



Pine Moraines
Deer Goal Setting – Block G3
Landowner and Hunter Survey Results



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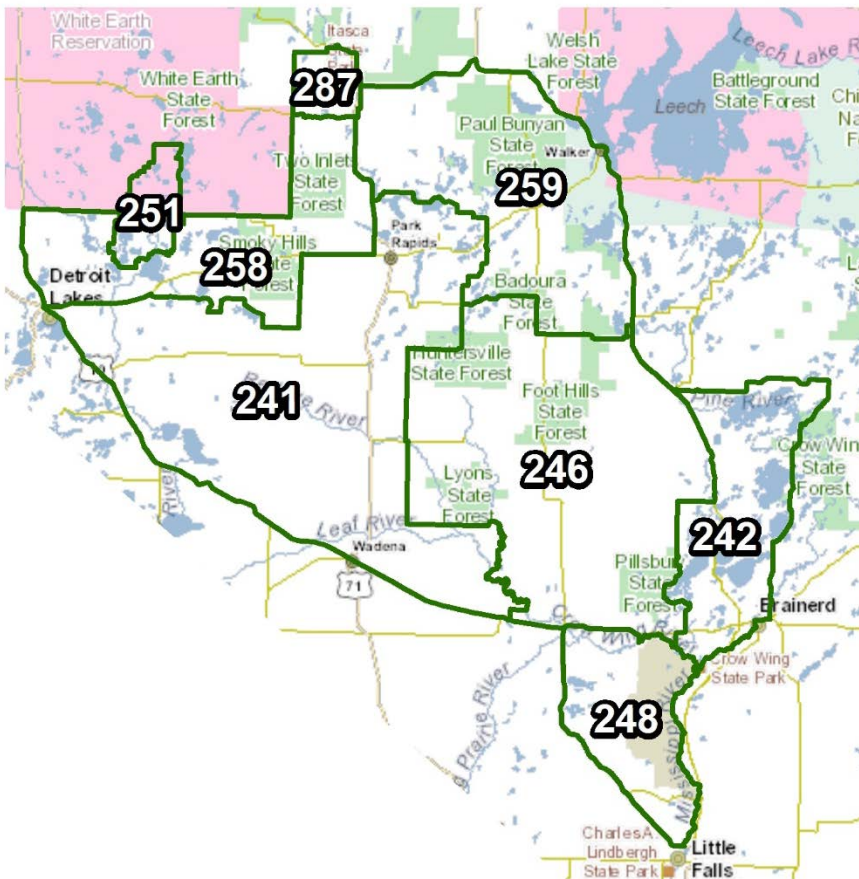
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Public Surveys for Deer Goal Setting

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 2014, 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 G3, Pine Moraines.



Methods

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

We randomly selected 2,000 adult 2013 deer license holders who indicated they intended to hunt in deer areas 241, 242, 246, 248, 251, 258, 259, or 287. A total of 79 were undeliverable and we received 763 completed responses, which yielded an adjusted response rate of 39.7%.

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 1-3 (n = 640) and surveyed all landowners in stratum 4 (N = 383). Overall, we removed 79 landowners from the mailing due to already receiving a hunter survey and there were 193 undeliverable surveys; 867 completed landowner surveys were returned, yielding a 42.7% adjusted response rate. For both surveys, our error rate at the goal block level was 3.5%.

Hunter Survey

Demographics

Nearly all respondents (98%) indicated they hunted during the 2013 firearm deer season. Overall 21% indicated they hunted deer during the archery season and 19% hunted muzzleloader. Firearm hunters spent an average of 5.1 days afield, compared to 5.7 for muzzleloader and 15.0 for archery hunters. Overall, individuals had hunted an average of 28 years in Minnesota and 19 years in the deer area they indicated they hunted most often. Overall, 87% of respondents were male and the average age was 51.4 (range = 19 – 91).

Most hunters did at least some of their hunting on their own private land (64%), other private land (64%), or public land (65%). Another 14% indicated they did at least some hunting on lands that they leased for deer hunting. Only 4.2% of respondents hunted exclusively on land they leased. Also, we found no statistical differences among hunters, based on the lands they hunted. 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 of deer population trends over the last 5 years. Overall, 69% of respondents indicated there were fewer deer than 5 years ago, 10% indicated more, and 21% believed populations were the same. We noted differences in responses with 92% of 287 hunters (Itasca State Park) most likely to indicate deer populations had declined (Table 2). Respondents were also asked for their perceptions of total deer population size as rated by ‘too low’, ‘about right’, or ‘too high’. Slightly more than half (54%) believed the population was ‘too low’, 40% thought it was ‘about right’, and 6% indicated the population was ‘too high’. Respondents in deer area 241 were most likely to indicate that populations were about right (50%) or too high (10%) (Table 3). Respondents were also asked to indicate their desires for future deer population densities and slightly more than two-thirds (68%) wanted to see an increase in deer densities at some level (Table 4, Figure 1). Interestingly, most respondents (88%) 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	6%	20%	73%
	Some	8%	15%	77%
	Most	12%	28%	59%
	All	11%	26%	63%
Private land that I lease for hunting	None	9%	21%	70%
	Some	4%	24%	72%
	Most	0%	29%	71%
	All	11%	22%	67%
Private land that I do not own or lease	None	8%	20%	72%
	Some	5%	21%	73%
	Most	13%	22%	65%
	All	11%	27%	62%
Public land	None	10%	23%	68%
	Some	8%	22%	69%
	Most	6%	21%	73%
	All	4%	13%	83%

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
241	121	59%	50	25%	33	16%
242	51	73%	11	16%	8	11%
246	152	73%	44	21%	13	6%
248	23	59%	12	31%	4	10%
251	13	77%	2	12%	2	12%
258	34	79%	7	16%	2	5%
259	67	74%	15	17%	9	10%
287	12	92%	1	8%	0	0%
Total	473	69%	142	21%	71	10%

