2021 Wildlife Damage Abatement and Claims Program Annual Report provided to the Legislature

Wisconsin Department of Natural Resources, Wildlife Damage Abatement and Claims Program¹

May 31, 2022

1997 Wisconsin Act 27 established a requirement that the Department of Natural Resources (DNR) shall prepare an annual report to be submitted to the appropriate standing committees on specific aspects of the Wildlife Damage Abatement and Claims Program (WDACP). The Legislature detailed in statute [s. 29.889(11)(a), Stats.] that the following information be included in the report:

- 1) Identification of all the wildlife damage believed to have occurred in the state,
- 2) The wildlife damage claims that were filed under the WDACP,
- 3) The wildlife damage abatement measures that were recommended or implemented under this section,
- 4) The percentage of the total number of filed wildlife damage claims that are rejected for failure to meet the requirements of the program, and
- 5) The percentage of the total number of wildlife damage claims for which the amount of the payment to the claimant was prorated.

All Wildlife Damage

Agriculture is Wisconsin's largest industry, with approximately 14.3 million acres in production on 64,400 farms, with an annual value of nearly \$12 billion, according to the 2020 census conducted by the National Agricultural Statistics Service. Wisconsin ranks 9th in the U.S. in the total value of agricultural products sold.

State statute [s. 29.889(11)(a)1., Wis. Stats.] directs the DNR to identify all wildlife damage that has occurred in the state. However, it is not possible to accurately estimate "all" wildlife damage in Wisconsin without an extensive statistically valid sample of all types of wildlife damages across the state. If taken in the most literal and broad sense, this would be an immense cost and would include such things as car/deer collisions and the associated costs of human injuries and property damage. If limited to all wildlife damage to agriculture, the amount would be just as inaccessible, because "all" implies a need to sample damage caused by a wide variety of wildlife; raccoons, coyotes, squirrels, birds, etc., that feed on crops and prey on livestock on all properties. The data provided in this report is the information that is collected through the voluntary participation of producers in the WDACP. Therefore, the data provided are not statistically valid samples of all deer, geese, bear, turkey, and elk damages in Wisconsin.

Pursuant to s. 29.889(1), Wis. Stats., the WDACP only appraises damage caused by wild deer, turkeys, geese, bear, elk, and cougar. Appraisals are only conducted if requested by the crop owner. In 2021, 45,887 acres of agricultural crops were appraised with 2,422 acres damaged by deer, 227 acres damaged by bear, 271 acres damaged by geese, 77 acres damaged by elk, and 3 acres damaged by turkeys. There were no damages claimed for cougars. Nine hundred and forty-three producers enrolled in the WDACP in 2021, 226 of whom submitted wildlife damage claims in which crop appraisals were conducted (**Table 1, Figures 2 and 3**).

The Department of Agriculture, Trade and Consumer Protection attempted to assess total damage caused by deer in Wisconsin in 1984. Their survey estimated statewide deer damage at \$36.7 million. However, the survey was based

¹ The WDNR WDACP is comprised of Brad Koele, Wildlife Damage Biologist, and Sarah Wyrick, Wildlife Damage Program Assistant.

on asking farmers how much deer damage they thought they had, rather than actual appraisals of damaged crops. Such surveys are problematic and likely to be biased. A 2001 report by the National Agricultural Statistics Service (NASS) estimated U.S. agricultural losses at \$944 million due to wildlife damage. This estimate was further broken down to \$619 million in damages to field crops, \$178.2 million in damages to livestock and poultry, and \$146.3 million in damages to vegetables, fruits and nuts. Deer were estimated to cause 58% of the damage to field crops and 33% of the damage to vegetables, fruits and nuts. Turkeys caused 6% and geese caused 5% of the damage to field crops. This survey was based on asking farmers how much damage they thought they had by species, rather than by actual appraisals of damaged crops.

2021 Wildlife Damage Claims

The number of wildlife damage claims filed with the Department decreased in 2021, from 237 claims in 2020 to 226 claims in 2021. In 2021, 3,000 acres were damaged, totaling \$1,171,647 in appraised losses (Table 1). Commodity prices were higher for corn and for soybeans in 2021 than in the previous year. The median price paid by the WDACP in 2021 was \$5.48 per bushel for corn and \$12.98 per bushel for soybeans. The median prices in 2020 were \$4.15 per bushel for corn and \$10.70 per bushel for soybeans. Crop prices vary by county and are determined by each participating county Land and Water Conservation Department by averaging yearly commodity prices at several local feed dealers, grain distribution centers, hay auctions, or feed mills. According to the Wisconsin Crop Production Report by the USDA-Agricultural Statics Service, Wisconsin's corn for grain yield was estimated at 180.0 bushels per acre. This is a record high and compares to 174.0 bushels per acre in 2020. The average soybean yield also increased, increasing from 51.0 bushels per acre in 2020 to 55.0 bushels per acre in 2021.

