2024.

## 2024 Program Goals and Objectives

In 2024, the atrazine illegal-use inspection program will continue. There were be no inspections for legal-use locations because a focus will be on outreach and education regarding Irrigation Management Plans and compliance with atrazine label application set-back requirements. 2024 program goals are listed below.

- At least one atrazine illegal-use inspection will be completed inside a PA for 13 of the 14 EES territories.
- Two additional atrazine illegal-use inspections will be completed inside PAs in Portage (which was also completed in 2023) and Columbia Counties to further evaluate atrazine concentrations observed in local groundwater samples.
- Conduct additional outreach and provide educational seminars/presentation regarding the need and benefits of an Irrigation Management Plan and atrazine label application set-back requirements. In 2025, it is anticipated that DATCP will step up compliance enforcement with the atrazine label set-back requirements.
- A 2024 Summary Report will be completed at the end of the inspection season.

The Program Manager has provided a number of recommended fields for atrazine illegal-use inspections for 2024 field selection. For 2023, a continual greater focus will be placed on fields within PAs where commercial applicators are used and where irrigation is used.



# APPENDIX A

## TABLE OF ATRAZINE ILLEGAL-USE INSPECTIONS

Year	Inspections			Violations			Atrazine Detects in Soil	Year Notes
	Total	Private App	Commercial App	Total	Private App	Commercial App		
2008	11	11	0	2	2	0	1	Atrazine detect in soil at farm in PA 93-65-02; Walworth County. Letter of concern submitted. Other violation was improper records
2009	3	3	0	1	1	0	1	Atrazine illegally used by unlicensed applicator in PA 96-33-01, Lafayette County, and soil detects. Letter warning issued.
2010	8	6	2	3	2	1	2	Atrazine illegally used in PA 00-56-01 in St. Croix County (private applicator). No paperwork. No soil detects. Letter warning issued. Non-violation with soil detect associated with equipment carry-over. Second was record-keeping issue. Atrazine illegally used in PA93-65-01 in Walworth County (commercial applicator, Conserv F5-Zenda). No soil detects.
2011	8	6	2	1	1	0	1	Atrazine illegally used in PA 93-22-01 in Grant County (private applicator). Soil detects. Letter warning issued.
2012	7	0	7	1	0	1	1	Atrazine illegally used in PA 98-37-01 in Marathon County (commercial applicator, Central Wisconsin Cooperative). Soil detects. Letter warning issued.
2013	7	5	2	2	1	1	1	Atrazine illegally used in PA 93-48-01 in Pierce County (private applicator). Letter warning issued. Atrazine illegally used in PA 93-09-02 in Chippewa County (commercial applicator, Asgrow Services). No soil detects. Atrazine detect in soil collected within PA 93-57-04, which was not further investigated. Note: this does not include the seven United Coop locations where they self-identified in violation for atrazine application.
2014	12	5	7	1	0	1	2	Atrazine illegally used in PA 94-56-02 in St. Croix (commercial applicator, Countryside Cooperative). Soil detects. Atrazine detect in soil collected within PA 93-54-05, which was not further investigated.
2015	13	6	7	3	0	3	4	Atrazine illegally used in PA 93-09-01 in Chippewa County (commercial applicator, River Country Coop). Soil detects. Verbal warning issued. A second, atrazine illegally used in PA 93-09-01 in Chippewa County (commercial applicator, River Country Coop). Soil detects. Verbal warning issued. Atrazine illegally used in PA 93-09-02 in Chippewa County (commercial applicator, River Country Cooperative). No soil detects. Verbal warning issued. Atrazine detect in soil collected within PA 95-25-01, which was not further investigated. Atrazine detect in soil collected within PA 93-65-02, which was not further investigated.
2016	13	8	5	2	1	1	1	Atrazine detect in soil collected within PA 98-63-01, which was not further investigated. First and second violations were associated with improper records. Verbal guidance provided in both instances.
2017	12	3	9	4	0	4	3	Atrazine illegally used in PA 93-25-01 in Iowa County (commercial applicator, Premier Cooperative). Soil detects. Written warning issued. Atrazine illegally used in PA 93-45-02 in Outagamie County (commercial applicator, Greenville Coop [which was taken over by United Cooperative in 2017]). No soil detects. Written warning issued and case developed. Atrazine illegally used in PA 02-29-01 in Juneau County (commercial applicator, Allied Cooperative). Soil detects. Written warning issued. Atrazine detect in soil collected within PA 94-56-02, which was not further investigated. Atrazine illegally used in PA 93-62-01 in Trempealeau County (commercial applicator, Countryside Cooperative). No soil detects. Written warning issued.
2018	13	5	8	5	2	3	2	Atrazine illegally used in PA 97-50-01 in Portage County (commercial applicator, Provision Partners Coop). No soil detects. Atrazine illegally used in PA 93-09-02 in Chippewa County (self applicator). Soil detects. Written warning issued. Atrazine illegally used in PA 94-56-02 in St. Croix County (commercial applicator, Federated Coop Inc.). No soil detects. Written warning issued. Atrazine illegally used in PA 11-11-01 in Columbia County (self applicator). No soil detects. Written warning issued. Atrazine illegally used in PA 98-63-01 in Vernon County (commercial applicator, Ag Consulting and Products). Soil detects. Written warning issued.
2019	14	4	10	4	1	3	2	Atrazine illegally used in PA 94-42-01 in Monroe County (commercial applicator, Allied Cooperative). One soil sample had atrazine detect (0.0366 ppm). Financial penalty imposed for two instances. Atrazine illegally used in PA 96-54-01 in Rock County (commercial applicator, Landmark Services Coop.). No soil detects. Financial penalty imposed for one instance. Atrazine illegally used in PA 98-37-01 in Marathon County (commercial applicator, Provision Partners). No soil detects. Financial penalty imposed for three instances. Atrazine illegally used in PA 93-09-02 in Chippewa County (self applicator). No soil detects. Financial penalty imposed for one instance.
2020	12	9	3	1	0	1	1	Atrazine illegally used in PA 93-09-02 in Chippewa County (commercial applicator, River Country Coop). No soil detects. Financial penalty imposed for one instance. Atrazine detect in soil sample collected from PA 97-50-03, which was not further investigated.
2021	16	8	8	1	0	1	2	Atrazine illegally used in PA 97-27-01 in Jackson County (commercial applicator, Melrose Farm Supply). No soil samples were chemically analyzed. Official warning imposed for one instance. Atrazine detect in soil samples collected from PAs 93-56-01 and 93-09-02, which were not further investigated.
2022	14	8	6	3	2	1	2	Atrazine illegally applied in one location, PA 93-54-02 in Rock County (self applied, Mueller Farms), and applied and mixed at two other locations: PA 94-70-01 in Waushara County (self applied, Bacon Farms) and PA 99-14-02 in Dodge County (commercial applicator, Country Visions Cooperative). No atrazine soil detects at these three locations. Financial penalty imposed on all three. Atrazine detect in soil samples collected from PAs 94-27-03 (Jackson County) and 93-25-01 (Iowa County). Furth investigation on Iowa County site because of excessive atrazine concentrations. Official warning imposed for each.
2023	12	9	3	1	1	0	2	Atrazine illegally mixed and loaded, PA 99-14-02 in Dodge County (self operator). Written warning issued. Atrazine detects in soil samples collected from PAs 93-25-01 (Iowa County) and 97-27-01 (Jackson County). Furth investigation on Jackson County site because of excessive atrazine concentration.
	175	96	79	35	14	21	28	
		54.9%	45.1%	20.0%	14.6%	26.6%	16.0%	



