
Cervidae Depredation on Minnesota Farms

Impacts, Current Mitigation Strategies, and Recommendations

2024 Minn. Laws Chap. 127 Art. 37 Sec. 1

2/1/2025

Minnesota Department of Agriculture
Kelly Anderson
625 Robert Street North
Saint Paul, MN 55155
Kelly.Anderson@state.mn.us
www.mda.state.mn.us

This report cost approximately \$10,000 to prepare, including staff time, printing, and mailing expenses (MINN. STAT. 3.197).

In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651-201-6000. TTY users can call the Minnesota Relay Service at 711. The MDA is an equal opportunity employer and provider.

Contents

Executive Summary 1

Introduction..... 2

Impacts of Cervidae Depredation..... 2

 Duane Munsterteiger – Kanabec County, Cow/Calf and Grass Finished Beef 2

 Minnesota African Immigrant Farmer Grower Association – Metro Area Fruit and Vegetable Farmers 3

 Les Anderson – Goodhue County Corn and Soybean Farmer 5

Management of Deer and Elk..... 7

 Deer 7

 Elk 9

 Current Strategies for Mitigating Cervidae Depredation 12

 Compensation for Elk Depredation 12

 Abatement Programs for Wildlife Including Deer and Elk 15

Challenges with Current Strategies and Recommendations from Stakeholders and Staff..... 18

 Elk Damage Compensation Program..... 18

 Exclusionary/deterrent materials (Minn. Stat. 97A.028) 20

 Hunting Seasons – Elk..... 21

 Hunting Seasons – Deer..... 21

 Outreach and Education..... 23

 Wildlife Damage Program Capacity..... 23

Appendices 25

 Appendix A 25

 Appendix B..... 26

 Appendix C..... 27

 Appendix D 30

 Appendix E..... 31

 Appendix F..... 33

 Appendix G 34

References 35

Acknowledgements 35

Executive Summary

This report addresses the impact of deer and elk on Minnesota farms. Damage to crops and property from these animals has risen significantly, while available resources for mitigation and compensation have not kept pace. Efforts to manage deer and elk populations primarily rely on hunting, but declining hunter participation, limited access to private lands, and hunter selectivity for bucks and bull elk over antlerless animals reduce the effectiveness of population control strategies.

Minnesota offers compensation for elk-related crop damage through the Department of Agriculture (MDA), while the Department of Natural Resources (DNR) oversees damage prevention. Compensation payments have exceeded available funds for several years, and claims are expected to rise further as the elk population expands. The proposed establishment of a new elk herd near the Fond du Lac Reservation is expected to increase crop damage compensation claims in the future as well.

Farmers report extensive losses to stored forage, specialty crops, and field crops with challenges further compounded by limited DNR staffing and increasing supply costs for preventative measures. Current mitigation strategies include exclusion fencing, hazing techniques, and removal permits. However, barriers such as high material costs, lack of farmer awareness, and liability concerns limit participation in abatement programs.

Key recommendations from stakeholders and staff include:

- Increasing funding for compensation programs.
- Strengthening partnerships with USDA Wildlife Services to improve claim evaluations and abatement strategies.
- Expanding access and funding for exclusion materials and making fencing assistance more flexible.
- Requiring producers to implement preventative measures to qualify for compensation.
- Consolidating and streamlining the issuance of hunting and removal permits.
- Enhancing outreach and education to farmers about available resources.

The report highlights the need for a more integrated approach to managing deer and elk damage, with increased coordination between the MDA and the DNR to ensure farmers have access to both compensation and prevention tools. Without these improvements, damage claims and associated costs will continue to rise, putting further strain on limited state resources and impacting Minnesota's farmers and ranchers.

This report is the result from a workgroup process that included multiple meetings with stakeholders, both in-person and virtual; individual conversations with farmers who have experienced cervidae depredation; and written testimony from workgroup participants. Additionally, Tribal Nations were invited to participate in a meeting or provide written testimony.

The workgroup included representatives from the following organizations: Fond du Lac Band of Lake Superior Chippewa, Hovel Farms, Minnesota Department of Agriculture, Minnesota Department of Natural Resources, Minnesota Farm Bureau, Minnesota Farmers' Market Association, Minnesota Farmers Union, Minnesota Soybean Association, Minnesota State Cattlemen's Association, University of Minnesota, USDA Natural Resource Conservation Service, and USDA-APHIS Wildlife Services. This report including recommendations was written in collaboration with the DNR.

Introduction

This Cervidae Depredation Report is the result of action taken by the 2024 Minnesota Legislature and signed into law by Governor Tim Walz:

\$50,000 the first year is to convene a working group of interested parties, including representatives from the Department of Natural Resources, to investigate and recommend options for addressing crop and fence destruction due to Cervidae. By February 1, 2025, the commissioner must submit a report on the findings and recommendations of the working group to the chairs and ranking minority members of the legislative committees with jurisdiction over agriculture policy and finance. Notwithstanding Minnesota Statutes, section 16A.28, any unencumbered balance does not cancel at the end of the first year and is available in the second year. This is a onetime appropriation.

Impacts of Cervidae Depredation

Depredation by deer and elk in Minnesota occurs statewide; however, impacts are generally greatest in areas where these species are most abundant. For elk, nearly all damage occurs in the northwestern part of the state where the three main herds are located. Occasionally farmers outside of the primary elk range report damage when individual animals wander away from established herds. The damage caused by elk in the northwest—and increasingly in other areas of the state—is equally devastating. Since deer are more prevalent statewide, deer depredation is more broadly distributed. Deer damage often occurs in areas where good habitat conditions and lack of sufficient hunting pressure result in abundant deer populations adjacent to agriculture. Concentrated locations vary from year to year depending on populations, seasons, land use, and weather conditions.

Deer and elk damage typically involves consumption of or damage to stored and stockpiled livestock forage. They also damage specialty crops such as orchards, vegetables, row crops, private forest stands, and landscaping or ornamental vegetation. Elk also frequently damage infrastructure such as livestock fences.

The following are examples of how deer damaged stored feed and crops on three different types of farms in three areas of the state.

Duane Munsterteiger – Kanabec County, Cow/Calf and Grass Finished Beef

Duane and Sheila Munsterteiger, along with their son Tony, run Pleasurewoods Farm in Kanabec County. The farm consists of about 1,200 acres of pastures and forages where they raise 130 beef cows. They grass finish all their own calves. Between cows, calves, and growing cattle, they have nearly 400 head of cattle at any given time. The cattle are rotationally grazed during the summer months, but the Munsterteigers rely on stored forages to feed their livestock throughout the winter. Much of their feed is stored in the form of baleage, which is hay that is wrapped in plastic right after cutting and baling. This process allows the bales to ferment into a high-moisture forage product that is very palatable to livestock and more easily digested than dry hay. Forage stored this way must remain wrapped in plastic until its ready to be used. Any breach of the plastic will introduce oxygen, causing premature spoilage.

Although the plastic is relatively thick, it is not a sufficient deterrent to deer, and many farmers have experienced deer tearing into the plastic to eat the feed inside (Photo 1). Not only do farmers lose the forage

that deer eat, but when the animals tear the plastic, exposed forage can spoil. This can lead to winter feed shortages since it is only harvested during the summer and fall months.



Photo 1. On the Munsterteiger farm, deer eat from the open ends of baleage rows and tear into unopened rows of feed causing it to spoil.

Deer and other wildlife are a regular occurrence on the Munsterteigers' farm. As an Audubon certified bird-friendly beef farm, they welcome wildlife to their land. Every year it's common to see deer grazing among the cow/calf pairs, eating from the feeders with the steers, and cleaning up spilled feed around the hay lot. With such regular contact, the threat of disease transfer from deer to the cattle is often on Duane's mind. However, the family encountered a new problem during the winter of 2022-2023 when excessive snow accumulation and high deer populations drove the deer to become more aggressive with their feeding. The deer tore into the plastic wrapped baleage causing excessive spoilage and waste.

Munsterteiger sought assistance from the Cambridge DNR Fish and Wildlife office where staff recommended installing a 10-foot-high fence around the hay lot where they store feed. Not only is this solution cost-prohibitive, but it would also make the feeding area difficult to access with equipment necessary to wrap the bales and to move them around for feeding. He is currently considering other options of temporary fencing that will be more cost-effective and allow easier equipment access. Unfortunately, these temporary solutions have not been as successful throughout the state, especially in deep snow.

Minnesota African Immigrant Farmer Grower Association – Metro Area Fruit and Vegetable Farmers

The Minnesota African Immigrant Farmer Grower Association has organized a community of immigrant farmers from Africa. The group represents farmers who are growing fruit and vegetable crops on land in and around the metro area. Despite the challenges with land access, language and cultural barriers, community isolation, and lack of capital, these farmers are determined to persevere. Many of them were farmers in their home countries before moving to the United States and it is a vocation that they understand and are called to.

Immigrant farmers typically work on leased land, where several farmers lease small portions of a larger plot. For example, a ten-acre farm might be rented to five different individual farmers who each control their own two-acre subplot. Fruit and vegetable growers often experience damage from deer. It is common practice to install an eight- to ten-foot-tall woven wire fence around fruit and vegetable farms to keep deer out. Deer fencing is expensive, between \$9 and \$15 per linear foot. In many cases the high cost is offset by the high value of the crops that fruit and vegetable growers produce on relatively small acreages. A central issue is that these farmers are growing on leased land. They have no long-term guarantees of future land access, so costly permanent fencing solutions that have been proven to keep deer away are not an option for them.

Most years, deer are a minor nuisance that can be dealt with by making noise, utilizing repellants, adding plastic snow fencing, or planting crops that deer tend to avoid. In 2024, however, the deer problem was devastating to this group of immigrant farmers. They saw deer eating crops that they had avoided in previous years (photos 2-3). Once the deer learned where the food was, no noise, repellent, or temporary fencing could keep them out. These farmers estimate that deer caused an average of \$6,000 per acre in damage on their 8-acre farm.



Photo 2. Farmers of the Minnesota African Immigrant Farmer Grower Association dealt with excessive deer damage to their cucumber crop in 2024.