The number of wildlife damage claims and appraised losses has fluctuated over the history of the program (**Figure 1**). Fluctuations can be attributed to changing crop prices, changes to the WDACP, changes in wildlife populations, and changes in culture. One cultural norm that is changing is the proportion of landowners that are willing to allow public hunting access to their property. Opportunities for personal/family recreation, especially opportunities for deer hunting, seem to be becoming more important than compensation for crop damages. Anecdotal evidence also indicates neighboring landowners with strong recreational hunting interests are influencing previous program enrollees to no longer enroll in the program nor seek shooting permits. Over 148,104 acres of privately-owned land was opened to deer, bear, turkey, elk and/or goose hunters in 2021 through the wildlife damage abatement and claims program.

2021 Prescribed Wildlife Damage Abatement Measures

Early notification of damages and implementation of damage abatement measures are crucial to reducing wildlife damage losses and compensation costs to the State. The primary abatement measure is the issuance of shooting permits that allow the removal of animals outside the regular state hunting seasons. In 2021, five hundred and five agricultural damage deer shooting permits were issued across the state under which 3,255 deer were reported to be removed (**Table 2**). Agricultural damage deer shooting permits are cost-efficient to implement compared to other abatement options such as fencing, repellents, or harassment, especially on larger fields. When appropriately used, agricultural damage deer shooting permits are very effective at reducing deer damage in current and subsequent years in areas with high deer populations. Because deer are an abundant wildlife species, agricultural deer shooting permits have very little impact on deer populations at the deer-management-zone scale, yet they give producers the ability to control deer numbers and reduce damage on their land. The harvest on deer damage shooting permits totaled approximately 1.05% of the statewide deer harvest in 2021. Deer harvest on deer damage shooting permits in 2021 ranged from 0-4.1% of the total deer harvest at the individual deer management zone level.

Administrative Rule WM-40 was enacted in 2013 which stipulated that agricultural producers enrolled in the WDACP who experience \$1,000 or more of appraised deer damage, as documented by their wildlife damage claim, be automatically issued a shooting permit by February 15th of the following year if the enrollee wanted to remain eligible for deer damage compensation. One hundred and twenty agricultural producers were automatically issued a deer shooting permit by February 15th, 2021, through this rule. Enrollees that receive these deer shooting permits

must shoot a minimum of 80% of their deer harvest objective by September 15th to remain eligible to receive deer damage compensation.

Legislation was enacted (2005 Wisconsin Act 82) which allows landowners to enroll in the WDACP and receive deer damage shooting permits without allowing public access to the enrolled property for deer hunting. These enrollees cannot receive any abatement assistance other than a deer shooting permit, and they are not eligible for any deer damage compensation. In 2021, two hundred and ninety-seven shooting permits were issued under the "Act 82" option where public hunting access was not required, and no deer damage compensation was paid to the producer. A total of 1,742 deer were registered on "Act 82" permits.

Agricultural damage shooting permits are only occasionally issued to address bear, goose, and turkey damage, as the behavior of these animals can generally be modified by non-lethal methods of abatement. Turkeys rarely cause the \$1,000 worth of damage necessary to be eligible for a shooting permit unless a high-value crop is affected such as ginseng or stored feed bags where feed spoilage is a risk. Eighteen Agricultural Damage Turkey Shooting Permits were issued in 2021 on which 38 turkeys were registered (**Table 3**).

In 2010, the Department implemented the U.S. Fish and Wildlife Service's Canada Goose Agriculture Depredation Order which allows the Department to issue Canada goose shooting permits from May 1 through August 31 when Canada geese are damaging agricultural crops. Prior to the implementation of this order, permits to shoot Canada geese outside the Horicon Goose Hunting Zone had to be issued by the U.S Fish and Wildlife Service, and cost \$50 for private landowners. There is no cost for the state-issued permit. In 2021, one hundred and two spring Canada goose shooting permits were issued to agriculture producers on which 316 geese were reported to be removed (**Table 3**).

