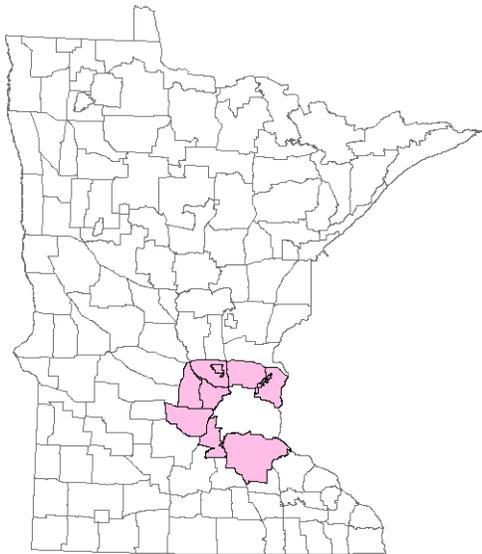




Fish and Wildlife Division

Deer Goal Setting Attitude Survey Report

Block 5: Sand Plain Big Woods



Contents

Deer Goal Setting Attitude Survey Report	1
Statement of Purpose and Scope of Data	6
Data Collection Process	6
Hunters	6
Landowners	6
Block 5: Sand Plain Big Woods.....	7
Figure 1. Goal setting Block 5 DPA boundaries	7
Response Rates and Weighting	8
Hunters	8
Landowners	8
Table 1. Response rates for hunter samples, by DPA.....	9
Table 2. Population and sample proportions by age quantile, and weights	10
Table 3. Response rates for landowner samples, by DPA	11
Table 4. Population and sample proportions by acre strata, and weights.....	12
Summary of Deer Population Preferences	13
Figure 2. Landowners’ and hunters’ mean desired percent change in the deer population, by DPA	14
Figure 3. Deer permit area 219 deer hunters’ and landowners’ preference for future deer population...	15
Figure 4. Deer permit area 223 landowners’ and hunters’ preference for future deer population	16
Figure 5. Deer permit area 224 hunters’ preference for future deer population.....	17
Figure 6. Deer permit area 227 landowners’ and hunters’ preference for future deer population	18
Figure 7. Deer permit area 229 landowners’ and hunters’ preference for future deer population	19
Figure 8. Deer permit area 235 hunters’ preference for future deer population.....	20
Figure 9. Deer permit area 236 hunters’ preference for future deer population.....	21
Figure 10. Deer permit area 285 hunters’ preference for future deer population.....	22

Figure 11. Deer permit area 338 hunters' preference for future deer population.....	23
Figure 12. Deer permit area 605 hunters' preference for future deer population.....	24
Hunters	25
Table 5. Percent of respondents reporting hunting deer during the last three years, by DPA.....	27
Table 6. Percent of 2019 deer hunters participating in deer hunting seasons, by DPA.....	28
Table 7. Percent of respondents effort spent hunting deer on hunting different types of land during their most recent deer hunting season, by DPA	29
Table 8. Deer hunters' satisfaction with their most recent deer hunting season, by DPA	30
Table 9a. Deer hunters' agreement with the statement "I was satisfied with the number of legal bucks" during their most recent deer hunting season, by DPA	31
Table 9b. Deer hunters' agreement with the statement "I was satisfied with the quality of bucks" during their most recent deer hunting season, by DPA	32
Table 9c. Deer hunters' agreement with the statement "I heard about or saw bucks while hunting" during their most recent deer hunting season, by DPA	33
Table 9d. Deer hunters' agreement with the statement "I was satisfied with the number of antlerless deer I saw" during their most recent deer hunting season, by DPA	34
Table 9e. Deer hunters' agreement with the statement "I was satisfied with the number of deer I saw while hunting" during their most recent deer hunting season, by DPA	35
Table 10. Deer hunters' perceived change in the deer population over last 5 years, by DPA.....	36
Table 11. Deer hunters' satisfaction with the deer population where they hunt, by DPA.....	37
Table 12. Percent of deer hunters that would shoot an antlerless deer, by DPA.....	38
Table 13. Deer hunters' mean stated importance for factors to consider in making deer population goals, by DPA	39
Table 14. Deer hunters' perception of the deer population in the DPA where they hunt, by DPA.....	40
Table 15. Deer hunters' preference for future deer populations, by DPA.....	41
Table 16. Deer hunters' mean preferred percent change in the deer population, by DPA.....	42
Table 17. Deer hunters' support for regulations to increase proportion of antlered bucks in the area they hunt, by DPA.....	43

