



**Northwest Parkland-Prairie
Deer Goal Setting – Block G7
Landowner and Hunter Survey Results**



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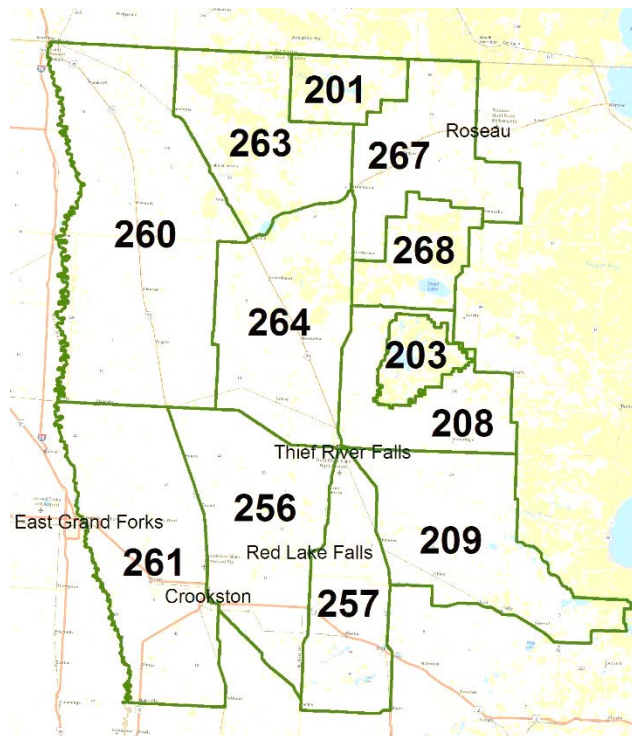
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Public Surveys for Deer Goal Setting

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 7, Northwest Parkland-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 2,600 adult 2014 deer license holders who indicated they intended to hunt in deer areas 201, 203, 208, 209, 256, 257, 260, 261, 263, 264, 267, or 268. A total of 107 surveys were undeliverable and we received 986 completed responses, which yielded an adjusted response rate of 40%. 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=630), strata 2 (n=537), strata 3 (n=561), and surveyed all landowners in strata 4 (n=281).

Overall, there were 119 undeliverable surveys; 566 completed landowner surveys were returned, yielding a 30% adjusted response rate. Landowners in Marshall County were originally included in the sample but were excluded due to out-of-date records and resulted in no data for permit area 208. For both surveys, our error rate at the goal block level was approximately 3%.

Hunter Survey

Demographics

Nearly all respondents (96%) indicated they hunted during the 2014 firearm deer season. Overall 14% indicated they hunted during the archery season and 17% hunted muzzleloader. Firearm hunters spent an average of 5.8 days afield, compared to 5.8 for muzzleloader and 13.4 for archery hunters. Overall, individuals had hunted an average of 29 years in Minnesota and 21 years in the deer area they indicated they hunted most often. Overall, 88% of respondents were male and the average age was 50.7 (range = 19 – 90).

More than half of hunters did at least some of their hunting on their own private land (66%) or other private land that they do not own or lease (66%). More than half (52%) did at least some of their hunting on public land. Another 6.2% indicated they did at least some hunting on lands that they leased for deer hunting. Only 0.9% 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, 80% of respondents indicated there were fewer deer than 5 years ago, 7% indicated more, and 14% believed populations were the same (Table 2). We observed some differences among deer permit areas with deer area 260 was most likely to indicate populations had declined (87%), while respondents from deer area 201 were least likely to indicate that the population had declined (65%). Respondents were also asked for their perceptions of total deer population size as rated by 'too low', 'about right', or 'too high'. More than half (65%) believed the population was 'too low', 31% thought it was 'about right', and 3% 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 (73%) wanted to see an increase in deer densities at some level (Table 4, Figure 1). A majority of respondents (82%) 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	5%	19%	76%
	Some	8%	15%	77%
	Most	9%	15%	76%
	All	9%	22%	69%
Private land that I lease for hunting	None	8%	20%	72%
	Some	9%	17%	74%
	Most	0%	0%	100%
	All	0%	0%	100%
Private land that I do not own or lease	None	9%	22%	70%
	Some	6%	14%	80%
	Most	7%	20%	73%
	All	10%	18%	72%
Public land	None	9%	22%	69%
	Some	7%	17%	76%
	Most	3%	12%	85%
	All	2%	16%	82%

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
201	20	65%	9	29%	2	6%
203	15	79%	4	21%	0	0%
208	40	75%	12	23%	1	2%
209	109	78%	23	17%	7	5%
256	104	86%	12	10%	5	4%
257	84	84%	10	10%	6	6%
260	85	87%	7	7%	6	6%
261	28	80%	5	14%	2	6%
263	71	72%	14	14%	13	13%
264	138	79%	25	14%	11	6%
267	26	72%	5	14%	5	14%
268	47	81%	6	10%	5	9%
Total	767	80%	132	14%	63	7%

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
201	18	58%	11	35%	2	6%
203	15	83%	3	17%	0	0%
208	35	66%	17	32%	1	2%
209	87	64%	45	33%	5	4%
256	71	58%	48	39%	3	2%
257	60	59%	38	38%	3	3%
260	78	80%	20	20%	0	0%
261	22	63%	10	29%	3	9%
263	69	70%	26	27%	3	3%
264	105	61%	60	35%	8	5%
267	23	66%	10	29%	2	6%
268	40	73%	13	24%	2	4%
Total	623	65%	301	31%	32	3%