Photo 3. Melons were another crop that was destroyed by deer in 2024.

Individuals from the group sought help from the DNR and they provided electric fencing, but the farmers didn't have the tools or knowledge necessary to install or maintain the fencing. Additionally, under current law (Minn. Stat. 97A.028), these resources are provided per person per tax parcel. In this instance, some of the farmers also reported that they were not able to get fencing because they were on the same piece of land as someone who had already received fencing.

Les Anderson – Goodhue County Corn and Soybean Farmer

Les Anderson is a corn and soybean farmer in southeastern Minnesota. Due to the hilly terrain in that part of the state, his fields are relatively small and divided up by areas of wooded hills. This is ideal habitat for deer.

It is common for deer to feed on the edges of Anderson's fields, and he generally expects losses on those acres. Photo 4 shows a yield map for an 80-acre corn field. In the photo, greens represent high yields, reds represent low yields. In this field, the 60 acres in the middle of the field averaged 201 bushels/acre (bu/acre). The 20-acre strip around the outside of the field averaged only 88 bu/acre. Although some yield loss is expected in the edges of a field, due to a range of factors including, but not limited to depredation and pest infestation as well as shade from tree cover, and compaction, those losses are typically 10-15% less than the rest of the field. Here, the loss was 56%, which translates to \$10,350 or about \$517/acre with corn prices at \$4.60/bushel.

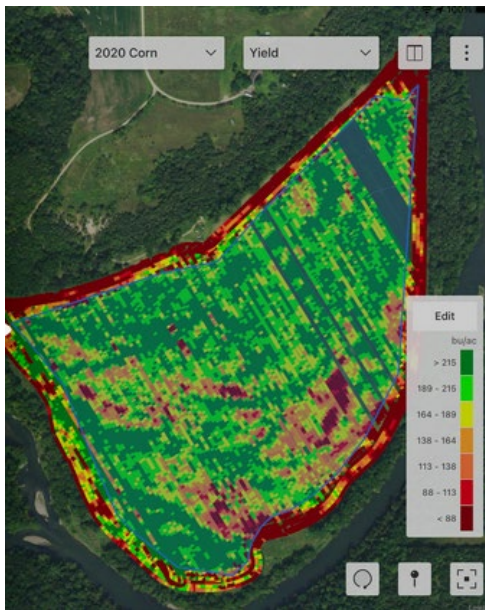


Photo 4. A yield map from Anderson's 80-acre corn field. Greens represent average to high yields. Red shades are lower yields. Anderson attributes the low yields around the edge of the field to damage by deer.

Crop losses are even more devastating in soybean fields where deer often eat the young plants before they have a chance to mature. Anderson noted a substantial increase in deer depredation between 2015 and 2019 on his soybean fields. The series of photos that follows (Photos 5-7) shows yield maps for the same soybean field (approximately 9 acres) over three different growing seasons. It's easy to see the decreased yields over the years.



Photo 5. 2015 yield map of one of the Anderson's soybean fields averaging 34 bu/acre.

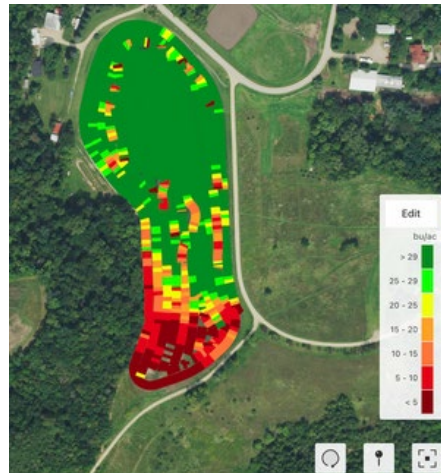


Photo 6. 2017 yield map of the same Anderson soybean field averaging 31 bu/acre.

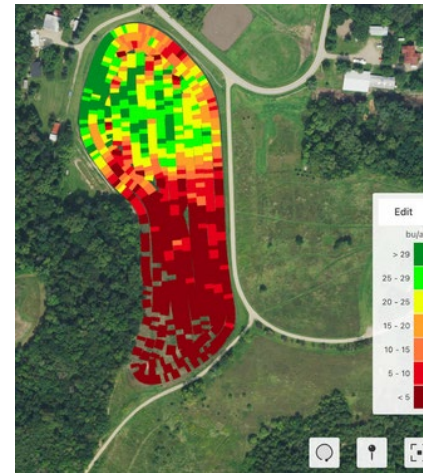


Photo 7. 2019 yield map of the same soybean field averaging only 13 bu/acre.

Photo 8 shows what the soybean field from the 2019 yield map looked like the day it was harvested, using a corn cob for height reference. The yellowish-brown soybean stems and pods are sparse and barely visible. A typical soybean field would have well-defined rows of waist-high stems. When deer eat soybean plants, they eat the tender new leaves from the tops of the plants. This sends a signal to the plant to stop growing thus stunting the growth.



Photo 8. Anderson's soybean field at harvest time. The soybeans are sparse with stunted growth. A corn cob is used as a size reference.

These field-wide losses amounted to about \$1,900 for the 9 acre field or about \$218/acre in losses with soybean prices at \$9.90 per bushel.

Although Anderson has not participated in any formal programs to help mitigate deer damage, others have had success using scent deterrents such as blood meal and employing the removal permits that DNR has available. Programs that can help with mitigation are discussed in [Abatement Programs for Wildlife Including Deer and Elk](#).

Management of Deer and Elk

Deer

History of deer populations and management

White-tailed deer were once common in central and southern Minnesota's forests but were rare in the northern pine forests, where moose and caribou thrived. In the 1800s, European settlers cleared forests which initially helped deer by creating open areas but eventually led to habitat loss. Market and subsistence hunting accelerated the population decline. By the 1880s, deer had become scarce. Minnesota started regulating deer hunting in 1858, closing hunting seasons in areas of the state dominated by farmland from 1923 until 1945 (see a full summary of past hunting seasons in [Appendix A](#)). The first statewide hunting season for deer occurred in 1946. Over the years, deer populations changed due to habitat conditions, harsh winters, and hunting, leading to hunting closures in the 1940s. A major population decline in the late 1960s resulted in the last season closure in 1971.

In the 1970s, Minnesota developed a more robust management system that allowed annual deer hunting. In the 1990s, the DNR began issuing extra either-sex permits to help control deer populations in certain high abundance areas. An early antlerless season was introduced in 2005 for areas with high deer populations, allowing hunters to take more female deer in mid-October.

Currently hunters can purchase up to three seasonal licenses and associated permits allowing them to harvest up to five deer annually (depending on Deer Permit Area (DPA)). Landowners or tenants with at least 80 acres of agricultural or grazing land can request an additional free license to take one antlerless deer per farm. Hunters in DPAs with an early antlerless season can take an additional three antlerless deer before the regular firearms season opens. With a combination of licenses and permits, a hunter could take up to nine deer across the state but must comply with the bag limits of each deer permit area. A summary of deer hunting opportunities is included in [Appendix B](#).

A low-cost permit was created to address Chronic Wasting Disease (CWD) in southeastern Minnesota. Originally that permit allowed hunters to take an unlimited number of antlerless deer in CWD zones. Currently, there are no restrictions on the number of deer a hunter who has disease management permits may take during the late CWD season in those CWD permit areas.

Current deer management

Minnesota's approach to deer management is described in the current [Minnesota White-tailed Deer Management Plan](#) (2019-2028). In brief, Minnesota manages deer at both the state and local levels. Statewide rules, like the start of firearm deer season, apply everywhere. However, many hunting regulations, like how many deer hunters can take, are set for specific DPAs. Most deer management decisions are made locally because different parts of the state have different landscapes, climates, habitats, and population densities. This localized approach helps address the unique needs of each area more effectively.

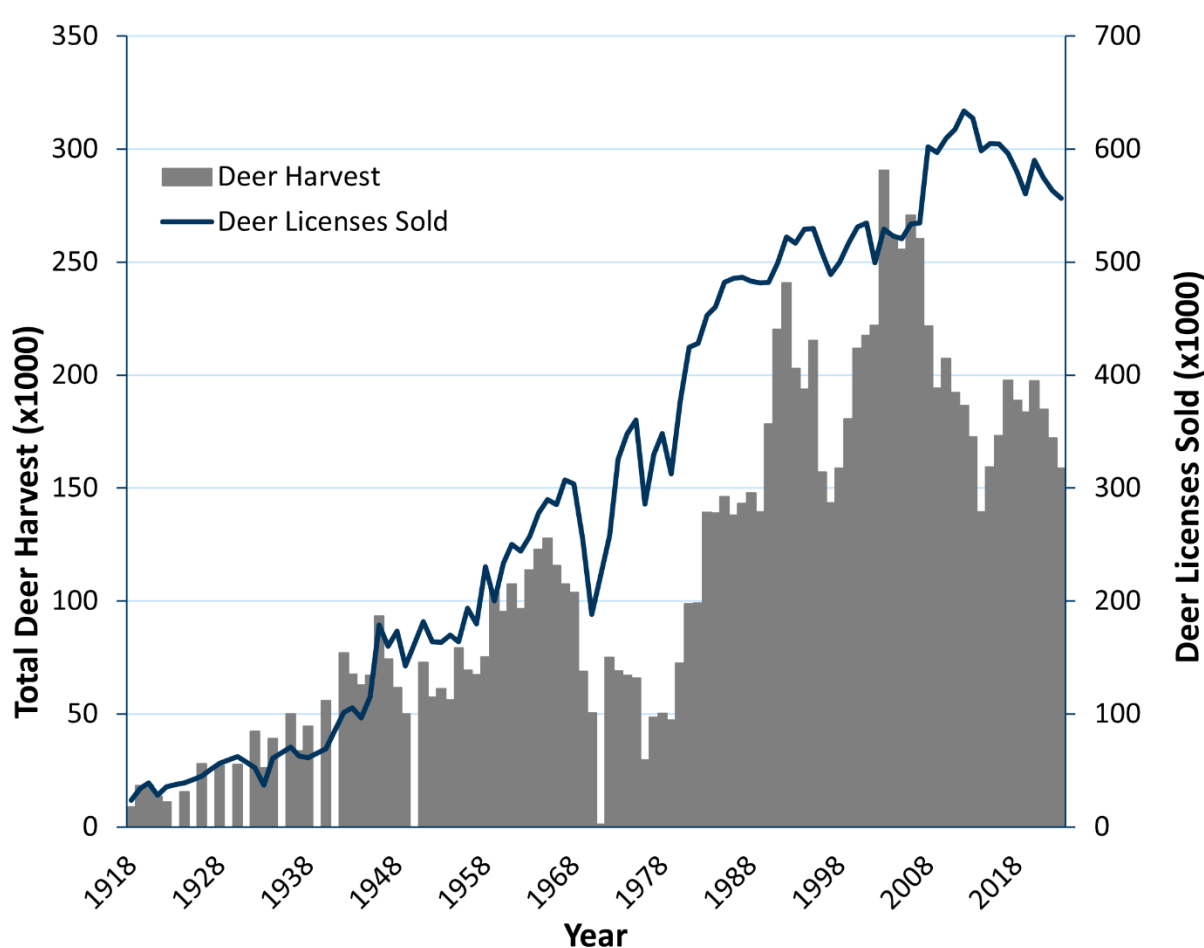
Hunting is the main way to control deer numbers. The DNR tracks deer harvests each year at both the DPA and statewide levels. Each year, the DNR adjusts hunting rules to meet population targets based on how many deer are harvested and what population trends are expected. They use a mix of data, including the number of bucks