The primary abatement method used for bears causing agricultural damage is trapping and translocation (**Figure 3**). Corn is the primary agricultural crop damaged by bears, and is most frequently damaged during the milk stage of development. Because of the relatively short time-frame when corn is vulnerable to extensive bear damage, effective bear damage control is obtained by live-trapping the bears and relocating them to large forested tracts of public land at a minimum of 20 miles from the capture site. Though translocated bears often return to their home ranges (Massopust 1984), University of Wisconsin-Stevens Point researchers found that males would not return for an average of 14 days and females for an average of 34 days. This allows corn to mature past the vulnerable milk stage, making the corn less susceptible to bear damage (Stowell and Willging 1992). In 2021, five hundred and fifty bears were trapped and translocated to locations away from the crops or apiaries they had been damaging, or because of potential livestock depredation concerns. Bear Shooting Permits are sometimes issued in situations in which trapping and relocation is ineffective at preventing damages from bears, or if bear trapping sites are inaccessible. Shooting permits can also be issued to supplement trapping and relocation efforts. Thirty-nine Bear Shooting Permits were issued in 2021 on which 98 bears were removed by landowners and hunters (**Table 3**).

A variety of other abatement measures are used to reduce current and future wildlife damage losses (**Table 5**). One abatement measure all applicants are required to comply with in order to be eligible for compensation of wildlife damage is to provide hunting access to the public for the species causing damage. Hunting access is beneficial for hunters that are funding the program by providing hunting access to privately-owned lands; and is beneficial to agriculture producers by hunters removing animals causing damage or by altering animal behavior. Scare devices (pyrotechnics, propane cannons and Mylar flagging) are very effective goose and turkey abatement measures, especially if used soon after damage starts. Other commonly used damage abatement measures include the use of temporary fencing and repellants. For elk damages occurring in 2021, several temporary fencing designs were tested to exclude elk from crop fields or prevent access to stored feed bags. Ground and aerial spraying of repellents was utilized at two locations to address elk damage to corn. A diversion crop project was implemented in Jackson County to test the efficacy of using diversion crops as an elk damage abatement tool. 2022 will be the second year of that project with potential to extend the project to 2023. Circumstances occasionally call for harvesting crops as soon as possible. In situations with low yet widespread and fragmented damage, or areas within municipal limits that restrict hunting opportunities, there may be little practical abatement available.

The Department may authorize the installation of an eight-foot woven-wire fence in cases where high-value crops, such as tree stock, orchards, and cranberries, are being severely damaged by elk or deer, and damage claims will exceed the cost of the fencing project over a fifteen-year period. The WDACP pays 75% of the fencing materials and installation costs and landowners pay the remaining 25%. Permanent fence contracts are valid for 15 years and are recorded with the county Register of Deeds. Four permanent fences were constructed in 2021, protecting approximately 119.5 acres of high-value crops including blueberries, cranberries, and a variety of vegetables. The WDACP costs for fence materials and installation totaled \$150,334. These fences are estimated to save the program approximately \$355,000 over the 15-year term of the contracts (**Table 6**).

2017 Wisconsin Act 59 amended s. 29.889(4), Wis. Stats., to include damage to crops or grasses grown for use by a bird hunting preserve licensed under ch. 169 as eligible for wildlife damage abatement assistance. Furthermore, s. 29.889(5), Wis. Stats., was created which authorizes a county that participates in the WDACP to recommend fencing an affected bird hunting preserve licensed under ch. 169 as a damage abatement measure. No damages were appraised through the WDACP in 2021 for bird hunting preserves.

Rejected Claims

Counties participating in the WDACP denied twenty-nine claims in 2021 (**Table 1**). Denials were issued in cases where claimants did not comply with eligibility requirements or appraised damage did not exceed the legislatively-required \$500 claim deductible. Claims denied by the counties are not audited by the DNR; the county denial decision is treated as final. A producer who disagrees with the denial can file an appeal through the county's appeals process. Three claims are being held in abeyance; two claims are pending review and approval by Bayfield County and one claim is pending appeal by the agriculture producer.

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Stowell, L.R. & R.C. Willging. 1992. Bear damage to agriculture in Wisconsin. Proc. East. Wildl. Control Conf. 5:96-104.

