



**East Central Uplands**  
**Deer Goal Setting – Block G4**  
**Landowner and Hunter Survey Results**



## Table of Contents

Public Surveys for Deer Goal Setting.....	4
Methods.....	4
Hunter Survey.....	5
Demographics.....	5
Population trends and perceptions about deer populations.....	5
Satisfaction.....	9
Consideration when setting deer population goals.....	12
Landowner Survey.....	14
Demographics.....	14
Hunting patterns.....	15
Reported damage from deer.....	15
Population trends and perceptions about deer populations.....	19
Consideration when setting deer population goals.....	24

## Tables

Table 1. Condensed table of desired deer population trends of hunters, by land type hunted. ....	6
Table 2. Hunter perceptions of deer population trends over the last 5 years, by deer permit area.	6
Table 3. Hunter beliefs about current deer population densities, by deer area. ....	7
Table 4. Deer population trend preferences for hunters, by deer permit area. ....	8
Table 5. Overall hunter satisfaction with total deer numbers, by deer area.....	10
Table 6. Hunter satisfaction with number and quality of bucks, antlerless deer, and total deer numbers, by area. ....	11
Table 7. Items that hunters believed should be important when considering setting deer population goals. ....	13
Table 8. Condensed table of desired deer population trends for landowners that hunted by land type hunted.....	16
Table 9. Self-described damage caused by deer for crops, woods, and residential land types.....	17
Table 10. Perceptions of landowner deer population trends over the last 5 years, by deer area.	19
Table 11. Landowner beliefs about current deer population densities, by deer area and whether or not they hunted. ....	20
Table 12. Preferred landowner population trends, by deer area. ....	21
Table 13. Desired deer population trends for landowners, by deer area and whether or not they hunted.....	23
Table 14. Importance of items landowners indicated should be considered when setting deer population goals. ....	25

## Figures

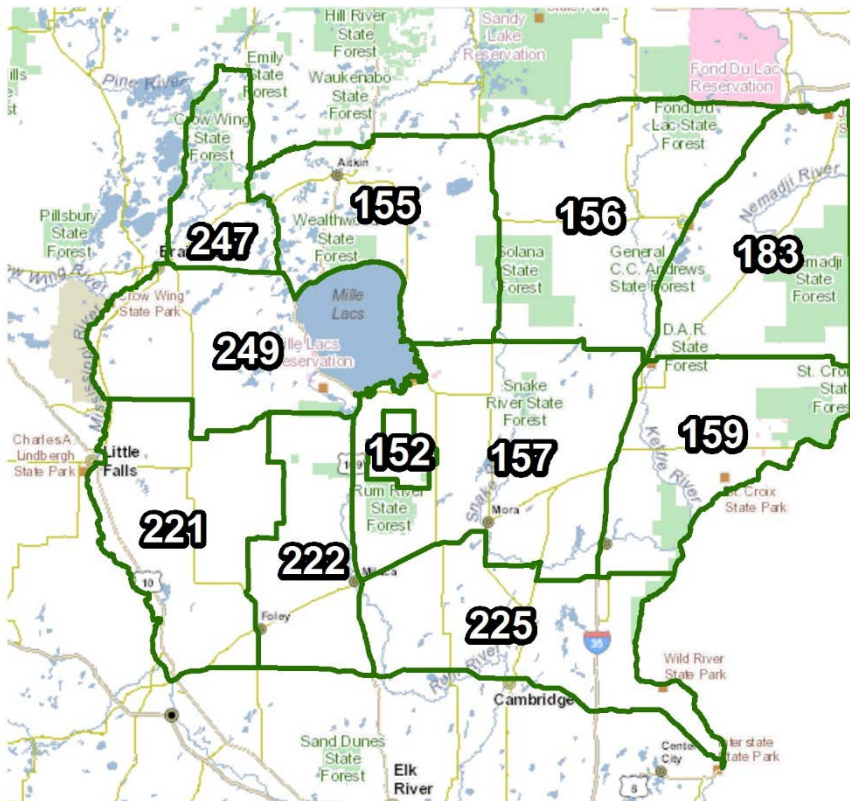
Figure 1. Graphical representation of hunters' desired deer population trends.....	9
Figure 2. Hunter satisfaction with total number of deer seen, based on land type hunted. ....	12
Figure 3. Graphical importance of items that should be considered when setting deer population goals as defined by hunters. Items were consolidated into 3 groups and ranked by relative importance from low to high.....	14
Figure 4. Percent of landowners who owned crops, woods, and residential acreage. ....	16
Figure 5. Percent of landowners who indicated they had damage from deer. ....	17
Figure 6. Reported damage to crops, woods, and residential acreage, by deer permit area. ....	18
Figure 7. Graphical representation of desired deer population trends for landowners. ....	22
Figure 8. Graphical representation of landowner desires for future deer populations, by whether or not they hunted. ....	24
Figure 9. Graphical importance of items that should be considered when setting deer population goals as defined by landowners. Items were consolidated into 3 groups and ranked from low to high by highest importance.....	25

## Appendices

Appendix A. East Central Uplands (Block G4) hunter survey .....	26
Appendix B. East Central Uplands (Block G4) landowner survey.....	30

## 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 4, East Central Uplands.



## 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).

For the hunter survey, we randomly selected 2,600 adult 2013 deer license holders who indicated they intended to hunt in deer areas 152, 155, 156, 157, 159, 183, 221, 222, 225, 247, or 249. A total of 123 were undeliverable and we received 773 completed responses, which yielded an adjusted response rate of 31%. Deer area 152 (Mille Lacs WMA) is comprised entirely of public land so there was no landowner survey. 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 all 4 stratum (n = 650). Overall, there were 288 undeliverable surveys; 914 completed landowner surveys were returned, yielding a 37% adjusted response rate. For both surveys, our error rate at the goal block level was approximately 3%.

## **Hunter Survey**

### *Demographics*

Nearly all respondents (98%) indicated they hunted during the 2013 firearm deer season. Overall 25% indicated they hunted deer during the archery season and 11% hunted muzzleloader. Firearm hunters spent an average of 5.4 days afield, compared to 6.2 for muzzleloader and 17.7 for archery hunters. Overall, individuals had hunted an average of 27 years in Minnesota and 19 years in the deer area they indicated they hunted most often. Overall, 89% of respondents were male and the average age was 48.7 (range = 16 – 87).

