



**Central Hills Prairie
Deer Goal Setting – Block G9
Landowner and Hunter Survey Results**



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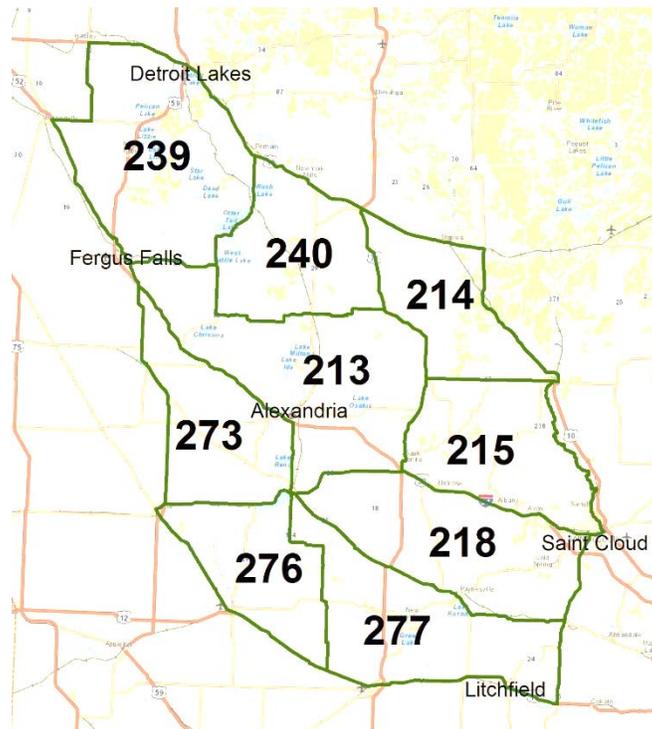
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Public Surveys for Deer Goal Setting

MN DNR periodically conducts stakeholder surveys to collect information about public desires and opinions regarding specific natural resource management issues. Survey recipients are selected randomly and provide a statistically representative sample of stakeholder opinions. Thus, these surveys differ from annual public input opportunities which may include some bias according to self-selection of interested parties. In 2015, both hunters (Appendix A) and landowners (Appendix B) in this goal setting block were surveyed; the resulting information provides a basis for the 2015 deer population goal setting process. This report covers goal block 9, Central Hills Prairie.



Methods

Hunters and private landowners were surveyed using a mixed mode design that included two waves of letters requesting completion online; the third and fourth wave was mailed using a self-administered mail back questionnaire (Appendices A and B).

For the hunter survey, we randomly selected 2,601 adult 2014 deer license holders who indicated they intended to hunt in deer areas 213, 214, 215, 218, 239, 240, 273, 276, or 277. A total of 102 surveys were undeliverable and we received 1,097 completed responses, which yielded an adjusted response rate of 44%. Landowner parcels were stratified into 4 acreages, 1) 2 – 19.9, 2) 20 – 79.9, 3) 80 – 319.9, and 4) 320+. We selected a simple random sample from strata 1 (n=662), strata 2 (n=685), strata 3 (n=690), and surveyed all landowners in strata 4 (n=676).

Overall, there were 239 undeliverable surveys; 961 completed landowner surveys were returned, yielding a 39% adjusted response rate. For both surveys, our error rate at the goal block level was approximately 3%.

Hunter Survey

Demographics

Nearly all respondents (97%) indicated they hunted during the 2014 firearm deer season. Overall 19% indicated they hunted during the archery season and 15% hunted muzzleloader. Firearm hunters spent an average of 5.1 days afield, compared to 5.9 for muzzleloader and 17.6 for archery hunters. Overall, individuals had hunted an average of 27 years in Minnesota and 20 years in the deer area they indicated they hunted most often. Overall, 87% of respondents were male and the average age was 49.3 (range = 19 – 89).

More than half of hunters did at least some of their hunting on their own private land (64%) or other private land that they do not own or lease (65%). One-third (33%) did at least some of their hunting on public land. Another 8.5% indicated they did at least some hunting on lands that they leased for deer hunting. Only 2.9% of respondents hunted exclusively on lands they leased for deer hunting. With respect to future populations; a majority expressed a desire for an increase in deer numbers, regardless of where they hunted (Table 1).

Population trends and perceptions about deer populations

Respondents were asked to indicate their perceptions on deer population trends over the last 5 years. Overall, 56% of respondents indicated there were fewer deer than 5 years ago, 17% indicated more, and 27% believed populations were the same (Table 2). We observed some differences among deer permit areas with deer area 239 was most likely to indicate populations had declined (74%), while respondents from deer area 218 were least likely to indicate that the population had declined (43%). Respondents were also asked for their perceptions of total deer population size as rated by 'too low', 'about right', or 'too high'. About half (49%) believed the population was 'too low', 44% thought it was 'about right', and 7% indicated the population was 'too high'. We observed statistical differences among deer permit areas with similar patterns as described above (Table 3). Respondents were also asked to indicate their desires for future deer population densities and a majority (60%) wanted to see an increase in deer densities at some level (Table 4, Figure 1). A majority of respondents (87%) would shoot an antlerless deer if given the opportunity.

Table 1. Condensed table of desired deer population trends of hunters, by land type hunted.

Type of land hunted		Desired Population Trend		
		Decrease	No Change	Increase
Private land that I own	None	9%	27%	65%
	Some	23%	25%	52%
	Most	17%	23%	61%
	All	15%	32%	53%
Private land that I lease for hunting	None	13%	30%	58%
	Some	4%	36%	60%
	Most	6%	11%	83%
	All	4%	35%	61%
Private land that I do not own or lease	None	13%	36%	52%
	Some	14%	23%	63%
	Most	15%	19%	66%
	All	8%	29%	64%
Public land	None	13%	34%	54%
	Some	11%	20%	68%
	Most	9%	11%	80%
	All	6%	23%	71%

Table 2. Hunter perceptions of deer population trends over the last 5 years, by deer permit area.

Deer Area	Lower		The Same		Higher	
	N	Percent	N	Percent	N	Percent
213	84	48%	48	28%	42	24%
214	89	62%	37	26%	18	12%
215	60	50%	32	27%	27	23%
218	44	43%	40	39%	18	18%
239	114	74%	24	15%	17	11%
240	80	58%	41	30%	17	12%
273	29	69%	8	19%	5	12%
276	43	68%	14	22%	6	10%
277	59	45%	39	30%	32	25%
Total	602	56%	283	27%	182	17%

Table 3. Hunter beliefs about current deer population densities, by deer area.

Deer Area	Too Low		About Right		Too High	
	N	Percent	N	Percent	N	Percent
213	84	47%	68	38%	25	14%
214	58	40%	77	53%	9	6%
215	45	38%	70	59%	3	3%
218	42	42%	52	52%	6	6%
239	97	62%	55	35%	4	3%
240	70	51%	60	43%	8	6%
273	28	68%	12	29%	1	2%
276	36	57%	26	41%	1	2%
277	57	45%	52	41%	17	13%
Total	517	49%	472	44%	74	7%

Table 4. Deer population trend preferences for hunters, by deer permit area.