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
241	79	39%	102	50%	22	11%
242	32	45%	35	49%	4	6%
246	124	59%	77	37%	8	4%
248	19	49%	19	49%	1	3%
251	15	88%	2	12%	0	0%
258	26	62%	15	36%	1	2%
259	62	68%	24	26%	5	5%
287	10	77%	3	23%	0	0%
Total	367	54%	277	40%	41	6%

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

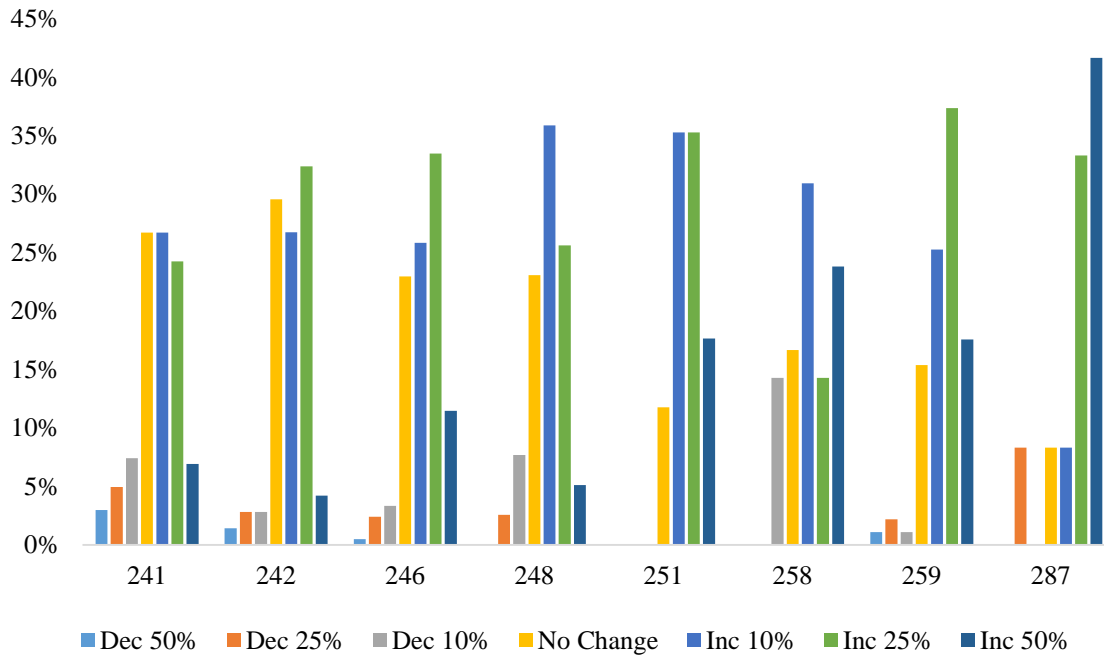
(a) By individual response

Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
241	3%	5%	7%	27%	27%	24%	7%
242	1%	3%	3%	30%	27%	32%	4%
246	0%	2%	3%	23%	26%	33%	11%
248	0%	3%	8%	23%	36%	26%	5%
251	0%	0%	0%	12%	35%	35%	18%
258	0%	0%	14%	17%	31%	14%	24%
259	1%	2%	1%	15%	25%	37%	18%
287	0%	8%	0%	8%	8%	33%	42%
Total	1%	3%	5%	23%	27%	30%	11%

(b) Summarized by decrease, same, increase

Deer Area	Decrease	Same	Increase
241	15%	27%	58%
242	7%	30%	63%
246	6%	23%	71%
248	10%	23%	67%
251	0%	12%	88%
258	14%	17%	69%
259	4%	15%	80%
287	8%	8%	83%
Total	9%	23%	68%

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. Less than half (31%) were satisfied with current deer numbers; a majority (55%) indicated dissatisfaction (Table 5). Similarly, 39% of respondents indicated they were satisfied with the total number of deer they saw while hunting (48% were not satisfied and 18% were neutral). Nearly half (47%) were satisfied with the total number of antlerless deer they observed. Fewer hunters (34%) were satisfied with the number of legal bucks observed; 48% of hunters indicated dissatisfaction with the number of legal bucks observed although a majority (59%) indicated they saw heard about or saw legal bucks while hunting. More hunters (49%) were dissatisfied than satisfied (34%) with the quality of bucks observed (Table 6). Finally, a higher percentage of people who did at least some of their hunting on their own property expressed satisfaction with total deer numbers, as compared to public land hunters, those who lease, and people who hunt private land they don't own (Figure 2).