More than half of hunters did at least some of their hunting on their own private land (68%) or other private land (68%). Slightly more than half (55%) did at least some of their hunting on public land. Another 9.4% indicated they did at least some hunting on lands that they leased for deer hunting. Only 2.9% of respondents hunted exclusively on land they leased. 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, 76% of respondents indicated there were fewer deer than 5 years ago, 6% indicated more, and 18% believed populations were the same. We observed some differences; hunters in deer area 156 were most likely to indicate populations had declined (89%); conversely, hunters in deer area 225 were least likely to indicate a population decline (59%) (Table 2). Respondents were also asked for their perceptions of total deer population size as rated by 'too low', 'about right', or 'too high'. Nearly two-thirds (69%) believed the population was 'too low', 28% thought it was 'about right', and 2% 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 77% 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	9%	14%	77%
	Some	8%	12%	80%
	Most	5%	20%	76%
	All	6%	18%	76%
Private land that I lease for hunting	None	7%	15%	78%
	Some	7%	40%	53%
	Most	0%	25%	75%
	All	0%	17%	83%
Private land that I do not own or lease	None	4%	15%	82%
	Some	5%	14%	81%
	Most	7%	14%	79%
	All	10%	19%	71%
Public land	None	7%	18%	75%
	Some	5%	15%	80%
	Most	6%	6%	88%
	All	6%	16%	79%

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
152	5	83%	1	17%	0	0%
155	58	66%	24	27%	6	7%
156	80	89%	8	9%	2	2%
157	108	80%	18	13%	9	7%
159	70	82%	13	15%	2	2%
183	70	79%	10	11%	9	10%
221	39	77%	7	14%	5	10%
222	30	71%	11	26%	1	2%
225	38	59%	22	34%	4	6%
247	28	82%	5	15%	1	3%
249	26	61%	13	30%	4	9%
Total	552	76%	132	18%	43	6%

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
152	5	83%	1	17%	0	0%
155	59	68%	25	29%	3	3%
156	77	86%	13	14%	0	0%
157	88	65%	46	34%	1	1%
159	68	81%	14	17%	2	2%
183	75	85%	12	14%	1	1%
221	26	51%	22	43%	3	6%
222	25	60%	16	38%	1	2%
225	32	51%	28	44%	3	5%
247	24	73%	8	24%	1	3%
249	22	51%	19	44%	2	5%
Total	501	69%	204	28%	17	2%

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

(a) By individual response

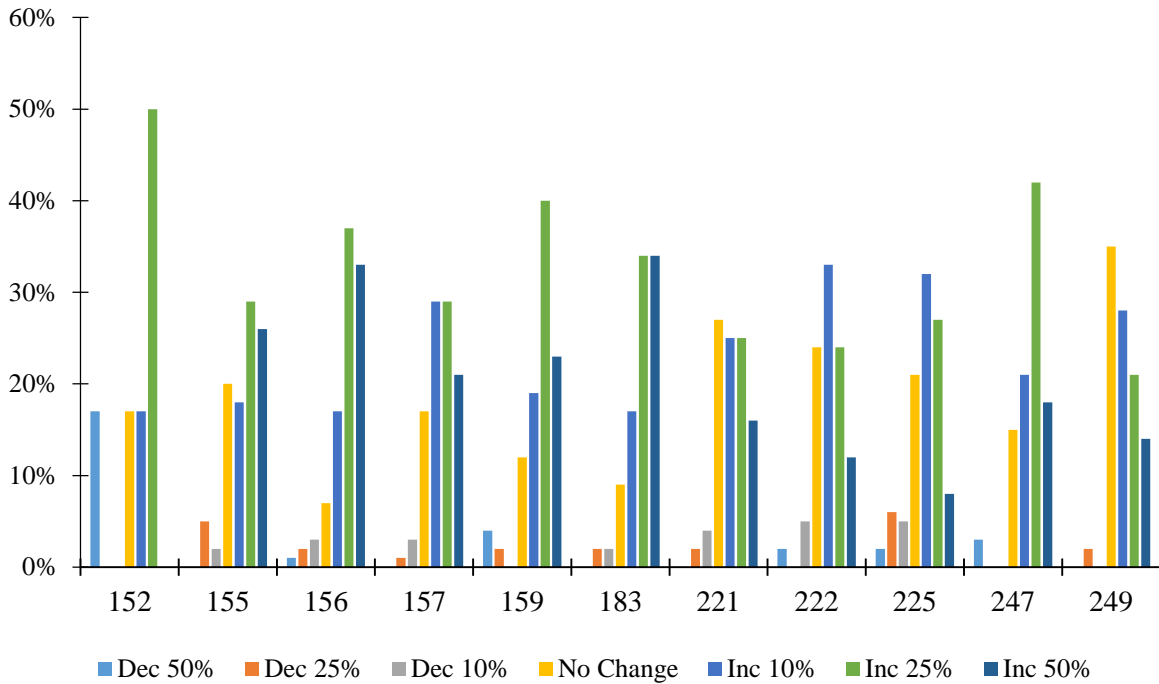
Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
152	17%	0%	0%	17%	17%	50%	0%
155	0%	5%	2%	20%	18%	29%	26%
156	1%	2%	3%	7%	17%	37%	33%
157	0%	1%	3%	17%	29%	29%	21%
159	4%	2%	0%	12%	19%	40%	23%
183	0%	2%	2%	9%	17%	34%	34%
221	0%	2%	4%	27%	25%	25%	16%
222	2%	0%	5%	24%	33%	24%	12%
225	2%	6%	5%	21%	32%	27%	8%
247	3%	0%	0%	15%	21%	42%	18%
249	0%	2%	0%	35%	28%	21%	14%
Total	1%	2%	3%	17%	23%	32%	22%

(b) Summarized by decrease, same, increase

Deer Area	Decrease	Same	Increase
152	17%	17%	67%
155	7%	20%	73%
156	6%	7%	87%
157	4%	17%	79%
159	6%	12%	82%
183	4%	9%	85%
221	6%	27%	66%
222	7%	24%	69%
225	13%	21%	67%
247	3%	15%	81%
249	2%	35%	63%
Total	6%	17%	77%



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. Only 19% were satisfied with current deer numbers; 66% indicated dissatisfaction (Table 5). In total, only 29% indicated they were satisfied with the total number of deer they saw while hunting (60% were not satisfied and 11% were neutral). Thirty nine percent were satisfied with the total number of antlerless deer they observed. Only one-quarter (26%) were satisfied with the number of legal bucks observed; more than half were dissatisfied (59%). Half (50%) indicated they saw heard about or saw legal bucks while hunting. More hunters (57%) were dissatisfied than satisfied (27%) with the quality of bucks observed (Table 6). Finally, we observed no real differences among land type hunted and satisfaction with total deer numbers; most were not satisfied with the number of deer they saw while hunting (range = 53% - 74%) (Figure 2).