Table 18. Mean number of years that deer hunters have been hunting deer in Minnesota, by DPA.....	44
Table 19. Percent of deer hunters that set out food for deer to consume, by DPA	45
Table 20. Percent of deer hunters that set out minerals for deer to consume, by DPA.....	46
Table 21. Percent of deer hunters that belong to a deer hunting organization, by DPA.....	47
Table 22. Deer hunters' mean level of agreement with statements about the MNDNR, by DPA	48
Landowners	49
Table 23. Mean acres owned and leased by landowners, by DPA.....	51
Table 24. Percent of landowners with agriculture on their land, percent experiencing damage from deer, and severity of damage, by DPA.....	52
Table 25. Percent of landowners with forest on their land, percent experiencing damage from deer, and severity of damage, by DPA.....	53
Table 26. Percent of landowners with residential land use on their land, percent experiencing damage from deer, and severity of damage, by DPA	54
Table 27. Landowners' perceived trend in damage from deer over 5 years, by DPA.....	55
Table 28. Landowners' perceived trend in the deer population over the last 5 years, by DPA.....	56
Table 29. Landowners' satisfaction with the current deer population in the area of their property, by DPA	57
Table 30. Landowners' satisfaction with the deer population on their land, by DPA and hunting status..	58
Table 31. Landowners' perception of the deer population on their land, by DPA	59
Table 32. Landowners' perception of the deer population on their land, by DPA and hunting status	60
Table 33. Landowners' preference for future deer populations, by DPA	61
Table 34. Landowners' preference for future deer populations, by DPA and hunting status	62
Table 35. Landowners' mean preferred percent change in the deer population, by DPA	63
Table 36. Percent of landowners aware that MNDNR offers technical and financial assistance for deer depredation problems, by DPA, and acres owned.....	64
Table 37. Percent of landowners that allow hunting on their property, by DPA, and acres owned	65
Table 38. Percent of landowners that leased their property for deer hunting, by DPA.	66

Table 39. Percent of landowners imposing different harvest restrictions on their property, by DPA	67
Table 40. Percent of landowners reporting hunting deer during the last three years, and those that do not hunt, by DPA	68
Table 41. Landowners' time spent hunting on different land ownership types, by DPA.....	69
Table 42. Percent of hunting landowners that would shoot an antlerless deer, by DPA	70
Table 43. Mean number of years that hunting landowners have been hunting deer in Minnesota, by DPA	71
Table 44. Landowners' mean level of agreement with statements about the MNDNR, by DPA.....	72
Table 45. Landowners' mean stated importance for factors to consider in making deer population goals, by DPA	73
Table 46. Percent of landowners that set out food for deer to consume, by DPA	74
Table 47. Percent of landowners that set out minerals for deer to consume, by DPA.....	75
Appendix A.	76
Hunter Questionnaire.....	76
Landowner Questionnaire	80

Statement of Purpose and Scope of Data

The Minnesota Department of Natural Resources (MNDNR) periodically conducts surveys of deer hunters and landowners to assess preferences for deer populations, experiences with deer hunting, and impacts of deer populations on private property to inform the deer population goal setting process. This report details one such effort. Results of this study help inform decision making for deer populations. We randomly selected a subset of landowners and hunters for each Deer Permit Area (DPA) from county tax parcel records, and MNDNR deer license information respectively for participation. Therefore, the results of this study are representative of the stakeholder group, and may differ substantially from results of self-selected public input processes, as a function of the scientific study design. The values in this report are estimates of the average for all individuals within a given population of interest (e.g., hunters in a deer permit area), not just respondents to the survey.