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

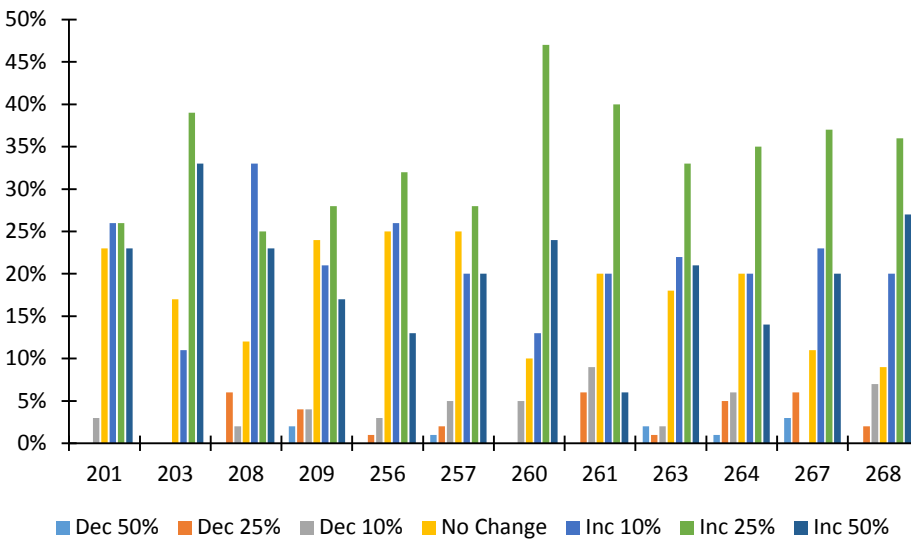
(a) By individual response

Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
201	0%	0%	3%	23%	26%	26%	23%
203	0%	0%	0%	17%	11%	39%	33%
208	0%	6%	2%	12%	33%	25%	23%
209	2%	4%	4%	24%	22%	28%	17%
256	0%	1%	3%	25%	26%	32%	13%
257	1%	2%	5%	24%	20%	29%	20%
260	0%	0%	5%	10%	13%	47%	24%
261	0%	6%	9%	20%	20%	40%	6%
263	2%	1%	2%	18%	22%	33%	21%
264	1%	5%	6%	20%	20%	35%	14%
267	3%	6%	0%	12%	21%	38%	21%
268	0%	2%	7%	9%	20%	36%	27%
Total	1%	3%	4%	19%	21%	34%	19%

(b) Summarized by decrease, same, increase

Deer Area	Decrease	Same	Increase
201	3%	23%	74%
203	0%	17%	83%
208	8%	12%	81%
209	10%	24%	66%
256	4%	25%	71%
257	9%	23%	68%
260	5%	10%	85%
261	14%	20%	66%
263	5%	18%	77%
264	11%	20%	69%
267	9%	12%	79%
268	9%	9%	82%
Total	8%	19%	73%

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. Nearly one-quarter (24%) were satisfied with current deer numbers and a majority (60%) indicated they were dissatisfied (Table 5). In total, over one-third of respondents (35%) indicated they were satisfied with the total number of deer they saw while hunting (53% were not satisfied and 13% were neutral). Less than half (42%) were satisfied with the total number of antlerless deer they observed. About one-third (30%) were satisfied with the number of legal bucks observed; more than half were dissatisfied (53%).

More than half (60%) indicated they heard about or saw legal bucks while hunting. More hunters (49%) were dissatisfied than satisfied (31%) 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 to two-thirds were not satisfied with the number of deer they saw while hunting (range = 43% - 64%) (Figure 2).