If you have any questions about this report or the WDACP, please contact Brad Koele, Wildlife Damage Biologist, at 715-356-5211 ext. 234, or by writing WDNR, WM/6, P.O. Box 7921, Madison, WI 53707-7921, or via e-mail at Bradley.Koele@wisconsin.gov.

Table 1: 2021 Wildlife Damage Abatement and Claims Program statistics by county. Source: WDNR WDACP Database and personal communication with USDA-Wildlife Services and county wildlife damage specialists.

County	No. of Enrollees	No. of Claims Filed	No. of Approved Claims	No. of Claims Pending	No. of Denied Claims	Total Appraised Damages	Total Damages Eligible for Payment	Total Payments for Damages
Adams	9	2	2	0	0	\$2,313.96	\$1,313.96	\$1,313.96
Ashland	3	2	2	0	0	\$5,805.35	\$5,155.36	\$5,155.36
Barron	14	4	4	0	0	\$12,032.66	\$10,112.75	\$10,112.75
Bayfield	4	2	0	2	0	\$3,719.78	\$2,719.78	\$0.00
Brown	9	5	5	0	0	\$52,318.20	\$34,153.78	\$34,153.78
Buffalo	6	0	0	0	0	\$0.00	\$0.00	\$0.00
Burnett	16	10	10	0	0	\$57,492.30	\$40,710.39	\$40,710.39
Calumet	6	2	1	0	1	\$20,336.17	\$10,000.00	\$10,000.00
Chippewa	17	1	1	0	0	\$1,803.01	\$1,303.01	\$1,303.01
Clark	23	4	3	0	1	\$16,335.61	\$13,845.83	\$13,452.88
Columbia	30	5	4	0	1	\$48,542.36	\$22,361.70	\$22,361.70
Crawford	6	3	3	0	0	\$34,548.40	\$25,219.52	\$25,219.52
Dane	9	1	1	0	0	\$4,743.86	\$4,243.86	\$4,243.86
Dodge	25	2	2	0	0	\$5,583.00	\$4,583.00	\$4,583.00
Door	11	0	0	0	0	\$0.00	\$0.00	\$0.00
Douglas	2	0	0	0	0	\$0.00	\$0.00	\$0.00
Dunn	16	2	2	0	0	\$1,729.47	\$729.47	\$729.47
Eau Claire	3	0	0	0	0	\$0.00	\$0.00	\$0.00
Florence	3	1	0	0	1	\$2,749.75	\$2,249.76	\$0.00
Fond du Lac	8	2	2	0	0	\$10,417.23	\$8,982.42	\$8,982.42
Forest	7	1	0	0	1	\$308.83	\$0.00	\$0.00
Grant	19	4	4	0	0	\$47,499.04	\$27,082.29	\$27,082.29
Green	5	1	1	0	0	\$941.06	\$441.06	\$441.06
Green Lake	23	8	7	0	1	\$70,513.21	\$51,137.94	\$51,137.94
Iowa	15	3	3	0	0	\$7,874.37	\$6,374.37	\$6,374.37
Iron	1	1	1	0	0	\$1,425.77	\$1,075.78	\$1,075.78
Jackson	21	3	3	0	0	\$7,296.52	\$5,796.53	\$5,796.53
Jefferson	18	1	1	0	0	\$1,911.69	\$1,411.69	\$1,411.69
Juneau	11	1	1	0	0	\$2,786.58	\$2,286.58	\$2,286.58
Kenosha			Not	In	Program			
Kewaunee	16	2	2	0	0	\$14,244.93	\$11,582.96	\$11,582.96
La Crosse	8	1	1	0	0	\$2,315.90	\$1,815.90	\$1,815.90
Lafayette	6	1	1	0	0	\$3,274.68	\$2,774.67	\$2,774.67
Langlade	10	3	2	0	1	\$3,991.83	\$2,624.81	\$2,624.81