Data Collection Process

We conducted our surveys of hunters and landowners using a mixed mode design that included three solicitations. We sent selected participants a letter directing them to complete a questionnaire online. Non-respondents received a second letter requesting their participation, followed by a paper copy of the survey with a postage-paid self-addressed return envelope. Copies of these questionnaires are found in Appendices A and B of this report.

Hunters

Within a DPA, we randomly selected hunters from the list of all firearm deer license holders in the given year to receive a goal setting survey. We only included adults over the age of 18 at the time the sample was drawn. The number of hunters selected in each DPA was determined by estimating the minimum sample size needed to make statistically valid inference about the population at the DPA level at 90% confidence. Participants may not be residents of the DPA, but have indicated that the given DPA is the primary location where they hunt deer.

Landowners

Within a deer permit area, we randomly selected individual parcels from all parcels greater than or equal to 2 acres in size for inclusion. Stratification occurred by quantiles of parcels by acres to ensure a representative coverage of land use types and interests. Land acres strata were: 2-19, 20-79, 80-319, and ≥ 320 acres respectively. Similar to hunters, the number of landowners selected for each DPA was proportional to the total number of landowners in the DPA and after determining, the minimum sample size needed for statistically valid inference at the DPA scale, with 90% confidence.

Block 5: Sand Plain Big Woods

The data presented herein are from a statistically representative survey of Minnesota deer hunters and landowners in goal setting Block 5 (Sand Plain Big Woods). This area includes deer permit areas: 219, 223, 224, 227, 229, 235, 236, 285, 338, and 605, in the east central part of the state (Figure 1). DPA 235 is Carlos Avery Wildlife Management Area, and DPA 224 is Sherburne National Wildlife Refuge.

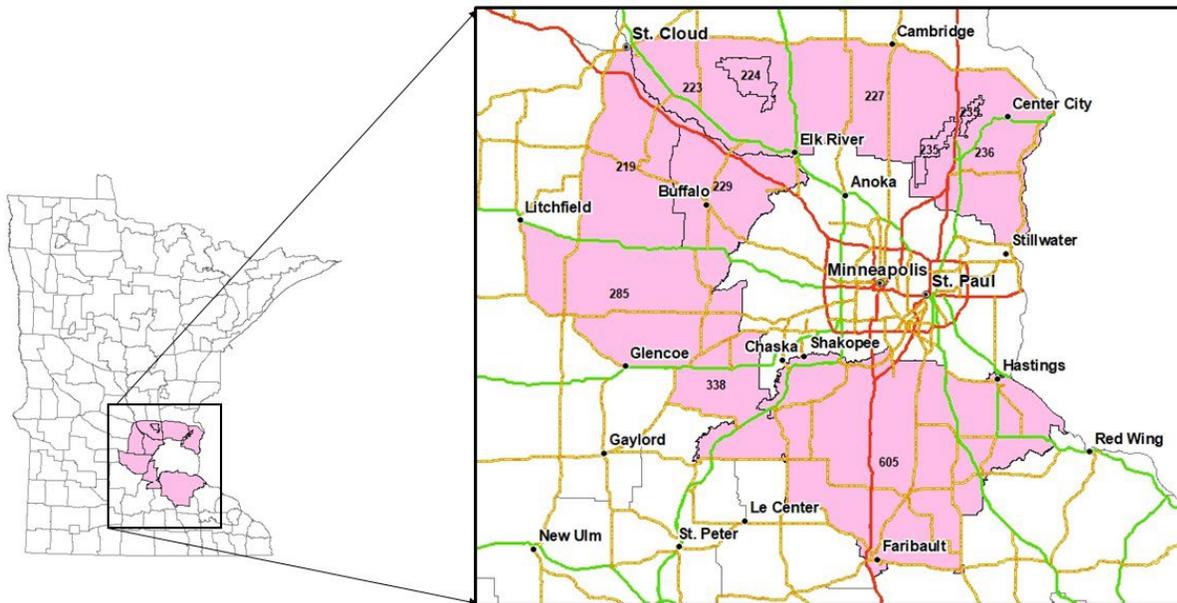


Figure 1. Goal setting Block 5 DPA boundaries

Response Rates and Weighting

Hunters

After accounting for undeliverable mail, the adjusted response rate for the Block 5 hunter sample was 42%. Response rates by DPA ranged from a low of 37% for DPA 223, to a high of 51% for DPA 285. A summary of response rates by DPA is located in Table 1.