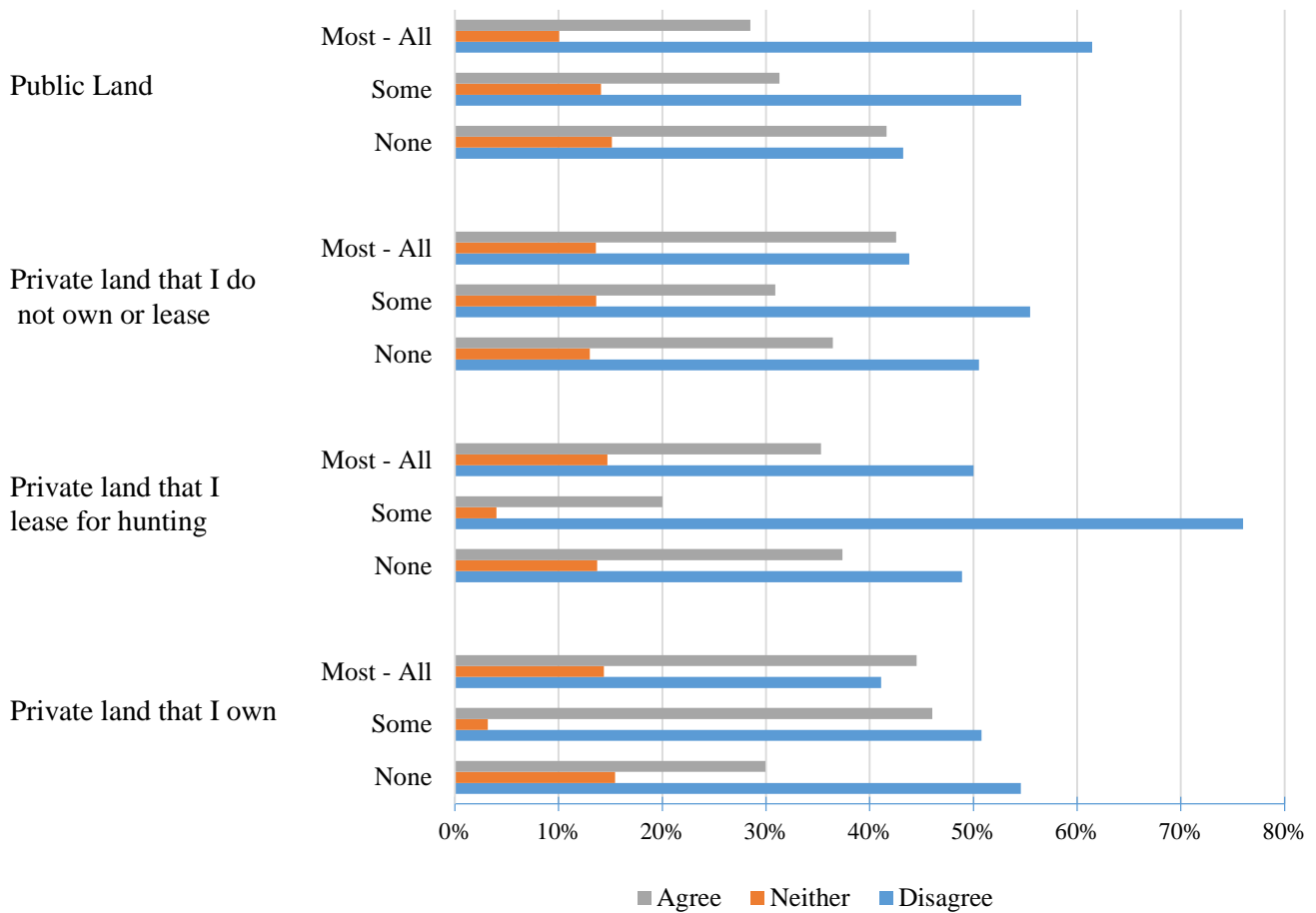
Table 5. Overall hunter satisfaction with total deer numbers, by deer area.

	Dissatisfied		Neither		Satisfied	
	N	Percent	N	Percent	N	Percent
241	91	45%	29	14%	83	41%
242	32	45%	14	20%	25	35%
246	122	58%	33	16%	54	26%
248	18	46%	5	13%	16	41%
251	14	82%	0	0%	3	18%
258	29	67%	7	16%	7	16%
259	58	64%	13	14%	20	22%
287	11	85%	0	0%	2	15%
Total	375	55%	101	15%	210	31%

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

		Deer Area								Total
		241	242	246	248	251	258	259	287	
I was satisfied with the number of legal bucks	Disagree	44%	41%	51%	34%	59%	53%	54%	75%	48%
	Neither	14%	26%	18%	24%	24%	16%	20%	0%	18%
	Agree	41%	33%	31%	42%	18%	30%	26%	25%	34%
I was satisfied with the quality of bucks	Disagree	46%	51%	52%	42%	59%	47%	51%	54%	49%
	Neither	16%	16%	22%	24%	12%	14%	23%	8%	19%
	Agree	38%	33%	26%	34%	29%	40%	26%	38%	32%
I heard about or saw legal bucks while hunting	Disagree	21%	29%	31%	13%	35%	30%	33%	50%	28%
	Neither	14%	13%	13%	16%	6%	12%	18%	8%	14%
	Agree	65%	58%	56%	71%	59%	58%	49%	42%	59%
I was satisfied with the total number of antlerless deer	Disagree	32%	36%	41%	35%	41%	36%	54%	69%	39%
	Neither	12%	10%	15%	11%	24%	24%	14%	0%	14%
	Agree	57%	54%	44%	54%	35%	40%	32%	31%	47%
I was satisfied with the total number of deer I saw while hunting	Disagree	37%	44%	52%	43%	65%	45%	67%	69%	48%
	Neither	14%	8%	15%	8%	18%	24%	7%	8%	13%
	Agree	49%	48%	33%	49%	18%	31%	26%	23%	39%

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



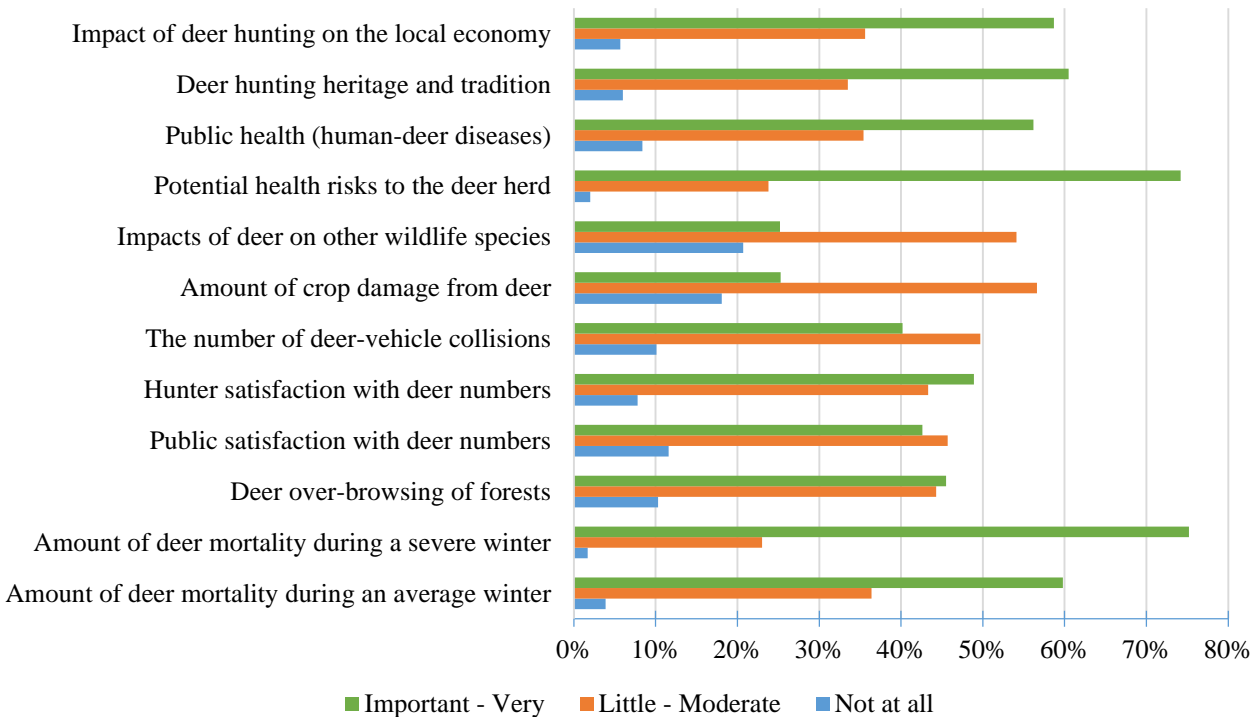
Consideration when setting deer population goals

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 were mixed in that they viewed winter mortality and disease risks as important, yet the amount of crop damage from deer and impacts on other species had lower relative importance. Conversely, hunter satisfaction, hunting tradition, and economic considerations had high relative importance (Table 7, Figure 3).

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

Item	Relative Importance				
	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	4%	11%	26%	44%	16%
Amount of deer mortality during a severe winter	2%	8%	15%	37%	38%
Deer over-browsing of forests	10%	18%	26%	31%	14%
Public satisfaction with deer numbers	12%	20%	26%	27%	16%
Hunter satisfaction with deer numbers	8%	16%	27%	29%	19%
The number of deer-vehicle collisions	10%	19%	31%	27%	13%
Amount of crop damage from deer	18%	28%	29%	18%	7%
Impacts of deer on other wildlife species	21%	27%	27%	20%	6%
Potential health risks to the deer herd	2%	7%	17%	41%	33%
Public health (human-deer diseases)	8%	13%	22%	31%	25%
Deer hunting heritage and tradition	6%	12%	21%	28%	32%
Impact of deer hunting on the local economy	6%	11%	24%	32%	26%

Figure 3. Graphical importance of items that should be considered when setting deer population goals as defined by hunters. Items were consolidated into 3 groups.



Landowner Survey

Demographics

We received 199, 258, 253, and 157 responses from the 4 strata, respectively. Because the number of undeliverable surveys was high ($n = 193$), we could not calculate survey response by stratum. In total, 65% of respondents indicated they hunted deer in Minnesota during the 2013 deer season; similar percentages were reported for 2011 (68%) and 2012 (67%). There were no statistical differences between the online or mail survey responses for the percentage of landowners who hunted deer. Since those percentages did not vary, tables that describe hunter attitudes are based off whether or not they hunted in 2013 only. By stratum, a lower proportion of respondents who owned 2 – 20 acres indicated they hunted (44%), as compared to other landowners (20-79.9: 68%; 80-319.9: 74%; 320+: 73%). Overall, individuals had hunted an average of 38 years. In total, 72% of respondents were male and the average age was 61.5 (range = 18 – 94).

Hunting patterns

A majority of landowners did all of their hunting on their own private land (63%); conversely, a minority hunted public land (43%), land they didn't own (40%), or leased land (8.4%). Regardless of where they hunted, a majority of hunting landowners expressed a desire for an increase in deer numbers (Table 8).

Most landowners (77%) indicated they allowed hunting on their property. As expected, individuals with smaller parcels allowed hunting at lower rates (41%) than landowners with at least 20 acres (82% – 92%). In essence, the majority of parcels at least 20 acres in size are hunted in this goal setting block. Overall, only 2.8% of landowners indicated they leased their property for hunting with the highest percentage (7%; $n = 18$) of leasing occurring on parcels at least 320 acres in size. With respect to who is allowed to hunt, 66% indicated family members, 41% indicated friends or neighbors, and 4.7% 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) varied greatly by stratum, as did the percentage who owned woodlots and residential acreage (Figure 4). With the exception of landscaping damage, we also observed similar patterns for landowners who reported damage from deer (Figure 5). A majority of landowners indicated they had deer-related damage, with individuals owning at least 20 acres indicating higher levels (Table 9). We also observed no statistical differences among deer permit areas for landowners who reported they had 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	17%	51%	32%
	Some	12%	23%	66%
	Most	14%	28%	58%
	All	18%	33%	50%
Private land that I lease for hunting	None	15%	36%	49%
	Some	29%	36%	36%
	Most	17%	17%	67%
	All	20%	20%	60%
Private land that I do not own or lease	None	17%	36%	47%
	Some	18%	34%	47%
	Most	17%	25%	58%
	All	5%	64%	32%
Public land	None	18%	38%	43%
	Some	11%	26%	64%
	Most	12%	24%	64%
	All	14%	33%	52%

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

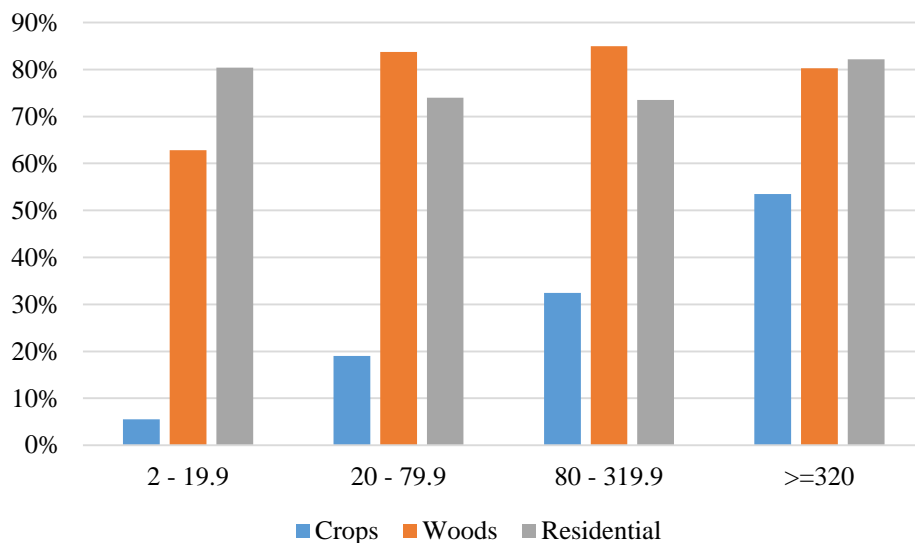


Figure 5. Percent of landowners who indicated they had damage from deer. Damage to crops reported by landowners with less than 20 acres has been omitted due to small sample size (n = 9).

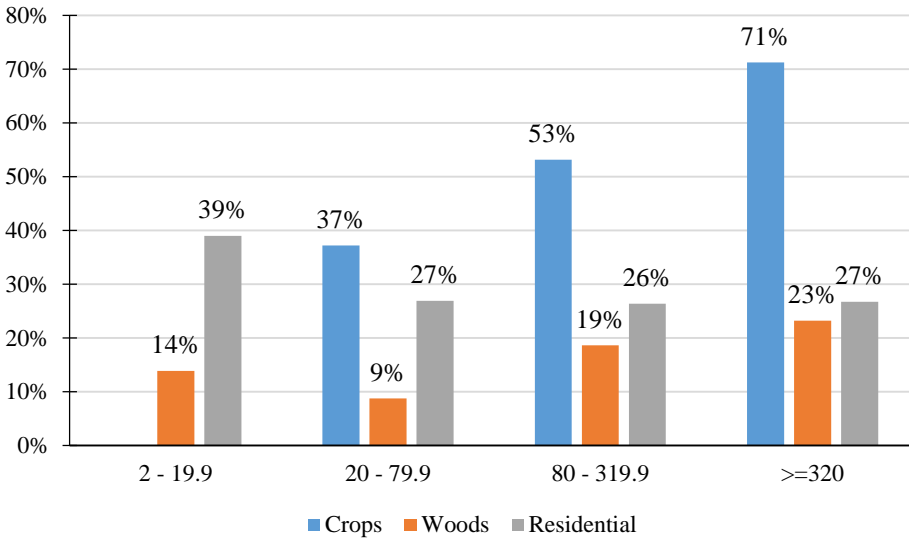


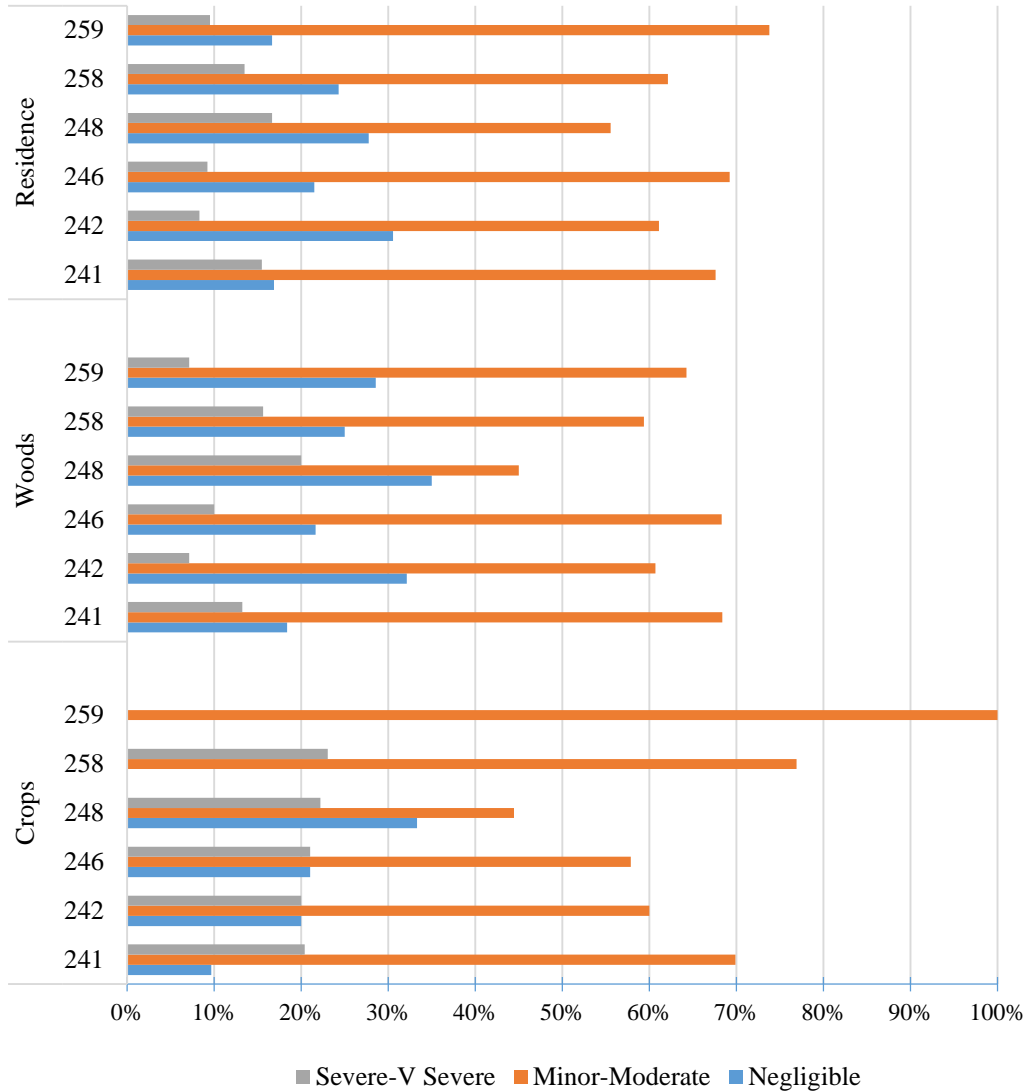
Table 9. Self-described damage caused by deer for crops, woods, and residential land types.

Land Type	Damage	Strata				Total
		2 - 19.9 ¹	20 - 79.9	80 - 319.9	>=320	
Crops	Negligible	13%	12%	9%	14%	12%
	Minor	50%	35%	35%	33%	35%
	Moderate	25%	38%	35%	31%	33%
	Severe	13%	15%	20%	13%	15%
	Very Severe	0%	0%	2%	9%	5%
Woods	Negligible	26%	31%	20%	17%	23%
	Minor	42%	26%	40%	33%	35%
	Moderate	24%	32%	29%	33%	30%
	Severe	5%	11%	10%	11%	9%
	Very Severe	3%	0%	1%	6%	3%
Residential	Negligible	27%	24%	15%	17%	21%
	Minor	38%	29%	44%	33%	36%
	Moderate	27%	35%	27%	32%	30%
	Severe	5%	11%	13%	12%	10%

¹ Very few landowners reported crop damage on ownerships <20 acres (n=9); caution should be applied when interpreting the reported values for those small acreages.

Very Severe 3% 0% 1% 6% 3%

Figure 6. Reported damage to crops, woods, and residential acreage, by deer permit area.



Population trends and perceptions about deer populations

Respondents were asked to indicate their perceptions of deer population trends over the last 5 years. Overall, 45% (36% non-hunters, 49% hunters) of respondents indicated there were fewer deer than 5 years ago, 23% (26% non-hunters, 21% hunters) indicated more, and 32% (38% non-hunters, 23% hunters) believed populations were the same. Comparable to hunter survey, respondents who lived in deer area 241 had the highest percentage of people who thought the population was higher (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 far more likely to indicate the deer population was ‘about right (63% vs. 47%), while hunters were far more likely to indicate populations were ‘too low’ (41% vs 20%). Roughly similar

percentages believed the population was too high (11% hunters, 18% non-hunters). Similar patterns were detected by deer area in that hunting landowners were much 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 45% 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
241	81	36%	70	31%	72	32%
242	24	45%	15	28%	14	26%
246	64	57%	33	29%	16	14%
248	17	46%	12	32%	8	22%
258	36	57%	19	30%	8	13%
259	31	41%	33	44%	11	15%
Total	253	45%	182	32%	129	23%

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

Hunt	Deer Area	N	Too low	N	About right	N	Too high
No (35%)	241	13	16%	43	52%	26	32%
	242	9	21%	28	65%	6	14%
	246	11	24%	32	70%	3	7%
	248	3	15%	12	60%	5	25%
	258	7	26%	19	70%	1	4%
	259	7	18%	28	72%	4	10%
	Sum	50	20%	162	63%	45	18%
Yes (65%)	241	66	29%	122	53%	43	19%
	242	12	44%	11	41%	4	15%
	246	64	57%	40	36%	8	7%
	248	22	56%	14	36%	3	8%
	258	43	52%	35	43%	4	5%
	259	25	35%	44	62%	2	3%
	Sum	232	41%	266	47%	64	11%
Total	241	79	25%	165	53%	69	22%
	242	21	30%	39	56%	10	14%
	246	75	48%	72	46%	11	7%
	248	25	42%	26	44%	8	14%
	258	50	46%	54	50%	5	5%
	259	32	29%	72	66%	6	6%
	Total	282	34%	428	52%	109	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%
241	7%	11%	7%	39%	19%	12%	4%
242	7%	4%	6%	49%	16%	14%	4%
246	1%	4%	8%	26%	23%	24%	13%
248	8%	5%	3%	34%	15%	20%	14%
258	2%	3%	7%	34%	22%	18%	14%
259	2%	5%	6%	46%	21%	16%	5%
Total	5%	7%	7%	37%	20%	16%	8%

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

Deer Area	Decrease	Same	Increase
241	25%	39%	35%
242	17%	49%	34%
246	13%	26%	60%
248	16%	34%	49%
258	12%	34%	54%
259	13%	46%	42%
Total	19%	37%	44%

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

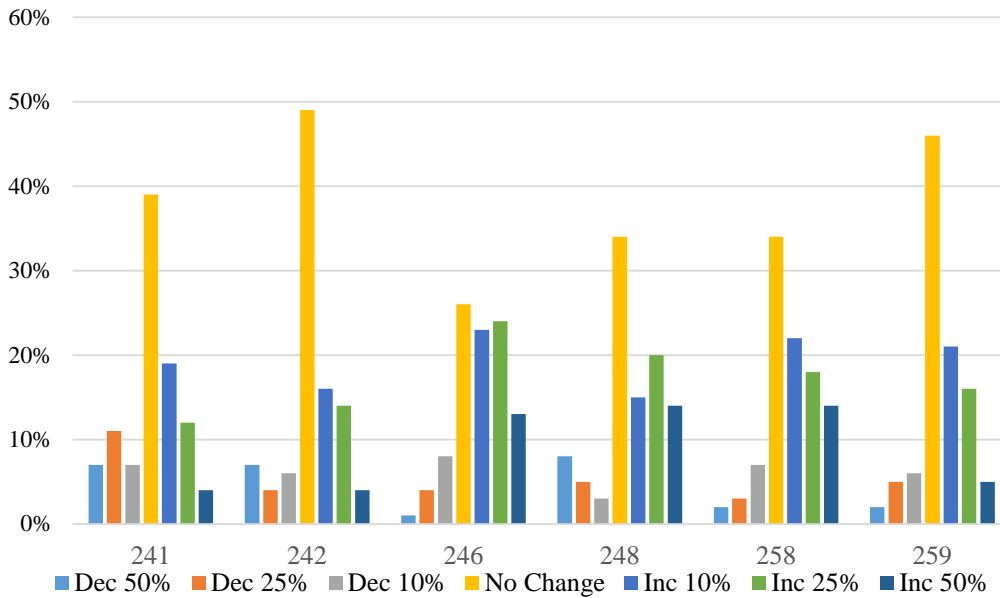
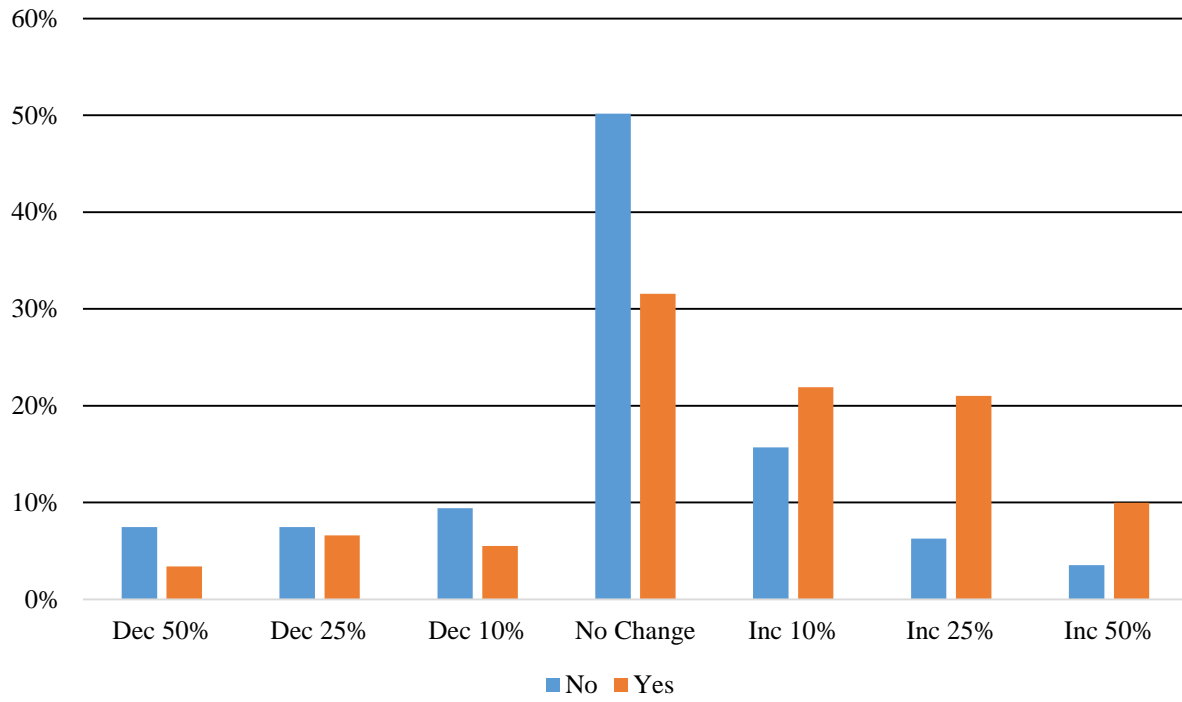


Table 13. Desired deer population trends for landowners, by deer area and whether or not they hunted.

Hunt	Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
No	241	10%	16%	10%	46%	12%	6%	0%
	242	12%	2%	5%	58%	16%	5%	2%
	246	2%	2%	13%	43%	24%	11%	4%
	248	15%	5%	10%	55%	5%	5%	5%
	258	4%	0%	8%	58%	19%	0%	12%
	259	3%	8%	10%	51%	15%	8%	5%
	Total	7%	7%	9%	50%	16%	6%	4%
Yes	241	6%	10%	6%	37%	22%	14%	6%
	242	0%	7%	7%	33%	15%	30%	7%
	246	1%	5%	5%	19%	23%	30%	16%
	248	5%	5%	0%	23%	21%	28%	18%
	258	1%	4%	7%	27%	23%	23%	15%
	259	1%	3%	4%	43%	24%	21%	4%
	Total	3%	7%	6%	32%	22%	21%	10%

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



Consideration when setting deer population goals

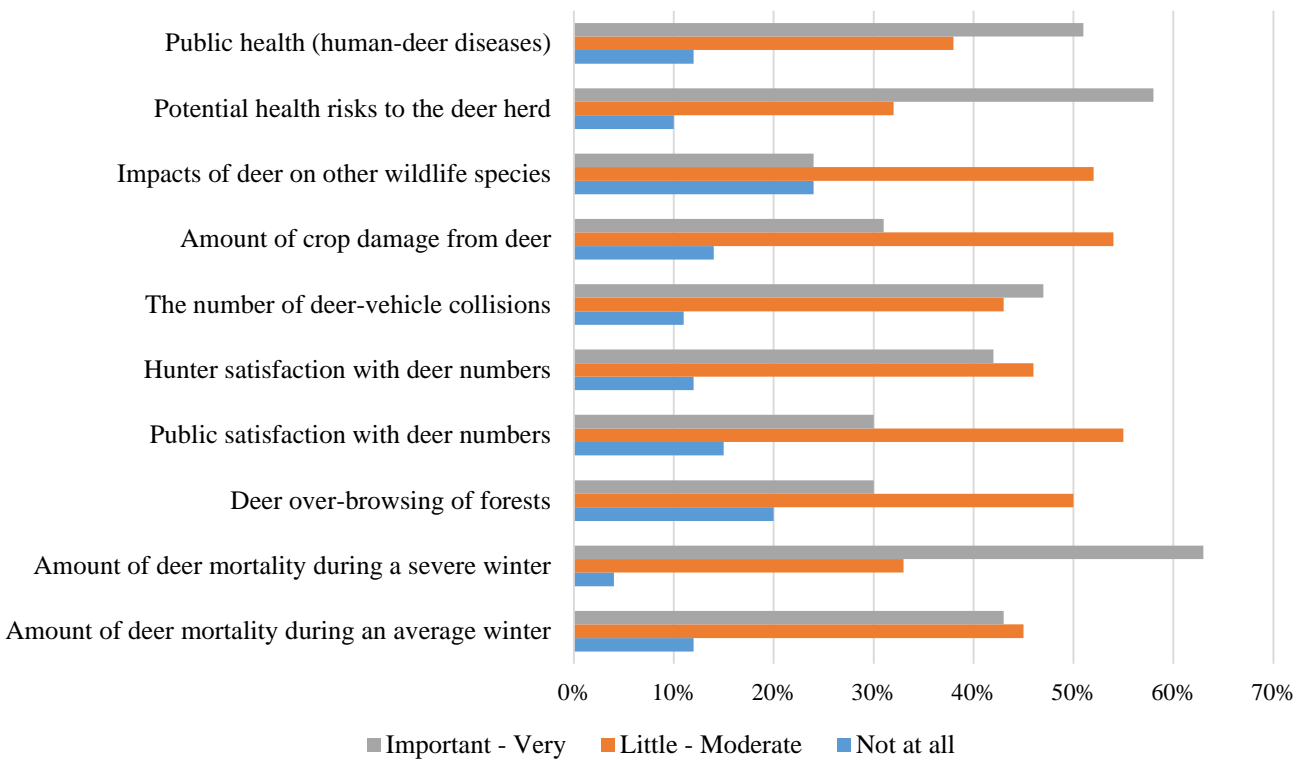
Respondents were also asked to rate the importance of 10 items when setting deer population goals². The scale ranges from ‘not at all important’ to ‘very important’ and covered a range of items that would lead to both higher and lower deer populations. Similar to the hunter survey, respondents were mixed in that they viewed winter mortality and disease risks as important, yet the amount of crop damage from deer and impacts on other species had lower relative importance. Conversely, hunter satisfaction, hunting tradition, and economic considerations had high relative importance (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	12%	14%	30%	32%	11%
Amount of deer mortality during a severe winter	4%	10%	23%	35%	28%
Deer over-browsing of forests	20%	23%	27%	23%	7%
Public satisfaction with deer numbers	15%	23%	31%	25%	6%
Hunter satisfaction with deer numbers	12%	16%	30%	29%	13%
The number of deer-vehicle collisions	11%	15%	27%	30%	16%
Amount of crop damage from deer	14%	25%	30%	21%	10%
Impacts of deer on other wildlife species	24%	24%	28%	19%	5%
Potential health risks to the deer herd	10%	11%	21%	31%	27%
Public health (human-deer diseases)	12%	19%	19%	26%	24%

² The questions about hunting heritage and impacts of deer hunting to the local economy were inadvertently omitted.

Figure 9. Graphical importance of items that landowners indicate should be considered when setting deer population goals. Items were consolidated into 3 groups.



2014 Survey of Minnesota Deer Hunters: Population Management

The Minnesota DNR will be evaluating deer population goals in central 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.

1. Please check the boxes below to report if you hunted deer in Minnesota during the 2011, 2012 or 2013 Minnesota deer season. *(Please check all that apply).*

- 2011 | 2012 | 2013
 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 hunted.

Season	Yes	No	If Yes, Number of Days
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?
 241 | 242 | 246 | 248 | 251 | 258 | 259 | 287 | None of these

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 2013, how many years have you hunted deer in the permit area you hunt most often?
 _____ Years

6. Including 2013, how many total 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 is restricted to only large antlered bucks, but hunters can take any antlerless deer
 - Buck harvest restricted to only 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 total number of antlerless deer	1	2	3	4	5
I was satisfied with the total number of deer	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 deer 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 or 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
The 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) _____

16. 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

17. 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) |

18. 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

19. 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 or 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 deer hunters' concerns.	1	2	3	4	5

20. What is your gender?

- Male | Female

21. What year were you born? _____ *(Please use the 4 digit year)*

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: _____

2014 Survey of Minnesota Landowners: Deer Management

The Minnesota DNR will be evaluating deer population goals in central Minnesota this year. An important component of this project is to collect information from landowners regarding their opinions towards deer populations and land management. 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 own land.

1. How many total acres did you own and/or lease at the end of 2013?

_____ 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 2013?

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 2013? (Check one).

Negligible Minor Moderate Severe Very Severe

5. How would you compare the amount of deer damage you experienced in 2013 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? (*Check one*).
- Much fewer deer now than 5 years ago
 - Slightly fewer deer now than 5 years ago
 - About the same number of deer now 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. (*Please check one below*).
- Very Dissatisfied Slightly Dissatisfied Neutral 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	Very 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 such as chronic wasting disease	1	2	3	4	5
Public health (such human-deer disease from ticks)	1	2	3	4	5
Amount of crop damage from deer	1	2	3	4	5
The 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
Hunter satisfaction with deer numbers	1	2	3	4	5
Public satisfaction with deer numbers	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, (*Check one*)

- 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 2013 deer season? (*Check only one*)

- Yes
 No → PLEASE SKIP TO QUESTION 17

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 mark all that apply*). Please also estimate the number of people who hunted your property in 2013.

- 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 is restricted to only large antlered bucks, but hunters can take any antlerless deer
 Buck harvest restricted to only 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 to report if you hunted deer in Minnesota during the 2011, 2012 or 2013 Minnesota deer season? (*Please check all that apply*).

- 2011 | 2012 | 2013
 I hunt deer but did not hunt any of these years → Please skip to Question 21
 I do not hunt deer at all → Please skip to Question 22

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

- 241 | 242 | 246 | 248 | 251 | 258 | 259 | 287 | N/A

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 item.*)

	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 2013, 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 Slightly Support Strongly Support

23. 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	Disagree	Neither Agree nor Disagree	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

24. What is your gender?

Male Female

25. What year were you born? _____ (please use 4 digits)

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: _____