County	No. of Enrollees	No. of Claims Filed	No. of Approved Claims	No. of Claims Pending	No. of Denied Claims	Total Appraised Damages	Total Damages Eligible for Payment	Total Payments for Damages
Lincoln	16	2	1	0	1	\$3,407.40	\$2,907.40	\$2,907.40
Manitowoc	13	4	4	0	0	\$23,952.35	\$19,923.32	\$19,923.32
Marathon	57	6	5	0	1	\$37,959.97	\$31,046.32	\$28,767.24
Marinette	26	14	14	0	0	\$97,924.44	\$69,105.64	\$69,105.64
Marquette	16	5	5	0	0	\$68,834.69	\$46,375.96	\$46,375.96
Menominee			Not	In	Program			
Milwaukee	1	0	0	0	0	\$0.00	\$0.00	\$0.00
Monroe	20	3	3	0	0	\$3,430.56	\$1,930.57	\$1,930.57
Oconto	11	0	0	0	0	\$0.00	\$0.00	\$0.00
Oneida	13	0	0	0	0	\$0.00	\$0.00	\$0.00
Outagamie	27	12	12	0	0	\$105,166.58	\$69,835.89	\$69,835.89
Ozaukee	3	0	0	0	0	\$0.00	\$0.00	\$0.00
Pepin	3	0	0	0	0	\$0.00	\$0.00	\$0.00
Pierce	15	1	0	1	0	\$2,494.80	\$1,994.80	\$0.00
Polk	17	6	6	0	0	\$28,175.19	\$23,142.15	\$23,142.15
Portage	12	3	3	0	0	\$15,970.81	\$12,972.34	\$12,972.34
Price	25	10	6	0	4	\$12,385.29	\$8,521.40	\$8,521.40
Racine	0	0	0	0	0	\$0.00	\$0.00	\$0.00
Richland	9	2	2	0	0	\$14,424.72	\$12,739.77	\$12,739.77
Rock	5	2	2	0	0	\$4,213.08	\$3,213.08	\$3,213.08
Rusk	34	24	18	0	6	\$99,864.43	\$54,369.58	\$52,044.29
Saint Croix	11	3	3	0	0	\$26,730.46	\$17,290.46	\$17,290.46
Sauk	10	1	1	0	0	\$1,989.86	\$1,489.86	\$1,489.86
Sawyer	22	14	10	0	4	\$44,334.98	\$29,593.44	\$29,593.44
Shawano	14	1	1	0	0	\$2,531.47	\$2,031.47	\$2,031.47
Sheboygan	10	2	2	0	0	\$4,362.76	\$3,362.75	\$3,362.75
Taylor	34	3	3	0	0	\$4,997.60	\$4,187.62	\$4,187.62
Trempealeau	12	4	3	0	1	\$18,430.11	\$13,915.32	\$12,882.38
Vernon	44	3	1	0	2	\$5,176.93	\$4,176.93	\$1,840.00
Vilas	6	0	0	0	0	\$0.00	\$0.00	\$0.00
Walworth	4	0	0	0	0	\$0.00	\$0.00	\$0.00
Washburn	9	7	5	0	2	\$12,205.20	\$8,497.56	\$8,497.56
Washington	14	3	3	0	0	\$9,511.63	\$7,837.17	\$7,837.17
Waukesha	5	0	0	0	0	\$0.00	\$0.00	\$0.00
Waupaca	7	0	0	0	0	\$0.00	\$0.00	\$0.00
Waushara	14	7	7	0	0	\$45,976.58	\$31,347.92	\$31,347.92
Winnebago	2	2	2	0	0	\$10,782.45	\$9,578.42	\$9,578.42
Wood	22	4	3	0	1	\$22,521.83	\$18,010.29	\$15,291.33
Totals	943	226	194	3	29	\$1,172,611.66	\$811,486.60	\$793,436.11

Figure 1: Trends in the number of wildlife damage claims filed and the appraised losses in the WDACP, 2012 – 2020. Source: WDNR WDACP Database and personal communication with USDA-Wildlife Services and county wildlife damage specialists.

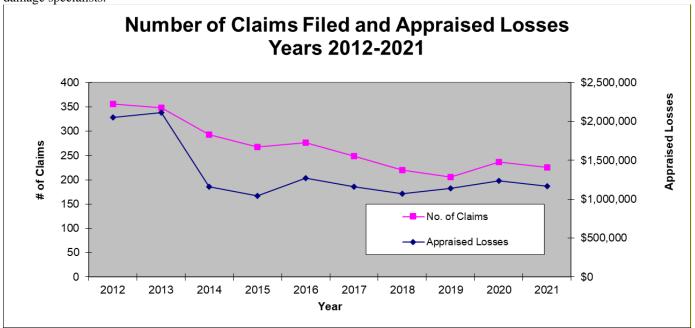


Figure 2: Number of WDACP enrollees and claims, 2011 – 2020. Source: WDNR WDACP Database and personal communication with USDA-Wildlife Services and county wildlife damage specialists.