We weighted responses in proportion to quantiles derived from the population of aged 18+ firearms deer hunters in Minnesota, during the 2021 hunting season. We made population estimates according to the weight schedule presented in Table 2 to address observed differences in age between respondents and the population. Weights apply to the population rather than the block level, under an assumption that there is no correlation between age and preferred hunt location.

Landowners

After accounting for undeliverable mail, the adjusted response rate for the Block 5 landowner sample was 48%. Response rates by DPA ranged from a low of 44% for DPA 338, to a high of 53% for DPAs 291 and 236. A summary of response rates by DPA is located in Table 3.

We drew samples of landowners equally within four strata (2-19, 20-70, 80-319, and 320+) corresponding to parcel acres to ensure representation of small, medium, and large landholders, and thus, the potential array of interests associated with different land uses. We calculated weights within the block to generate estimates representative of the population according to the schedule presented in Table 4.

Table 1. Response rates for hunter samples, by DPA

DPA	Initial Sample	Undeliverable	Respondents	Adjusted sample	Raw response rate	Adjusted response rate
219	541	20	224	521	0.41	0.43
223	545	14	207	531	0.38	0.39
224	440	20	147	420	0.33	0.35
227	551	20	217	531	0.39	0.41
229	514	12	225	502	0.44	0.45
235	436	16	157	420	0.36	0.37
236	543	12	217	531	0.40	0.41
285	529	7	266	522	0.50	0.51
338	506	16	208	490	0.41	0.42
605	551	12	223	539	0.40	0.41
Block Average	5156	149	2091	5007	0.40	0.42

Table 2. Population and sample proportions by age quantile, and weights

Age Quantile	Population Proportion	Sample Proportion	Weight*
18-32	.2624	.1599	1.6410
33-45	.2538	.2107	1.2046
45-58	.2492	.2721	0.9158
59+	.2346	.3574	0.6564

*Weight = $1/(\text{Sample Proportion}/\text{Population Proportion})$

Table 3. Response rates for landowner samples, by DPA

DPA	Initial Sample	Undeliverable	Respondents	Adjusted sample	Raw response rate	Adjusted response rate
219	504	14	258	490	0.51	0.53
223	524	7	260	517	0.50	0.50
224	-	-	-	-	-	-
227	536	15	238	521	0.44	0.46
229	518	17	228	501	0.44	0.46
235	-	-	-	-	-	-
236	527	15	273	512	0.52	0.53
285	514	10	257	504	0.50	0.51
338	544	12	234	532	0.43	0.44
605	551	8	247	543	0.45	0.45
Block Average	4218	98	1995	4120	0.47	0.48

Table 4. Population and sample proportions by acre strata, and weights

Acres strata	Population proportion	Sample proportion	Weight*
2-19	.7533	.3459	2.1778
20-79	.1552	.2962	.5239
80-319	.0780	.2637	.2957
320+	.0136	.0942	.1443

*Weight = $1/(\text{Sample Proportion}/\text{Population Proportion})$

Summary of Deer Population Preferences

Figure 2 contains estimates of Goal Block 5 deer hunter and landowner preferences for change in the deer population where they hunt or their property is located respectively. Values are an estimate of the mean preferred percent change to the deer population by DPA, and its 95% confidence interval. Landowners reported a preference for stability or a very small increase in the deer population. Landowners' preferences for increase ranged from 1% to 9%, although some 95% confidence intervals contained zero. Deer hunters, on average, and regardless of DPA, preferred a small to moderate increase in the deer population. Estimates for deer hunters' preference for change to the deer population ranged from +12% for DPA 227 to +27% for DPA 235. Figures 3 through 12 contain DPA level estimates for the percent of hunters and landowners that preferred to see the deer population either decrease, stay the same, or increase.