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

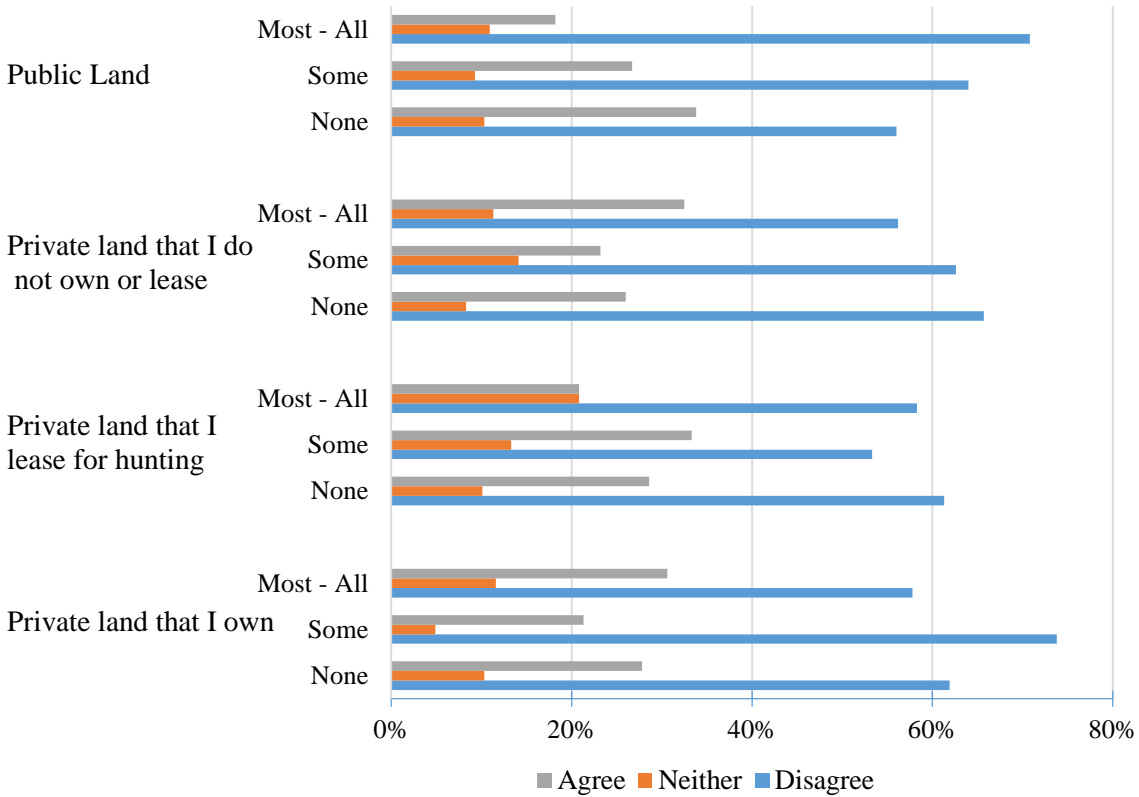
DPA	Dissatisfied		Neither		Satisfied	
	N	Percent	N	Percent	N	Percent
152	5	83%	1	17%	0	0%
155	52	59%	14	16%	22	25%
156	67	74%	15	17%	8	9%
157	84	62%	26	19%	25	19%
159	62	73%	14	17%	9	11%
183	71	80%	9	10%	9	10%
221	33	65%	7	14%	11	22%
222	23	55%	7	17%	12	29%
225	35	55%	6	9%	23	36%
247	24	71%	4	12%	6	18%
249	24	56%	9	21%	10	23%
Total	480	66%	112	15%	135	19%

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

		Deer Area					
		152	155	156	157	159	183
I was satisfied with the number of legal bucks	Disagree	50%	56%	72%	55%	72%	70%
	Neither	0%	14%	18%	17%	14%	9%
	Agree	50%	31%	10%	28%	14%	21%
I was satisfied with the quality of bucks	Disagree	50%	42%	69%	56%	62%	64%
	Neither	0%	21%	18%	18%	15%	8%
	Agree	50%	38%	14%	26%	22%	28%
I heard about or saw legal bucks while hunting	Disagree	67%	43%	48%	36%	39%	53%
	Neither	33%	9%	13%	13%	12%	6%
	Agree	0%	48%	40%	52%	49%	41%
I was satisfied with the total number of antlerless deer	Disagree	50%	46%	64%	46%	51%	62%
	Neither	0%	17%	9%	12%	13%	12%
	Agree	50%	38%	27%	43%	37%	26%
I was satisfied with the total number of deer I saw while hunting	Disagree	67%	57%	75%	56%	65%	76%
	Neither	17%	13%	10%	15%	8%	7%
	Agree	17%	31%	15%	30%	27%	17%

		Deer Area					
		221	222	225	247	249	Total
I was satisfied with the number of legal bucks	Disagree	51%	43%	42%	68%	54%	59%
	Neither	20%	29%	14%	9%	14%	15%
	Agree	29%	29%	44%	24%	33%	26%
I was satisfied with the quality of bucks	Disagree	61%	52%	44%	74%	56%	57%
	Neither	16%	17%	17%	12%	7%	15%
	Agree	24%	31%	39%	15%	37%	27%
I heard about or saw legal bucks while hunting	Disagree	28%	21%	30%	32%	35%	39%
	Neither	10%	19%	14%	15%	12%	12%
	Agree	62%	60%	56%	53%	54%	50%
I was satisfied with the total number of antlerless deer	Disagree	43%	39%	36%	38%	40%	48%
	Neither	16%	7%	11%	24%	9%	13%
	Agree	41%	54%	53%	38%	51%	39%
I was satisfied with the total number of deer I saw while hunting	Disagree	57%	48%	48%	53%	49%	60%
	Neither	8%	14%	11%	24%	5%	11%
	Agree	35%	38%	41%	24%	47%	29%