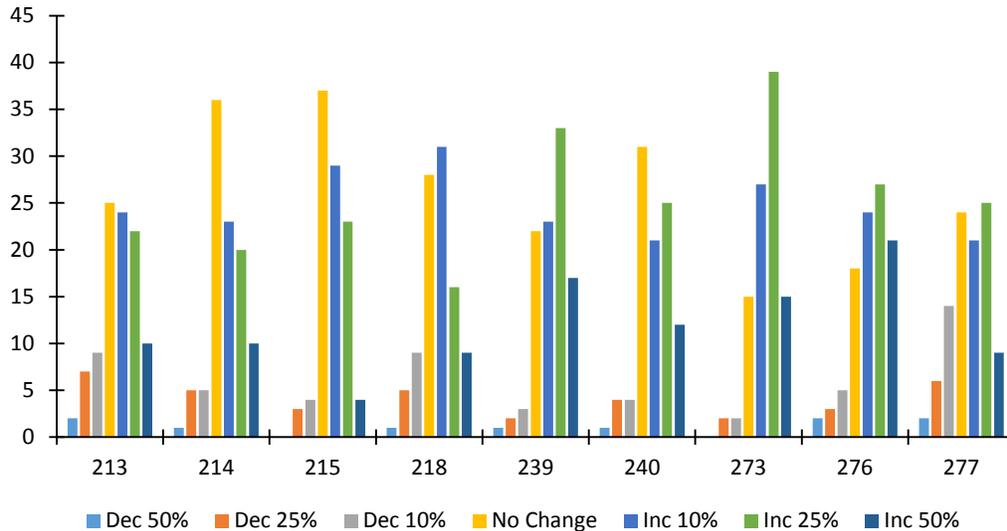
(a) By individual response

Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
213	2%	7%	9%	25%	24%	22%	10%
214	1%	5%	5%	36%	23%	20%	10%
215	0%	3%	4%	37%	29%	23%	4%
218	1%	5%	9%	28%	31%	16%	9%
239	1%	2%	3%	22%	23%	33%	17%
240	1%	4%	4%	31%	21%	25%	12%
273	0%	2%	2%	15%	27%	39%	15%
276	2%	3%	5%	18%	24%	27%	21%
277	2%	6%	14%	24%	21%	25%	9%
Total	1%	5%	6%	28%	24%	25%	11%

(b) Summarized by decrease, same, increase

Deer Area	Decrease	Same	Increase
213	19%	25%	56%
214	11%	36%	53%
215	7%	37%	56%
218	15%	28%	57%
239	5%	22%	72%
240	10%	31%	59%
273	5%	15%	80%
276	10%	18%	73%
277	22%	24%	54%
Total	12%	28%	60%

Figure 1. Graphical representation of hunters' desired deer population trends.



Satisfaction

Hunters were asked to indicate their overall satisfaction with deer numbers, whether they heard about or saw legal bucks, their satisfaction with the number of legal bucks, quality of bucks, total number of deer and total number of antlerless deer. Over one-third (36%) were satisfied with current deer numbers and about half (48%) indicated they were dissatisfied (Table 5). In total, less than half of respondents (45%) indicated they were satisfied with the total number of deer they saw while hunting (44% were not satisfied and 11% were neutral). Over half (52%) were satisfied with the total number of antlerless deer they observed. About one-third (38%) were satisfied with the number of legal bucks observed; less than half were dissatisfied (46%). More than half (62%) indicated they heard about or saw legal bucks while hunting. More hunters (47%) were dissatisfied than satisfied (35%) with the quality of bucks observed (Table 6). Finally, we observed no real differences among land type hunted and satisfaction with total deer

numbers; around half were not satisfied with the number of deer they saw while hunting (range = 37% - 62%) (Figure 2).

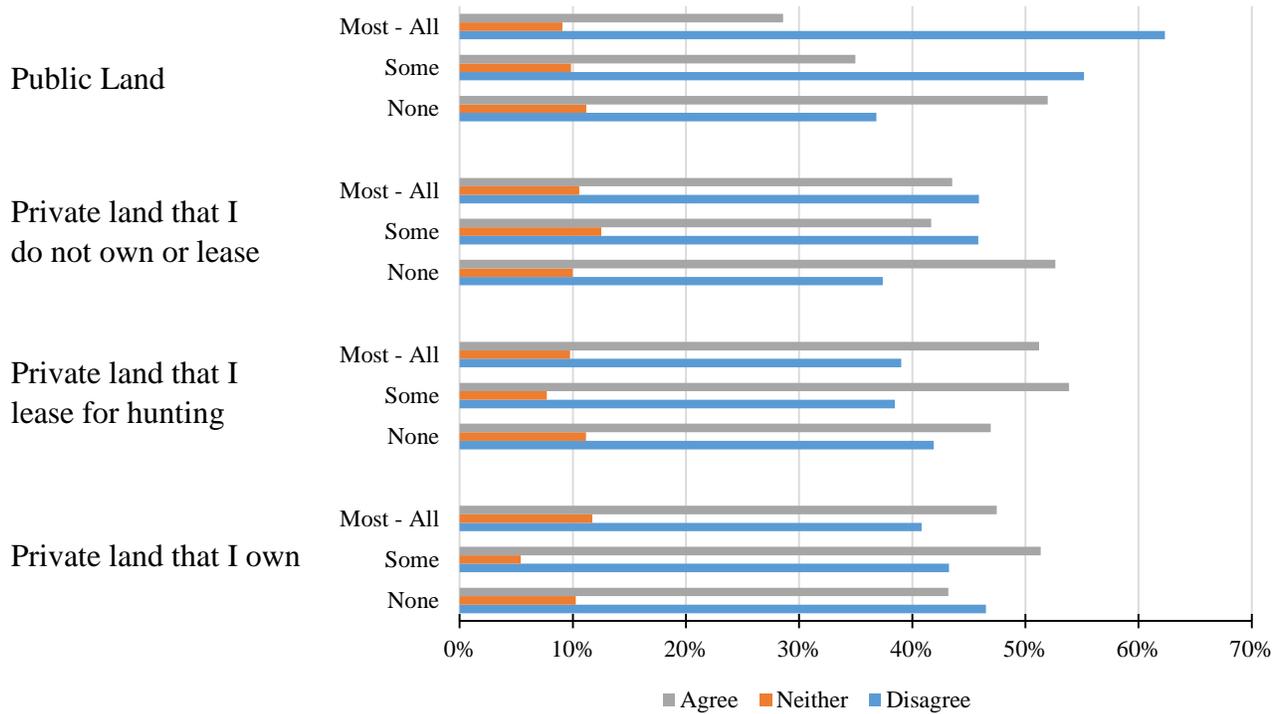
Table 5. Overall hunter satisfaction with total deer numbers, by deer area.

Deer Area	Dissatisfied		Neither		Satisfied	
	N	Percent	N	Percent	N	Percent
213	81	47%	30	17%	63	36%
214	59	41%	25	17%	60	42%
215	50	42%	16	13%	53	45%
218	44	44%	25	25%	32	32%
239	91	59%	13	8%	51	33%
240	70	51%	16	12%	52	38%
273	29	69%	5	12%	8	19%
276	35	56%	14	22%	14	22%
277	55	42%	22	17%	53	41%
Total	514	48%	166	16%	386	36%

Table 6. Hunter satisfaction with number and quality of bucks, antlerless deer, and total deer numbers, by area.

		Deer Area									
		213	214	215	218	239	240	273	276	277	Total
I was satisfied with the number of legal bucks	Disagree	42%	36%	34%	47%	55%	41%	67%	60%	56%	46%
	Neither	11%	14%	18%	20%	14%	21%	21%	13%	15%	16%
	Agree	47%	50%	48%	34%	31%	38%	12%	27%	28%	38%
I was satisfied with the quality of bucks	Disagree	42%	42%	39%	50%	49%	43%	68%	56%	53%	47%
	Neither	18%	16%	18%	15%	18%	21%	12%	11%	21%	18%
	Agree	40%	42%	43%	35%	32%	35%	20%	32%	26%	35%
I heard about or saw legal bucks while hunting	Disagree	24%	22%	15%	25%	31%	21%	36%	25%	27%	24%
	Neither	12%	11%	14%	12%	12%	16%	17%	13%	18%	14%
	Agree	63%	67%	71%	63%	58%	62%	48%	62%	55%	62%
I was satisfied with the total number of antlerless deer	Disagree	34%	30%	30%	23%	46%	35%	46%	32%	34%	34%
	Neither	11%	12%	15%	16%	15%	15%	22%	19%	13%	14%
	Agree	55%	57%	56%	61%	40%	51%	32%	48%	53%	52%
I was satisfied with the total number of deer I saw while hunting	Disagree	43%	38%	36%	35%	55%	47%	69%	57%	38%	44%
	Neither	9%	12%	11%	14%	9%	9%	12%	11%	12%	11%
	Agree	49%	49%	53%	51%	36%	45%	19%	32%	50%	45%

Figure 2. Hunter satisfaction with total number of deer seen, based on land type hunted.