Figure 2. Landowners' and hunters' mean desired percent change in the deer population, by DPA

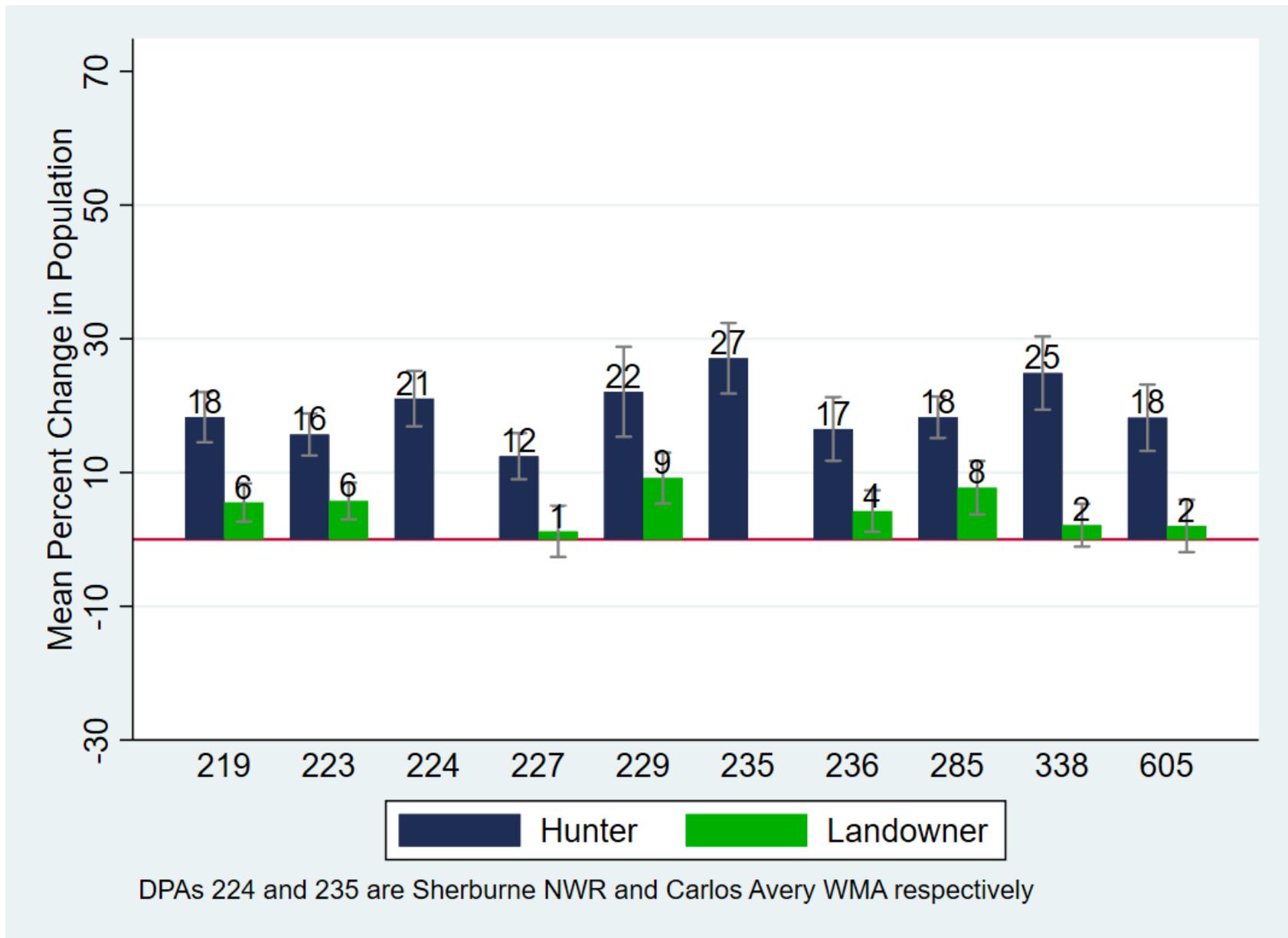


Figure 3. Deer permit area 219 deer hunters' and landowners' preference for future deer population