# APPENDIX B

## TABLE OF ATRAZINE LEGAL-USE INSPECTIONS

Year	Inspections			Violations			Inspection Notes	Irrigation	Soil Moisture Method	In Compliance	Irrigation Notes
	Total	Self/Private App	Commercial App	Total	Private App	Commercial App					
2011	1	1	0	1	1	0	Applied rate of 1 lb/acre in a coarse soil texture field in Jackson County. Letter warning issued.	0			
2014	2	0	2	1	0	1	no written irrigation plan for field in Chippewa County	1	none	0	Did not have a written Irrigation Management Plan.
2015	8	2	6	2	1	1	two violations due to improper record paperwork (Waushara [Heartland Farms] and Marathon [Amish] Counties). Verbal warning issued.	2	soil probes (commercial)	0	Did not inspect written plan, suspect one does not exist
2016	12	7	5	4	3	1	four violations due to improper record paperwork (Dodge, Eau Claire, Waushara [Insight FS] and Juneau Counties). Verbal warning for three and also written warning for lack of Irrigation Management Plan in Juneau County.	1	none	0	Written warning issued due to lack of Irrigation Management Plan
2017	16	10	6	4	3	1	three violations due to improper paperwork (Lincoln, Winnebago and Walworth Counties). Verbal warnings issued. Applied rate of 0.8 lb/acre in a coarse soil texture field in Columbia County. Verbal warning issued.	5	one hand textured (commercial in Chippewa County) and one soil probes	5	two of the five could use improvements
2018	13	7	6	5	3	2	three violations due to improper paperwork (St. Croix, Columbia and Juneau Counties). Verbal and written warnings issued. Both commercial violations were over application, 1.0 lb/acre (Rusk County Farm Supply) and 0.78 lb/acre (Allied Cooperative) in a coarse soil texture field in Rusk and Adams Counties, respectively. Written warnings issued.	1		1	
2019	14	6	8	1	1	0	the one violation is due to improper paperwork (Iowa County). Verbal warning issued.	0			
2020	15	6	8	0	0	0	No violations. However, a 2018 field with fine soils received a 1.5 lbs/acre. But no information on 2017 application.	1	probes in field and hand checked	1	
2021	17	10	7	4	3	1	All four violations were associated with improper documentation.	1		0	Did not have a written Irrigation Management Plan. Operator assessed the need through tracking precipitation, consulting the forecast, and periodically visually inspecting soil moisture and crop conditions.
2022	12	9	3	3	3	0	All three violations were associated with improper documentation.	0		0	
2023	16	8	8	7	6	1	Six of the violations were associated with improper documentation. The seventh violation was associated with an atrazine-applied site that was irrigated, but did not have an Irrigation Management Plan.	1		0	Did not have a written Irrigation Management Plan.
TOTALS	126	66	59	32	24	8		13		7	
		52.4%	46.8%	25.4%	40.7%	13.6%		10.3%		53.8%	