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

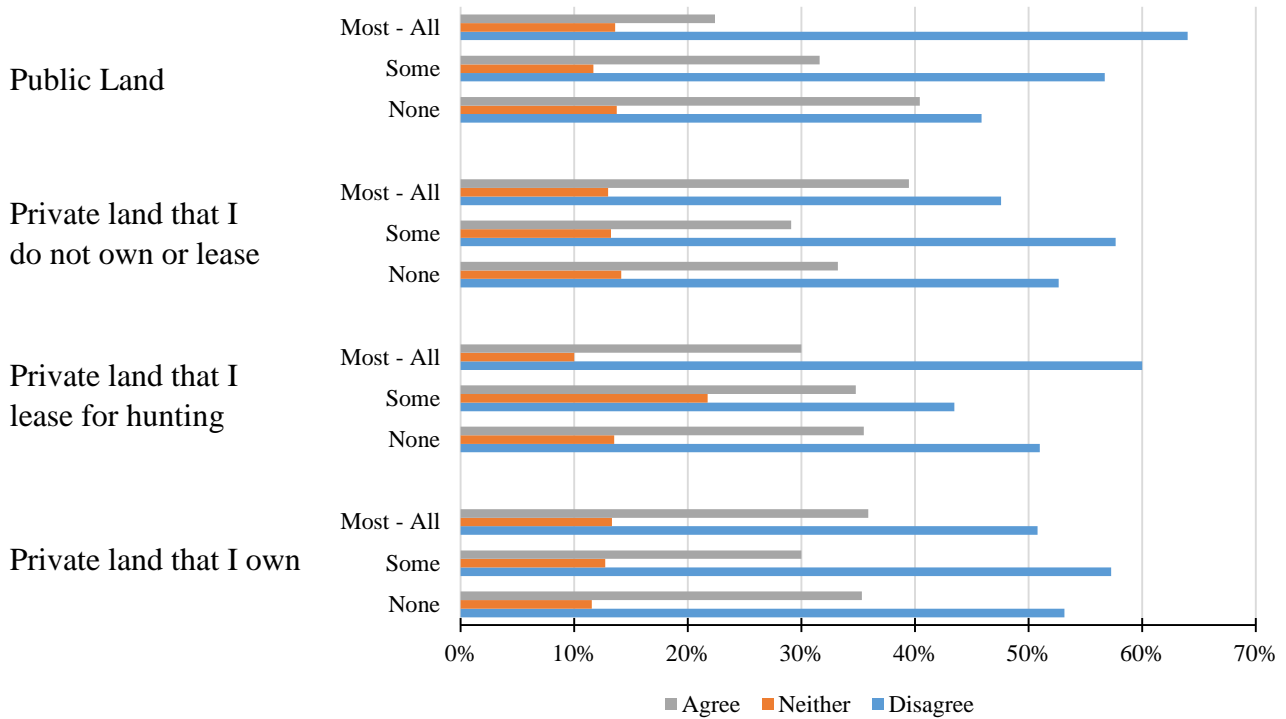
Deer Area	Dissatisfied		Neither		Satisfied	
	N	Percent	N	Percent	N	Percent
201	16	52%	7	23%	8	26%
203	14	74%	3	16%	2	11%
208	30	57%	9	17%	14	26%
209	76	54%	25	18%	39	28%
256	67	55%	18	15%	36	30%
257	55	54%	21	21%	25	25%
260	73	74%	12	12%	13	13%
261	21	60%	6	17%	8	23%
263	62	63%	21	21%	15	15%
264	102	58%	25	14%	48	27%
267	22	61%	4	11%	10	28%
268	41	71%	6	10%	11	19%
Total	578	60%	157	16%	229	24%

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

		Deer Area					
		201	203	208	209	256	257
I was satisfied with the number of legal bucks	Disagree	52%	53%	62%	48%	43%	49%
	Neither	10%	16%	13%	20%	22%	24%
	Agree	38%	32%	25%	31%	34%	27%
I was satisfied with the quality of bucks	Disagree	41%	42%	51%	46%	44%	45%
	Neither	17%	32%	20%	20%	28%	24%
	Agree	41%	26%	29%	34%	28%	31%
I heard about or saw legal bucks while hunting	Disagree	19%	26%	33%	24%	24%	32%
	Neither	26%	11%	15%	12%	16%	8%
	Agree	55%	63%	52%	63%	61%	60%
I was satisfied with the total number of antlerless deer	Disagree	42%	42%	35%	42%	40%	45%
	Neither	10%	21%	15%	14%	9%	17%
	Agree	48%	37%	50%	44%	50%	38%
I was satisfied with the total number of deer I saw while hunting	Disagree	45%	58%	50%	54%	44%	50%
	Neither	0%	16%	17%	12%	15%	15%
	Agree	55%	26%	33%	34%	41%	35%

		Deer Area						
		260	261	263	264	267	268	Total
I was satisfied with the number of legal bucks	Disagree	69%	41%	53%	54%	39%	64%	53%
	Neither	9%	3%	17%	17%	17%	12%	17%
	Agree	22%	56%	30%	29%	44%	23%	30%
I was satisfied with the quality of bucks	Disagree	61%	47%	52%	51%	33%	62%	49%
	Neither	14%	3%	19%	19%	28%	14%	20%
	Agree	25%	50%	29%	29%	39%	23%	31%
I heard about or saw legal bucks while hunting	Disagree	34%	21%	26%	25%	22%	29%	27%
	Neither	10%	6%	15%	15%	19%	7%	13%
	Agree	56%	74%	59%	60%	58%	64%	60%
I was satisfied with the total number of antlerless deer	Disagree	49%	26%	54%	41%	36%	48%	43%
	Neither	16%	12%	16%	17%	17%	11%	15%
	Agree	34%	62%	30%	42%	47%	41%	42%
I was satisfied with the total number of deer I saw while hunting	Disagree	64%	37%	61%	49%	56%	61%	53%
	Neither	11%	14%	11%	14%	17%	5%	13%
	Agree	25%	49%	28%	36%	28%	33%	35%

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



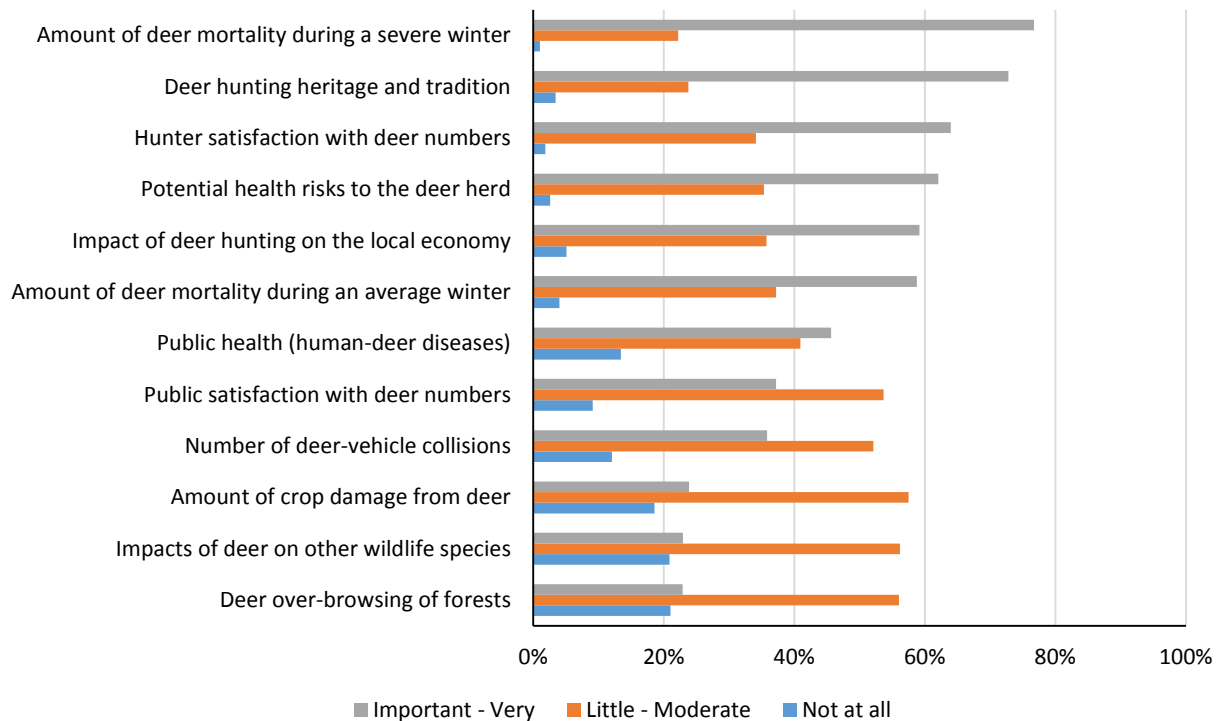
Consideration when setting deer population goals

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 deer over-browsing of forests, impacts on other wildlife, and crop damage 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%	10%	27%	42%	17%
Amount of deer mortality during a severe winter	1%	6%	17%	36%	41%
Potential health risks to the deer herd	3%	12%	24%	40%	22%
Public health (human-deer diseases)	13%	20%	21%	25%	20%
Amount of crop damage from deer	19%	30%	28%	17%	7%
Number of deer-vehicle collisions	12%	26%	27%	24%	12%
Deer over-browsing of forests	21%	27%	29%	17%	5%
Impacts of deer on other wildlife species	21%	29%	27%	18%	5%
Deer hunting heritage and tradition	3%	7%	17%	34%	39%
Hunter satisfaction with deer numbers	2%	10%	24%	40%	24%
Public satisfaction with deer numbers	9%	22%	31%	27%	11%
Impact of deer hunting on the local economy	5%	13%	23%	35%	24%

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 159, 153, 163, and 91 responses from the 4 strata, respectively. In total, 54% of respondents indicated they hunted deer in Minnesota during the 2014 deer season; similar percentages were reported for 2012 (56%) and 2013 (55%). 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 (48%), as compared to other landowners (20-79.9: 56%; 80 – 319.9: 54%; 320+: 57%). Overall, individuals had hunted an average of 38 years. Overall, 85% of respondents were male and the average age was 59.3 (range = 22 – 97).

Hunting patterns

A majority of landowners did most (28%) or all (51%) of their hunting on their own private land. Half of all landowners did at least some hunting on public land (47%), while 42% 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 (75%) of landowners indicated they allowed hunting on their property. As expected, individuals with smaller parcels allowed hunting at lower rates (55%) than landowners with at least 20 acres (range = 80% - 83%). Overall, only 1% (n=5) of landowners indicated they leased their property for hunting. With respect to who is allowed to hunt, 55% indicated family members, 41% indicated friends and neighbors, and 7% 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% - 82%). The percentage of respondents who owned residential properties decreased with stratum (range = 78% - 93%), while ownership of woodlands was consistent among stratum (Figure 4). Among landowners who owned cropland, about one-quarter (22%) 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 (31%). A smaller percentage of respondents indicated they had residential (14%) or forest (4%) damage from deer. With respect to residential damage, landowners who owned <20 acres were slightly more inclined to indicate damage from deer (Figure 5).

We observed no statistical differences among severity of damage between strata for the crop and residential land types, but there was a statistical difference for forested lands. Essentially, damage due to deer was typically categorized as ‘negligible’ or ‘minor’, 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	13%	13%	73%
	Some	10%	17%	74%
	Most	3%	14%	83%
	All	10%	15%	75%
Private land that I lease for hunting	None	7%	15%	78%
	Some	0%	11%	89%
	Most	0%	33%	67%
	All	0%	100%	0%
Private land that I do not own or lease	None	6%	16%	78%
	Some	8%	8%	85%
	Most	7%	21%	71%
	All	7%	33%	60%
Public land	None	7%	17%	77%
	Some	7%	14%	79%
	Most	12%	12%	76%
	All	0%	0%	100%