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



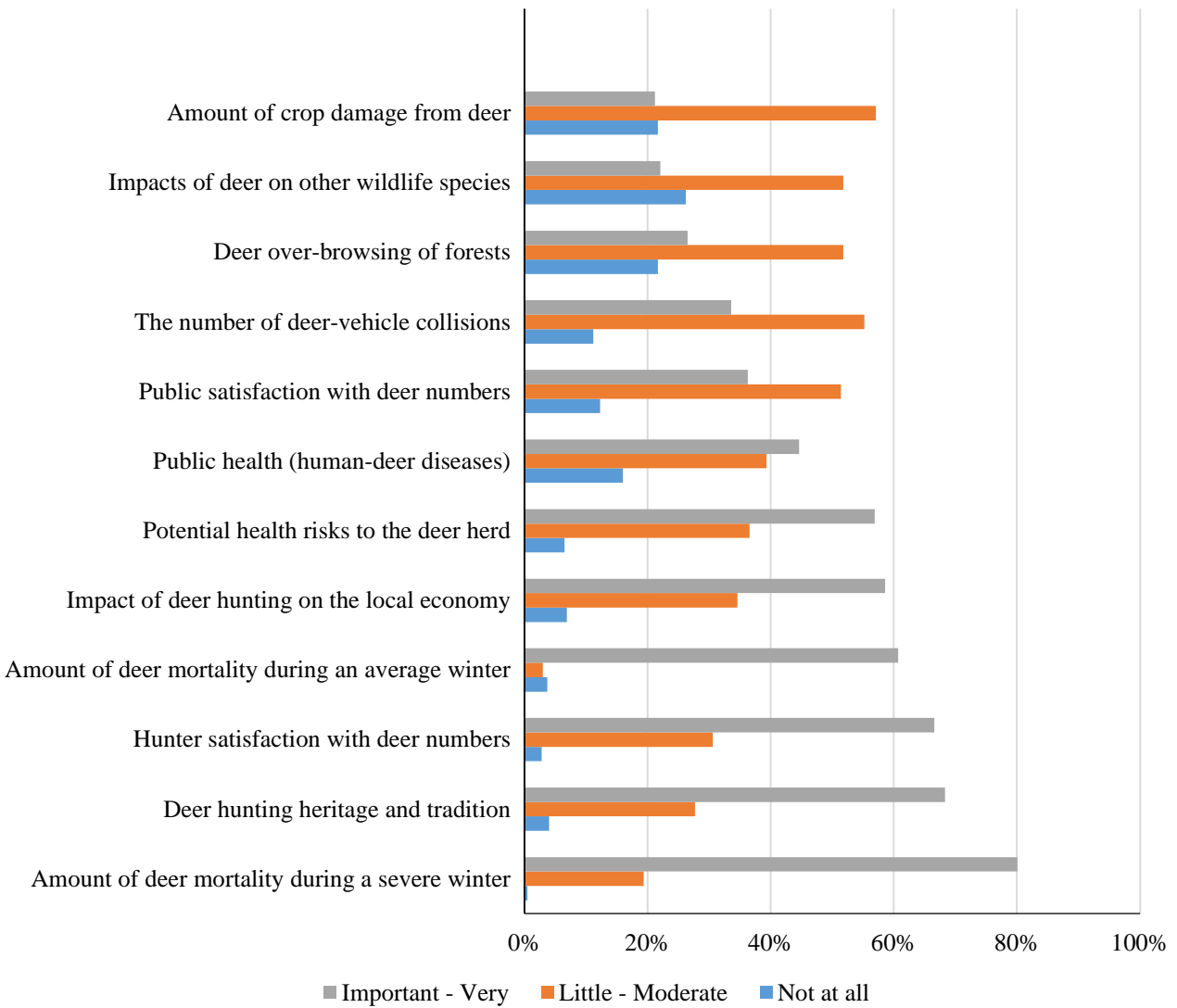
*Consideration when setting deer population goals*

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 amount of crop damage, impacts on other species, 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	Relative Importance				
	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	4%	12%	24%	43%	18%
Amount of deer mortality during a severe winter	1%	5%	15%	39%	41%
Deer over-browsing of forests	22%	23%	29%	20%	7%
Public satisfaction with deer numbers	12%	25%	27%	27%	10%
Hunter satisfaction with deer numbers	3%	9%	22%	42%	24%
The number of deer-vehicle collisions	11%	26%	29%	23%	10%
Amount of crop damage from deer	22%	31%	26%	17%	4%
Impacts of deer on other wildlife species	26%	25%	27%	17%	5%
Potential health risks to the deer herd	7%	16%	21%	29%	28%
Public health (human-deer diseases)	16%	21%	18%	25%	20%
Impact of deer hunting on the local economy	7%	12%	23%	34%	25%
Deer hunting heritage and tradition	4%	9%	19%	32%	36%

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 and ranked by relative importance from low to high.



## Landowner Survey

### Demographics

We received 184, 220, 263, and 247 responses from the 4 strata, respectively. In total, 65% of respondents indicated they hunted deer in Minnesota during the 2013 deer season; similar percentages were reported for 2011 (65%) and 2012 (65%). Since those percentages of landowners that hunted 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 (40%), as compared to other landowners (20-79.9: 65%; 80-319.9: 69%; 320+: 72%). Overall, individuals had hunted an average of 37 years. Overall, 87% of respondents were male and the average age was 60.5 (range = 20 – 94).

### *Hunting patterns*

A majority of landowners did most (19%) or all (70%) of their hunting on their own private land. Only 38% of all landowners did at least some hunting on public land, while 38% also hunted private land they didn't own. Regardless of where they hunted, a majority of hunting landowners expressed a desire for an increase in deer numbers (Table 8).

Slightly more than two-thirds (76%) indicated they allowed hunting on their property. As expected, individuals with smaller parcels allowed hunting at lower rates (40%) than landowners with at least 20 acres (range = 78% – 87%). Overall, only 3.1% (n = 28) of landowners indicated they leased their property for hunting. With respect to who is allowed to hunt, 88% indicated family members, 58% indicated friends or neighbors, and 10% 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 10% - 55%). The percentage of respondents who owned woodlands or residential properties was consistent among stratum (Figure 4). Landowners who owned at least 320 acres were most likely to indicate they had damage to their crops (62%). A smaller percentage of respondents indicated they had woodlot (9.0%) or residential (20%) damage from deer. With respect to residential damage, landowners who owned <20 acres were slightly more inclined to indicate residential 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, crop damage due to deer was typically categorized as 'minor' or '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	20%	42%	39%
	Some	11%	22%	67%
	Most	11%	30%	59%
	All	12%	30%	58%
Private land that I lease for hunting	None	16%	34%	50%
	Some	9%	9%	82%
	Most	17%	33%	50%
	All	0%	0%	100%
Private land that I do not own or lease	None	14%	36%	51%
	Some	9%	26%	64%
	Most	3%	29%	69%
	All	27%	30%	43%
Public land	None	17%	33%	50%
	Some	2%	32%	66%
	Most	0%	7%	93%
	All	11%	37%	53%