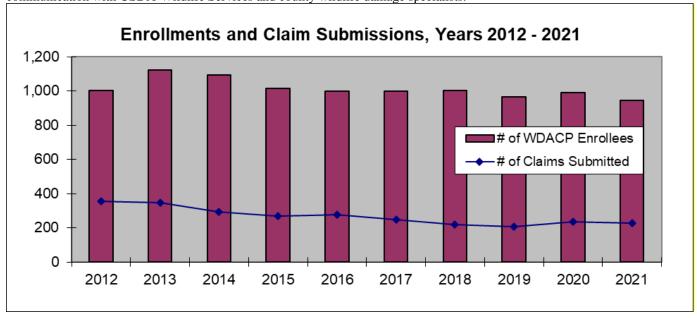


Table 2: Number of Agricultural Damage Deer Shooting Permits issued in 2021 by county. Source: WDNR WDACP Database.

County	Number of Permits	Harvest
Adams	9	54
Ashland	1	12
Barron	2	8
Bayfield	2	25
Brown	3	7
Buffalo	2	14
Burnett	7	48
Calumet	5	8
Chippewa	5	20
Clark	8	37
Columbia	13	89
Crawford	6	33
Dane	5	21
Dodge	6	14
Door	7	14
Douglas	1	9
Dunn	10	97
Eau Claire	0	0
Florence	2	13
Fond du Lac	6	34
Forest	4	22
Grant	19	164
Green	3	12
Green Lake	19	145
Iowa	11	104
Iron	0	0
Jackson	7	43
Jefferson	9	25
Juneau	5	33
Kewaunee	6	23
La Crosse	7	35
Lafayette	5	20
Langlade	4	25
Lincoln	9	34
Manitowoc	7	16

County	Number of Permits	Harvest
Marathon	12	142
Marinette	20	194
Marquette	12	125
Milwaukee	1	0
Monroe	17	60
Oconto	8	50
Oneida	5	28
Outagamie	25	78
Ozaukee	3	9
Pepin	1	0
Pierce	1	4
Polk	7	48
Portage	6	56
Price	13	89
Racine	0	0
Richland	9	89
Rock	1	9
Rusk	14	101
Saint Croix	6	36
Sauk	6	33
Sawyer	5	48
Shawano	11	121
Sheboygan	1	3
Taylor	12	87
Trempealeau	7	58
Vernon	33	122
Vilas	2	17
Walworth	3	31
Washburn	2	13
Washington	8	38
Waukesha	4	10
Waupaca	5	54
Waushara	12	103
Winnebago	1	5
Wood	17	136
Total	505	3,255

Table 3: Number of Agricultural Damage Shooting Permits Issued for Bear, Geese, and Turkeys in 2021, by county. Source: WDNR WDACP Database.

Bear Shooting Permits						
County	Number of Permits	Reported Harvest				
Barron	3	5				
Burnett	7	9				
Iron	1	12				
Lincoln	2	3				
Polk	1	1				
Rusk	13	24				
Sawyer	7	22				
Taylor	2	1				
Trempealeau	1	0				
Washburn	2	21				
Totals	39	98				

Turkey Shooting Permits						
County	Number of Permits	Reported Harvest				
Brown	1	1				
Dunn	1	2				
Iowa	1	0				
Jefferson	1	3				
Kewaunee	1	13				
Marathon	7	7				
Marinette	2	6				
Oconto	1	0				
Ozaukee	1	3				
Price	1	3				
Washington	0	0				
Waukesha	1	0				
Totals	18	38				

Spring Goose Shooting Permits					
County	Number of Permits	Reported Harvest			
Barron	1	0			
Brown	1	0			
Calumet	3	0			
Chippewa	1	0			
Columbia	6	22			
Dane	3	9			
Dodge	14	91			
Dunn	1	0			
Eau Claire	1	0			
Fond du Lac	1	0			
Jefferson	9	19			
Kewaunee	10	16			
Langlade	1	14			
Manitowoc	7	51			
Marathon	1	0			
Marinette	1	0			
Outagamie	2	0			
Polk	1	0			
Portage	4	0			
Price	4	0			
Rock	4	0			
Rusk	4	27			
Saint Croix	1	0			
Sawyer	1	8			
Shawano	3	17			
Sheboygan	9	5			
Taylor	2	17			
Washington	4	20			
Waukesha	2	0			
Totals	102	316			

[»] No shooting permits were issued in counties not listed above for the species mentioned.