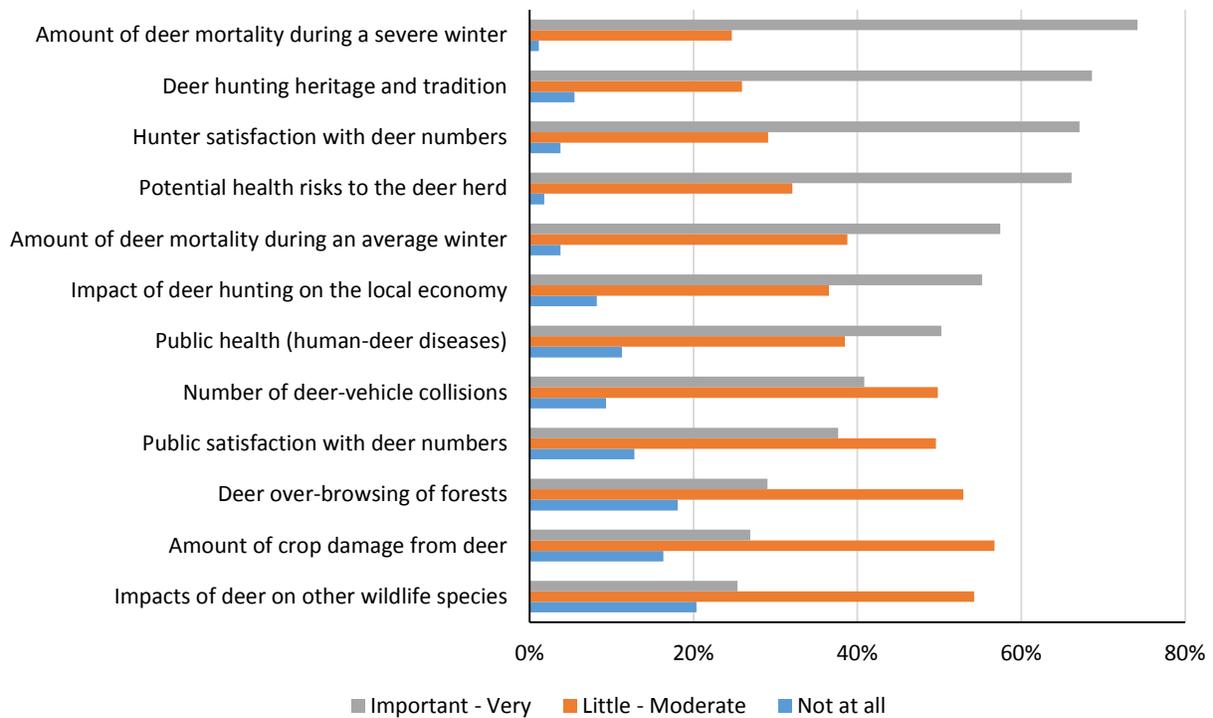
Consideration when setting deer population goals

Respondents were also asked to rate the importance of 12 items when setting deer population goals. They were expressed as items that respondents could consider as relatively important when setting deer population goals. The scale ranges from ‘not at all important’ to ‘very important’ and covered a range of items that would lead to management for either higher or lower deer populations. Overall, respondents viewed severe winter mortality, hunting tradition, and hunter satisfaction as the 3 most important items. The impacts on other species, amount of crop damage, and deer over-browsing of forests were the 3 lowest variables (Table 7, Figure 3).

Table 7. Items that hunters believed should be important when considering setting deer population goals.

Item	Not				
	at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	4%	13%	26%	43%	15%
Amount of deer mortality during a severe winter	1%	6%	19%	40%	35%
Potential health risks to the deer herd	2%	11%	21%	44%	22%
Public health (human-deer diseases)	11%	18%	20%	26%	25%
Amount of crop damage from deer	16%	29%	28%	20%	7%
Number of deer-vehicle collisions	9%	23%	27%	29%	12%
Deer over-browsing of forests	18%	24%	29%	23%	6%
Impacts of deer on other wildlife species	20%	27%	27%	21%	4%
Deer hunting heritage and tradition	5%	8%	18%	35%	34%
Hunter satisfaction with deer numbers	4%	7%	22%	45%	23%
Public satisfaction with deer numbers	13%	21%	28%	28%	9%
Impact of deer hunting on the local economy	8%	13%	24%	34%	21%

Figure 3. Graphical importance of items that should be considered when setting deer population goals as defined by hunters. Responses were consolidated into 3 groups and ranked by relative importance from low to high.



Landowner Survey

Demographics

We received 222, 238, 250, and 251 responses from the 4 strata, respectively. In total, 57% of respondents indicated they hunted deer in Minnesota during the 2014 deer season; similar percentages were reported for 2012 (59%) and 2013 (58%). Since those percentages of landowners that hunted did not vary, tables that describe hunter attitudes are based off whether or not they hunted in 2014 only. By stratum, a lower proportion of respondents who owned 2 – 20 acres indicated they hunted (43%), as compared to other landowners (20-79.9: 60%; 80 – 319.9: 68%; 320+: 57%). Overall, individuals had hunted an average of 35 years. Overall, 86% of respondents were male and the average age was 60.5 (range = 25 – 95).

Hunting patterns

A majority of landowners did most (21%) or all (63%) of their hunting on their own private land. One-quarter of all landowners did at least some hunting on public land (25%), while 37% hunted private land they did not own or lease. Only 7% hunted on private land that they leased for hunting. Regardless of where they hunted, a majority of hunting landowners expressed a desire for an increase in deer numbers (Table 8).

Three-quarters (76%) of landowners indicated they allowed hunting on their property. As expected, individuals with smaller parcels allowed hunting at lower rates (46%) than landowners with at least 20 acres (range = 78% - 90%). Overall, only 4% (n=26) of landowners indicated they leased their property for hunting. With respect to who is allowed to hunt, 59% indicated family members, 42% indicated friends and neighbors, and 5% allowed strangers who asked permission.

Reported damage from deer

The percentage of landowners who had acreage in crops (e.g., row crops, small grains, orchards, vegetables) increased with stratum (range = 64% - 88%). The percentage of respondents who owned residential properties and those who owned woodlands were both consistent among stratum (Figure 4). Among landowners who owned cropland, one-third (33%) indicated that they experienced damage to their crops. Landowners who owned at least 320 acres were most likely to indicate they had damage to their crops (48%). A smaller percentage of respondents indicated they had residential (17%) or forest (6%) damage from deer. With respect to residential damage, landowners who owned <20 acres were more inclined to indicate damage from deer (Figure 5).

We observed no statistical differences among severity of damage based on land type (crop, woods, residential) or strata by deer permit area. Essentially, damage due to deer was typically categorized from ‘negligible’ to ‘moderate’, regardless of parcel size (Table 9). We also observed no statistical differences among deer permit areas for landowners who reported damage to crops, woods, or residential acreage (Figure 6).

Table 8. Condensed table of desired deer population trends for landowners that hunted by land type hunted.

Type of land hunted		Desired Population Trend		
		Decrease	No Change	Increase
Private land that I own	None	3%	25%	72%
	Some	4%	22%	74%
	Most	7%	20%	73%
	All	16%	29%	55%
Private land that I lease for hunting	None	10%	33%	57%
	Some	7%	14%	79%
	Most	20%	0%	80%
	All	17%	33%	50%
Private land that I do not own or lease	None	12%	36%	52%
	Some	6%	21%	73%
	Most	7%	17%	76%
	All	4%	8%	88%
Public land	None	12%	32%	57%
	Some	5%	22%	73%
	Most	0%	22%	78%
	All	0%	33%	67%

Figure 4. Percent of landowners who owned crops, woods, and residential acreage.

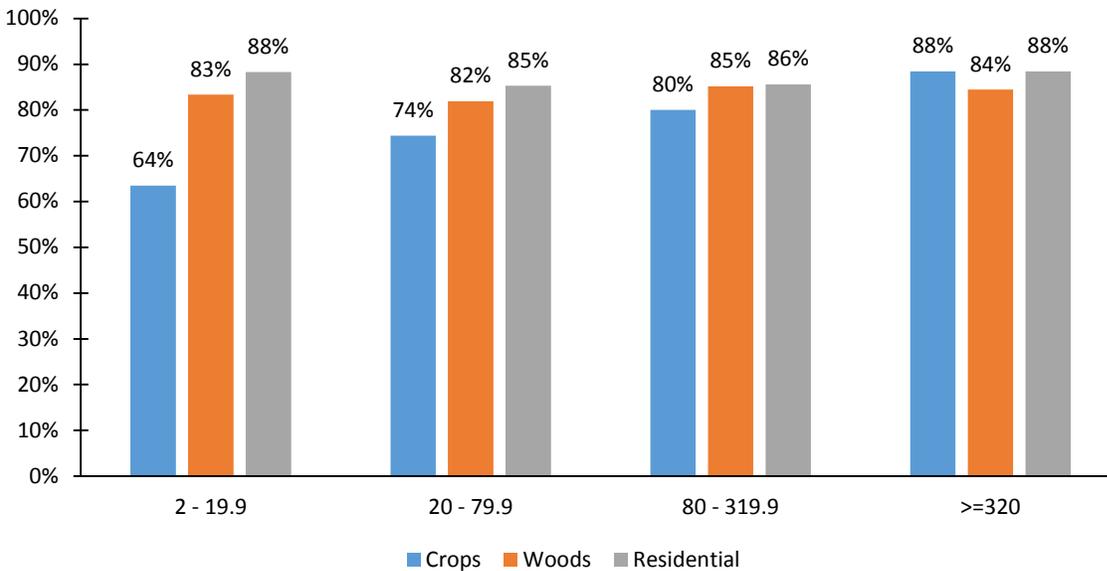


Figure 5. Percent of landowners who indicated they had damage from deer.

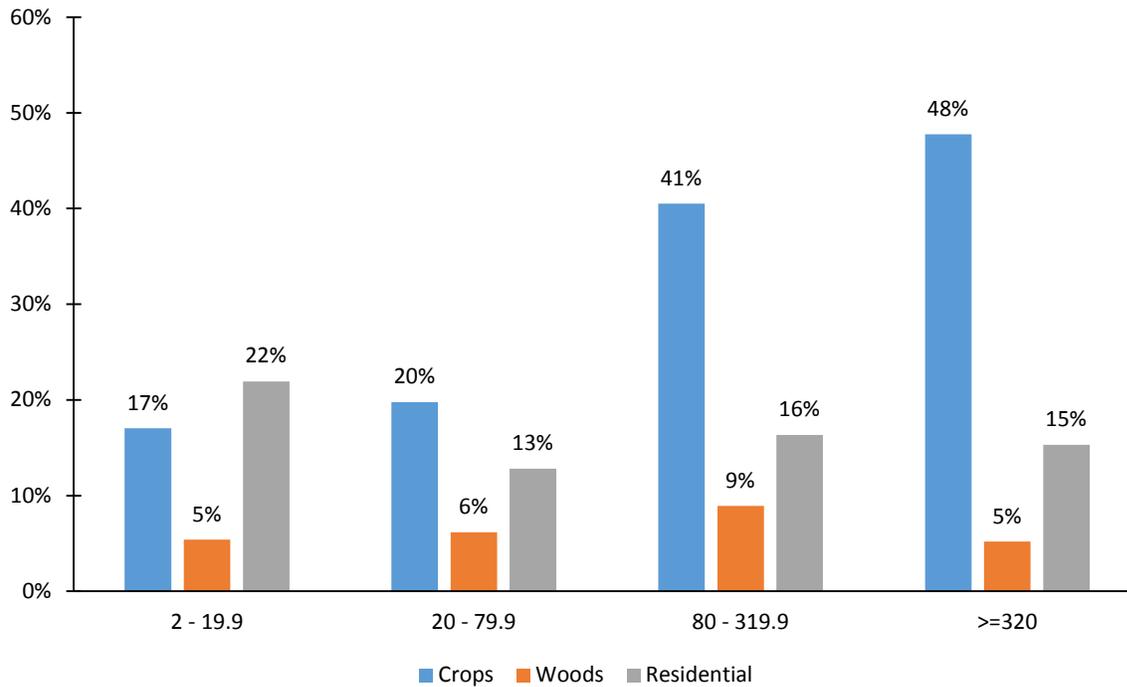
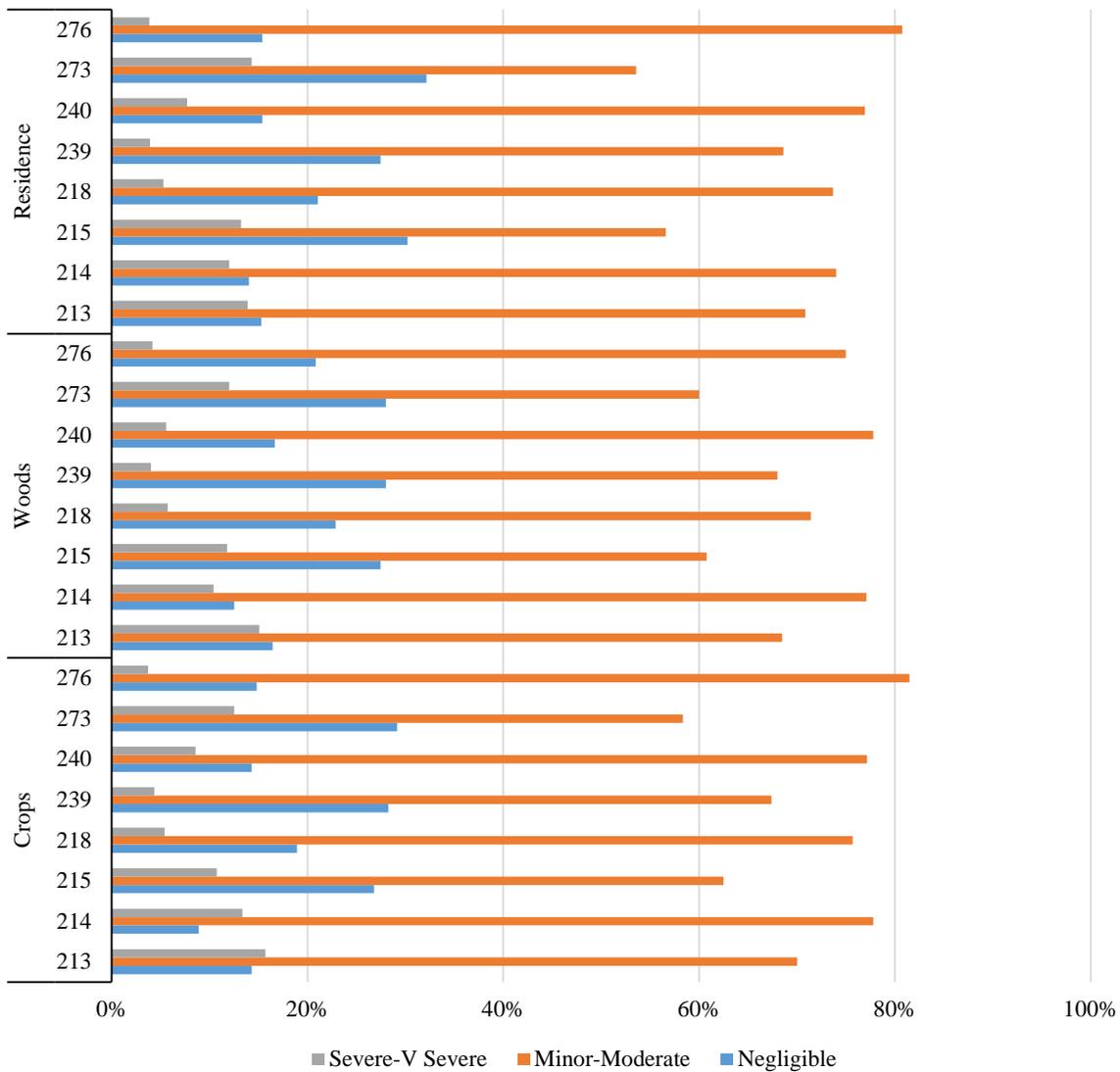


Table 9. Self-described damage caused by deer for crops, woods, and residential land types.

		Strata				Total
		2-19.9	20-70.9	80-319.9	>=320	
Crops	Negligible	25%	23%	21%	12%	19%
	Minor	34%	36%	45%	48%	43%
	Moderate	29%	31%	22%	32%	28%
	Severe	11%	7%	9%	6%	8%
	Very Severe	2%	3%	3%	2%	2%
Woods	Negligible	29%	24%	22%	14%	21%
	Minor	32%	36%	44%	50%	42%
	Moderate	29%	32%	22%	29%	27%
	Severe	11%	7%	10%	4%	8%
	Very Severe	0%	2%	3%	2%	2%
Residential	Negligible	28%	26%	22%	13%	21%
	Minor	30%	36%	44%	50%	42%
	Moderate	31%	26%	21%	30%	27%
	Severe	9%	8%	10%	5%	8%
	Very Severe	1%	3%	3%	2%	2%

Figure 6. Reported damage to crops, woods, and residential acreage, by deer permit area. Deer permit area 277 was excluded due to low response.



Population trends and perceptions about deer populations

Respondents were asked to indicate their perceptions of deer population trends over the last 5 years. Overall, 52% (46% non-hunters, 57% hunters) of respondents indicated there were fewer deer than 5 years ago, 20% (20% non-hunters, 19% hunters) indicated more, and 28% (34% non-hunters, 24% hunters) believed populations were the same. We observed some differences among deer permit areas with respondents from permit area 273 being more likely to indicate the deer population was lower (69%), while respondents from permit area 277 was least likely to indicate that the deer population was lower (33%; Table 10). Respondents were also asked for their perceptions of total deer population size as rated by ‘too low’, ‘about right’, or ‘too high’. Non-hunting landowners were more likely to indicate the deer population was ‘about right’ (53% vs 42%), while hunters were more likely to indicate populations were ‘too low’ (48% vs 30%).

Non-hunters were more likely to indicate the population was ‘too high’ (9% hunters, 18% non-hunters). Similar patterns were detected by deer area in that hunting landowners were more likely to express different population desires than non-hunting landowners (Table 11). Respondents were also asked to indicate their desires for future deer population densities and 51% wanted to see an increase in deer densities at some level (Table 12; Figure 7). We also observed clear differences between hunting and non-hunting landowners with hunting landowners indicating stronger preferences for higher deer populations (Table 13; Figure 8).

Table 10. Perceptions of landowner deer population trends over the last 5 years, by deer area.

Deer Area	Lower		The Same		Higher	
	N	Percent	N	Percent	N	Percent
213	83	47%	54	30%	41	23%
214	49	46%	33	31%	24	23%
215	53	42%	39	31%	34	27%
218	41	40%	36	35%	25	25%
239	105	67%	38	24%	14	9%
240	66	61%	25	23%	17	16%
273	61	69%	19	21%	9	10%
276	22	45%	13	27%	14	29%
277	4	33%	4	33%	4	33%
Total	484	52%	261	28%	182	20%

Table 11. Landowner beliefs about current population densities, by deer area and whether or not they hunted.

Hunt	Deer Area	N	Too low	N	About right	N	Too high
No (40%)	213	31	38%	33	41%	17	21%
	214	2	8%	19	73%	5	19%
	215	11	25%	23	52%	10	23%
	218	9	18%	32	64%	9	18%
	239	26	36%	40	56%	6	8%
	240	10	40%	12	48%	3	12%
	273	16	40%	17	42%	7	18%
	276	3	14%	12	57%	6	29%
	277	1	12%	5	62%	2	25%
	Sum	109	30%	193	53%	65	18%
Yes (60%)	213	38	41%	39	42%	16	17%
	214	27	34%	43	54%	9	11%
	215	31	38%	43	53%	7	9%
	218	23	46%	25	50%	2	4%
	239	57	70%	20	24%	5	6%
	240	40	48%	36	43%	7	8%
	273	36	75%	11	23%	1	2%
	276	12	43%	13	46%	3	11%
	277	1	25%	1	25%	2	50%
	Sum	265	48%	231	42%	52	9%
Total	213	69	40%	72	41%	33	19%
	214	29	28%	62	59%	14	13%
	215	42	34%	66	53%	17	14%
	218	32	32%	57	57%	11	11%
	239	83	54%	60	39%	11	7%
	240	50	46%	48	44%	10	9%
	273	52	59%	28	32%	8	9%
	276	15	31%	25	51%	9	18%
	277	2	17%	6	50%	4	33%
	Sum	374	41%	424	46%	117	13%

Table 12. Preferred landowner population trends, by deer area.

(a) By individual response

Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
213	5%	8%	8%	32%	18%	20%	9%
214	7%	9%	5%	38%	22%	13%	7%
215	5%	4%	5%	40%	23%	16%	7%
218	2%	7%	6%	38%	22%	18%	8%
239	1%	4%	5%	27%	20%	29%	14%
240	2%	6%	7%	30%	22%	21%	12%
273	2%	2%	9%	24%	13%	36%	14%
276	10%	2%	8%	37%	18%	16%	8%
277	8%	17%	8%	50%	8%	8%	0%
Total	4%	6%	6%	33%	20%	21%	10%

(b) Summarized by decrease, stay the same, increase

Deer Area	Decrease	Same	Increase
213	21%	32%	47%
214	20%	38%	42%
215	14%	40%	46%
218	15%	38%	48%
239	10%	27%	63%
240	14%	30%	56%
273	14%	24%	62%
276	20%	37%	43%
277	33%	50%	17%
Total	16%	33%	51%

Figure 7. Graphical representation of desired deer population trends for landowners.

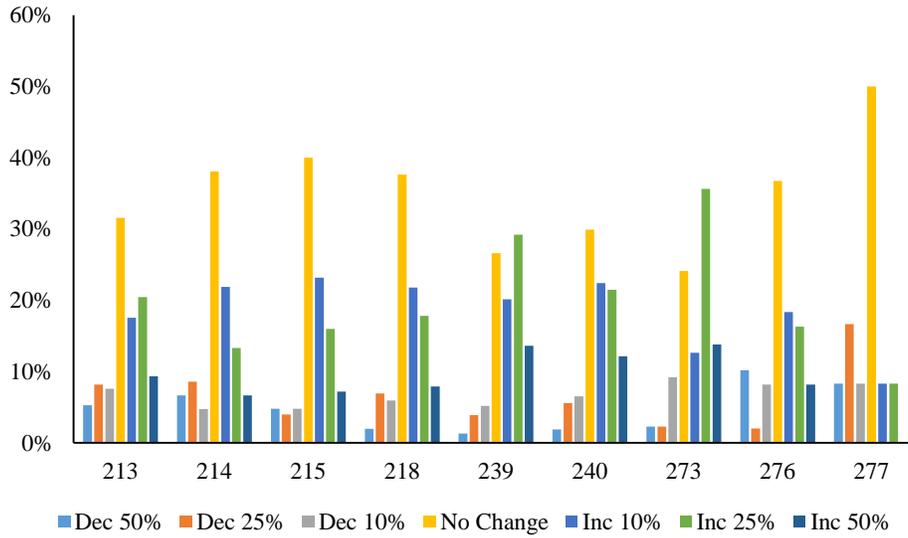
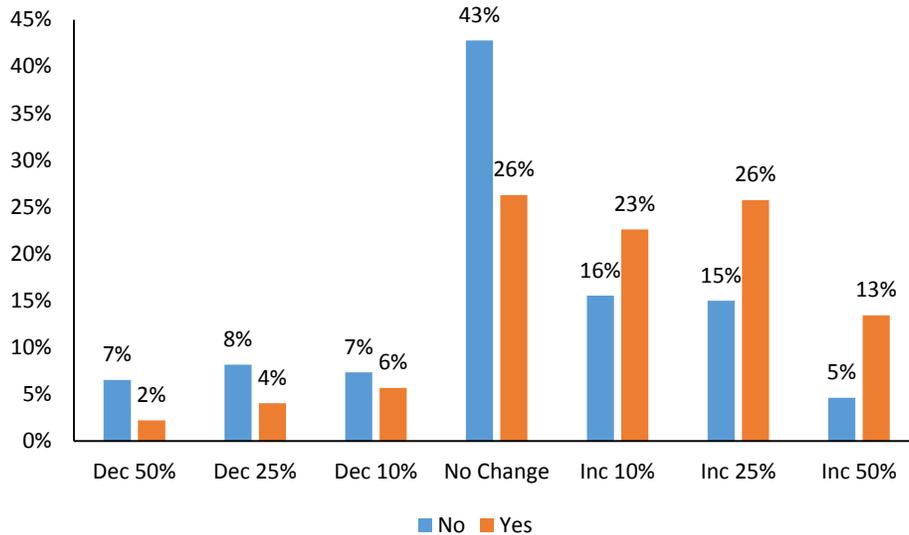


Table 13. Desired deer population trends for landowners, by deer area and whether or not they hunted.

Hunt	Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
No (40%)	213	9%	10%	8%	35%	14%	16%	9%
	214	12%	12%	4%	50%	19%	4%	0%
	215	11%	7%	2%	48%	16%	16%	0%
	218	4%	10%	10%	53%	10%	14%	0%
	239	1%	7%	4%	44%	18%	18%	7%
	240	0%	8%	12%	40%	20%	20%	0%
	273	5%	5%	15%	32%	15%	18%	10%
	276	14%	5%	10%	38%	24%	5%	5%
	277	12%	12%	0%	62%	0%	12%	0%
	Total	7%	8%	7%	43%	16%	15%	5%
Yes (60%)	213	2%	7%	8%	29%	21%	24%	10%
	214	5%	8%	5%	34%	23%	16%	9%
	215	1%	2%	6%	36%	27%	16%	11%
	218	0%	4%	2%	22%	34%	22%	16%
	239	1%	1%	6%	11%	22%	39%	20%
	240	2%	5%	5%	27%	23%	22%	16%
	273	0%	0%	4%	17%	11%	51%	17%
	276	7%	0%	7%	36%	14%	25%	11%
	277	0%	25%	25%	25%	25%	0%	0%
	Total	2%	4%	6%	26%	23%	26%	13%

Figure 8. Graphical representation of landowner desires for future deer populations, by whether or not they hunted.



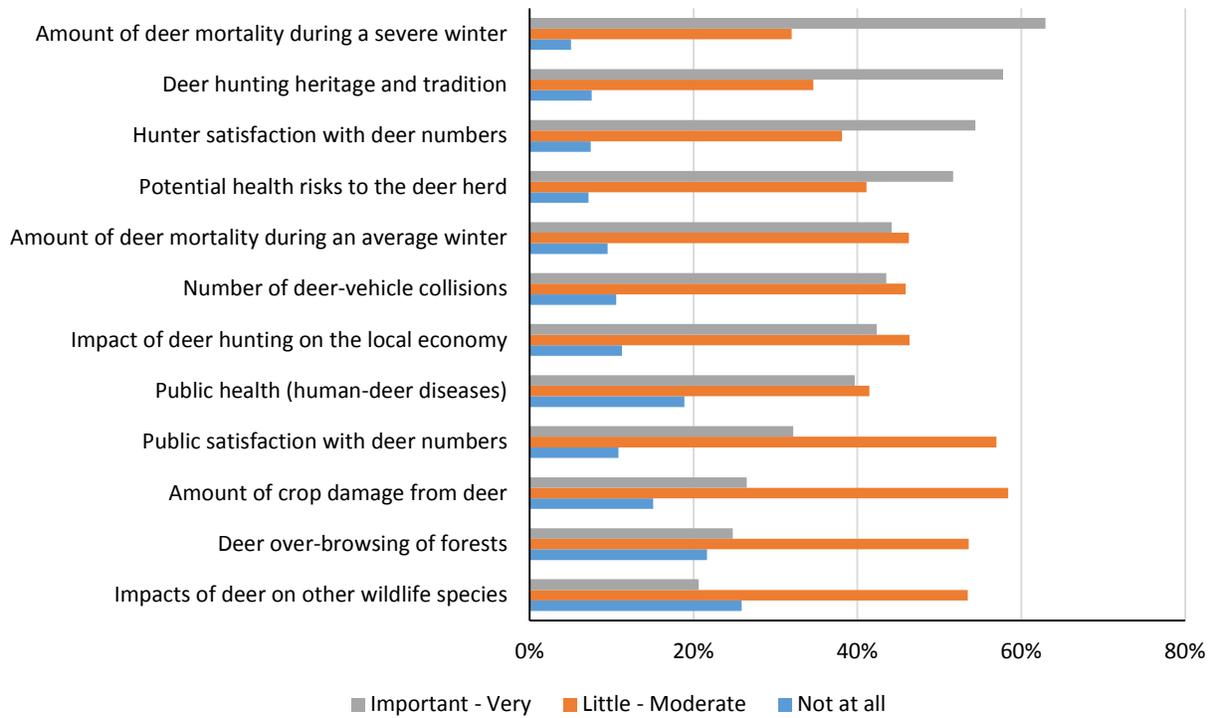
Consideration when setting deer population goals

Respondents were also asked to rate the importance of 12 items when setting deer population goals. The scale ranges from ‘not at all important’ to ‘very important’ and covered a range of items that would lead to both higher and lower deer populations. Deer mortality during a severe winter, hunting tradition, and hunter satisfaction were the 3 most important considerations for landowners. Impacts on other species, deer over-browsing of forests, and the amount of crop damage from deer were the 3 lowest variables (Table 14; Figure 9).

Table 14. Importance of items landowners indicated should be considered when setting deer population goals.

Item	Relative Importance				
	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	10%	17%	30%	33%	11%
Amount of deer mortality during a severe winter	5%	12%	20%	35%	28%
Potential health risks to the deer herd	7%	16%	26%	32%	20%
Public health (human-deer diseases)	19%	20%	22%	23%	17%
Amount of crop damage from deer	15%	28%	30%	19%	8%
Number of deer-vehicle collisions	11%	19%	26%	25%	18%
Deer over-browsing of forests	22%	26%	28%	20%	5%
Impacts of deer on other wildlife species	26%	24%	29%	16%	4%
Deer hunting heritage and tradition	8%	11%	24%	32%	26%
Hunter satisfaction with deer numbers	7%	11%	27%	35%	20%
Public satisfaction with deer numbers	11%	21%	36%	24%	8%
Impact of deer hunting on the local economy	11%	17%	30%	30%	13%

Figure 9. Graphical importance of items that should be considered when setting deer population goals as defined by landowners. Responses were consolidated into 3 groups and ranked from low to high by highest importance.



2015 Survey of Minnesota Deer Hunters: Hunters Opinions and Activities

The Minnesota Department of Natural Resources will be evaluating deer population goals in northwestern Minnesota this year. An important component of this project is to collect information from deer hunters regarding their opinions towards deer populations. You have been selected at random to participate in this survey. Please take a few moments to answer the questions below. Your responses will help guide deer population goals in the area you hunt; we are also collecting additional information on hunter perspectives regarding deer management in general. This survey should take less than 20 minutes to complete.

1. Please check the boxes below to report if you hunted deer in Minnesota during the 2012, 2013 or 2014 Minnesota deer season. *(Please check all that apply).*

2012 | 2013 | 2014

I did not hunt deer any of these years → **PLEASE SKIP TO QUESTION 13**

2. Minnesota allows people to hunt deer during all 3 seasons. For the most recent year you hunted, which seasons did you participate? Please mark 'Yes' if you hunted a season and also estimate the number of days you scouted and hunted.

Season	Yes	No	If Yes, Number of Days Scouting	If Yes, Number of Days Hunting
Archery	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
Firearm	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____
Muzzleloader	<input type="checkbox"/>	<input type="checkbox"/>	_____	_____

3. Which **ONE** deer permit area did you hunt most often during the most recent deer season you hunted?

201 | 203 | 208 | 209 | 213 | 214 | 215 | 218 | 239 | 240 | 256 |

257 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 |

270 | 271 | 272 | 273 | 276 | 277 | 297 I hunted a permit area not listed

4. If you did not hunt one of the permit areas listed above, please tell us which one you hunted most often:

_____ Area Number

5. Including 2014, how many years have you hunted deer in the permit area you hunt most often?

_____ Years

6. Including 2014, how many years have you been hunting deer in Minnesota? _____ Years

7. How much of your deer hunting did you do on each of the following types of land during your most recent deer hunting season? *(Please circle one item from each row.)*

	None	Some	Most	All
Private land that I own	1	2	3	4
Private land that I lease for hunting	1	2	3	4
Private land that I do not own or lease	1	2	3	4
Public land	1	2	3	4

8. Please indicate if there are any deer harvest restrictions on the property you hunt most often.

- Antlerless harvest is restricted, but hunters can take any legal buck
- Buck harvest restricted to large antlered bucks, but hunters can take any antlerless deer
- Buck harvest restricted to large antlered bucks, and antlerless harvest is also restricted
- No restrictions on the type of deer that can be harvested
- Other (please explain): _____

9. Please indicate whether you agree or disagree with the following statements regarding your most recent deer hunt. (Please circle one number for each statement below).

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
I was satisfied with the number of legal bucks	1	2	3	4	5
I was satisfied with the quality of bucks	1	2	3	4	5
I heard about or saw legal bucks while hunting	1	2	3	4	5
I was satisfied with the number of antlerless deer	1	2	3	4	5
I was satisfied with the number of deer I saw while hunting	1	2	3	4	5

10. Will you shoot an antlerless deer if given the opportunity?

- Yes No

11. Over the past 5 years, what trend have you seen in the deer population in the permit area you hunt most often?

- Much fewer deer now than 5 years ago
- Slightly fewer deer now than 5 years ago
- About the same number of deer as 5 years ago
- Slightly more deer now than 5 years ago
- Many more deer now than 5 years ago

12. In thinking about the deer permit area you hunt, please indicate your overall satisfaction with current deer numbers.

- Very Dissatisfied
- Slightly Dissatisfied
- Neither Dissatisfied nor Satisfied
- Slightly Satisfied
- Very Satisfied

13. How much importance should we assign to each of the following considerations when setting deer population goals?
 (Please circle one number for each statement below).

	Not at all Important	A little Important	Moderately Important	Important	Very Important
Amount of deer mortality during an average winter	1	2	3	4	5
Amount of deer mortality during a severe winter	1	2	3	4	5
Potential health risks to the deer herd	1	2	3	4	5
Public health (human-deer diseases)	1	2	3	4	5
Amount of crop damage from deer	1	2	3	4	5
Number of deer-vehicle collisions	1	2	3	4	5
Deer over-browsing of forests	1	2	3	4	5
Impacts of deer on other wildlife species	1	2	3	4	5
Deer hunting heritage and tradition	1	2	3	4	5
Hunter satisfaction with deer numbers	1	2	3	4	5
Public satisfaction with deer numbers	1	2	3	4	5
Impact of deer hunting on the local economy	1	2	3	4	5

14. Please identify up to 3 other factors that you believe are important and should be considered when setting deer population goals.

- 1) _____
- 2) _____
- 3) _____

15. In thinking about the deer permit area you hunt, would you say the deer population is,

- Much too Low Too Low About Right Too High Much too High

16. In thinking about the property you hunt and the surrounding area, at what level do you think the deer population should be managed? (Please circle one).

- | | | | | | | |
|-------------------------------|-------------------------------|-------------------------------|--------------|-------------------------------|-------------------------------|-------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Decrease
Population
50% | Decrease
Population
25% | Decrease
Population
10% | No
Change | Increase
Population
10% | Increase
Population
25% | Increase
Population
50% |
| (Significant) | (Moderate) | (Slight) | | (Slight) | (Moderate) | (Significant) |

17. To what extent would you support or oppose a regulation that would increase the proportion of antlered bucks in the deer area you hunt most often?

- Strongly Oppose
- Slightly Oppose
- Neither Oppose nor Support
- Slightly Support
- Strongly Support

18. Please let us know how you feel about the Minnesota Department of Natural Resources. *(Please circle one response for each of the following statements.)*

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
The MnDNR does a good job of managing deer in Minnesota.	1	2	3	4	5
When deciding about deer management in Minnesota, the MnDNR will be open and honest in the things they do and say.	1	2	3	4	5
The MnDNR can be trusted to make decisions about deer management that are good for the resource.	1	2	3	4	5
The MnDNR will make decisions about deer management in a way that is fair.	1	2	3	4	5
The MnDNR has deer managers and biologists who are well-trained for their jobs.	1	2	3	4	5
The MnDNR listens to the concerns of deer hunters.	1	2	3	4	5

19. How many years have you lived in Minnesota _____ Years

20. What is your gender?

Male Female

21. What is your age? _____

22. What is the highest level of education you have completed? *(Check one.)*

- | | |
|--|---|
| <input type="checkbox"/> Grade school | <input type="checkbox"/> Some college |
| <input type="checkbox"/> Some high school | <input type="checkbox"/> Four-year college (bachelor's) degree |
| <input type="checkbox"/> High school diploma or GED | <input type="checkbox"/> Some graduate school |
| <input type="checkbox"/> Some vocational or technical school | <input type="checkbox"/> Graduate (master's or doctoral) degree |
| <input type="checkbox"/> Vocational or technical school (associate's) degree | |

23. Do you have access to the internet at home or another location?

Yes No

If you would be willing to respond to additional questions about deer management and hunting in Minnesota and are willing to provide your email address, please write it below. We will only use your email address for research related to deer management and will not share it with anyone.

E-mail address: _____

I do not have an e-mail address

2015 Survey of Minnesota Landowners: Preference for Deer Management and Management Processes

The Minnesota Department of Natural Resources will be evaluating deer population goals in northwestern Minnesota this year. An important component of this project is to collect information from landowners regarding their opinions towards deer populations and land management. We are also seeking input on public preferences regarding participation in management decisions. You have been selected at random to participate in this survey. Please take a few moments to answer the questions below. This survey should take less than 20 minutes to complete. Your responses will help guide deer population goals in the area you own land and help inform public engagement in general.

1. How many total acres did you own and/or lease at the end of 2014?
 _____ Acres Owned _____ Acres Leased

2. Please make a “rough” estimate as to how many acres of your property (owned and leased) are in each of the following categories. Please also estimate the percentage of that land type you have enrolled in a State or Federal Conservation Program.

Land Type	Acres Owned	Acres Leased	% Enrolled in Conservation Program
Private Residence (house, lawns, associated buildings)			%
Woodlands (natural forest or tree plantings)			%
Brushland (including abandoned, overgrown fields)			%
Hayfields, Pasture, or Grassland			%
Wetlands			%
Row Crops			%
Small Grains			%
Orchards or Vineyards			%
Vegetables or other Truck Crops			%
Prairie (Native or Restored)			%
Wildlife Food Plots			%
Other (please list: _____)			%

3. Did you experience deer damage to land that you own or leased in 2014?

- | | | | |
|-------------|------------------------------|-----------------------------|--|
| Crops | <input type="checkbox"/> Yes | <input type="checkbox"/> No | } IF ALL ARE <u>NO</u> PLEASE SKIP TO QUESTION 6 |
| Woodlands | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |
| Landscaping | <input type="checkbox"/> Yes | <input type="checkbox"/> No | |

4. How would you describe the total amount of deer damage you experienced in 2014? (Check one)

- Negligible Minor Moderate Severe Very Severe

5. How would you compare the amount of deer damage you experienced in 2014 to what you experienced 5 years ago?

(Check one)

- Much less damage than 5 years ago
- Slightly less damage than 5 years ago
- About the same damage as 5 years ago
- Slightly more damage than 5 years ago
- Much more damage than 5 years ago
- I was not farming/managing lands 5 years ago

6. Over the past 5 years, what trend have you seen in the deer population in the area of your property?

- Much fewer deer now than 5 years ago
- Slightly fewer deer now than 5 years ago
- About the same number of deer as 5 years ago
- Slightly more deer now than 5 years ago
- Many more deer now than 5 years ago

7. In thinking about your property and the surrounding area, please indicate your overall satisfaction with current deer numbers.

- Very Dissatisfied
- Slightly Dissatisfied
- Neither Dissatisfied nor Satisfied
- Slightly Satisfied
- Very Satisfied

8. How much importance should we assign to each of the following considerations when setting deer population goals?

(Please circle one number for each statement below).

	Not at all Important	A little Important	Moderately Important	Important	Very Important
Amount of deer mortality during an <u>average</u> winter	1	2	3	4	5
Amount of deer mortality during a <u>severe</u> winter	1	2	3	4	5
Potential health risks to the deer herd	1	2	3	4	5
Public health (human-deer diseases)	1	2	3	4	5
Amount of crop damage from deer	1	2	3	4	5
Number of deer-vehicle collisions	1	2	3	4	5
Deer over-browsing of forests	1	2	3	4	5
Impacts of deer on other wildlife species	1	2	3	4	5
Deer hunting heritage and tradition	1	2	3	4	5
Hunter satisfaction with deer numbers	1	2	3	4	5
Public satisfaction with deer numbers	1	2	3	4	5
Impact of deer hunting on the local economy	1	2	3	4	5

9. Please identify up to 3 other factors that you believe are important and should be considered when setting deer population goals.

- 1) _____
- 2) _____
- 3) _____

10. In thinking about your property and the surrounding area, would you say the deer population is,

- Much too Low Too Low About Right Too High Much too High

11. In thinking about your property and the surrounding area,, at what level do you think the deer population should be managed? (*Please circle one*).

1	2	3	4	5	6	7
Decrease Population 50% (Significant)	Decrease Population 25% (Moderate)	Decrease Population 10% (Slight)	No Change	Increase Population 10% (Slight)	Increase Population 25% (Moderate)	Increase Population 50% (Significant)

12. Did you allow hunting on your property during the 2014 deer season? (*Check only one*)

- Yes
 No → PLEASE SKIP TO QUESTION 16

13. Do you lease any of your property for deer hunting?

- Yes
 No

14. Who did you allow to hunt deer on your property? (*Check all that apply*). Please also estimate the number of people who hunted your property in 2014.

- Myself or family members _____ people | Strangers who ask permission _____ people
 Friends or neighbors _____ people | People who lease my property _____ people
 Other (please list: _____) _____ people

15. Please indicate if you impose any deer harvest restrictions on your property. (*Please check one only*)

- Antlerless harvest is restricted, but hunters can take any legal buck
 Buck harvest restricted to large antlered bucks, but hunters can take any antlerless deer
 Buck harvest restricted to large antlered bucks, and antlerless harvest is also restricted
 No restrictions on the type of deer that can be harvested
 Other (please list: _____)

16. Please check the boxes below if you hunted deer in Minnesota during the 2012, 2013 or 2014 Minnesota deer season? (*Please check all that apply*)

- 2012 | 2013 | 2014
 I hunt deer but did not hunt any of these years → Please skip to Question 20
 I do not hunt deer at all → Please skip to Question 21

17. Which **ONE** deer permit area did you hunt most often during the most recent deer season you hunted?

- 201 | 203 | 208 | 209 | 213 | 214 | 215 | 218 | 239 | 240 | 256 |
 257 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 |
 270 | 271 | 272 | 273 | 276 | 277 | 297 | I hunted a permit area not listed

18. If you did not hunt one of the permit areas listed above, please tell us which one you hunted most often:

_____ Area Number

19. How much of your deer hunting did you do on each of the following types of land during your most recent deer hunting season? (*Circle one number for each row*)

	None	Some	Most	All
Private land that I own	1	2	3	4
Private land that I lease for hunting	1	2	3	4
Private land that I do not own or lease	1	2	3	4
Public land	1	2	3	4

20. Including 2014, how many years have you been hunting deer in Minnesota? _____ Years.

21. To what extent would you support or oppose a regulation that would increase the proportion of antlered bucks in the area you own property? (*Check one*)

- Strongly Oppose
 Slightly Oppose
 Neither Oppose nor Support
 Slightly Support
 Strongly Support

22. Please let us know how you feel about the Minnesota Department of Natural Resources. (*Please circle one response for each of the following statements.*)

	Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
The MnDNR does a good job of managing deer in Minnesota.	1	2	3	4	5
When deciding about deer management in Minnesota, the MnDNR will be open and honest in the things they do and say.	1	2	3	4	5
The MnDNR can be trusted to make decisions about deer management that are good for the resource.	1	2	3	4	5
The MnDNR will make decisions about deer management in a way that is fair.	1	2	3	4	5
The MnDNR has deer managers and biologists who are well-trained for their jobs.	1	2	3	4	5
The MnDNR listens to the concerns of landowners.	1	2	3	4	5

23. How many years have you lived in Minnesota? _____ years

24. What is your gender?

- Male Female

25. What is your age? _____

26. What is the highest level of education you have completed? (*Check one.*)

- | | |
|--|---|
| <input type="checkbox"/> Grade school | <input type="checkbox"/> Some college |
| <input type="checkbox"/> Some high school | <input type="checkbox"/> Four-year college (bachelor's) degree |
| <input type="checkbox"/> High school diploma or GED | <input type="checkbox"/> Some graduate school |
| <input type="checkbox"/> Some vocational or technical school | <input type="checkbox"/> Graduate (master's or doctoral) degree |
| <input type="checkbox"/> Vocational or technical school (associate's) degree | |

27. What was your annual household income from all sources, before taxes, in 2014?

\$ _____

28. Do you have access to the internet at home or another location?

- Yes
 No

If you would be willing to respond to additional questions about deer management and hunting in Minnesota and are willing to provide your email address, please write it below. We will only use your email address for research related to deer management and will not share it with anyone.

E-mail address: _____

Please write any comments you may have in the space below: