



DeerSave Action Plan

A Plan for Emergency Winter Deer Conservation

**Ontario Federation of
Anglers and Hunters**

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To all of the many OFAH members, other hunters, snowmobilers, naturalists, and families who have responded to past calls for volunteers, we thank you, on behalf of the deer, for your commitment to conservation.

Last, but not least, we acknowledge the valuable assistance and dedication of the many wildlife professionals within the Ontario Ministry of Natural Resources and Forestry for their hard work and dedication to the wise management of our precious resources, especially those who go beyond the call of duty for wildlife.

ONTARIO FEDERATION OF ANGLERS AND HUNTERS

A PLAN FOR EMERGENCY WINTER DEER CONSERVATION

Background

The Ontario Federation of Anglers and Hunters (OFAH) is the province's largest non-government conservation organization. We are a non-profit charitable conservation organization committed to the sustainable use and scientific management of Ontario's fish and wildlife resources and the habitat on which fish and wildlife, and our heritage of angling and hunting, ultimately depend.

The OFAH has 100,000 individual members, supporters, and subscribers, and 710 member conservation clubs across Ontario. The OFAH mandate for conservation extends to all corners of the province, and all aspects of fish and wildlife management and use including: advocacy for integrated forest and wildlife management, exotic species awareness and control, sustainable fish and wildlife populations, habitat protection and enhancement, private land stewardship, full compliance with conservation laws, promoting angling and hunting ethics, and much more.

A Winter Deer Emergency - Problem Statement

Winter is harsh on all wildlife. White-tailed deer are susceptible to large-scale winter die-off and reduced fawn production in severe winters in certain parts of Ontario. Even in an average winter, Ontario white-tails can lose 25% of their body weight, sustaining themselves on their own fat reserves and poor-quality browse. As a result, deer conservation objectives can be threatened in extremely long and harsh winters.

White-tailed deer are primarily a southern species. Ontario is at the northern limit of their continental range, which extends into the southern boundaries of the Boreal forest region.

Generally, areas of concern are located in the 'snow belt' of central Ontario and throughout northern Ontario deer range. Deer in agricultural southern Ontario generally have access to crop residues and natural browse, and do not usually require special attention even in severe winters.

Most emergency winter deer feeding projects will be focused in large wintering yards in central and northern Ontario. Throughout the Great Lakes-St. Lawrence forest region, deer concentrate in less than 10% of their normal summer range. These wintering yards are typified by dense conifer cover, and large concentrations of deer.

Accumulations of snow and prolonged winter cold can turn wintering yards into "death traps" if abundant browse is not available. For example, in the winter of 1958/59 it is estimated that 20,000 deer starved in the Loring deer yard near North Bay (the largest definable wintering yard in the province).

In 1995, the OFAH created the DeerSave Fund to assist local MNRF and community emergency deer feeding programs where and when necessary.

The Challenge - Emergency Winter Deer Conservation

The challenge in any emergency year is to increase the amount of resources available for emergency winter deer feeding and trail breaking at a time when resources are already stretched.

In 1995, the OFAH created the DeerSave Fund to assist local MNRF and community emergency deer feeding programs where and when necessary. Beginning in 2013, MNRF has phased out winter deer conservation as part of their annual activities. MNRF has taken a broader, landscape-scale approach to deer management and no longer conducts emergency deer feeding.

DeerSave helps ensure that resources for emergency winter deer conservation are available in this, and future, emergency winters. It exists to augment local conservation efforts, not to replace or supplement them. Fortunately, many fish and game clubs have positive working relationships with MNRF staff and a well-connected network of volunteer conservationists.

The DeerSave Action Plan

The DeerSave Goal

Deer Save is a program of the OFAH. Its goal is to assist local conservationists with emergency winter deer conservation efforts.

The DeerSave Objectives

1. To help recruit and coordinate volunteer resources for emergency winter deer conservation projects.
2. To help educate those who are feeding deer currently, through communications and action, to help ensure that it is done correctly, ecologically, and with the greatest benefit and least waste.
3. To help provide resources to the assistance of provincial and local wildlife managers for emergency winter deer feeding, trail breaking, and browse cutting.
4. To establish an ongoing fund to underwrite emergency winter deer conservation projects, and to help ensure that the effort is sustained for as long as it is required, where it is required.

Winter Deer Conservation Activities

There are 3 types of emergency winter deer conservation activities that will be assisted through the DeerSave Action Plan:

1. **Trail Breaking** through snow, between cover and browse habitats;
2. **Browse Cutting** adjacent to deer wintering yards and concentrations.
3. **Emergency Winter Deer Feeding** performed according to Ministry of Natural Resources and Forestry guidelines, and only in areas and times of need.

Trail Breaking

Volunteers can help deer by breaking trails between areas of cover where deer may be restricted, and areas of natural available browse. Trails can be created using tractors, skidders, snowmobiles, snowshoes, etc.

Trail breaking is required when snow depth and consistency make it difficult for deer to move. MNRF staff are able to advise volunteers where and when trail breaking is most beneficial, based on snow depth, texture and crusting.

Areas of natural browse that are important to deer can be readily identified with minimum training. Usable winter deer browse is found adjacent to conifer cover. Saplings and shrubs will bear evidence of previous year's browsing. Existing trails can also help in identifying deer movement corridors and preferred winter habitats.

Browse Cutting

Starving deer in wintering areas may be surrounded by natural food that they cannot reach, as a result of deer populations consuming all browse that was within their reach in previous years.

Cutting hardwood browse for deer in this situation, either specifically for deer or as part of forest management/logging operations, can provide deer with an important source of food at critical times.

Deer wintering areas with no available browse at deer level, and/or with readily visible "browse lines" on forest edges and interiors may be appropriate areas for browse cutting projects.

The tops of felled trees of preferred species (see Appendix A) provide good sources of winter browse. Landowners and forest operators will be doing deer a favour where selective logging is done in severe winters.

Note: Where there is not an abundance of conifer cover, especially cedar and hemlock, these species are more important to deer for thermal cover than they are for food.

Trail breaking and browse cutting are appropriate emergency winter deer conservation techniques at any time during severe winters (when sinkable snow depth is more than 50 cm).

Emergency Winter Deer Feeding

The impact on deer of a severe winter is cumulative in nature, with the greatest mortality occurring near the end of winter. As such, emergency feeding is usually done only towards the end of winter, where the winter has been so severe that deer fat reserves and natural food reserves are exhausted prior to spring green-up. Emergency winter deer feeding must be done according to established emergency feeding guidelines to make sure that it is done efficiently, effectively, and safely for the deer.

Only formulated commercial deer pellets, or a mix of oats and corn (no more than 50% corn) should be used for emergency winter deer feeding.

Well-intentioned people who provide the wrong feed at the wrong time of winter do more harm to a deer population than good. At best their efforts may be wasteful by directing limited resources to low priority areas; at worst, it can kill deer that are not pre-conditioned to certain common feeds. More information about emergency winter deer feeding is provided in Appendix B.

Volunteer Recruitment

Many members of the OFAH, including hunters, farmers, and snowmobilers, volunteer their time and equipment for white-tailed deer conservation projects when needed. Some volunteer efforts are, however, much more effective than others.

OFAH will help enlist volunteers in emergency areas when we are requested to do so. However, organized clubs are in the best position to rally volunteers. The OFAH will contact members, zones, and clubs to encourage them to offer their resources for emergency winter deer conservation, and/or to contribute financially to the DeerSave fund.

Education and Communications

DeerSave is an important vehicle for educating the public about deer conservation and management in general, and specifically about actions that can be taken in winter deer emergencies.

DeerSave should complement the communication and education efforts of the MNRF. It can also

aid in educating people who feed deer to ensure that they do it correctly and efficiently.

The OFAH will assist the MNRF on communications to ensure that accurate information and advice on emergency winter deer conservation is conveyed in an effort to raise awareness and recruit public support for emergency actions.

The OFAH communications department will use several media outlets to inform the public about deer conservation in winter. The OFAH will also help distribute MNRF winter deer conservation information to people who inquire about winter feeding.

In communicating DeerSave, the OFAH must be cautious not to encourage premature winter deer feeding, but to direct people to the MNR for direction. OFAH should emphasize that the most effective thing most people in southern Ontario can do is contribute to the DeerSave Fund so that efforts will be optimized when and where they are needed.

If, over the course of winter, there is a sudden change in predicted winter severity, the OFAH should communicate that to members and the general public.

The DeerSave Fund

A major contribution of the OFAH through its DeerSave Action Plan is fundraising for emergency winter deer conservation activities. (See Appendix B for the distinction between emergency winter deer feeding and supplementary winter deer feeding).

The DeerSave Fund was established to raise funds from members and the general public. Contributions to DeerSave can be made directly to the OFAH, specifying DeerSave. This is an ongoing fund from which emergency winter deer feeding activities will be financed where and when they are needed.

Only projects that meet the criteria will be eligible for DeerSave funding. See Appendix D for DeerSave Eligibility Criteria and Application Forms.

Applications for winter deer conservation projects may be made to the OFAH by organized clubs or community groups. All applications must be accompanied with a description of the project, schedule, feed details, a budget, and an indication that the MNRF will provide technical expertise to guide volunteers.

Action Plan Schedule

Implementation of the OFAH DeerSave Action Plan, in any given year, will coincide with MNRF estimates and predictions of winter severity.

MNRF Biologists have established an early warning system for decision-making about emergency winter deer feeding. It is based on a number of measurements including the Snow Depth index (SDI) and the Ontario Winter Severity Index (OWSI; a combined measure of sinkable snow depth, snow crust, and aggregated temperature or "chill"). These indices are used to predict, in late January and early February, if emergency intervention is required.

Winter severity predictions at Time 1 and Time 3 should determine the degree to which OFAH implements its DeerSave Action Plan.

The **three** predictive windows and associated levels of "emergency" are:

1. Late December - Early January:

"Red Flag Situation":

If more than 20 cm of snow has accumulated before December, the OFAH will expect consultation from the MNR, and begin to implement communication and fundraising activities.

"Yellow Flag":

If more than 20 cm of snow has accumulated by early December, this is "Yellow Flag" indication. OFAH will expect consultation from the MNR, and begin to implement communication locally, and fundraising provincially.

"Green Flag":

If more than 20 cm of snow has not accumulated until after mid-December there is no immediate cause for concern. This situation will be monitored locally by MNR.

2. Early January:

MNR will revise the above prediction, either upgrading, downgrading, or maintaining the previous severity rating, based primarily on sinkable snow depth. Generally, if deer were in yards early, and they are not mobile, it signifies an emergency:

"Red Flag Situation":

More than 60cm of snow depth, or 40-60cm if red above. OFAH will recruit members, and others to volunteer their efforts to local MNR staff for trail breaking where needed. Plans for full implementation of DeerSave will proceed.

"Yellow Flag"

40 to 60 cm of snow depth, if not red above. OFAH will make members, and others, aware of the situation, and advise that volunteer efforts for trail breaking, emergency feeding may be necessary in areas of the Province. Otherwise, implementation of DeerSave will proceed.

"Green Flag":

Less than 40 cm snow depth. There is no cause for immediate concern. MNR will continue to monitor.

3. Late January - Early February:

MNRF will predict "end of winter" severity, and revise earlier emergency and herd status based on snow depth index (SDI) and the Ontario Winter Severity Index (OWSI). At this point, biologists have a better idea of the likely consequences of winter, based on a number of measurable indicators.

"Red Flag":

Emergency winter deer feeding will either start in early February, be planned for late February, or the situation will be monitored depending upon the total SDI and OWSI, and the mobility of deer. Full Implementation of DeerSave Action Plan.

"Yellow Flag"

Plans will continue for late February feeding, if necessary. OFAH will continue to implement DeerSave Action Plan.

"Green Flag"

SDI < 300, OWSI < 56 or food readily available. No cause for concern - less than 30% chance of severe conditions by late March. MNRF will continue to monitor. DeerSave fund-raising only for future use.

MNRF will predict "end of winter severity" three times during this period: Time 1 = last week of January; Time 2 = 1st week of February; Time 3 = 2nd week of February.

APPENDIX A

Typical Ontario Winter Deer Browse

Browse Areas

Typical browse areas include:

- dogwood swamps in or near conifer cover;
- mixed forests with abundant hardwood seedlings and saplings (available at deer height);
- conifer and/or hemlock stands with browse available;
- recently logged areas in many forest types.

Browse Species

Preferred hardwood browse species include:

Sugar Maple	<i>Acer saccharum</i>
Red Maple	<i>A. rubrum</i>
Striped Maple	<i>A. pensylvanicum</i>
Mountain Maple	<i>A. spicatum</i>
Yellow birch	<i>Betula</i>
Aspen	<i>Populus tremuloides; P. spp.</i>
Basswood	<i>Tilia americana</i>
Ash	<i>Fraxinus spp.</i>
Wild Cherry	<i>Prunus serotina; P. spp.</i>

Preferred shrub browse species include:

Sumac	<i>Rhus typhina</i>
Red Dogwood	<i>Cornus stolonifera</i>
Grey Dogwood	<i>C. racemosa</i>
Leatherwood	<i>Dirca palustris</i>
Sweetfern	<i>Comptonia peregrina</i>
Willow	<i>Salix spp.</i>

Preferred conifer browse species include:

Eastern Hemlock	<i>Tsuga canadensis</i>
Eastern White Cedar	<i>Thuja occidentalis</i>
Red Cedar	<i>Juniperus virginianus</i>

APPENDIX B

Emergency Feeding vs. Supplementary Feeding

Neither the OFAH nor the Ontario Ministry of Natural Resources and Forestry advocates supplementary winter deer feeding, except in extreme emergency situations.

Supplementary winter deer feeding implies the ongoing feeding of deer throughout the winter. It is a fairly common practice, especially in some U.S. states. There are many good reasons for discouraging annual supplementary deer feeding:

- White-tailed deer have a natural mechanism to help them survive through most winters. The natural shortage of food triggers physiological processes that result in a reduction in the deer's metabolism. Their body temperature drops, they become less active, and they require less food. Supplementary feeding counteracts this mechanism - the deer receive more food, and this causes them to need more food.
- It makes deer dependent on human hand-outs. When continued year after year, it results in ever increasing numbers of deer relying on the landowner who inevitably finds that the effort becomes too expensive. In this sense, supplementary feeding *creates* a deer problem, especially when the program is discontinued.
- Widespread supplementary deer feeding, on the scale that it is conducted in the state of Michigan, is not consistent with sound ecosystem management.
- Supplementary feeding stations, maintained throughout winter, can create "magnets" for predators and poachers, and a potential danger to motorists when done near roads.
- Some of the feeds provided to deer in supplementary deer feeding programs can be fatal to deer that are not preconditioned to receive it.

Emergency winter deer feeding, in contrast, is conducted very deliberately, according to an established need, and with proper feeds that are safe and nutritious. It is usually conducted in mid- to late-February, and sustained until deer disperse to summer range (April or later).

The OFAH will only support emergency winter deer feeding that is conducted under the supervision or direction of MNRF experts, according to provincial emergency winter deer feeding guidelines.

APPENDIX C

Who Can Apply? Applicants can belong to an organized hunt camp, conservation organization, club, or community group. Preference will be given to applicants with a proven track record of cooperation with the MNRF in community wildlife involvement projects.

How to Apply: To apply for OFAH DeerSave funding, applicants should must complete the DeerSave Fund Application Form (reverse). In addition, all applications should indicate whether or not local MNRF staff have agreed to provide technical advice to the project.

What is Eligible? Only projects that meet with MNRF Emergency Winter Deer Conservation guidelines will be considered for DeerSave funding.

Terms and Conditions:

OFAH DeerSave funds are intended to "top-up" existing emergency deer conservation efforts. Preference will be given to projects with partnership funding from other sources (MNRF, local groups, etc.).

Applicants must demonstrate a "cost-benefit" (i.e. preference will be given to projects that will save a significant number of deer, with the greatest efficiency).

Approved applicants must retain and remit copies of receipts from purchases made with DeerSave funds to **"DeerSave", OFAH, P.O. Box 2800, Peterborough, Ontario K9J 8L5. FAX: 1-705-748-9577.** Receipts should be submitted by May 1, 2014. Payment of eligible funds will be made within 30 days after OFAH has received copies of receipts. Email: **mark_ryckman@ofah.org.**

DeerSave Fund applications will be reviewed by OFAH Fish and Wildlife staff, with final approval made by an OFAH ad hoc DeerSave Committee composed of elected representatives. Due to the urgency of winter deer emergencies OFAH DeerSave Fund applications will be processed within 5 business days of the OFAH receiving the completed application. The OFAH reserves the right to approve any fraction of the amount applied for. All applicants will be notified of the status of their application.

The OFAH DeerSave is an ongoing fund. Surplus funds will be held for future deer emergencies if they are not used in the current year. OFAH DeerSave funds are limited. Applications will not be processed if the DeerSave Fund is overdrawn.

**** Approved applicants must submit to OFAH, upon completion of the project, a short written report detailing: the approximate number of deer that benefited, the number of volunteers involved in the project, the types of activities undertaken, and any other relevant project details. ****