Figure 3: Number of bears trapped and translocated by county in response to damages to agricultural crops, apiaries and livestock in 2021. Source: USDA-Wildlife Services.

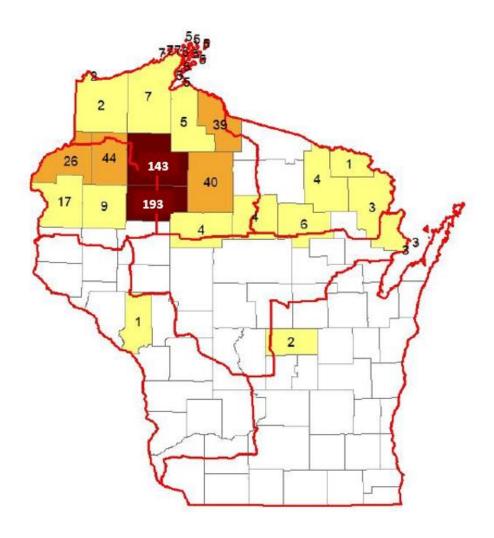


Table 5: Abatement measures (other than shooting permits (Tables 2 and 3), bear traps (Table 4), and permanent deer barrier fences (Table 6)) prescribed for producers who enrolled in the WDACP in 2020. Source: WDNR WDACP Database and personal communication with USDA-Wildlife Services and county wildlife damage specialists.

County	No Practical Abatement	Temporary Fencing	Harvest Crops ASAP	Repellents	Scare Devices*	Other**
Adams		1			1	1
Ashland		1				
Barron		3			1	3
Bayfield						2
Brown	5	1	6		2	4
Buffalo						
Burnett		3	7			9
Calumet				1	3	2
Chippewa		3			2	1
Clark		4				
Columbia		8			2	
Crawford						
Dane		3			3	
Dodge		4			6	1
Door	1	1		4	2	3
Douglas						1
Dunn		2			1	4
Eau Claire		3				1
Florence		1				
Fond du Lac	1					
Forest						
Grant						
Green		1			1	
Green Lake		3				
Iowa		2			1	
Iron						
Jackson	2	2			3	
Jefferson					8	1
Juneau		2				
Kenosha						
Kewaunee					10	2
La Crosse						
Lafayette		1				
Langlade					1	
Lincoln		2				
Manitowoc		1		1	6	4

County	No Practical Abatement	Temporary Fencing	Harvest Crops ASAP	Repellents	Scare Devices*	Other**
Marathon		39			39	
Marinette		2			2	
Marquette		1				
Menominee						
Milwaukee		1				1
Monroe		4				
Oconto						
Oneida		8			7	
Outagamie		4			2	9
Ozaukee				1		
Pepin		1				1
Pierce		5				6
Polk		5			7	2
Portage		2			1	4
Price		7		1	3	16
Racine						
Richland						
Rock					4	
Rusk	1	6		1	3	27
Saint Croix		3	1		2	1
Sauk						
Sawyer		5			2	17
Shawano					2	
Sheboygan					2	2
Taylor		11			2	11
Trempealeau						
Vernon		14				
Vilas		1				
Walworth					1	1
Washburn		1				2
Washington		4			1	
Waukesha		1			2	2
Waupaca						
Waushara		1				5
Winnebago	1					
Wood			5			1
Total	11	178	19	9	135	147

^{*} Includes cannons, pyrotechnics, guard dogs, flagging and other scare devises.

** Includes but not limited to tree guards, cage exclosures, feeding silage as soon as possible, silage bag covers, federal depredation permits, changing planting locations or locations of stored feed and harassment.

Table 6: Eight-foot high-tensile woven-wire deer and/or elk barrier fence projects completed in 2021. Source: WDNR WDACP Database and personal communication with USDA-Wildlife Services and county wildlife damage specialists.

County	# of Fence Proposals Approved	WDACP Costs	Acres Protected	Crop Type Protected
Burnett	1	\$9,709.70	6	Vegetables
Jackson	1	\$105,900.00	86	Cranberries
Waupaca	1	\$26,625.00	25	Blueberries
Wood	1	\$8,100.00	2.5	Cranberries
		\$150,334.70	119.5	