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

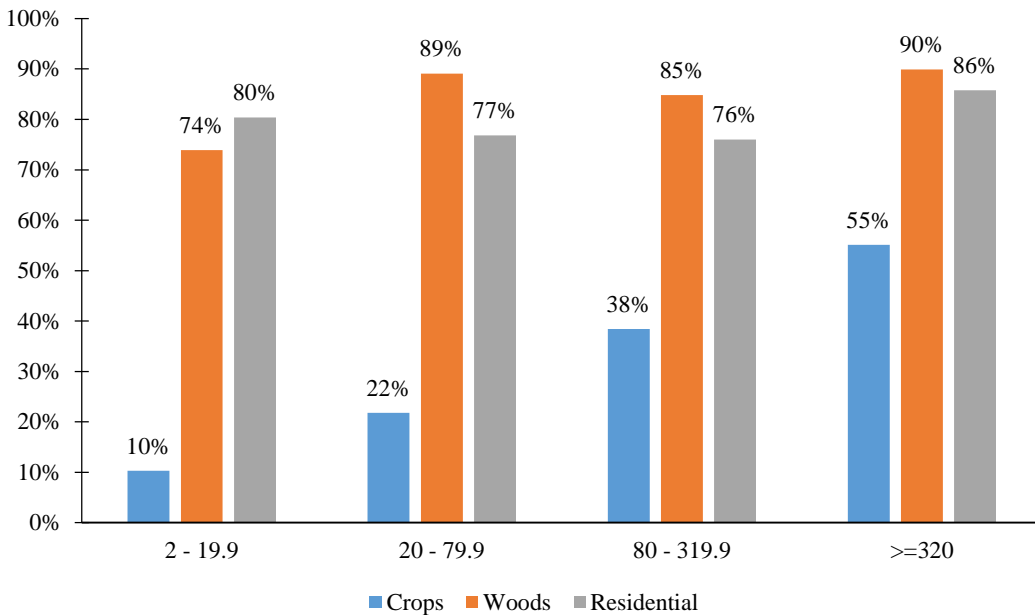




Figure 5. Percent of landowners who indicated they had damage from deer.

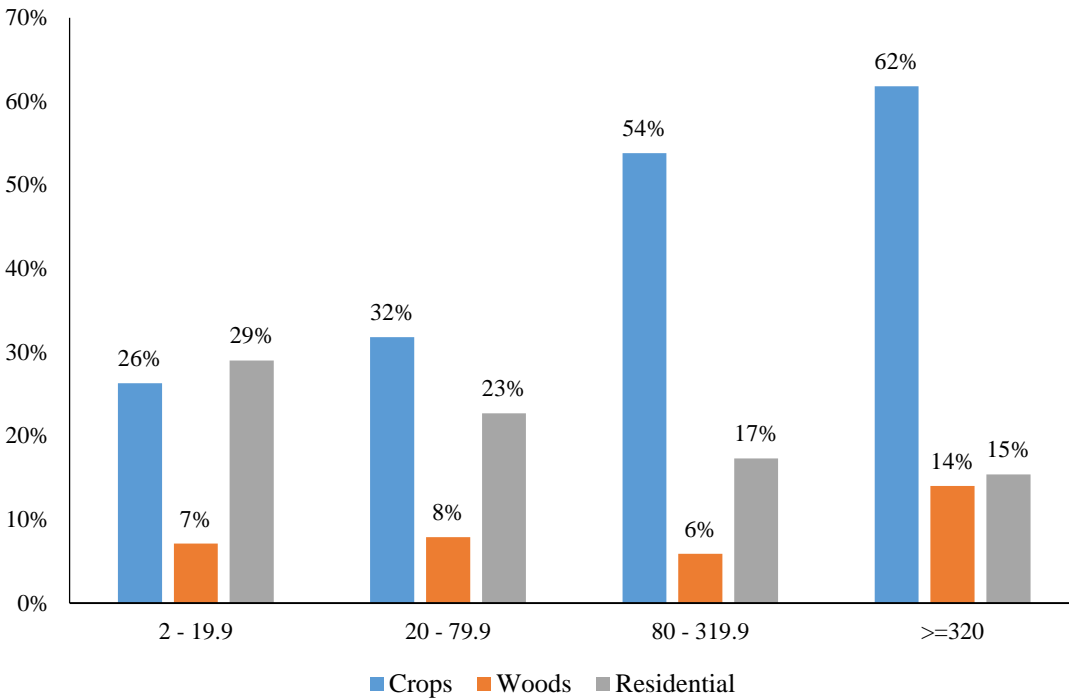
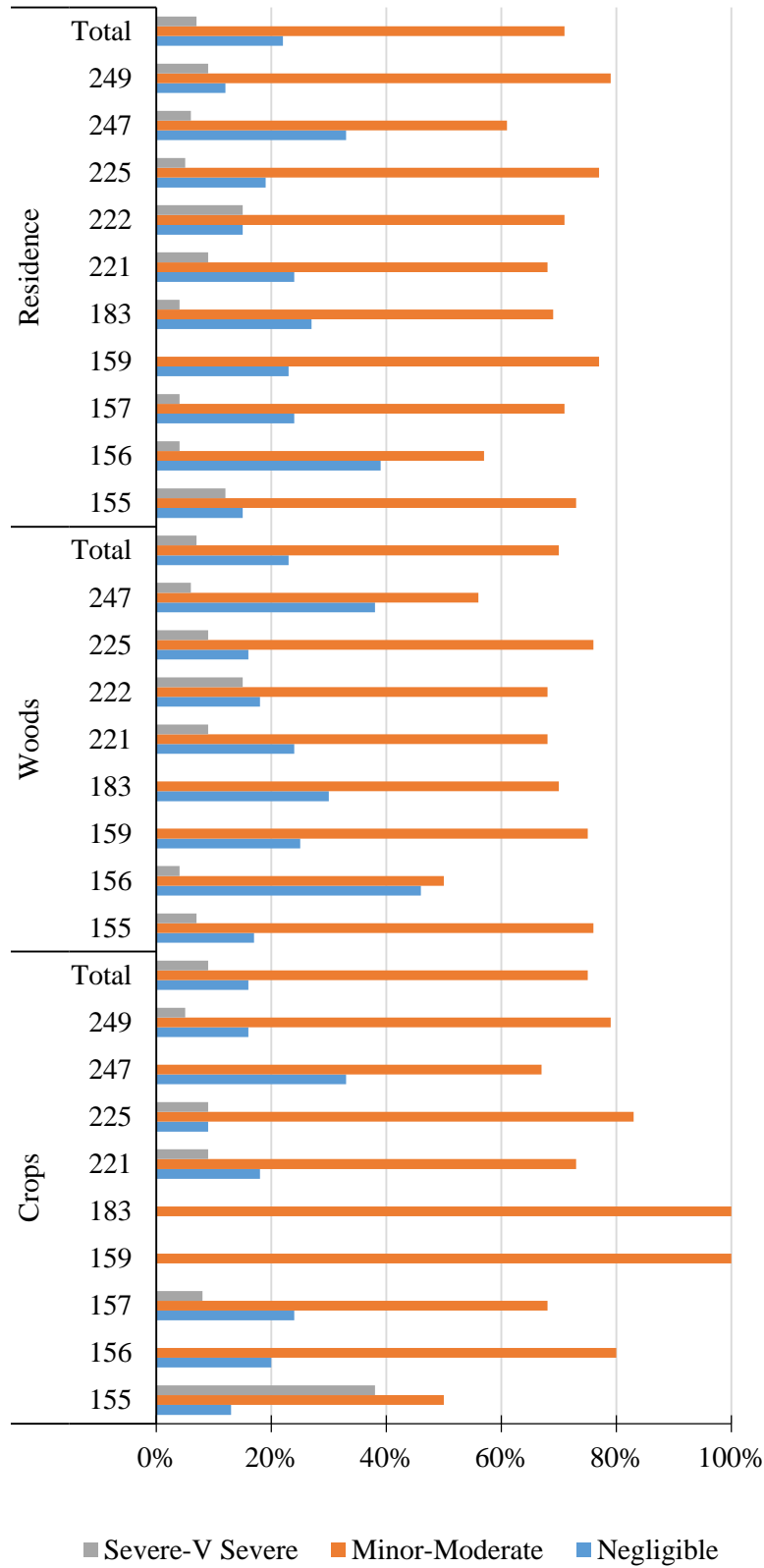


Table 9. Self-described damage caused by deer for crops, woods, and residential land types.

		Strata				Total
		2 - 19.9	20 - 79.9	80 - 319.9	>=320	
Crops	Negligible	29%	20%	14%	15%	16%
	Minor	57%	40%	43%	51%	47%
	Moderate	14%	35%	36%	22%	28%
	Severe	0%	5%	2%	8%	5%
	Very Severe	0%	0%	5%	5%	4%
Woods	Negligible	28%	27%	25%	17%	23%
	Minor	50%	37%	45%	49%	46%
	Moderate	20%	29%	24%	24%	24%
	Severe	2%	7%	2%	6%	5%
	Very Severe	0%	0%	3%	4%	2%
Residential	Negligible	27%	26%	22%	16%	22%
	Minor	51%	38%	45%	49%	46%
	Moderate	20%	28%	27%	24%	25%
	Severe	2%	9%	2%	6%	5%
	Very Severe	0%	0%	4%	5%	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, 65% (57% non-hunters, 69% hunters) of respondents indicated there were fewer deer than 5 years ago, 12% (18% non-hunters, 9.3% hunters) indicated more, and 23% (26% non-hunters, 22% hunters) believed populations were the same. Landowners in deer area 159 were most likely to indicate the population was lower (94%; 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’ (52% vs. 36%), while hunters were more likely to indicate populations were ‘too low’ (58% vs 33%). Non-hunters were more likely to indicate the population was ‘too high’ (5.4% hunters, 15% 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 58% 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
155	77	70%	20	18%	13	12%
156	92	88%	11	11%	2	2%
157	113	76%	25	17%	11	7%
159	29	94%	2	7%	0	0%
183	53	66%	23	29%	4	5%
221	43	48%	28	32%	18	20%
222	53	58%	21	23%	17	19%
225	62	55%	38	34%	12	11%
247	14	38%	12	32%	11	30%
249	36	44%	25	31%	20	25%
Total	572	65%	205	23%	108	12%

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%)	155	11	31%	19	53%	6	17%
	156	14	50%	12	43%	2	7%
	157	19	42%	16	36%	10	22%
	159	8	53%	5	33%	2	13%
	183	11	37%	17	57%	2	7%
	221	7	29%	15	63%	2	8%
	222	11	32%	14	41%	9	27%
	225	9	17%	39	75%	4	8%
	247	3	21%	3	21%	8	57%
	249	8	29%	18	64%	2	7%
	Sum	101	33%	158	52%	47	15%
Yes (65%)	155	50	69%	17	23%	6	8%
	156	56	74%	17	22%	3	4%
	157	70	69%	28	28%	4	4%
	159	13	81%	3	19%	0	0%
	183	29	58%	18	36%	3	6%
	221	27	43%	31	49%	5	8%
	222	35	61%	19	33%	3	5%
	225	24	42%	29	51%	4	7%
	247	9	39%	13	57%	1	4%
	249	20	38%	31	59%	2	4%
	Sum	333	58%	206	36%	31	5%
Total	155	61	56%	36	33%	12	11%
	156	70	67%	29	28%	5	5%
	157	89	61%	44	30%	14	10%
	159	21	68%	8	26%	2	7%
	183	40	50%	35	44%	5	6%
	221	34	39%	46	53%	7	8%
	222	46	51%	33	36%	12	13%
	225	33	30%	68	62%	8	7%
	247	12	32%	16	43%	9	24%
	249	28	35%	49	61%	4	5%
	Total	434	50%	364	42%	78	9%

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%
155	2%	5%	7%	15%	30%	25%	17%
156	2%	4%	0%	13%	31%	31%	20%
157	3%	4%	7%	21%	15%	28%	21%
159	3%	3%	0%	16%	13%	35%	29%
183	1%	3%	5%	30%	22%	22%	18%
221	2%	7%	7%	40%	19%	14%	11%
222	8%	4%	3%	27%	21%	23%	13%
225	3%	3%	6%	46%	25%	17%	2%
247	5%	16%	8%	35%	11%	19%	5%
249	0%	5%	4%	48%	16%	19%	9%
Total	3%	5%	5%	29%	21%	23%	14%

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

Deer Area	Decrease	Same	Increase
155	14%	15%	72%
156	6%	13%	82%
157	14%	21%	64%
159	6%	16%	77%
183	9%	30%	62%
221	16%	40%	44%
222	15%	27%	57%
225	12%	46%	44%
247	29%	35%	35%
249	9%	48%	44%
Total	13%	29%	58%

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

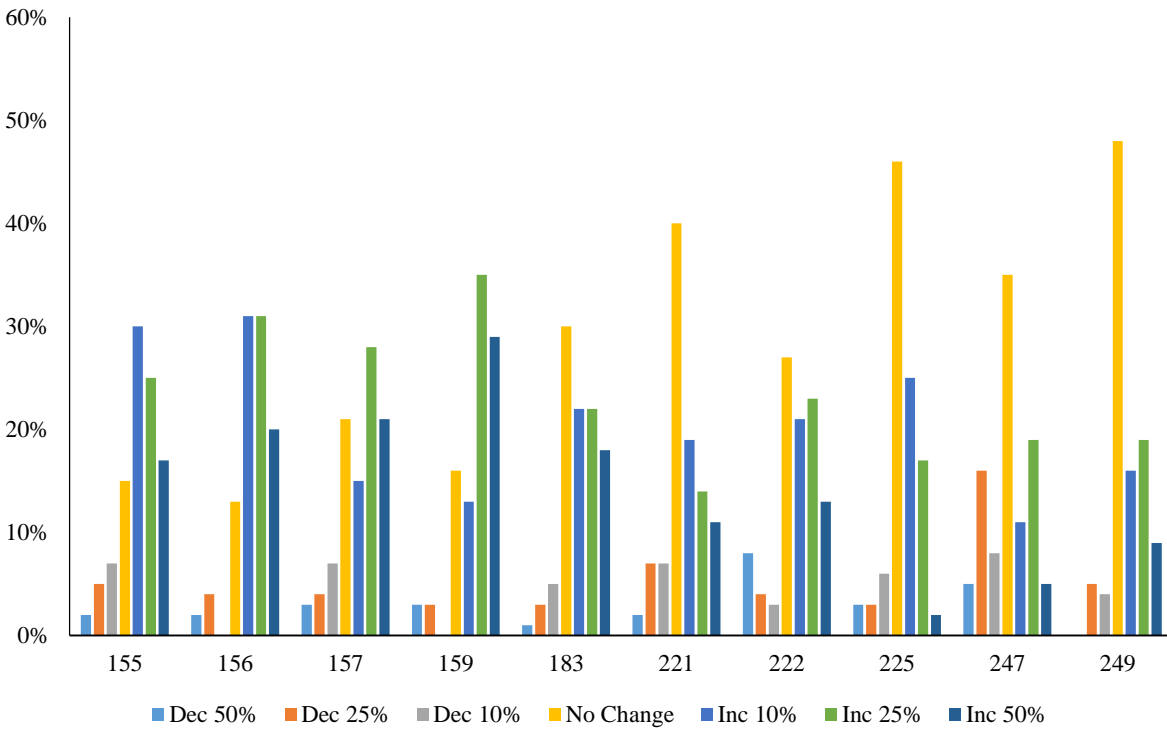
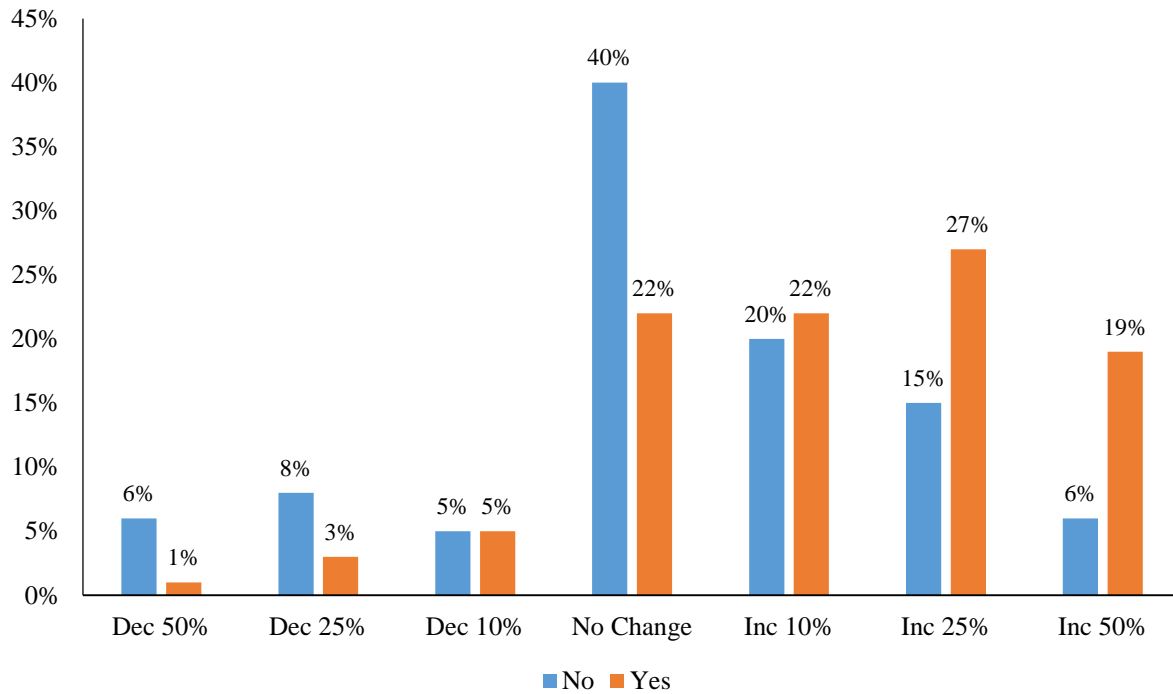


Table 13. Desired deer population trends for landowners, by deer area and whether or not they hunted.

Hunt	Deer Area	Dec 50%	Dec 25%	Dec 10%	No Change	Inc 10%	Inc 25%	Inc 50%
No (35%)	155	3%	3%	11%	31%	33%	14%	6%
	156	4%	7%	0%	18%	36%	18%	18%
	157	9%	9%	9%	37%	13%	15%	9%
	159	7%	7%	0%	20%	20%	40%	7%
	183	3%	3%	3%	48%	24%	14%	3%
	221	4%	13%	0%	54%	17%	13%	0%
	222	18%	9%	3%	35%	21%	12%	3%
	225	2%	6%	6%	57%	20%	8%	2%
	247	14%	36%	7%	14%	14%	14%	0%
	249	0%	4%	7%	57%	0%	21%	11%
	Total	6%	8%	5%	40%	20%	15%	6%
Yes (65%)	155	1%	6%	6%	7%	28%	31%	22%
	156	1%	3%	0%	11%	29%	36%	21%
	157	1%	2%	7%	14%	16%	34%	26%
	159	0%	0%	0%	13%	6%	31%	50%
	183	0%	2%	6%	20%	20%	26%	26%
	221	2%	5%	9%	34%	20%	14%	16%
	222	2%	2%	4%	21%	21%	30%	20%
	225	3%	0%	5%	36%	29%	24%	2%
	247	0%	4%	9%	48%	9%	22%	9%
	249	0%	6%	2%	43%	25%	17%	8%
	Total	1%	3%	5%	22%	22%	27%	19%

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



*Consideration when setting deer population goals*

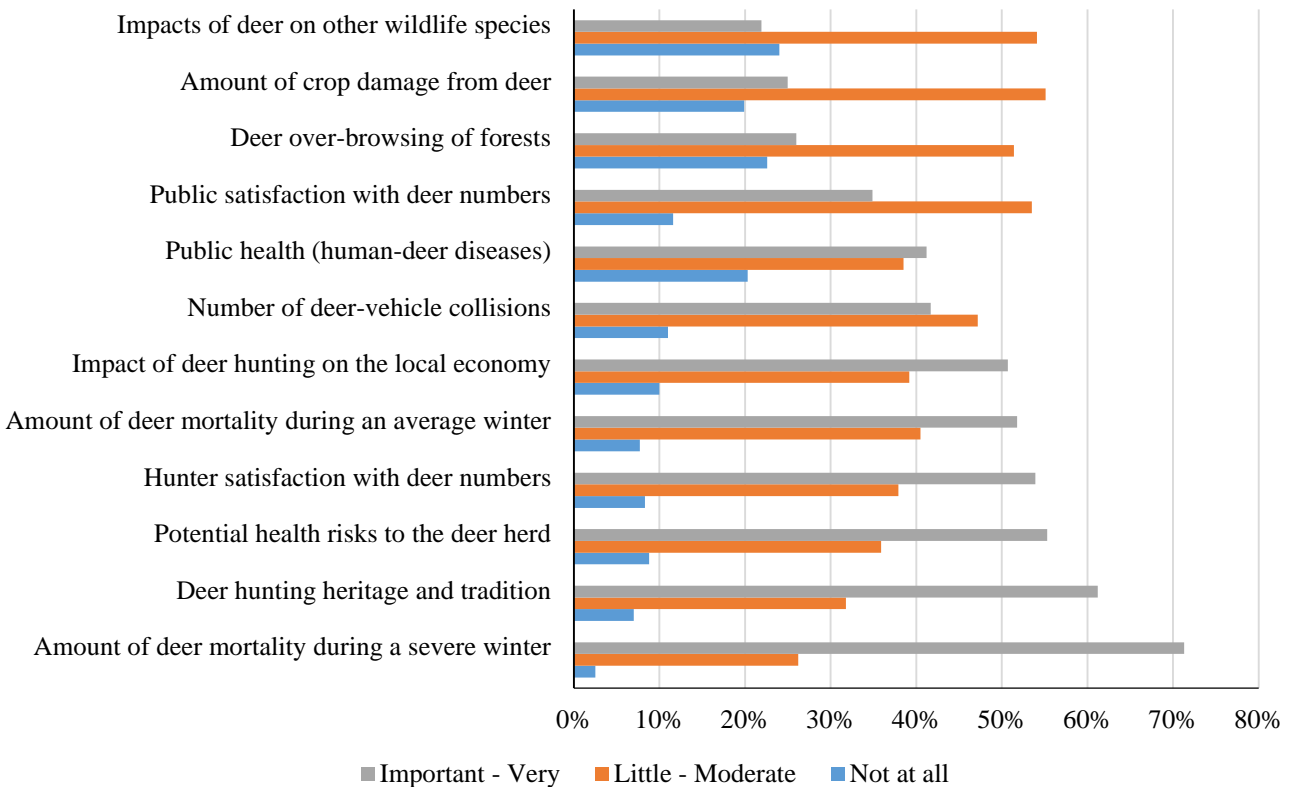
Respondents were also asked to rate the importance of 12 items when setting deer population goals. The scale ranges from ‘not at all important’ to ‘very important’ and covered a range of items that would lead to both higher or lower deer populations. Deer mortality during a severe winter, hunting tradition, and disease risks to deer were the 3 most important considerations for landowner. Impacts of deer on other species, deer over-browsing, and public health comprised had the lowest relative importance (Table 14; Figure 9).



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

Item	Not at all	A little	Moderately	Important	Very
Amount of deer mortality during an average winter	8%	14%	27%	36%	16%
Amount of deer mortality during a severe winter	3%	10%	17%	35%	37%
Deer over-browsing of forests	23%	23%	28%	19%	7%
Public satisfaction with deer numbers	12%	20%	34%	26%	9%
Hunter satisfaction with deer numbers	8%	12%	26%	33%	21%
Number of deer-vehicle collisions	11%	21%	26%	27%	15%
Amount of crop damage from deer	20%	24%	31%	19%	6%
Impacts of deer on other wildlife species	24%	25%	29%	17%	5%
Potential health risks to the deer herd	9%	17%	19%	31%	25%
Public health (human-deer diseases)	20%	21%	18%	22%	19%
Deer hunting heritage and tradition	7%	11%	21%	31%	31%
Impact of deer hunting on the local economy	10%	14%	25%	30%	21%

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



## 2014 Survey of Minnesota Deer Hunters: Population Management

The Minnesota Department of Natural Resources will be evaluating deer population goals in east-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. This survey should take less than 10 minutes to complete.

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?  
 219 |  223 |  224 |  227 |  229 |  235 |  236 |  285 |  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 2013, how many years have you hunted deer in the permit area you hunt most often?  
 \_\_\_\_\_ Years

6. Including 2013, 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 <b>not</b> 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).*

	<b>Strongly Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Slightly Agree</b>	<b>Strongly Agree</b>
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*).

	<b>Not at all Important</b>	<b>A little Important</b>	<b>Moderately Important</b>	<b>Important</b>	<b>Very Important</b>
Amount of deer mortality during an <b>average</b> winter	1	2	3	4	5
Amount of deer mortality during a <b>severe</b> 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) \_\_\_\_\_

16. 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

17. 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*).

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Decrease	Decrease	Decrease	No Change	Increase	Increase	Increase
Population	Population	Population		Population	Population	Population
50%	25%	10%		10%	25%	50%
(Significant)	(Moderate)	(Slight)		(Slight)	(Moderate)	(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? (*Check one*)

- 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.*)

	<b>Strongly Disagree</b>	<b>Slightly Disagree</b>	<b>Neither Agree nor Disagree</b>	<b>Slightly Agree</b>	<b>Strongly Agree</b>
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

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 Department of Natural Resources will be evaluating deer population goals in east-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. This survey should take less than ten minutes to complete. 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. (Check one)

- 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 <b>average</b> winter	1	2	3	4	5
Amount of deer mortality during a <b>severe</b> 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 (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.

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

11. 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

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

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
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)

13. Did you allow hunting on your property during the 2013 deer season? *(Check only one)*

- Yes
- No → PLEASE SKIP TO QUESTION 16

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

- Yes
- No

15. 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 2013.

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

16. 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: \_\_\_\_\_)

17. Please check the boxes below 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 20
- I do not hunt deer at all → Please skip to Question 21

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

- 219 |  223 |  224 |  227 |  229 |  235 |  236 |  285 |  I hunted a permit area not listed

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

\_\_\_\_\_ Area Number



20. 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 <b>not</b> own or lease	1	2	3	4
Public land	1	2	3	4

21. Including 2013, how many years have you been hunting deer in Minnesota? \_\_\_\_\_ Years.

22. 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

24. What is your gender?

- Male
- Female

25. 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: \_\_\_\_\_