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

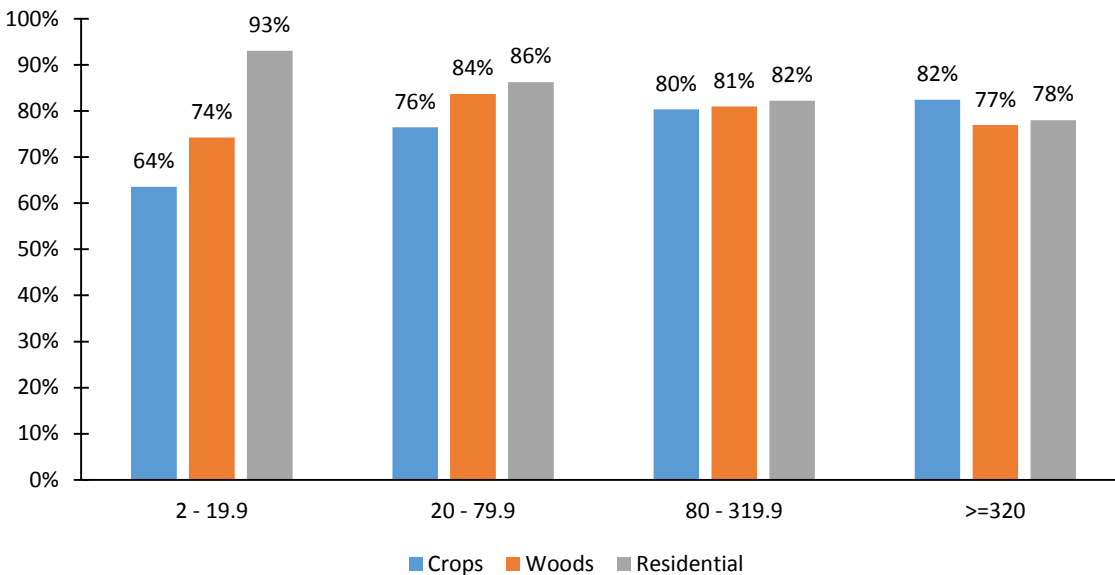


Figure 5. Percent of landowners who indicated they had damage from deer.

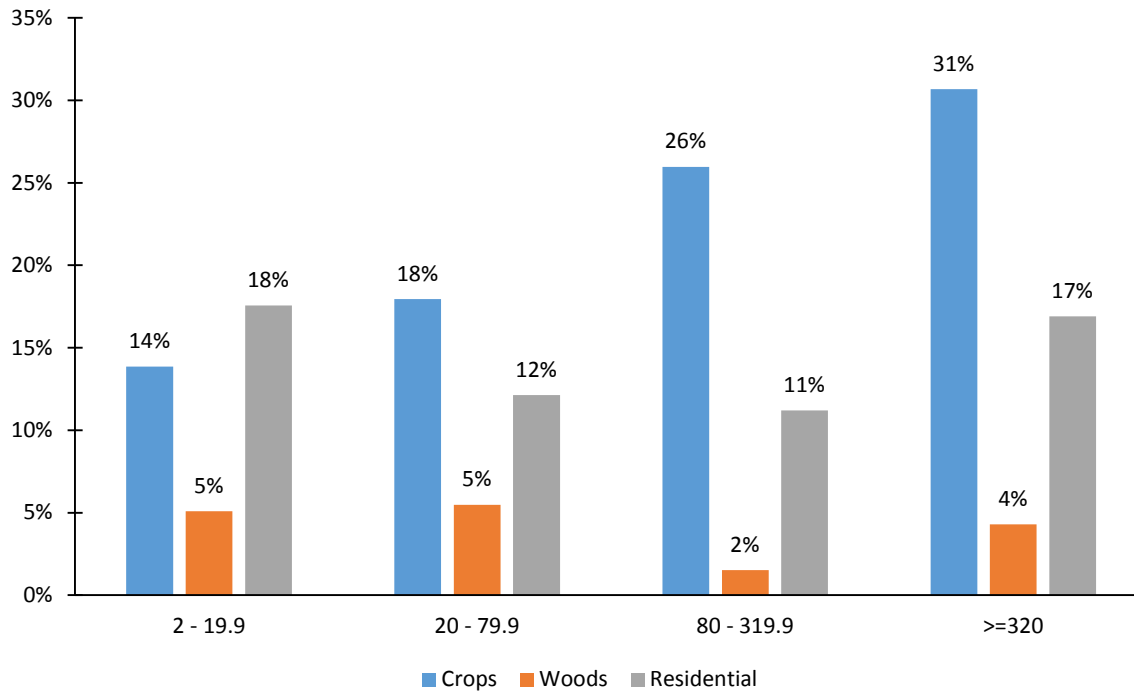
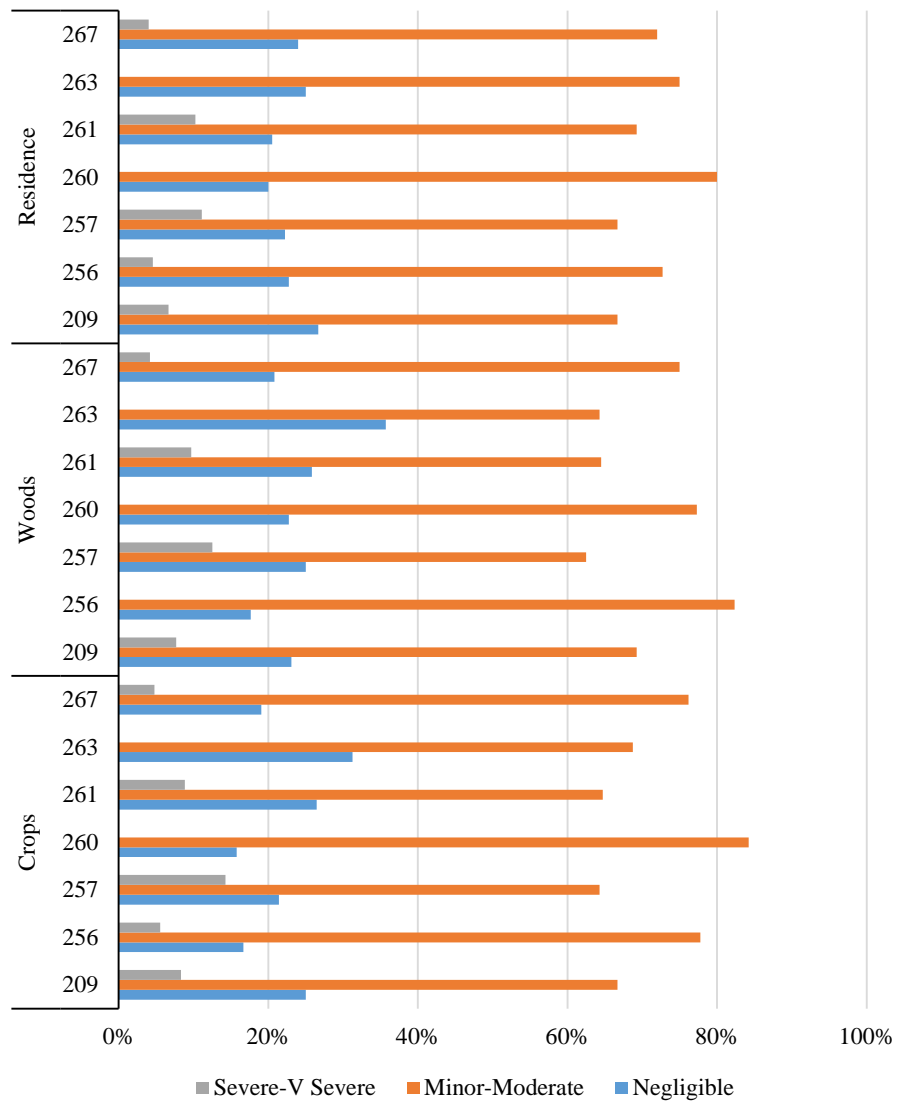


Table 9. Self-described damage caused by deer for crops, woods, and residential land types.

		Strata				Total
		2-19.9	20-70.9	80-319.9	>=320	
Crops	Negligible	21%	11%	26%	28%	22%
	Minor	41%	61%	51%	48%	50%
	Moderate	26%	25%	17%	21%	22%
	Severe	9%	4%	4%	3%	5%
	Very Severe	3%	0%	2%	0%	1%
Woods	Negligible	20%	14%	29%	27%	23%
	Minor	42%	57%	53%	50%	50%
	Moderate	25%	25%	16%	20%	21%
	Severe	10%	4%	0%	3%	4%
	Very Severe	2%	0%	2%	0%	1%
Residential	Negligible	20%	10%	29%	25%	22%
	Minor	48%	57%	54%	53%	52%
	Moderate	22%	27%	13%	19%	20%
	Severe	8%	3%	2%	3%	4%
	Very Severe	2%	3%	2%	0%	2%

Figure 6. Reported damage to crops, woods, and residential acreage, by deer permit area. Deer permit areas 201, 264, and 268 were 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, 74% (64% non-hunters, 82% hunters) of respondents indicated there were fewer deer than 5 years ago, 10% (13% non-hunters, 8% hunters) indicated more, and 16% (23% non-hunters, 10% hunters) believed populations were the same. We found no statistical differences among deer areas in attitudes toward population trends (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’ (45% vs 32%), while hunters were more likely to indicate populations were ‘too low’ (65% vs 42%). Non-hunters were more likely to indicate the population was ‘too high’ (3% hunters, 13% 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 64% 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
201	7	70%	2	20%	1	10%
209	31	91%	2	6%	1	3%
256	35	73%	7	15%	6	12%
257	38	70%	12	22%	4	7%
260	53	82%	9	14%	3	5%
261	73	69%	16	15%	17	16%
263	52	76%	9	13%	7	10%
264	8	67%	3	25%	1	8%
267	76	71%	20	19%	11	10%
268	11	79%	2	14%	1	7%
Total	384	74%	82	16%	52	10%

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 (41%)	201	1	50%	0	0%	1	50%
	209	5	71%	2	29%	0	0%
	256	10	40%	10	40%	5	20%
	257	9	28%	17	53%	6	19%
	260	8	35%	12	52%	3	13%
	261	28	43%	29	45%	8	12%
	263	7	50%	7	50%	0	0%
	264	3	60%	2	40%	0	0%
	267	16	46%	15	43%	4	11%
	268	1	50%	1	50%	0	0%
	Sum	88	42%	95	45%	27	13%
Yes (59%)	201	4	50%	4	50%	0	0%
	209	17	65%	9	35%	0	0%
	256	13	59%	7	32%	2	9%
	257	11	52%	10	48%	0	0%
	260	28	68%	12	29%	1	2%
	261	25	68%	11	30%	1	3%
	263	38	72%	13	25%	2	4%
	264	3	38%	4	50%	1	12%
	267	48	67%	23	32%	1	1%
	268	7	64%	4	36%	0	0%
	Sum	194	65%	97	32%	8	3%
Total	201	5	50%	4	40%	1	10%
	209	22	67%	11	33%	0	0%
	256	23	49%	17	36%	7	15%
	257	20	38%	27	51%	6	11%
	260	36	56%	24	38%	4	6%
	261	53	52%	40	39%	9	9%
	263	45	67%	20	30%	2	3%
	264	6	46%	6	46%	1	8%
	267	64	60%	38	36%	5	5%
	268	8	62%	5	38%	0	0%
	Sum	282	55%	192	38%	35	7%

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%
201	0%	11%	0%	11%	22%	33%	22%
209	3%	0%	0%	18%	24%	45%	9%
256	7%	7%	11%	24%	20%	28%	4%
257	6%	8%	2%	36%	17%	26%	6%
260	3%	5%	2%	29%	11%	29%	22%
261	3%	6%	6%	27%	25%	24%	10%
263	3%	3%	3%	19%	19%	35%	18%
264	8%	0%	0%	31%	31%	8%	23%
267	2%	5%	1%	21%	24%	26%	21%
268	8%	0%	0%	15%	15%	46%	15%
Total	4%	5%	3%	25%	21%	29%	14%

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

Deer Area	Decrease	Same	Increase
201	11%	11%	78%
209	3%	18%	79%
256	24%	24%	52%
257	15%	36%	49%
260	10%	29%	62%
261	15%	27%	58%
263	9%	19%	72%
264	8%	31%	62%
267	7%	21%	71%
268	8%	15%	77%
Total	11%	25%	64%

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

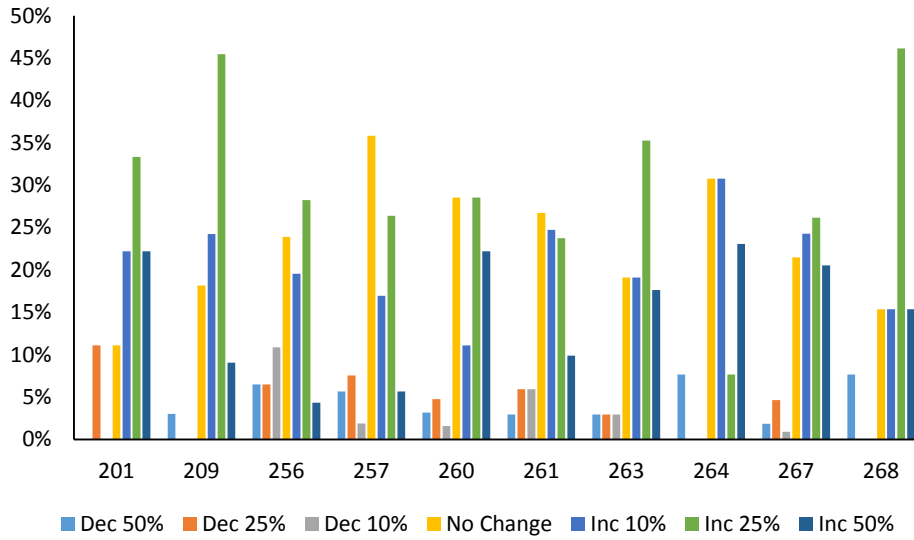
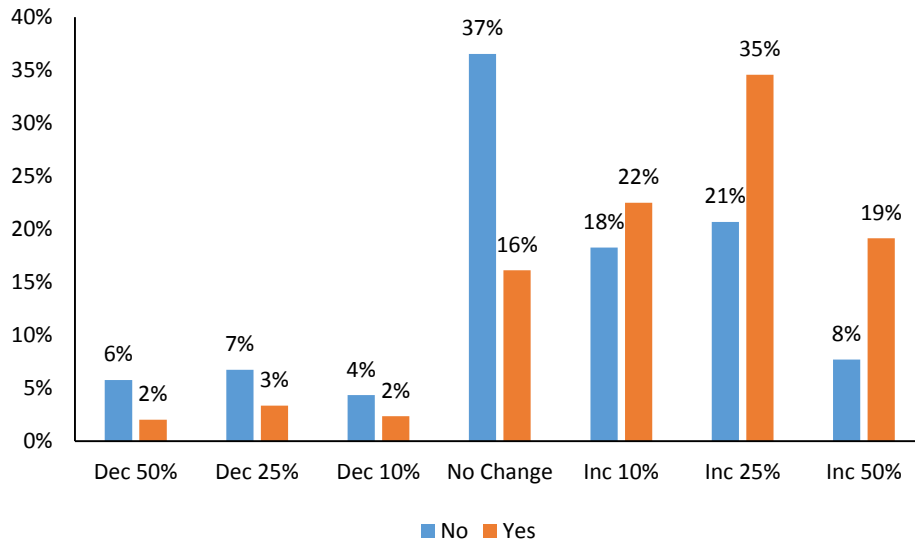


Table 13. Desired deer population trends for landowners, by deer area and whether or not they hunted.

Hunt	Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
No (41%)	201	0%	50%	0%	0%	0%	50%	0%
	209	0%	0%	0%	14%	14%	71%	0%
	256	4%	12%	8%	33%	17%	25%	0%
	257	9%	6%	3%	41%	22%	16%	3%
	260	9%	4%	4%	43%	13%	13%	13%
	261	5%	9%	6%	38%	19%	17%	6%
	263	7%	0%	0%	36%	14%	29%	14%
	264	0%	0%	0%	40%	40%	0%	20%
	267	6%	3%	3%	34%	20%	20%	14%
	268	0%	0%	0%	50%	0%	50%	0%
	Total		6%	7%	4%	37%	18%	21%
Yes (59%)	201	0%	0%	0%	14%	29%	29%	29%
	209	4%	0%	0%	19%	27%	38%	12%
	256	9%	0%	14%	14%	23%	32%	9%
	257	0%	10%	0%	29%	10%	43%	10%
	260	0%	5%	0%	20%	10%	38%	28%
	261	0%	0%	5%	8%	35%	35%	16%
	263	2%	4%	4%	15%	20%	37%	19%
	264	12%	0%	0%	25%	25%	12%	25%
	267	0%	6%	0%	15%	26%	29%	24%
	268	9%	0%	0%	9%	18%	45%	18%
	Total		2%	3%	2%	16%	22%	35%

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



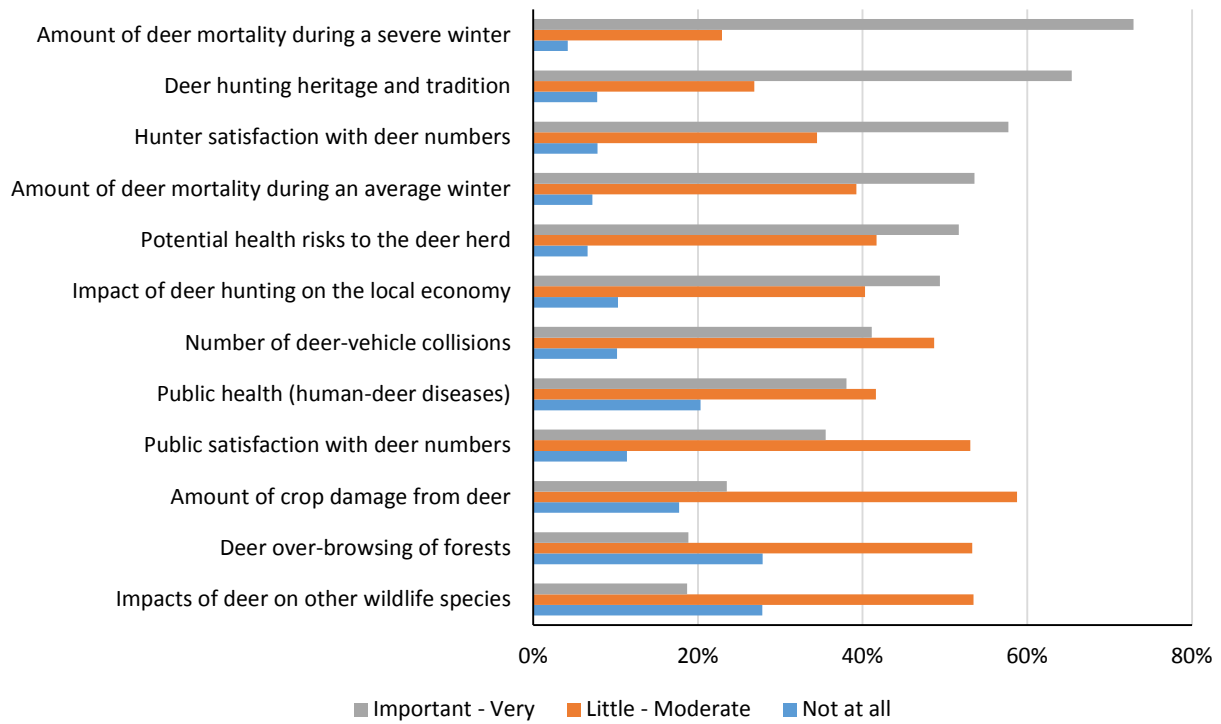
Consideration when setting deer population goals

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. Severe winter mortality, 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 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	7%	12%	27%	39%	15%
Amount of deer mortality during a severe winter	4%	8%	15%	35%	37%
Potential health risks to the deer herd	7%	18%	24%	29%	23%
Public health (human-deer diseases)	20%	20%	22%	19%	19%
Amount of crop damage from deer	18%	29%	30%	16%	8%
Number of deer-vehicle collisions	10%	20%	28%	27%	14%
Deer over-browsing of forests	28%	24%	29%	15%	4%
Impacts of deer on other wildlife species	28%	28%	26%	15%	4%
Deer hunting heritage and tradition	8%	10%	17%	29%	36%
Hunter satisfaction with deer numbers	8%	10%	24%	33%	25%
Public satisfaction with deer numbers	11%	21%	33%	24%	11%
Impact of deer hunting on the local economy	10%	13%	27%	28%	21%

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.

- | | | | |
|--|--------------|---|--------------|
| <input type="checkbox"/> Myself or family members | _____ people | <input type="checkbox"/> Strangers who ask permission | _____ people |
| <input type="checkbox"/> Friends or neighbors | _____ people | <input type="checkbox"/> People who lease my property | _____ people |
| <input type="checkbox"/> 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: