

Project Report

Assessing Level of Support for Alternative Deer Management Strategies in Northwest Minnesota

Submitted to

Minnesota Department of Natural Resources

by

Minnesota Cooperative Fish and Wildlife Research Unit

A partnership among

U.S. Geological Survey

Minnesota Department of Natural Resources

University of Minnesota

and

Wildlife Management Institute

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Assessing Level of Support for Alternative Deer Management Strategies in Northwest Minnesota

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Introduction

Study Background and Purpose

The Minnesota Department of Natural Resources is interested in estimating the level of acceptance deer hunters in northwest Minnesota have towards regulation changes. The purpose of this study is to determine hunter acceptance of several different management options to decrease harvest pressure on antlered deer. Specifically, hunters will be asked if they are willing to modify their traditional hunting behavior to:

1. Relieve some harvest pressure from antlered deer, and
2. Shift harvest pressure towards antlerless deer.

There are several ways to accomplish this task including antler point restrictions, earn-a-buck, and changes to season structure. Hunters will be asked their opinions toward these different strategies. Additionally, Minnesota is one of only a few states where party hunting is legal. Party hunting allows hunters to shoot and tag deer for other licensed hunters and hunters will be asked their opinions to change that as well.

This study will be used in conjunction with a series of public meetings to be held in winter 2005 and a follow-up survey to be conducted after the public meetings. This study will also be used as a sounding board for direction and to tailor the public presentations and larger survey later.

Methods

Data were collected from 300 rifle deer hunters in Minnesota from September 9 through October 14, 2004 using a telephone survey (see Appendix A). This sample provides error estimates within 5% at the 90% confidence level. We used the electronic license database maintained by the DNR as the sampling frame for licensed deer hunters within the potentially affected management zones from their existing electronic. Up to 5 attempts to contact potential respondents were made and a final disposition of each study participant was recorded. Of the 952 deer hunters that we attempted to contact, we could not reach 386 within 5 attempts; another 153 were deceased, had moved or were otherwise unable to participate. Of the 413 that could participate and that we contacted, 113 refused to participate providing a 73% response rate.

Results

A total of 97% of the respondents indicated that they had hunted deer last year. For those that hunted, 12% (n = 29) hunted alone and 88% hunted with others. Among those hunting alone, 27% killed at least one antlered deer with 23% killing one antlered deer and 4% killing two. A total of 50% of hunters hunting alone harvested at least one antlerless deer. In total, 34%, 8%, and 8% of all hunters killed one, two, and three antlerless deer, respectively.

Among hunters who hunted with others, 35% killed one antlered deer, 3% killed two, and 1% killed three antlered deer. Of these same hunters, 25% reporting shooting a single antlerless deer, 6% killed two, 2% killed three, and 1% killed four antlerless deer.

A total of 8% of respondents indicated they had killed a deer for another person. A total 12.5% reported using their tag on a deer killed by another hunter. Among the 33 hunters who tagged a deer killed by another hunter, 39% tagged an antlered deer, 9% tagged an antlered and an antlerless deer, 49% tagged an antlerless deer, and 3% tagged 2 antlerless deer.

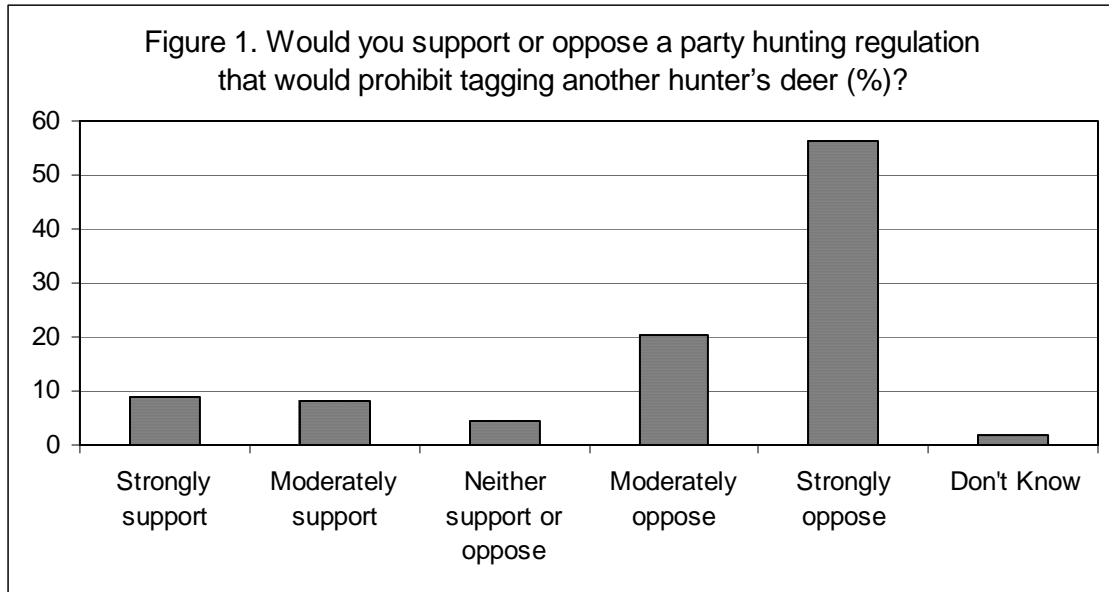
Regulatory Alternatives

Results for questions concerning support for regulations that could potentially increase the proportion of antlered deer in the population are summarized below. Most hunters are opposed to prohibiting party hunting, even though only a minority indicated they actually party hunted in the previous year. While most respondents support the idea of a regulation that would increase the proportion of antlered deer, support for specific regulatory alternatives is much lower. A lottery system for buck and antler-point restrictions show some support among about half of the hunters. Moving the firearms season outside the rut, requiring hunters to kill an antlerless *before* legal harvest of an antlered deer, and reducing the number of days you could hunt bucks were all opposed by a majority of hunters. An antlerless-only season in addition to the regular firearm season has broad support with a preference for an early season in October.

Question:

Would you support or oppose a party hunting regulation that would prohibit tagging another hunter's deer?

	n	%
Strongly support	27	9.0
Moderately support	24	8.0
Neither	13	4.3
Moderately Oppose	61	20.4
Strongly Oppose	168	56.2
Don't Know	6	2.0
Total	299	100.0

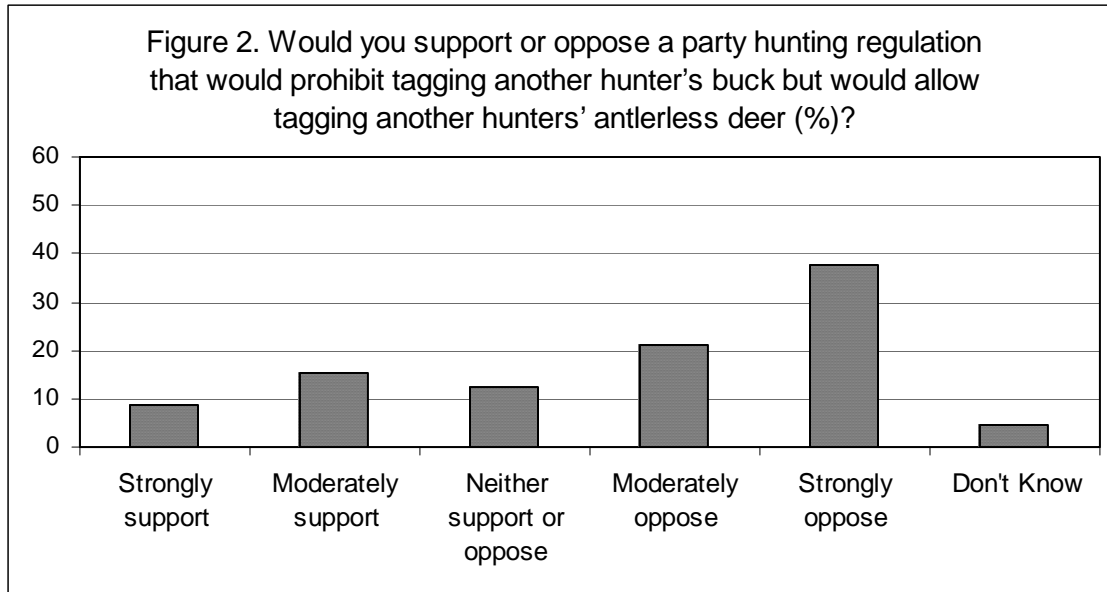


While only a relatively small percentage of hunters killed a deer tagged by someone else (8%) or tagged a deer killed by someone else (12.5%), more than 75% of respondents were opposed to a prohibition of “party hunting”.

Question:

Would you support or oppose a party hunting regulation that would prohibit tagging another hunter's buck but would allow tagging another hunters' antlerless deer?

	n	%
Strongly support	26	8.8
Moderately support	45	15.2
Neither	37	12.5
Moderately Oppose	63	21.2
Strongly Oppose	112	37.7
Don't Know	14	4.7
Total	297	100.0

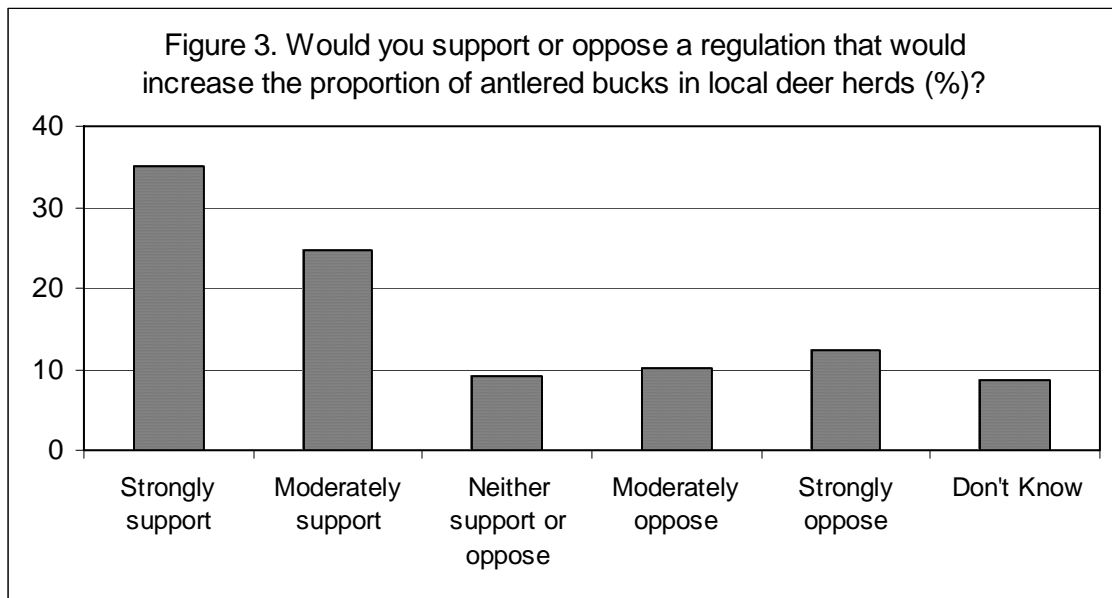


Opposition to eliminating “party hunting” for antlered deer was less pronounced than a general prohibition of party hunting, but almost 6 out of 10 hunters were opposed to such a regulation. Less than 10% would strongly support such a regulation.

Question:

In general, would you support or oppose a regulation that would increase the proportion of antlered bucks in local deer herds? Would you say...(read choices)

	n	%
Strongly support	105	35.1
Moderately support	74	24.7
Neither	27	9.0
Moderately Oppose	30	10.0
Strongly Oppose	37	12.4
Don't Know	26	8.7
Total	299	100.0



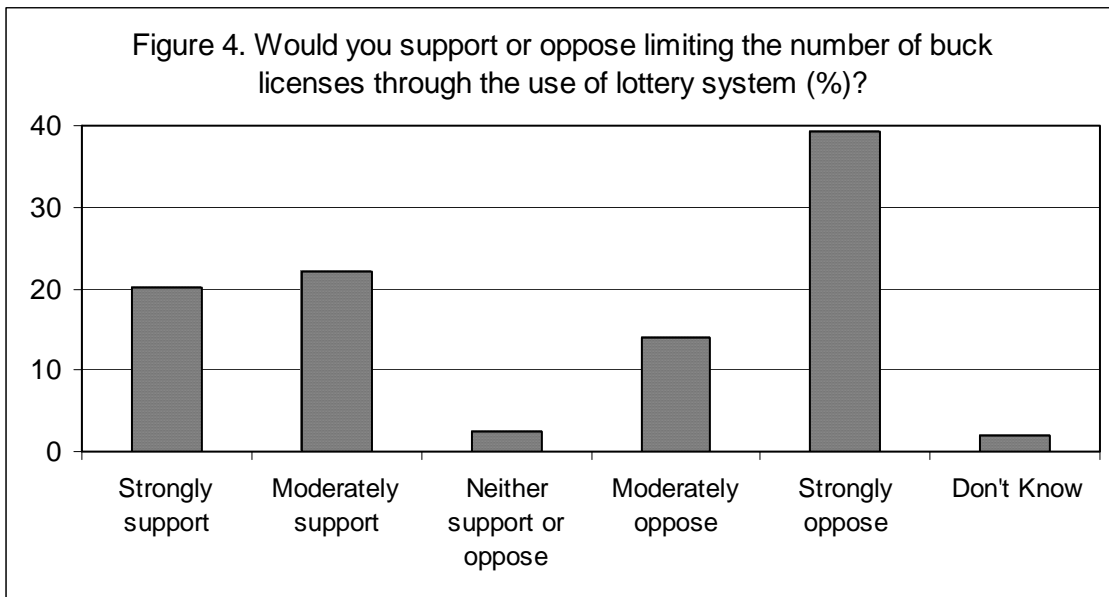
Almost 60% of hunters support a regulation that would increase the proportion of bucks in the population, while 21% are opposed to such a regulation.

Question:

The first method would limit the number of buck licenses available to hunters during the firearm season. Under this scenario, the standard firearm license would be valid for antlerless deer only. Hunters interested in killing antlered bucks would need to apply for a permit through a lottery system. Only lottery winners would be eligible to hunt antlered deer. Unsuccessful applicants would be restricted to hunting antlerless deer during the current year, but would gain preference points in the lottery which would improve their chance of getting drawn for a buck license in future years.

Would you support or oppose this type of regulation that would limit the number of buck licenses available to hunters during the firearm season?

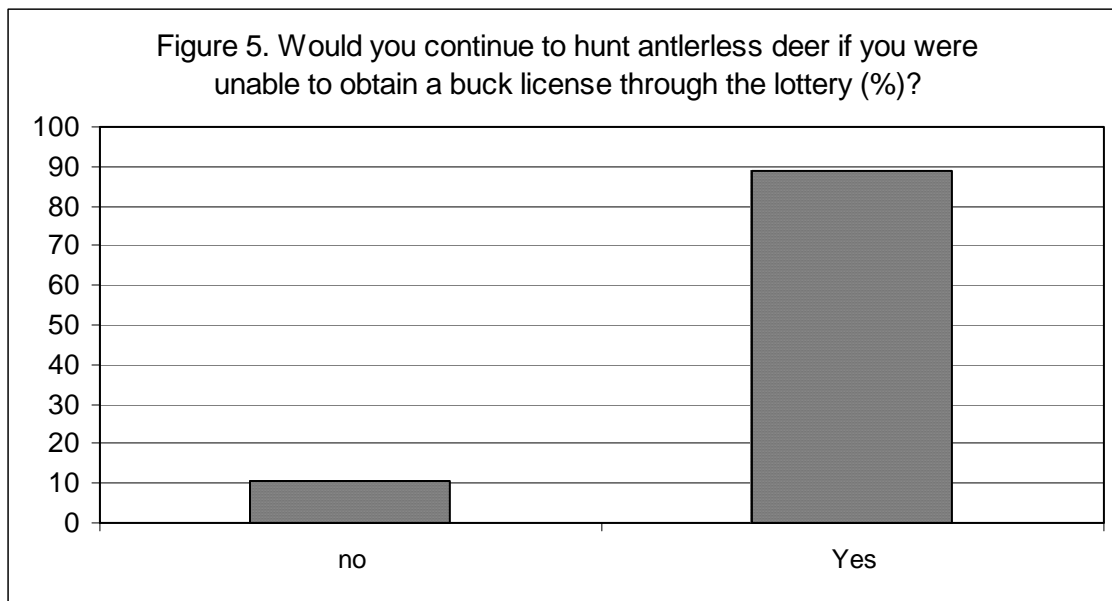
	n	%
Strongly support	60	20.1
Moderately support	66	22.1
Neither	7	2.3
Moderately Oppose	42	14.1
Strongly Oppose	117	39.3
Don't Know	6	2.0
Total	298	100.0



Support/opposition for a lottery system for buck deer hunting was bi-modally distributed, with 53% opposing and 42% supporting such a regulation.

Would you continue to hunt antlerless deer if you were not able to obtain a buck license through the lottery?

	n	%
No	31	10.7
Yes	258	88.7
Don't Know	2	0.6
Total		100.0



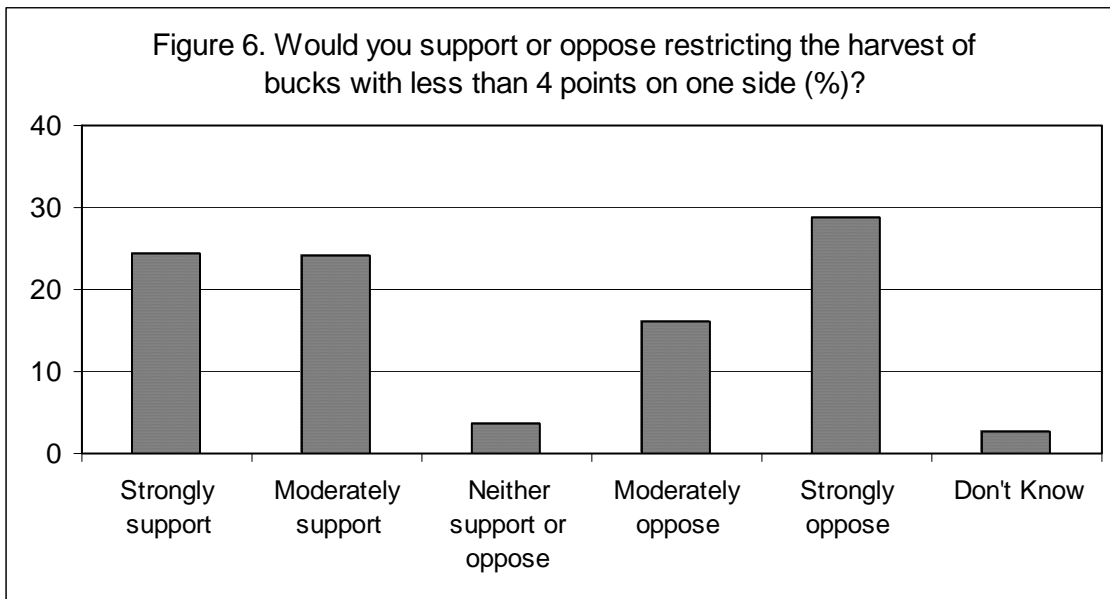
Although only 42% would support a buck lottery regulation, most hunters (88%) would hunt antlerless deer if they were not drawn in a buck lottery.

Question:

The second method would protect bucks with less than 4 antler points on at least one side. Under this scenario, buck hunters could only kill adult males that had 4 points or more on one antler. Hunters would first have to identify the animal as a legal buck before shooting at the deer. As a result of this regulation, a greater proportion of 1 and a half year old males would survive to the 2 and a half year age-class and would be available to hunters the following year. In addition, harvest rates on antlerless deer should increase for at least the first year.

Would you support or oppose this type of regulation to restrict harvest of bucks with less than a 4-point antler on one side?

	n	%
Strongly support	73	24.5
Moderately support	72	24.2
Neither	11	3.7
Moderately Oppose	48	16.1
Strongly Oppose	86	28.9
Don't Know	8	2.7
Total	298	100.0

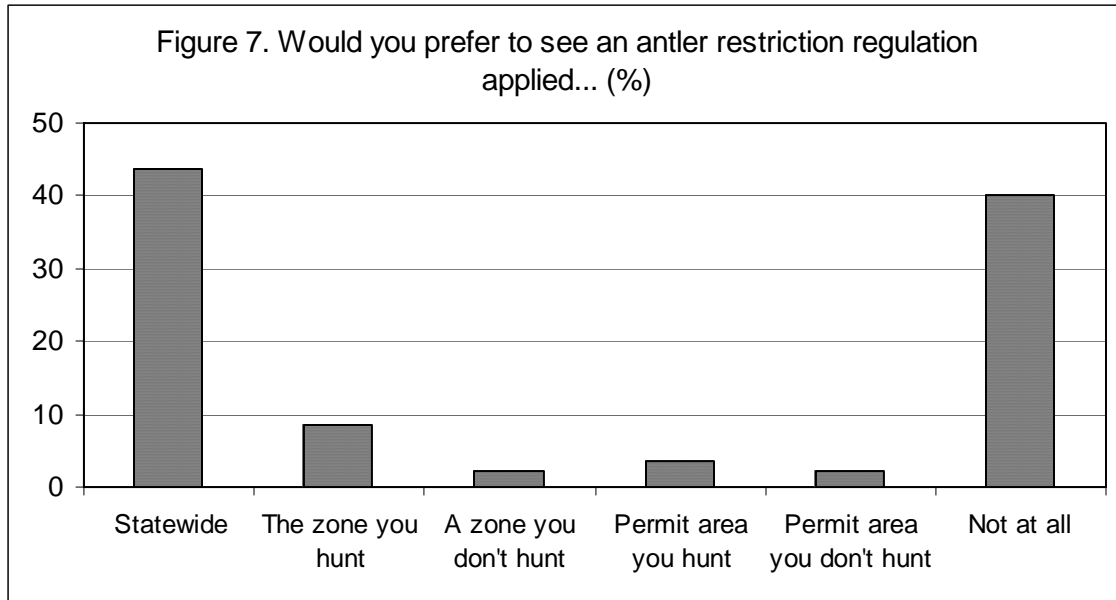


About 50% of hunters would support a 4-point antler regulation, but almost 30% of hunters were strongly opposed to such a regulation and another 16% were moderately opposed.

Question:

Would you prefer to see an antler restriction regulation applied statewide, in the zone you hunt, in a zone you don't hunt, in the permit area you hunt, in a permit area you don't hunt, or not at all?

	n	%
Statewide	123	43.6
The zone you hunt	24	8.5
A zone you don't hunt	6	2.1
The permit area you hunt	10	3.5
A permit area you don't hunt	6	2.1
Not at all	113	40.1
Total	282	100.0



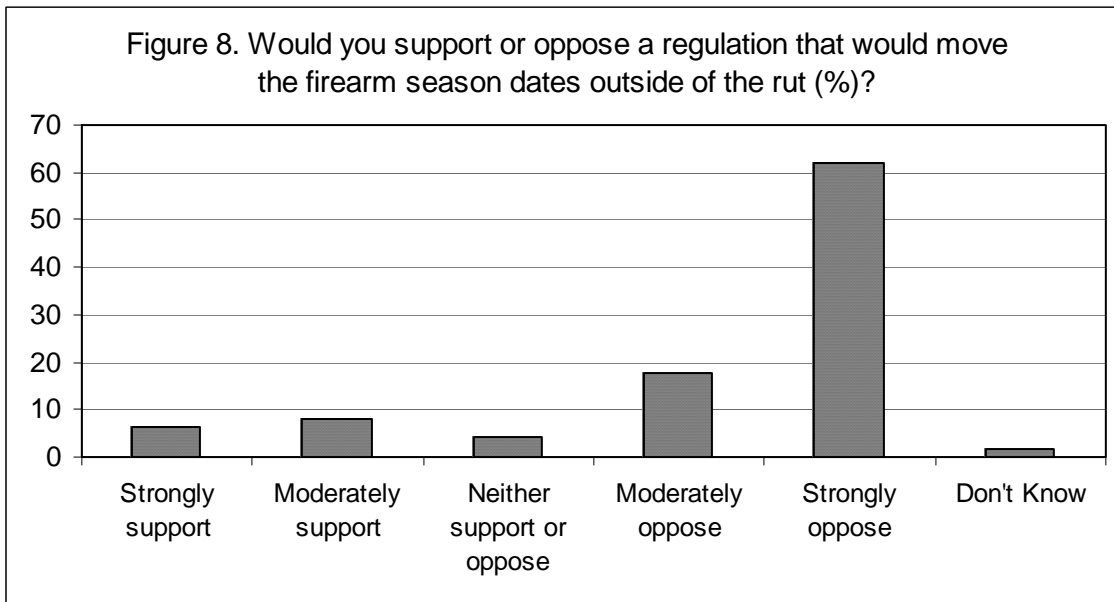
Among hunters that supported antler restrictions, more than 70% would prefer to see such regulations applied statewide.

Question:

A third method would move the firearm deer season outside of the rut. Under this scenario, the season would begin in late November or early December. As a result of this regulation, bucks may be less vulnerable and harvest rates might be reduced. However, because the season occurs later in the year, snow and cold temperatures may limit hunting opportunity for antlered and antlerless deer.

Would you support or oppose this type of regulation that would move the firearm season dates outside of the rut?

	n	%
Strongly support	19	6.4
Moderately support	24	8.1
Neither	13	4.4
Moderately Oppose	52	17.5
Strongly Oppose	184	62.0
Don't Know	5	1.7
Total	297	100.0



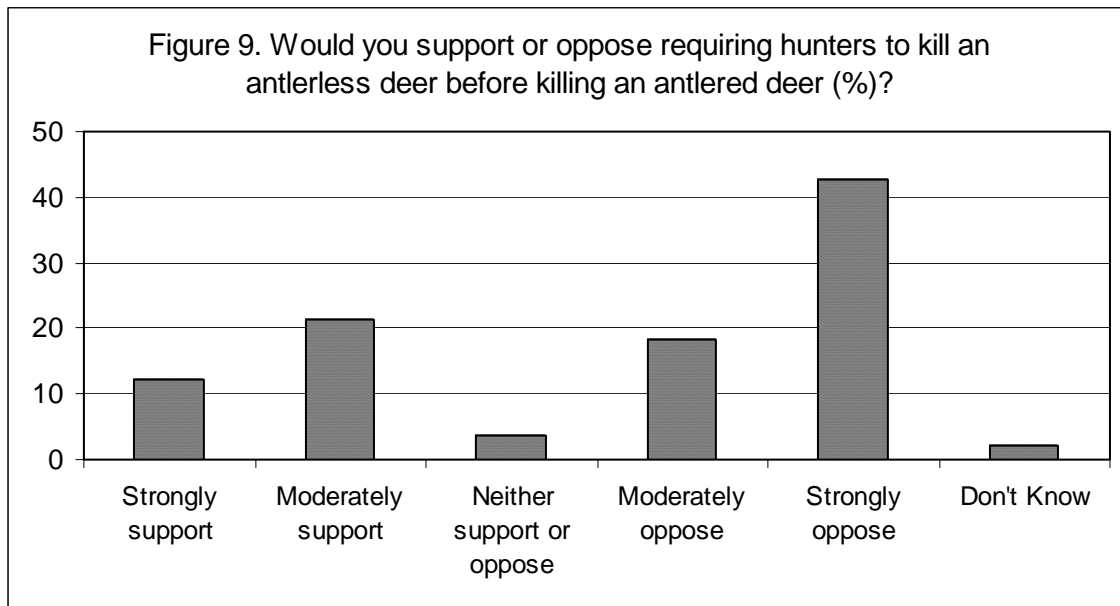
Eight out of 10 respondents indicated they were opposed to moving the firearm season out of the rut. Fewer than 15% of hunters would support such a regulation as described.

Question:

A fourth method would require all deer hunters to kill an antlerless deer before killing an antlered buck. Under this scenario, hunters will have to pass up all antlered deer until they first kill and register an antlerless deer. As a result of this regulation, harvest rates on antlerless deer should increase and harvest rates on antlered deer should decrease, resulting in a greater proportion of older, antlered males in the population.

Would you support or oppose this type of regulation that would require hunters to kill an antlerless deer before killing an antlered deer? Would you say...(read choices)

	n	%
Strongly support	36	12.1
Moderately support	63	21.2
Neither	11	3.7
Moderately Oppose	54	18.2
Strongly Oppose	127	42.8
Don't Know	6	2.0
Total	297	100.0



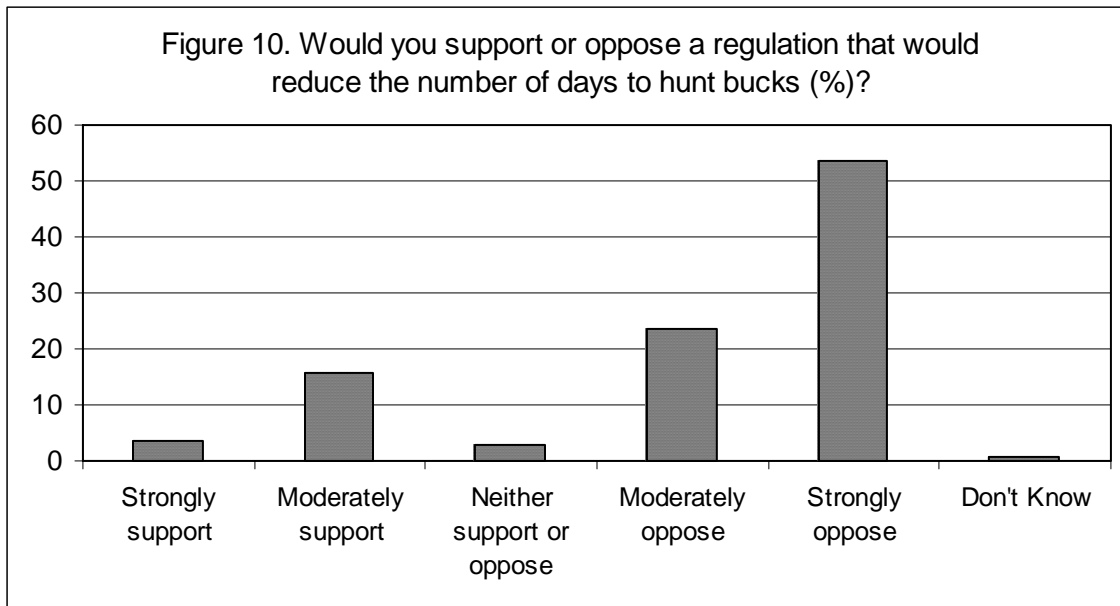
Although one-third of respondents supported the idea of a mandatory antlerless harvest, 61% of respondents were opposed to this regulation option. Only 1 in 10 hunters strongly support the idea.

Question:

A fifth method would reduce the number of days hunters could kill bucks during the firearm deer season. Under this scenario, hunters would only be able to kill antlered males during certain days of the season. As a result of this regulation, harvest rates on antlerless deer should increase and harvest rates on antlered males should decrease.

Would you support or oppose this type of regulation that would reduce the number of days to hunt bucks? Would you say...(read choices)

	n	%
Strongly support	11	3.7
Moderately support	47	15.8
Neither	8	2.7
Moderately Oppose	70	23.6
Strongly Oppose	159	53.5
Don't Know	2	0.7
Total	297	100.0



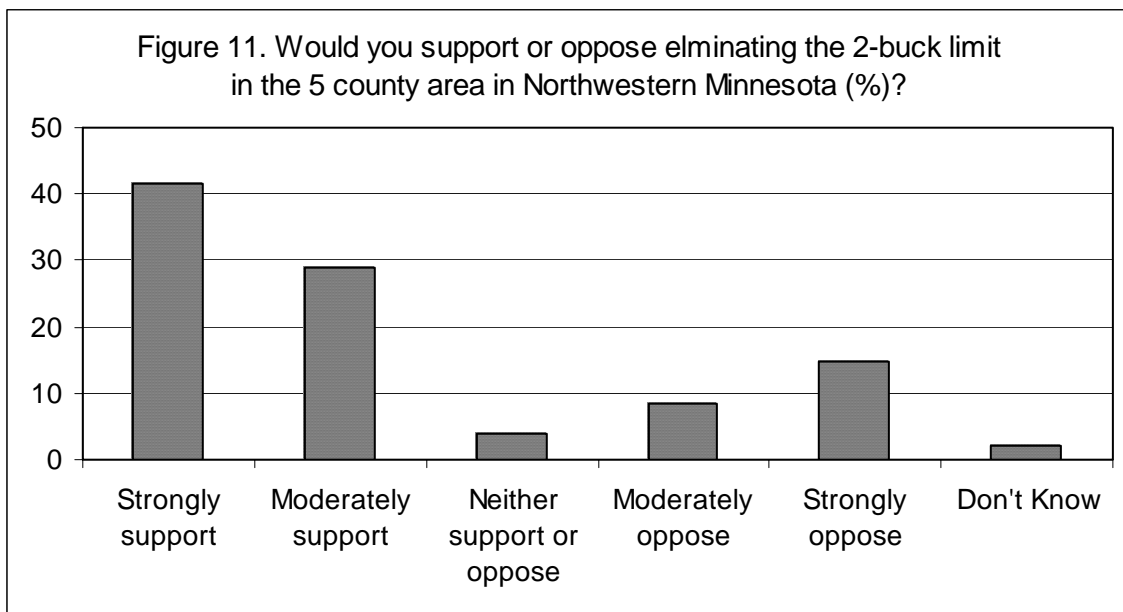
More than 75% of hunters are opposed to the idea of reducing the number of days you could hunt buck deer.

Question:

Another method would eliminate the 2-buck limit in the 5-county area of northwestern Minnesota. Under this scenario, a hunter could kill only one buck each year, which should reduce harvest rates of antlered males.

Would you support or oppose eliminating the 2-buck limit in the 5-county area?

	n	%
Strongly support	123	41.6
Moderately support	86	29.1
Neither	12	4.1
Moderately Oppose	25	8.4
Strongly Oppose	44	14.9
Don't Know	6	2.0
Total	296	100.0



This is the only regulatory option that received support from a majority of respondents (70%). However, as firearms hunters comprised the majority of the sample, this result was not surprising.

Question:

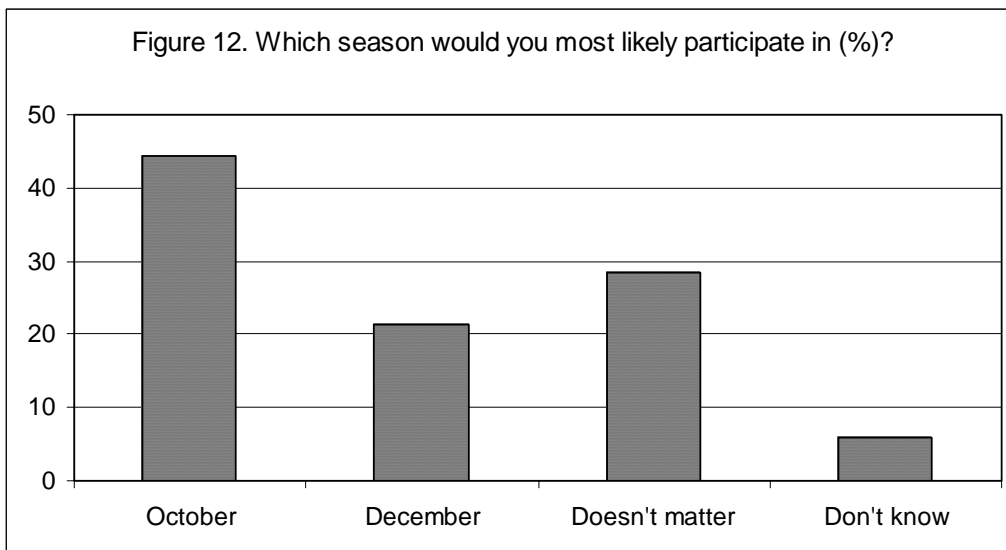
Suppose a new antlerless-only season was offered in addition to the regular firearm deer season that you normally hunt. The timing of the antlerless-only season would be either October or December. The seasons would not last more than a week and killing an antlerless deer during this new season would not affect your regular firearms licenses.

Would you participate in a new antlerless-only season?

67.9% YES
32.1% NO → SKIP TO QUESTION 22

Which season would you most likely participate in?

	n	%
In October, before the regular firearm season	89	44.3
In December, after the muzzleloader season	43	21.4
Doesn't matter, you would participate in either season	57	28.4
Don't know	12	6.0



An antlerless-only season has broad appeal, with more than 40% preferring an October hunt.

Question:

Finally, are you a member of any of the following deer-hunting organizations?

	<u>% Yes</u>
a. Minnesota Deer Hunters Association	12.8%
b. Bluffland Whitetails Association	1.0%
c. Minnesota Quality Deer Management, Inc.	0.3%
d. Quality Deer Management Association	0.3%
e. Whitetails Unlimited	1.0%
How about any others? (list)	7.3%

Most respondents did not belong to any deer hunting organization, but almost 13% of respondents did report belonging to the Minnesota Deer Hunters Association.

Appendix A: Survey Instrument

**Alternative Deer Management Questionnaire
September 2004**

Interviewer: _____

Respondent ID#: _____

(ENTER ONLY FOR THOSE WHO RESPOND "YES" TO QUESTION 2).

1. Hi, I'm _____. I'm calling from the University of Minnesota. We are conducting a study of deer hunters for the Minnesota DNR. May I please speak to _____?

IF WRONG NUMBER—THANK THEM FOR THEIR TIME.

IF DEER HUNTER IS NOT AVAILABLE TRY TO IDENTIFY A TIME TO CALL BACK.

ONCE YOU ARE SPEAKING TO THE CORRECT PERSON. Say...

2. Mr./Ms. _____. I'm calling from the University of Minnesota. We are conducting a study of deer hunters for the Minnesota DNR. The purpose of our study is to understand hunter support or opposition to potential changes in the deer hunting regulations. Would you be willing to answer a few questions for us on this issue? It will take about 10 minutes. Your participation is completely voluntary and all your responses will be kept confidential.

- YES
 NO

3. Did you hunt deer during the firearm season last year?

- YES
 NO → SKIP TO QUESTION 9

4. During the firearm season last year, did you hunt by yourself or with 1 or more other hunters? If self-, go to Question 4b, else go to Question 5.

Self → a. How many antlered male deer did you kill during the firearm season last year?

Enter #: _____

b. How many antlerless deer did you kill during the firearm season last year?

Enter #: _____

SKIP TO QUESTION 9

Others

↓
Minnesota hunting regulations allow ‘parties’ of 2 or more licensed hunters to shoot and tag deer for each other if party members are all using the same weapon type and hunting in the field together at the time the deer was killed.

5. During the firearm deer season last year, did you kill a deer for another hunter?

Yes

No

6. For the firearm season last year, we want to know how many deer you personally killed? Please include ALL deer you killed even if they were tagged by another hunter.

How many antlered males did you kill? _____

How many antlerless deer did you kill? _____

7. During the firearm season last year, did you use your tag on a deer that another hunter killed?

- Yes
 No → SKIP TO QUESTION 9

8. During the firearm season last year, how many of your tags were used by other hunters to tag...

ANTLERED MALES? _____

ANTLERLESS DEER? _____

9. Would you support or oppose a party hunting regulation that would prohibit tagging another hunter's deer? Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

10. Would you support or oppose a party hunting regulation that would prohibit tagging another hunter's buck but would allow tagging another hunters' antlerless deer? Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

11. In general, would you support or oppose a regulation that would increase the proportion of antlered bucks in local deer herds? Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

Currently, in intensive permit areas in Minnesota, hunters are encouraged to kill antlerless deer. If hunters selectively kill antlerless deer, the proportion of antlered bucks surviving the hunting season might increase.

The next series of questions addresses specific methods of increasing the kill of antlerless deer and possibly increasing the proportion of antlered bucks in the deer population.

I'll describe each method and ask you the degree to which you support using that method in Minnesota. I want to emphasize that these methods are NOT currently being used in Minnesota.

12. The first method would limit the number of buck licenses available to hunters during the firearm season. Under this scenario, the standard firearm license would be valid for antlerless deer only. Hunters interested in killing antlered bucks would need to apply for a permit through a lottery system. Only lottery winners would be eligible to hunt antlered deer. Unsuccessful applicants would be restricted to hunting antlerless deer during the current year, but would gain preference points in the lottery which would improve their chance of getting drawn for a buck license in future years.

Would you support or oppose this type of regulation that would limit the number of buck licenses available to hunters during the firearm season. Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

13. Would you continue to hunt antlerless deer if you were not able to obtain a buck license through the lottery?

- YES
- NO
- DON'T KNOW

14. The second method would protect bucks with less than 4 antler points on at least one side. Under this scenario, buck hunters could only kill adult males that had 4 points or more on one antler. Hunters would first have to identify the animal as a legal buck before shooting at the deer. As a result of this regulation, a greater proportion of 1 and a half year old males would survive to the 2 and a half year age-class and would be available to hunters the following year. In addition, harvest rates on antlerless deer should increase for at least the first year.

Would you support or oppose this type of regulation to restrict harvest of bucks with less than a 4-point antler on one side? Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

15. Would you prefer to see an antler restriction regulation applied statewide, in the zone you hunt, in a zone you don't hunt, in the permit area you hunt, in a permit area you don't hunt, or not at all? Would you say...(read choices)

- Statewide
- The zone you hunt
- A zone you don't hunt
- The permit area you hunt
- A permit area you don't hunt
- Not at all

16. A third method would move the firearm deer season outside of the rut. Under this scenario, the season would begin in late November or early December. As a result of this regulation, bucks may be less vulnerable and harvest rates might be reduced. However, because the season occurs later in the year, snow and cold temperatures may limit hunting opportunity for antlered and antlerless deer.

Would you support or oppose this type of regulation that would move the firearm season dates outside of the rut. Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

17. A fourth method would require all deer hunters to kill an antlerless deer before killing an antlered buck. Under this scenario, hunters will have to pass up all antlered deer until they first kill and register an antlerless deer. As a result of this regulation, harvest rates on antlerless deer should increase and harvest rates on antlered deer should decrease, resulting in a greater proportion of older, antlered males in the population.

Would you support or oppose this type of regulation that would require hunters to kill an antlerless deer before killing an antlered deer? Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

18. A fifth method would reduce the number of days hunters could kill bucks during the firearm deer season. Under this scenario, hunters would only be able to kill antlered males during certain days of the season. As a result of this regulation, harvest rates on antlerless deer should increase and harvest rates on antlered males should decrease.

Would you support or oppose this type of regulation that would reduce the number of days to hunt bucks? Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

19. Another method would eliminate the 2-buck limit in the 5-county area of northwestern Minnesota. Under this scenario, a hunter could kill only one buck each year, which should reduce harvest rates of antlered males.

Would you support or oppose eliminating the 2-buck limit in the 5-county area? Would you say...(read choices)

- STRONGLY SUPPORT
- MODERATELY SUPPORT
- NEITHER SUPPORT NOR OPPOSE
- MODERATELY OPPOSE
- STRONGLY OPPOSE
- DON'T KNOW

20. Suppose a new antlerless-only season was offered in addition to the regular firearm deer season that you normally hunt. The timing of the antlerless-only season would be either October or December. The seasons would not last more than a week and killing an antlerless deer during this new season would not affect your regular firearms licenses.

Would you participate in a new antlerless-only season?

- YES
- NO → SKIP TO QUESTION 22

21. Which season would you most likely participate in?

- In October, before the regular firearm season
- In December, after the muzzleloader season
- Doesn't matter, you would participate in either season
- Don't know

22. Finally, are you a member of any of the following deer-hunting organizations?

- f. Minnesota Deer Hunters Association Yes No
- g. Bluffland Whitetails Association Yes No
- h. Minnesota Quality Deer Management, Inc. Yes No
- i. Quality Deer Management Association Yes No
- j. Whitetails Unlimited Yes No

How about any others? (list)

THANK YOU FOR YOUR TIME TODAY! Your answers are very helpful. Have a good evening.