harvested and hunting success rates, to estimate whether deer numbers are rising, stable, or falling. The DNR sets population goals for each area through a public process, gathering input from hunters, farmers, foresters, public health officials, and others. The goal is to balance ecological health and community needs.

Current and historical deer hunter and harvest information

Over the past 100 years, deer harvests in Minnesota have generally increased, especially after new management practices began in the 1970s (Figure 1). However, in the last 30 years, harvest numbers have fluctuated significantly for many reasons, including harsh winters, habitat loss, predators, and changes in hunter participation. After tough winters, the DNR usually limits how many antlerless deer hunters can take in order to help the deer population recover.

Figure 1. Total deer harvest and deer hunting license sales in Minnesota from 1918 to 2023 have increased over time but show large interannual variation in the harvest numbers. (Data available in [Appendix C](#))



Deer management challenges

Although DNR primarily relies on hunter harvest to manage deer populations, several factors have complicated this reliance on hunting in recent years, including changes in hunter preferences (i.e., selectivity), declining hunter numbers, access to private land, and the requirement to use shotguns instead of rifles in portions of the state.

Hunters are becoming more selective, favoring antlered bucks over antlerless deer. This preference makes it harder for the DNR to control deer populations in areas where herds exceed goals, as harvest of female deer (does) is the most effective means to reduce populations long-term. This is because does represent the reproductive capacity of the population; removal of a doe in the fall also means that she is not adding fawns to the population the following summer or beyond. Conversely when population management goals suggest increasing the population, harvest would suggest protecting antlerless deer and using buck only harvest management strategies. Most hunters also only harvest one deer annually, limiting the impact of higher bag limits.

The number of deer hunters in Minnesota has dropped 13% from 2012 to 2023. If this trend continues, hunter numbers could fall below 406,000 by 2028. Younger generations are not replacing older hunters at the same rate. This decline is part of a nationwide trend.

Hunters face challenges like habitat loss, and limited access to hunting land. A survey of former Minnesota hunters found that 60% felt access to private land was a significant barrier. Many landowners worry about liability, though Minnesota law limits landowner responsibility for injuries during recreational activities (Minn. Stat. 604A.22). Restricted access to private land creates safe zones or refuges for deer, making it harder to effectively manage populations.

Minnesota has a shotgun-only hunting zone in the southern part of the state, introduced to protect farmland deer from long-range rifle hunting. Although deer populations have since grown and modern shotguns are nearly as effective as rifles, the shotgun-only zone remains. This restriction can also deter hunters who do not own shotguns, potentially contributing to the overall decline in hunter participation.

Elk

History of elk populations and management

Minnesota's native elk once thrived across the state, particularly in southern and northwestern regions. As late as 1841, large herds were still present even in southern Minnesota. By the early 1900s, they were mainly found only in the northwest due to habitat loss and unregulated hunting. In 1893, elk hunting was completely banned. Efforts to re-establish elk began in 1913 with an appropriation by the Minnesota Legislature. Elk were obtained from Jackson, Wyoming and a captive herd of descendants from wild Wyoming elk were held in an enclosure in Itasca State Park. A first attempt to create a free-ranging herd in the Superior National Forest was unsuccessful, but in 1935 elk from the Itasca State Park herd were introduced in northwest Beltrami County forming what is now called the Grygla herd. Elk were first noted in Kittson and Roseau counties in the early 1980s and are thought to have originated, in part, from elk migrating from Manitoba. However, elk from the Grygla herd may have also contributed to the population. There are currently three herds of elk in northwest Minnesota: the Grygla, Kittson Central, and Caribou-Vita herds.

In 1939, the first instance of elk damaging crops was documented, leading to illegal hunting that hampered population growth. The population fell to about 50 by 1950, as the elk moved southwest due to habitat succession. In the 1970s, elk damage to crops continued, prompting the DNR to create an elk management plan in 1976. The plan addressed crop depredation and set goals for state lands but included no additional funding for habitat maintenance.

In the late 1980s, legislative actions allowed for elk hunting and compensation to farmers who experienced crop damage. The first elk hunting season since 1893 was held in 1987.

Issues with crop damage resurfaced in Beltrami and Kittson counties, leading to the opening of the Kittson Central elk hunting season in 2008 and the Caribou-Vita season in 2012. Hunters play a key role in managing elk populations, and hunting seasons have been regulated based on population sizes and other factors as currently required in law. While the Grygla population has not been hunted since 2012, Tribal hunting has taken place since 2022 within ceded territory boundaries (which encompasses the ranges of all three northwest herds) and is not restricted to specific zones.

Current elk management

Minnesota's approach to elk management is outlined in the [Interim Strategic Management Plan for Elk](#) (2016-2019). In brief, the long-term vision is to enhance the size and range extent of Minnesota's elk population and provide increased recreational opportunities, while maintaining positive coexistence with private landowners. Objectives to support that vision include managing for elk population goals established through public engagement, cooperative work with landowners and producers to minimize property damage, and management to maintain and improve elk habitat on public lands.

In Minnesota, elk populations are managed through hunting zones that correspond to the three main herds: Grygla, Kittson Central, and Caribou-Vita. The elk population is kept deliberately low to avoid conflicts with local communities. These historic conflicts have resulted in statutory obligations that included efforts to relocate animals out of northwestern Minnesota (1985), compensation for crop damage (1987), hunting at low population levels (1987), and restrictions on overall population size (2017).

Elk distribution is monitored year-round through ground surveys and reports from landowners. Since the mid-1990s, aerial surveys have been conducted annually to estimate elk numbers in the northwest region. These surveys aim to track population changes, observe where elk are located, assess male-to-female ratios, and determine hunting quotas for future seasons. Because these populations are small and mobile, the DNR uses minimum counts rather than complex estimates to track long-term trends.

Since 2013, the minimum count for the Grygla herd has been relatively steady in the 15-29 head range. During the same time frame, the Kittson-Central herd has grown from 32 in 2013 to a high of 102 in 2020, dropping off slightly the last few years. Counts for the Caribou-Vita herd are more difficult to obtain, since the herd migrates between Minnesota and Manitoba. That herd ranged in size from 133 to 227 in the past 8 years.

In Minnesota, there are only a few elk hunting licenses available compared to other states. According to Minnesota law, elk hunting is a once-in-a-lifetime chance for Minnesota resident hunters. People must apply through a lottery to purchase a tag. Twenty percent of tags are awarded to those who have applied for 10 years or more and up to 20% of tags go to landowners or tenants of at least 160 acres of agricultural or grazing land. In 2024, there were 4,302 applicants for just 10 hunting licenses. Two of these 10 were reserved for those who had applied for 10 years and two were set aside for landowners.

Elk hunters in Minnesota are generally successful. The success rate for the Kittson Central herd has been between 54% and 85% during the past 10 years. Hunters in the Caribou-Vita herd almost always fill their tags. The Grygla herd has not been hunted since 2012. A summary of elk harvest by year is available in [Appendix D](#).

A variety of habitat management efforts in the elk range are implemented to improve habitat and attract elk to non-agricultural land. Within both the Grygla area and Kittson County elk ranges, additional active management including food plots, rotational cattle grazing, and timber harvest has been ongoing to encourage elk to use state land rather than adjoining private lands. The success of establishing food plots in this area of the state has been mixed because fields are often too wet to plant and yields are often low.

Elk management challenges

As with deer, the best way to reduce populations is to focus harvest pressure on female (cow) elk. However, most landowners prefer to hunt male (bull) elk and most decline cow tags when offered. In the past decade, only three of 32 landowners used their tags to harvest cows.

Elk often gather in herds instead of dispersing across the landscape. When the herds stay on private land where hunters do not have permission to hunt, they are difficult for hunters to find. Many landowners deny access due to concerns about liability. Currently, landowners providing access to their lands owe no duty of care to those accessing their land except to refrain from willfully taking action to cause harm (Minn. Stat. 604A.22). This concern regarding liability often limits opportunities for hunters to harvest elk and contributes to population control challenges.

The DNR has used food plots to lure elk away from private crops, but studies show elk prefer unmanaged areas over food plots. Recent efforts have focused on improving food plot designs with diverse plants that ripen throughout the year. A new study in 2025 will further assess whether food plots can be a useful tool to reduce elk damage.

As mentioned above, the DNR conducts aerial surveys each winter to estimate elk numbers in Minnesota's three herds. These counts provide a minimum population estimate, but elk can be hard to track due to their wide-ranging movements. Some elk may live outside the surveyed areas, leading landowners to question whether the DNR is underestimating the total population. Winter counts also don't reflect seasonal changes in elk locations, meaning the survey may not accurately represent the population during crop-growing months.

Elk restoration project for Northeast Minnesota

With legislative support, the DNR is working with the Fond du Lac Band of Lake Superior Chippewa to bring wild elk back to the Fond du Lac Reservation and nearby areas in northeast Minnesota. In 2023, the Legislature provided \$2.3 million to help expand the state's elk population, including moving elk from existing herds in northwest Minnesota to the Fond du Lac area ([Minnesota Laws of 2023, Chapter 60](#)).

A 2019 study showed that northeast Minnesota has enough suitable habitat and public support for the project, with a lower risk of conflicts between people and elk. The proposal is to move 100-150 elk from the northwest over time, with 10-20 elk relocated each year starting in 2026.

The Fond du Lac Band and the DNR will likely manage the elk differently based on land ownership. The Band will manage Tribal lands while the DNR will oversee elk on non-Tribal lands. In addition to the Fond du Lac Band, the Bois Forte and Grand Portage Bands retain treaty hunting rights in the 1854 ceded territory.

The project includes developing post-release management plans to handle issues like elk wandering outside the release zone, car collisions, and crop damage. Discussions with local communities, landowners, and Tribal nations are ongoing to address concerns and gain support.

An elk coordination team made up of Tribal staff, state and federal agencies, and conservation groups is leading the restoration efforts. They are also working on ways to prevent elk-related damage, such as proactive protection of crops using fencing on private lands.

Current Strategies for Mitigating Cervidae Depredation

Mitigation strategies can be divided into two categories, compensation and abatement. Unlike other states, in Minnesota, these duties are handled by two separate agencies. Compensation is available only for crop and fence damage by elk (not deer) and is managed by the MDA. Abatement in the form of technical advice and funding for fencing or deterrent measures is available for multiple wildlife species and is managed by the DNR. [Appendix E](#) includes a summary of the support DNR and MDA provide for elk damage.

Compensation for Elk Depredation

Minnesota

The MDA provides compensation for damage done by elk through a claims process. The number of crop damage claims submitted, and the amount paid out annually has increased over the last 10 years (Figure 2). Although claims related to the Grygla herd are not common, claims are submitted for the Caribou-Vita and Kittson Central herds every year. Over the last five years, MDA has also received claims for damage outside of areas normally associated with these herds (Table 4). Most of the damage is to standing crops, although in some years the amount of damage to stored forage is also substantial. Damage to fences is typically a small part of the damage paid out each year (Table 5). The amount a producer can receive annually is capped at \$20,000 a year. However, during the past 5 years it has been common to receive claims that exceed this cap. Over the last 5 years, the claims have been so high that producers have not been compensated for a total of \$189,041 in damages because they exceeded the yearly cap (Table 6).

Figure 2. Number of crop damage claims paid, and total paid out annually, for elk from fiscal year 2004 through 2024.
(Data available in [Appendix F](#))

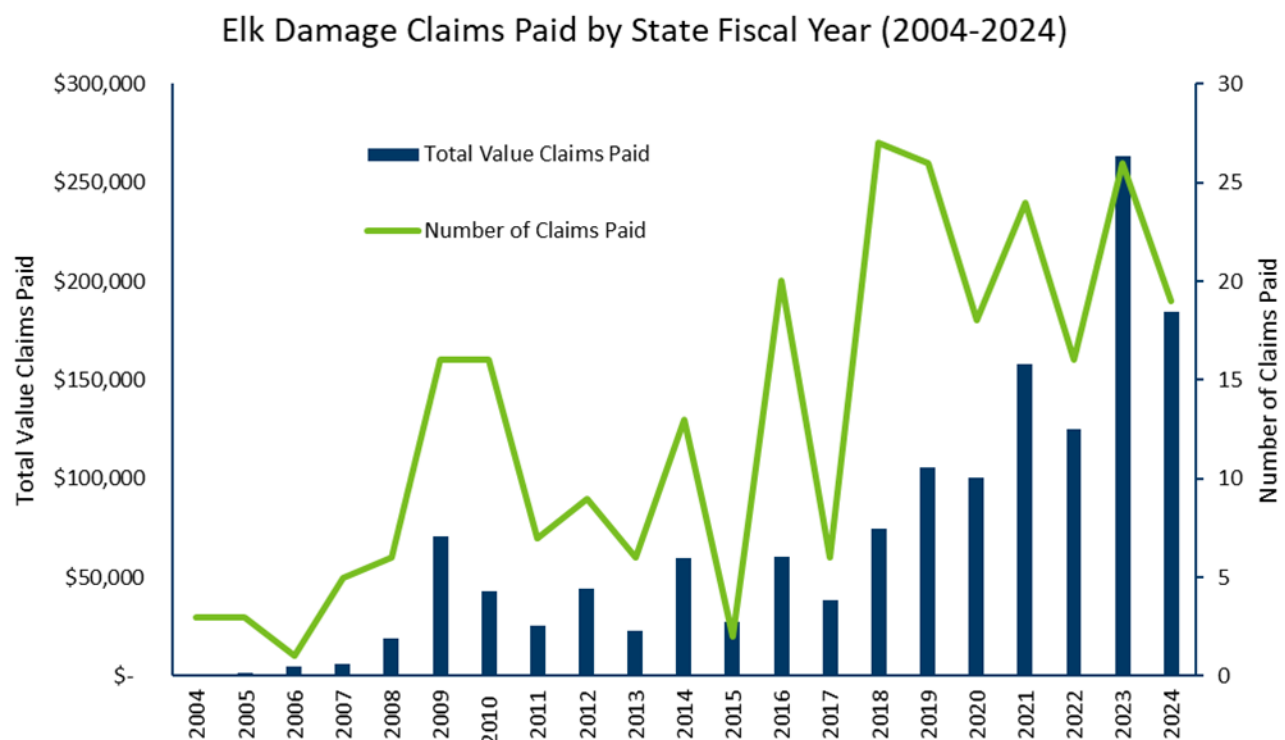


Table 1. Amount paid out in crop/fence damage claims by year and herd from fiscal year 2020 through 2024.

Herd	2020	2021	2022	2023	2024
Caribou-Vita	\$25,677	\$15,512	\$26,335	\$111,630	\$72,213
Grygla	\$0	\$2,214	\$0	\$0	\$0
Kittson Central	\$60,779	\$140,245	\$98,665	\$131,968	\$92,111
Unaffiliated	\$14,272	\$0	\$0	\$20,000	\$20,000

Table 2. Amount paid in crop/fence damage claims annually by type of damage for fiscal years 2020-2024.

Damage Type	2020	2021	2022	2023	2024
Fence	\$9,627	\$5,388	\$2,958	\$16,062	\$10,382
Standing Crop	\$75,751	\$114,507	\$98,384	\$165,456	\$173,941
Stored Forage	\$15,350	\$38,077	\$23,658	\$82,081	\$0

Table 3. Amount unpaid from crop damage claims annually (total amount over \$20,000 cap) from fiscal year 2020-2024.

2020	2021	2022	2023	2024
\$11,954	\$22,125	\$29,911	\$71,839	\$53,212

In Minnesota, assessment of damage is done by third party “approved agents” who are authorized by the MDA based on their experience with crop insurance adjusting and knowledge of elk damage. The “approved agent” designation was adopted in Minnesota in 2017. Prior to 2017, elk crop damage assessment was done by local University of Minnesota Extension staff. However, due to staffing changes in 2016, University Extension was no longer able to provide this service. In 2017, the MDA identified several crop insurance adjusters who were interested in processing elk crop damage claims. The USDA’s Animal and Plant Health Inspection Service, (APHIS) Wildlife Services trained those crop insurance adjusters on recognizing elk damage and assessment techniques for related crop damage. At this time, the term “approved agent” was included in state statutes for compensation of elk crop/fence damage claims and MDA was given authority to pay approved agents for this service. The MDA only accepts elk crop damage claims from an approved agent.

Producers must initiate claims by contacting an approved agent. The approved agent evaluates the damage, determines whether elk were the cause and assesses the amount of the financial loss. The agent then submits the claim to the MDA who verifies that it meets all requirements before they make a payment to the producer. Only damage to agricultural crops and fences surrounding crops or pastures may be compensated in Minnesota. Compensation is limited to \$20,000 per fiscal year per owner, and no more than \$1,800 can be for compensation for fence damage. Overall, it can be very difficult to capture changing levels of damage based on the documentation provided by approved agents and the time between when the loss was discovered and when a claim is submitted, which is, on average, 3 months.

The Legislature has appropriated funds for elk damage claims for many years. When the approved agent framework was adopted in 2017, the amount of the biennial appropriation increased from \$125,000 to \$155,000 per year, with up to \$30,000 designated for paying approved agents. Over time, the cost of paying approved agents for their time has been much less than that amount; and for the FY24-25 biennium, the amount designated for compensating approved agents was reduced to \$10,000 per year.

Since the FY22-23 biennium, the appropriation also permitted the MDA to use up to \$40,000 to make grants to producers to protect stored forage from elk damage. To date no producers have applied for a grant. If any grant dollars had been awarded to protect stored forage, it would have exacerbated the shortage of funds available to pay damage claims as all funds come from the same \$155,000 appropriation.

In addition to elk damage claims, the MDA also has statutory authority to compensate for wolf depredation of livestock. This is a separate appropriation from the elk crop damage compensation appropriation. For the last several biennia the amount appropriated to the MDA for wolf depredation compensation has been \$175,000. This is relevant because the appropriation language for both the elk and wolf damage compensation funds authorizes the MDA to transfer funds between the two programs as needed to pay claims. Hence, the two programs are financially linked. In some years, dollars have been transferred from the wolf appropriation to help pay elk damage claims. More recently, dollars have been transferred from the wolf appropriation to help pay the higher elk damage claims.

Other states

Reintroduced elk herds are present in 11 states east of the Great Plains: Minnesota, Missouri, Arkansas, Wisconsin, Michigan, Tennessee, Pennsylvania, North Carolina, Kentucky, Virginia, and West Virginia. Except for Wisconsin and Minnesota, none of these states compensate producers for crop damages from elk. The opposite

is true for states west of the Great Plains where most states do compensate producers for crop damages from elk.

Nearly all states with elk herds have some kind of abatement program to help farmers implement tactics to reduce crop damages. The level of assistance varies among states from technical advice to purchasing materials to mitigate crop losses.

In all states, abatement measures for mitigating elk crop damage are managed by the natural resources department or its equivalent. Likewise, in nearly all states where crop damage compensation is available, that program is also managed by the natural resources department, and the two functions are connected, with some type of abatement often required to receive compensation. The lone exception is Minnesota where compensation is managed by the MDA and there is no formal connection to abatement, which is managed by the DNR. To our knowledge, Minnesota is the only state where the Department of Agriculture has any role related to elk crop damage.

Wisconsin

Wisconsin is the only other eastern state that compensates elk crop damage, it is worthwhile to compare the Minnesota and Wisconsin crop damage programs. In Wisconsin, crop damage compensation is available for many species including elk and deer. The program is managed by the Wisconsin Department of Natural Resources and is funded by a portion of deer hunting license sales instead of through legislative appropriation like it is in Minnesota. For most of the state, damage assessment is done by staff from USDA APHIS Wildlife Services and their time is compensated by the Wisconsin DNR. However, each county in Wisconsin has the authority to decide how crop damage assessment is conducted, and some counties choose to perform this work themselves. When crop damage occurs, the Wisconsin DNR works with producers to look for abatement opportunities. Producers must participate in state-funded abatement measures to be eligible for compensation.

Abatement Programs for Wildlife Including Deer and Elk

Seasonal deer hunting

In Minnesota, deer hunting seasons extend from mid-September to the end of December in Minnesota and include archery and various firearms seasons. Incentivizing harvest, particularly antlerless harvest, is the primary tool to reduce deer populations. The DNR has a variety of options to increase hunting pressure on deer populations where needed, including additional antlerless permits that allow hunters to take more than one deer in a deer permit area, free licenses for landowners who have at least 80 acres in agricultural production (Minn. Stat. 97A.441), and early antlerless seasons that provide additional opportunities to harvest deer where needed. Although most deer hunters only take one deer each season, some deer permit areas have regulations that enable hunters to take up to nine deer (one deer of either sex; the rest must be antlerless except for CWD management zones where three bucks may be taken) in a single year. A very small percentage of hunters will take three or more deer. The venison donation program, funded by a portion of antlerless permit revenues, was established in 2007 by the Legislature to provide an additional outlet for hunter harvested deer while also helping to reduce deer populations.

New legislation enabling the use of crossbows by individuals who have an archery license (Minn. Stat. 97B.037) may also increase hunter success and participation during the 3-month archery season and could be an effective means to reduce deer populations.

Seasonal elk hunting

The Minnesota elk hunting season occurs in late September. It is open to Minnesota residents through lottery only. The number of licenses available for each zone is determined by the current population estimates for the year, which are based on a minimum count of individuals observed. In 2024, only 10 state licenses were issued by the DNR, and the Red Lake Nation issued 30 Tribal hunting permits for a maximum Tribal harvest of 10 elk. Given the small populations and number of licenses available, hunting is only one aspect of the elk management strategy.

Wildlife Damage Program: crop protection assistance and non-lethal mitigation

DNR staff work with agricultural producers to recommend management tools to reduce crop damage by deer and elk. In most cases, the most effective strategy is exclusion (i.e., a 10-foot woven wire fence or heavy-duty corral panels) coupled with population management. Farmers who sign a Cooperative Damage Management Agreement (CDMA) are eligible to receive crop protection materials from the DNR. DNR staff can provide technical assistance by creating a fence diagram and materials list, ordering materials, lending specialty installation tools and providing instruction on how to erect the fence. They also help with design of custom-built heavy-duty corral panels or wind break panels that will exclude elk. Recent legislation also added deer and elk to the statute (Minn. statute 97B.668) enabling landowners to scare or haze animals causing damage to agricultural crops. Short-term management tools such as sound or visual deterrents and taste or smell repellents, (such as bloodmeal), while legal and encouraged for short term depredation issues, are often ineffective for reducing deer and elk damage over the long term.

Typically, agricultural fields are too large to deploy exclusion strategies cost-effectively. To minimize damage to row crops in Minnesota, techniques including hunter recruitment and antlerless deer, and elk permits are used to decrease numbers where they are causing damage. Area wildlife staff often recommend a hunt management plan as a component of the CDMA. Landowner support for hunting is an important aspect of damage management. At a minimum, hunting activity in an area helps to keep deer and elk wild and wary of human interaction. Regarding elk hunting, small hunter numbers and limited seasons can make this a relatively inefficient tool for landowners to implement on their own property.

Removal Permits in Response to Damage (Minn. Stat. 97A.401) and Depredation Deer Antlerless Permits

Since 2015, the DNR has offered free (subject to a \$1 license processing fee) depredation deer antlerless permits (DDAPs) during the hunting season for properties with ongoing issues. These permits let hunters take more antlerless deer during regular hunting seasons on those properties. If farmers suffer financial losses from deer damage even after using regular hunting seasons, the DNR can provide free removal permits to shoot deer outside of the hunting seasons. This also applies to those who have stored feed or specialty crop damage. However, shooting permits are a last resort when other non-lethal methods fail or cannot be utilized effectively.

Removal permits to take deer outside of hunting seasons can be effective in reducing damage, particularly when used at the time that damage occurs. The addition of in-season Depredation Deer Antlerless Permits (DDAPs) enables agricultural producers to take more antlerless deer when the regular hunting season regulations and out-of-season removal permits are inadequate to meet CDMA hunt management goals. Hunters using both removal permits and DDAP can remove large numbers of deer from their property; DDAP are provided on a per farm basis for removal of up to 45 antlerless deer during the hunting season in all deer permit areas that allow at least some level of antlerless deer harvest. DDAP are not provided in areas with “bucks only” regulations. Removal permits outside of hunting seasons allow landowners with agricultural damage to temporarily reduce damage until long-term abatement measures can be implemented, and landowners who meet damage removal conditions receive these permits for free under a CDMA. In-season DDAPs are also free for eligible landowners, but there may be a \$1 agent fee to issue the permits.

Although removal permits are currently used for deer mitigation, they have not been issued for elk since 2009 due to the small size of the herds and associated population concerns.

Alternative agricultural practices

As an alternative to exclusionary materials, double stacking round bales of straw around hay or baleage can help protect forage. Consolidation of forage bales, versus distribution throughout a field, also limits easy access by deer and elk. Consolidating bales can also limit the cost of fencing to protect stored forage.

Research on elk herds in northwestern Minnesota indicated that elk have preferences for different types of crops, likely related to the nutritional value they provide (Hinton et al., 2020). When possible, producers can adjust planting locations for crops so that those that are most preferred are grown farther away from the elk ranges.

The USDA Natural Resources Conservation Service (NRCS) offers programs that can provide financial and technical assistance for fencing and/or vegetation options that will help prevent damage by deer and elk. Some of these programs are competitive and availability varies from county to county.

Challenges with Current Strategies and Recommendations from Stakeholders and Staff

Meetings with agricultural stakeholders were held at the MDA headquarters in St. Paul, and a virtual meeting for Tribal Nations was also held in fall of 2024. During these meetings, staff from the MDA and DNR gave an overview of current programs for elk damage compensation and wildlife abatement programs. They also discussed some of the challenges with the current programs, heard how farmers are utilizing programs, and elicited suggestions from stakeholders about how current programs can be improved. In addition, three groups (NRCS, MN State Cattlemen's Association, and MN Farm Bureau Federation) provided written feedback. The recommendations include both policy and financial considerations.

Elk Damage Compensation Program

Challenge – Lack of consistent claim evaluators:

The Minnesota Elk Crop Damage Compensation Program is underfunded. There are no dollars appropriated for program operation and staffing is limited. Current MDA program staff do not have crop damage abatement or appraisal experience and cannot provide this service. When the approved agent model was first initiated, there were several qualified individuals available for assessment of claims. However, over time that number has declined and currently there is only one approved agent available for assessing elk damage claims. The MDA has struggled to find additional individuals interested in providing this service and there are no approved agents available for assessing damage outside of northwest Minnesota. When claims are filed for elk outside of northwestern Minnesota or when the Fond du Lac herd is established, there may not be any approved agents available to assess those claims. If we lose interest from our last approved agent in northwest Minnesota, we will not be able to evaluate claims at all. The difficulty in finding and maintaining qualified individuals to act as approved agents is the top issue threatening elk crop/fence damage compensation in Minnesota. To maintain crop damage compensation, reliable infrastructure for claim evaluation is needed.

- Recommendation: USDA APHIS Wildlife Services evaluates elk crop damage claims in Wisconsin and can do so in Minnesota. If the MDA had dollars appropriated to fund a cooperative agreement with Wildlife Services to evaluate elk crop damage claims, the issue of having a reliable resource available for claim evaluation would be resolved for the entire state. Having approved agents who provide the service as a primary part of their jobs would result in more timely response for claim evaluations and make that service available statewide.

Challenge – Lack of an abatement requirement for compensation:

Minnesota is the only state where compensation and abatement for elk damage are not managed by the same agency and where implementing available abatement opportunities is not a prerequisite for receiving compensation. While there are limited ways to prevent elk damage to crops in the field, there are options to protect stored feed that should be implemented when state funds are available to help.

- Recommendation: While it is practical for compensation and abatement to be split between the MDA and the DNR respectively, the state should consider requiring abatement measures for a producer to receive compensation for damage when state funds are available to pay for it. This is another instance where partnering with USDA Wildlife Services could be useful; their staff have expertise in preventing wildlife damage and could partner with both the DNR and producers to identify and implement abatement opportunities. This would be a natural fit for USDA Wildlife Services, along with acting as the approved agent to evaluate crop damage claims. Successfully employing abatement techniques will likely reduce the total compensation payments by the MDA.

Challenge – Insufficient funding:

Compensation claims have exceeded the amounts appropriated for three of the past four fiscal years. Given recent trends in existing elk herd areas and the pending establishment of a new elk herd, it is reasonable to assume that the numbers and total value of elk crop/fence damage claims for Minnesota will continue to increase. For FY24, the appropriations to pay both elk and wolf damage claims were depleted in May 2024. For FY25, the appropriations are both depleted as of January 2025. If funding to pay claims isn't increased the program will likely continue to exhaust funds to pay crop damage claims earlier and earlier each fiscal year. Moreover, the impact on payment for wolf depredation claims will also continue to increase as more funds are pulled from that program to pay elk damage compensation claims.

Claim amounts have been high for both the elk and wolf compensation programs in recent years, but prior to that we had several years where wolf claims were relatively low and not all appropriated dollars were spent. Those unspent dollars expired with the end of those biennium instead of being available to be used in subsequent years where claim amounts were greater.

- Recommendation: Increase funding for the elk damage compensation program. Without an increased appropriation it is likely that the delay to make claim payments to affected producers will increase with each fiscal year as the appropriation is depleted earlier and earlier each year. Moreover, promoting and facilitating abatement opportunities where available will also require additional dollars in the near-term to reduce claim expenditures in the long-term.
- Recommendation: General Fund appropriations for elk crop damage claims and wolf depredation claims should be transferred into an agricultural fund that does not expire at the end of the biennium. This transfer will provide the opportunity to carry over dollars from one biennium to the next if we have one or more years where losses are lighter than normal in either the elk or wolf programs. Carrying over dollars, when possible, would provide some cushion for years in which heavier than normal losses occur or provide additional funding for abatement measures.
- Stakeholder Input: Many stakeholders mentioned the need for increased funding for elk depredation payments and raising the annual limits for both crop and fence damage. They are concerned that the new herd near the Fond du Lac Reservation will result in more claims by farmers. Also, as claim amounts increasingly exceed the \$20,000 limit, stakeholders suggested increasing the claim limit. To provide some certainty for the availability of the elk damage compensation program, it should be included as a base funding item that does not require a specific appropriation from the Legislature every 2 years. As claim numbers increase and as the elk herd expands to the east side of the state, there is need for increased funding to train and compensate approved agents so these claims can be processed in a timely manner.

Challenge – Lack of compensation for damage done by deer:

The cost of feed and stockpiled forage consumed by deer is a hardship for livestock farmers who rely on these feedstuffs for their livestock. This is an issue particularly during times of drought when feed is less abundant and cost to purchase feed increases as it did in 2021.

- Stakeholder Input: Expand the compensation program to cover the costs associated with replacing livestock feed consumed by deer.

Exclusionary/deterrent materials (Minn. Stat. 97A.028)

Challenge – Increasing cost of fencing and other barriers:

Using physical barriers is an effective way to reduce the damage deer and elk can do to crops and stored feed. Woven wire fences, corral panels, and hay shed siding are proven solutions, but some materials have become expensive. Short-term options, like silage covers, also help but need frequent replacement. Less expensive tools, such as electric fences, sound devices, inflatable tube people, and repellents, can reduce damage but are often temporary solutions. Many landowners don't take full advantage of long-term prevention tools in part because the \$5,000 limit on materials hasn't kept up with rising costs, making it more expensive for landowners to protect their stored feed and crops.

- Recommendation: Increase the amount of financial support provided in emergency deterrent materials crop protection assistance (Minn. Stat. 97A.028) to better assist producers seeking preventative measures to control destruction of agricultural crops. The current materials assistance values, capped at \$5,000, have been in place since 2011 and have not been adjusted as the cost of materials has increased. Increasing the value of deterrent materials assistance available will help producers identify projects they can afford and successfully implement to proactively reduce damage.
- Stakeholder Input: The current limit of \$5,000 in materials is not sufficient to prevent damage caused by deer. Given the substantial increases in fencing and materials costs over the past few years and the large areas farmers need to protect, producers need more support from the materials assistance program. Fencing assistance should be increased to at least \$10,000.

Challenge – Requirements for permanent fencing:

The statutory requirement that fencing materials must provide long-term protection on specialty crop farms may be a barrier to use this tool because farmers who rent, cannot install these barriers. Farmers who have suffered losses have also expressed a need for greater flexibility for barriers in their operations (e.g., concern about being tied to one location in which to store forage). It is not always feasible to store forage in the same area of the farm year after year.

- Recommendation: Eliminate the requirement for long-term protection of fencing materials. Invest in a supply of temporary and movable barriers that can be deployed in on short notice in response to new depredation complaints.

Challenge – CDMA requirements for abatement materials:

A CDMA is required for farmers to receive financial assistance for fencing. Often, a hunt-management plan is a part of that agreement and requires that landowners allow hunters on their property. Landowner reluctance to enter CDMA's has resulted in limited use of proactive measures to address deer and elk damage.

- Recommendation: Reiterate that individuals participating in a CDMA can be selective about who accesses their land and that landowners who give written or verbal permission to access their property for recreational purposes are protected from liability claims (Minn. Stat. 604A.23). Consider waiving the hunt-management requirement for CDMA's when landowners are not comfortable with people hunting on their farm.

Hunting Seasons – Elk

Challenge – Access to hunting land:

Minnesota elk hunters experience relatively high success rates, particularly during early seasons (range 50-100% during the last 5 years; [Appendix A](#)). Landowner licensee success rates have ranged from 88% to 100% annually during the same time frame. However, hunting access for non-landowners is still a barrier to success for many elk license recipients. Hunters need to be able to access the land where elk congregate.

- Recommendation: Although state law provides some protection for landowners from being responsible for harm caused to people conducting recreational activities on their land, landowners are concerned that the statute doesn't do enough to protect them from litigation. Landowners concerned about litigation should consider requiring that hunters accessing their land carry an insurance policy naming the landowner as additional insured to protect against damage and liability.

Challenge – Hunter preference for bull elk:

Many hunters prefer to take a bull over a cow, but this does not help manage populations in the long-term.

- Recommendation: Award antlerless-only licenses through the landowner lottery. Landowners preferring to hunt bull elk would still have the opportunity to enter the general lottery.

Hunting Seasons – Deer

Challenge – Hunter numbers and preference for bucks:

Hunter preferences for taking a buck instead of a doe is reducing the effectiveness of hunting as a tool for population management.

- Recommendation: New regulatory options that are supported by hunters and help meet deer population management goals (e.g., allowing hunters to harvest a second buck if they harvest an antlerless deer, considering adjustments in season length or timing) should be considered and tested. A collaborative research project with the University of Wisconsin-Madison and several other Midwest states exploring the effect of various harvest regulations on realized antlerless deer harvest is nearing completion. The results of this research should shed light on which types of antlerless deer regulations produce the greatest effects on deer harvest.

- Stakeholder Input: Allow hunters to use removal permits both inside and outside of the regular hunting season rather than requiring hunters to shift between out-of-season removal permits and in-season DDAPs to address depredation problems.
- Stakeholder Input: Crop and feed depredation is concentrated in certain areas of the state and not a problem in others. Numerous producers have recommended different types of targeted herd reduction strategies in problem areas. These could be special hunts coordinated and monitored by the DNR. Other suggested strategies for herd reduction include baiting and sharpshooting, and nocturnal hunts with night-vision equipment.

Challenge – Changing landowner demographics:

Landowners with at least 80 acres of agricultural land are currently allowed one free landowner hunting license to take an antlerless deer during hunting seasons. Properties that have multiple owners are only eligible for one free license. The landowner license is underutilized in some areas where deer management goals would be better met by landowners taking more deer. Smaller acreage producers are not currently eligible for these licenses and could help meet these deer management goals.

- Recommendation: Increase the availability of free landowner antlerless deer licenses (Minn. Stat. 97A.441, Subd. 7) to reflect modern agricultural land ownership and enable the harvest of more deer. Update license eligibility to include owners of smaller farms (20–79-acres) and allow more free licenses for larger properties.
- Stakeholder Input: The current rules allow for owners or tenants of 80 acres or more to receive one free antlerless license. This should be expanded to people farming smaller tracts of land when owners or tenants are facing depredation issues. In problem areas the number of antlerless deer licenses available without fee should also be increased. Since hunting season is often a busy time for farmers, it would be helpful if they could transfer these licenses to any licensed hunter of their choosing. Under current law (Minn. Stat. 97A.441), the landowner holding the license may only transfer it to a spouse or dependent.

Challenge – Venison donation program implementation and capacity:

Processors have noted that testing requirements in CWD management zones often restrict the ability to move a carcass to a processor until after test results are received. Many processors have also moved away from accepting whole carcasses to only trim, for various reasons such as staffing, costs for carcass waste removal, and access to freezer or cold storage space. The MDA has also heard from hunters that they have a difficulty in finding a processor near where they harvest the deer or within the management area they are hunting.

- Recommendation: MDA has already implemented numerous programs to address the shortage in meat processing capacity, including the Meat Education and Training program, the Meat Education Train and Retrain grant, and the AGRI Value-Added Grant. Encourage processors to use these programs and provide extra application points to processors who participate in the Venison Donation Program.

Challenge – License and tag fees:

Most areas with agricultural damage from deer allow three deer per hunter during the regular season. Hunters must purchase a license, which includes one tag, for \$34 and additional tags at \$18 each. Filling a 3-deer bag limit during the regular firearms season can be expensive for hunters who do not have a use for additional venison and are not highly motivated to take additional deer. While the existing early antlerless season provides

an opportunity to take up to three more antlerless deer with discounted permits (\$8.50 each) during a 4-day period in October. However, many Minnesota farmers are harvesting crops during this time find it difficult to use this early option.

- Recommendation: Offer a low-cost damage management permit to be used during any of the open seasons in permit areas where DNR has determined that regular season harvest is inadequate. This may remove cost barriers for antlerless harvest and encourage more hunters to take advantage of the venison donation program. In addition, implementing this strategy would eliminate the early antlerless permit program since the two would be redundant. Low-cost damage permits could be implemented under existing DNR authority using the Permanent Rule process or the Good Cause Exempt Permanent Rule Process.

Outreach and Education

Challenge – Informing farmers about mitigation opportunities:

Agricultural producers do not know about the deer depredation programs they can use on their farms/ranches or are confused by the information they receive.

- Recommendation: Improve information and outreach to producers about DNR programs. The DNR has created a one-page flyer for farmers and ranchers that includes abatement program information ([Appendix G](#)). DNR must continue to strengthen its work with agricultural stakeholders to identify opportunities to more effectively distribute this information. It is also crucial that all DNR staff, including regional wildlife personnel, deliver consistent information about these depredation programs and the technical and financial assistance available to farmers and ranchers. Current reliance on area wildlife staff to support the program can result in inefficiencies due to the depth of knowledge required to address the range of depredation circumstances that arise, as well as the time available to dedicate to damage mitigation versus other work responsibilities.

Wildlife Damage Program Capacity

Challenge – Increasing number of depredation claims:

Wildlife damage complaints in Minnesota have more than doubled, from 829 per year in the late 1990s to over 2,200 recently. Meanwhile, the DNR's wildlife damage program has only three full-time staff and rising supply costs make it harder for them to assist farmers. Local DNR staff who handle most complaints also have other duties, causing delays. Elk damage outside northwestern Minnesota adds challenges, as staff in those areas may lack experience with elk-specific solutions.

- Recommendation: Increase damage program capacity and assign staff in each region of the state to respond to wildlife complaints. Currently, there are no dedicated or specifically appropriated funds for staff or abatement materials to producers. This has created a situation in which damage program staffing is limited and funding for mitigation activities is inconsistent across years, influenced by other wildlife management needs that also rely on hunting license revenues. Limited funds and staffing have led to backlogs in technical and materials assistance.

Challenge – Outdated technology:

The technology that DNR uses for submission and tracking of wildlife complaints, issuing cooperative damage management permits, tracking materials assistance projects, and permitting animal removal is outdated and, for some activities, no longer functional.

- Recommendation: Create funding to build a Cooperative Wildlife Damage Management application in coordination with MNIT. This system could serve as a one-stop shop to track all wildlife complaints, material assistance projects and needs, provision of removal permits, implementation of hunt management plans issue CDMAAs, and report on projects.

Appendices

Appendix A

Table 4. General frameworks for Minnesota’s firearms deer seasons, 1858-2024. Note: The season was closed every other year from 1923 to 1931, and again in 1935, 1939, 1941, 1950 and 1971. Limits do not include additional deer that can be taken with landowner licenses, during the early antlerless season, or with disease management permits.

Years	Length	Opening Date(s)	Limit
1858-63	5 months	Sept. 1	None
1865-73	5 months	Aug. 1	None
1874-86	2.5 months	Oct. 1	None
1887-92	1 months	Nov. 1	None
1893-94	19 days	Nov. 1	None
1895-96	20 days	Nov. 1	5/License
1897-98	22 days	Oct. 25	5/License
1899-1900	21 days	Nov. 1	5/License
1901-04	21 days	Nov. 10	3/License
1905-14	21 days	Nov. 10	2/License
1915-18	21 days	Nov. 10	1/License
1919-20	22 days	Nov. 15	1/License
1921-44	5-11 days	Nov. 10-21	1/License
1945-58	1-9 days	Nov. 8-20	1/License
1959-69	9 days	Nov. 7-13	1/License
1970	2 days	Nov. 14	1/License
1972-1976	5-17 days	Nov. 1	1/License
1977-1984	16 days	Nov. 3-10	1/License
1985-1992	16 days	Nov. 3-9	Up to 2 deer with bonus permit
1993-2024	16 days	Nov. 3-9	Up to 5 deer with bonus or disease management permit

Appendix B

Table 5. Summary of deer hunting and removal permits.

License or permit type	Also called	Authorizing statute	Description	Time of year allowed	Cost
Regular hunting season	Deer hunting licenses and either-sex (AKA “bonus” permits)	Minn. Stat. 97B.301	Licensed hunters may participate annually in 3 different deer hunting seasons that occur during the Fall.	Archery: Saturday nearest Sept 16 – Dec 31; Firearms: 9 or 16-day season beginning Saturday nearest Nov. 6; muzzleloader 16-day season beginning Saturday nearest Nov. 27	Resident adult archery, firearms, muzzleloader licenses = \$34 ea.; Bonus permits for residents are \$18 ea., with additional processing fee
Early Antlerless season	-	Minn. Stat. 97B.301 ; M.R. 6232.1970	A 4-day hunting season traditionally held in late October. Hunters with a valid hunting license may take additional antlerless deer (with their license or other applicable permits) in designated permit areas.	Typically concurrent with the Education Minnesota (MEA) conference that begins the third Thursday of each October.	\$8.50 each, with additional processing fee
Removal permits	-	Minn. Stat. 97A.401, Subd. 5	White-tailed deer shooting permits allow landowners with agricultural damage to temporarily reduce damage until a long-term abatement measure can be implemented. They also allow land administrators or municipalities to reduce localized deer problems in areas where hunting is prohibited.	Outside of the regular hunting seasons. Priority is placed on removal when the damage is occurring.	Free
Depredation Deer Antlerless Permits (DDAPs)	Deer shooting permits	Minn. Stat. 97A.401, Subd. 5	Individuals with CDMAAs who are experiencing severe crop or stored forage depredation that other abatement activities have not effectively mitigated may apply for DDAPs to remove additional deer during the hunting season. A maximum of 15 hunters may be approved to remove up to 3 deer each on the eligible land.	Applications are due by August 15 and October 1. NOTE: The number of permits processed annually has been limited due to technical challenges with integrating this permit into the Electronic License System.	Free, with additional processing fee
Landowner license	In-season permits	Minn. Stat. 97A.441, Subd. 7	This free license allows the taking of 1 additional antlerless deer in either-sex, 2-deer limit, 3-deer limit, and 5-deer limit permit areas. Resident owners, tenants, and nonresident owners of at least 80 acres of agricultural or grazing land.	Landowner licenses are valid during any open deer hunting season. However, the landowner must use the appropriate weapon for that season.	Free, with additional processing fee
Disease management permit	-	Minn. Stat. 97A.441, Subd. 10; MN Rule 6232.1980	Disease management permits are valid for taking antlerless deer in designated permit areas and special hunts; permits may not be purchased without first buying a deer hunting license. Disease management permits are also valid for taking either-sex deer during the CWD late season, during which permits may be purchased without first purchasing a deer hunting license.	Regular hunting seasons.	\$1.50, with additional processing fee

Appendix C

Table 6. Data for Figure 1. Note that for graphing purposes, in the years when there was no hunting season, an average between the previous and subsequent years was used to avoid having a break in the line of the graph. Also, data provided in this table may not exactly match published harvest levels provided over decades in annual deer harvest reports due to differences in how the data were queried and reported.

Year	Total Harvest	Deer Licenses Sold
1918	9,000	23,893
1919	18,300	34,178
1920	18,600	39,116
1921	13,600	28,323
1922	11,200	35,598
1923	0	37,382
1924	15,600	39,165
1925	0	42,050
1926	28,000	44,934
1927	0	50,772
1928	27,300	56,610
1929	0	59,563
1930	27,800	62,515
1931	0	57,526
1932	42,300	52,537
1933	26,200	36,933
1934	39,100	60,820
1935	0	65,849
1936	50,100	70,877
1937	33,600	62,622
1938	44,500	61,568
1939	0	65,429
1940	56,000	69,290
1941	0	85,431
1942	77,000	101,571
1943	67,700	105,482
1944	62,800	96,488
1945	67,100	115,400
1946	93,400	178,797
1947	74,400	160,096
1948	61,600	173,498
1949	49,900	142,629
1950	0	162,154
1951	72,743	181,678

Year	Total Harvest	Deer Licenses Sold
1952	57,334	163,819
1953	61,066	163,477
1954	56,182	169,683
1955	79,214	163,962
1956	69,325	193,855
1957	67,392	180,030
1958	75,403	230,430
1959	104,390	200,102
1960	95,445	233,210
1961	107,490	250,031
1962	96,519	244,166
1963	113,713	257,348
1964	122,780	278,032
1965	127,871	289,918
1966	115,604	285,482
1967	107,598	307,028
1968	103,819	303,658
1969	68,776	253,891
1970	50,453	188,166
1971	1,279	223,082
1972	75,001	257,998
1973	69,035	325,405
1974	67,176	347,646
1975	65,865	360,236
1976	29,767	285,910
1977	48,541	329,862
1978	50,354	348,425
1979	47,196	312,375
1980	72,435	376,757
1981	98,920	424,408
1982	99,007	428,230
1983	139,129	452,745
1984	138,922	460,283
1985	146,203	481,852
1986	137,973	485,503
1987	143,073	486,784
1988	147,894	482,984
1989	139,481	481,684
1990	178,425	482,057

Year	Total Harvest	Deer Licenses Sold
1991	220,200	499,150
1992	240,832	522,437
1993	202,928	516,623
1994	193,826	529,160
1995	215,166	529,556
1996	157,053	508,771
1997	143,327	488,817
1998	158,854	499,878
1999	180,569	516,899
2000	211,777	531,299
2001	217,441	534,862
2002	222,051	499,202
2003	290,525	528,942
2004	260,604	523,090
2005	255,736	520,630
2006	270,778	533,511
2007	260,434	534,463
2008	221,841	601,992
2009	194,178	597,243
2010	207,313	609,511
2011	192,331	617,226
2012	186,634	633,966
2013	172,781	627,184
2014	139,442	598,634
2015	159,343	605,021
2016	173,213	604,404
2017	197,768	595,922
2018	188,706	579,743
2019	183,637	560,338
2020	197,315	590,026
2021	184,698	574,643
2022	172,265	563,215
2023	158,678	556,487

Appendix D

Table 7. Elk harvest by state hunters and Tribal hunters, 1987-2024.

	Grygla (Zone 10) 1987-2012		Kittson Central (Zone 20) 2008-2024		Caribou-Vita (Zone 30) 2012-2024		Red Lake Nation Tribal Harvest
Year	Total Harvest	State Hunter Success Rate	Total Harvest	State Hunter Success Rate	Total Harvest	State Hunter Success Rate	Tribally Harvested Elk
1987	2	50%	NA	NA	NA	NA	NA
1996	8	89%	NA	NA	NA	NA	NA
1997	3	30%	NA	NA	NA	NA	NA
1998	2	50%	NA	NA	NA	NA	NA
2004	3	60%	NA	NA	NA	NA	NA
2005	0	0%	NA	NA	NA	NA	NA
2006	4	50%	NA	NA	NA	NA	NA
2007	6	100%	NA	NA	NA	NA	NA
2008	8	67%	11	100%	NA	NA	NA
2009	14	100%	14	88%	NA	NA	NA
2010	4	57%	4	100%	NA	NA	NA
2011	2	40%	7	88%	NA	NA	NA
2012	1	20%	6	38%	1	50%	NA
2013	NA	NA	10	48%	2	100%	NA
2014	NA	NA	4	57%	2	100%	NA
2015	NA	NA	3	60%	2	100%	NA
2016	NA	NA	3	60%	2	100%	NA
2017	NA	NA	6	75%	4	80%	NA
2018	NA	NA	15	75%	2	100%	NA
2019	NA	NA	14	56%	1	50%	NA
2020	NA	NA	35	83%	2	100%	NA
2021	NA	NA	23	82%	2	100%	NA
2022	NA	NA	15	54%	2	100%	0
2023	NA	NA	6	50%	5	100%	10
2024	NA	NA	3	60%	5	100%	10
Total Elk	57	-	179	-	32	-	-

Notes:

- The Grygla population has not been hunted by state hunters since 2012 as it has been below population goal since that year.
- Red Lake Harvest occurs anywhere within the ceded territory boundary (1863 Old Crossing Treaty) and is not restricted to a specific population.

Appendix E



MNDNR Support for Elk Damage

The state legislature initiated the Wildlife Damage Management Program in 1993 to provide eligible agricultural producers relief from wildlife damage; however, as written this language only allows for support after damage has been incurred and is not available as proactive support. It combines both short and long-term abatement measures that, in combination, provide the best damage reduction at the lowest possible cost. It is funded through the Game and Fish Fund from license fee dollars, not taxes. The available allotment is provided on a one-time per person, per parcel basis.

DNR policy states that a producer may only receive half of their total allotment (\$2,500) in short-term emergency materials with the other half of the allotment reserved for long-term abatement materials. Allotments are provided to qualifying producers who enter into a Cooperative Damage Management Agreement (CDMA). The CDMA outlines what each party will contribute in order to reduce damage. Because each situation is different, CDMA's are customized to provide effective solutions to reduce elk damage.

Available allotments per claimant for elk damage per MN Statute 97A.028*

Elk Damage to Stored Forage, Agricultural Crops, or Pastures	\$5,000
--	---------

*Material assistance based on availability of funds

How to qualify:

1. Be a Commercial producer, producing at least \$1,000 in agricultural products annually.
2. Contact your local Area Wildlife Office.
3. Have damage verified and documented by Area Wildlife Manager.
4. Enter into Cooperative Damage Management Agreement with Area Wildlife Manager.

Emergency materials for elk damage:

The Wildlife Damage Management Program provides short-term material to producers experiencing economic hardship if a long-term solution cannot be immediately implemented. Biosecurity standards prevent the DNR from taking back any emergency material loaned to a producer with the exception of panels and propane cannons (can be sanitized).

- Propane cannons and other audio deterrents
- Visual deterrents (air dancer, lights, etc.)
- Rubber ammo for hazing elk
- Silage covers
- Free standing panels
- Energized fencing
- Plastic fencing (Heavy duty, snow, etc.)
- Geotextile Fabric
- Alternative mitigation measures (utilizing lesser quality bales or corn stalk bales to protect higher quality bales)
- Lightweight corral panels

Long-term solutions for elk damage:

Long-term solutions rely heavily on the input of the landowner. Farming practices, and long-term planning are factors that should be considered in developing a long-term management plan.

- Permanent woven wire fencing
- Free standing panels (heavy duty, windbreak, etc.)
- Statute 97A.028 Subd. 2: Technical Assistance
- Statute 97B.668 Subd. 2: Non-lethal hazing methods

For additional information, contact MNDNR:

Wildlife Damage Management Program
1601 Minnesota Drive, Brainerd MN 56401
(218) 203-4336

Updated November 2024

MDA Support for Elk Damage

The owner of an agricultural crop or pasture may be compensated for damage by wild elk to a crop or a fence surrounding a crop or pasture, as authorized by Minnesota Statute 3.7371. Producers seeking compensation need to follow reporting requirements to be eligible.

Each instance of crop or fence damage:

- must be documented by the owner,
- reported to and verified by an Approved Agent as caused by wild elk,
- and assessed by an Approved Agent to establish the monetary value of the loss.

Approved Agents:

An Approved Agent is an individual designated by the Minnesota Department of Agriculture (MDA) and has the ability to:

- recognize damage to crops and fences from wild elk and distinguish from other types of damage, and
- to accurately determine the monetary value of the loss.

To find contact information for an Approved Agent:

- [MDA Website: www.mda.state.mn.us/business-dev-loans-grants/compensation-crop-damage-caused-elk](http://www.mda.state.mn.us/business-dev-loans-grants/compensation-crop-damage-caused-elk)
- Call MDA program: 651-201-6020
- Email MDA program: mn_mda_elkandwolf@state.mn.us

Owners should contact an Approved Agent when crop/fence damage from wild elk is discovered and remain in contact as directed by the Agent to ensure that the loss can be fully assessed. If evidence of elk is no longer present, or the crop/fence can no longer be assessed, a claim will not be paid. An Approved Agent may direct you to take photos or otherwise help with documenting the damage.

Compensation Limits:

If insurance will cover any portion of a loss, that amount must be reported on the claim form and will be subtracted from the claim payment.

Total compensation for an owner is limited to \$20,000 per Minnesota fiscal year (July 1 – June 30). The total is calculated based on the year in which damage occurred. For example, if damage occurred during June 2024 (FY 2024) and the claim is paid after July 1, 2024 (FY2025), the amount paid will still count towards the 2024 compensation limit.

Submitting a claim:

If you have never received a claim payment from the MDA, you will need to complete and submit a W9 form to the MDA before you can receive a payment.

There are two parts to the claim form, both can be found at the MDA website (address above).

- Part A of the form should be completed by the crop/fence owner.
- Part B of the form should be completed by an Approved Agent.
- Both parts of the form should be submitted to the MDA by an Approved Agent.
- Additional instructions for completing the form are available at the MDA website.

Updated November 2024

Appendix F

Table 8. Elk claims summary FY 1993 to 2023.

Fiscal year	Total elk claims	Number of elk claims
1993	\$–	-
1994	\$9,987	-
1995	\$–	-
1996	\$5,661	-
1997	\$21,425	-
1998	\$–	0
1999	\$1,610	1
2000	\$–	0
2001	\$–	0
2002	\$–	0
2003	\$–	0
2004	\$655	3
2005	\$1,572	3
2006	\$4,682	1
2007	\$6,312	5
2008	\$19,326	6
2009	\$70,501	16
2010	\$43,002	16
2011	\$25,214	7
2012	\$44,021	9
2013	\$22,605	6
2014	\$59,725	13
2015	\$27,318	2
2016	\$60,537	20
2017	\$38,406	6
2018	\$74,629	27
2019	\$105,754	26
2020	\$100,728	18
2021	\$157,972	24
2022	\$125,000	16
2023	\$263,598	26
2024	\$184,324	19

Wildlife Damage Management Program

Material Assistance

Program Purpose: To provide emergency wildlife damage abatement materials to eligible producers or growers and to reduce damage and increase tolerance of wildlife on private lands.

Eligible Projects: All producers or growers must enter in to a cooperative damage management agreement. Short term projects are usually in response to an emergency and include issuing shooting permits, repellent applications, temporary fences or the creation of lure/food plots. Long term projects may include hunt management, fence construction or other abatement materials.

Who May Apply: Producers or growers of stored forage crops, owners of crops damaged by flightless geese, and specialty crop growers, which includes the following crops: fruit, orchards, vegetables, tree farms, nurseries, turf farms, and apiaries.

Priorities: All crop damage projects are considered equally and are handled in the order they are received.

Level of Assistance: Up to \$1500 for damage to stored forage other than silage or grain and \$3000 for stored silage or grain. Up to \$1000 for damage caused by flightless geese. Up to \$5,000 in damage abatement materials per eligible specialty crop grower (landowner, tenant, or parcel). Producer or Growers are responsible for costs above this amount.

General Information: This program was initiated by the State Legislature in 1993 to provide landowners relief from wildlife damage. It combines both short and long-term abatement measures that in combination provide the greatest damage reduction at the lowest possible cost. It is funded through the Game and Fish Fund.

How to Apply: Contact your area wildlife manager:
<https://www.dnr.state.mn.us/areas/wildlife/index.html>

Contact us with questions:

Wildlife Damage Management Program

1601 Minnesota Drive, Brainerd, MN 56401

218-203-4337

**We can help with fencing material
lists and quotes for the MDA
Beginning Farmer Infrastructure
and Equipment Grant!**

Franklin.Whittaker@state.mn.us

https://www.dnr.state.mn.us/livingwith_wildlife/wildlife_damage.html

References

Hinton, JW; Freeman, AE; St.Louis, V; Cornicelli, L; D'Angelo, G. 2020. Habitat Selection by Female Elk During Minnesota's Agricultural Season. The Journal of Wildlife Management. 84(5):957-967. DOI: 10.1002/jwmg.2185

Acknowledgements

This report was written with input from the following organizations:

- Hovel Farms
- Minnesota African Immigrant Farmer Grower Association
- Minnesota Department of Agriculture
- Minnesota Department of Natural Resources
- Minnesota Farm Bureau
- Minnesota Farmers' Market Association
- Minnesota Farmers Union
- Minnesota Soybean Association
- Minnesota State Cattlemen's Association
- University of Minnesota
- USDA NRCS
- USDA-APHIS Wildlife Services