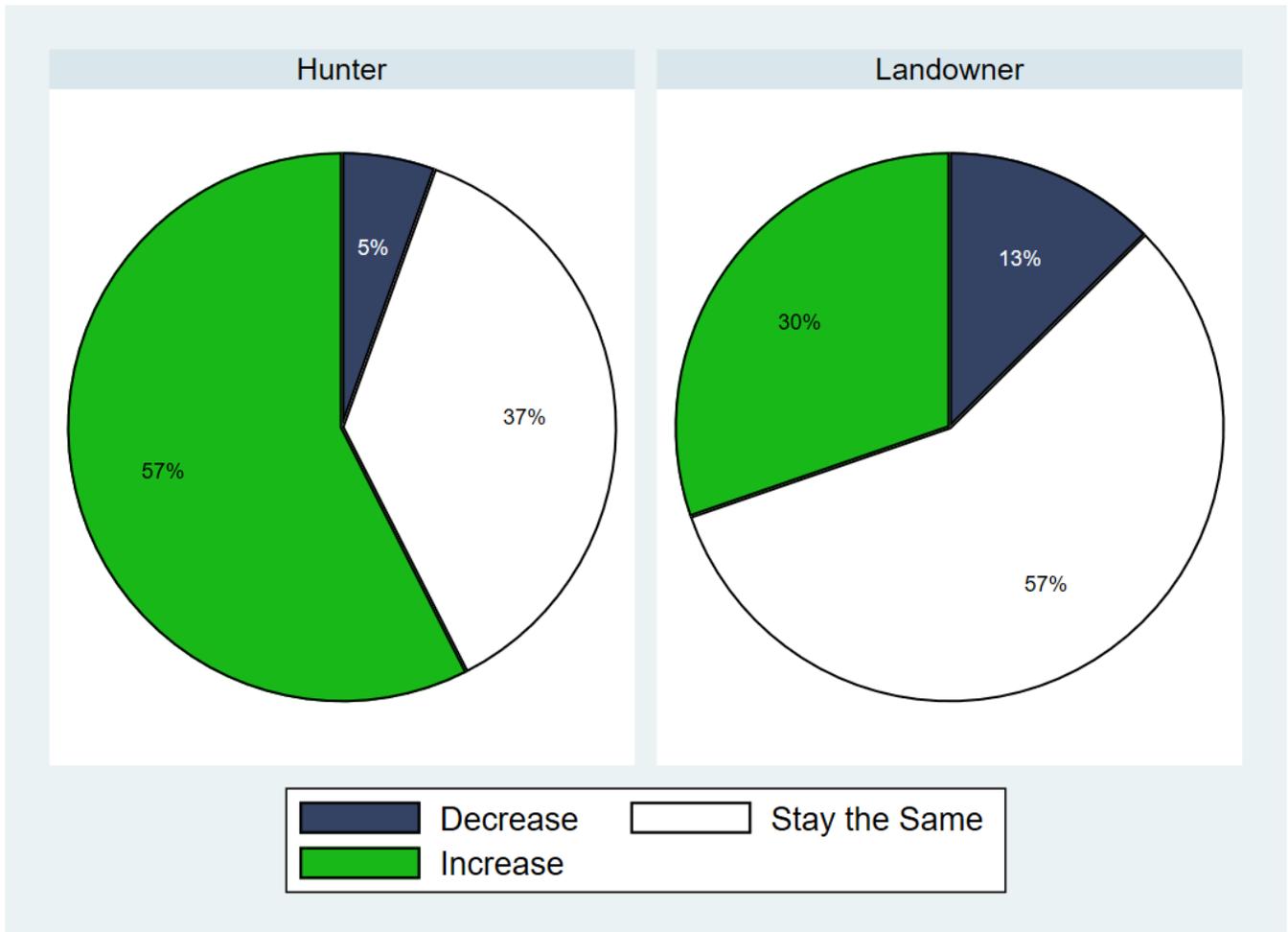


Figure 4. Deer permit area 223 landowners' and hunters' preference for future deer population



Figure 5. Deer permit area 224 hunters' preference for future deer population

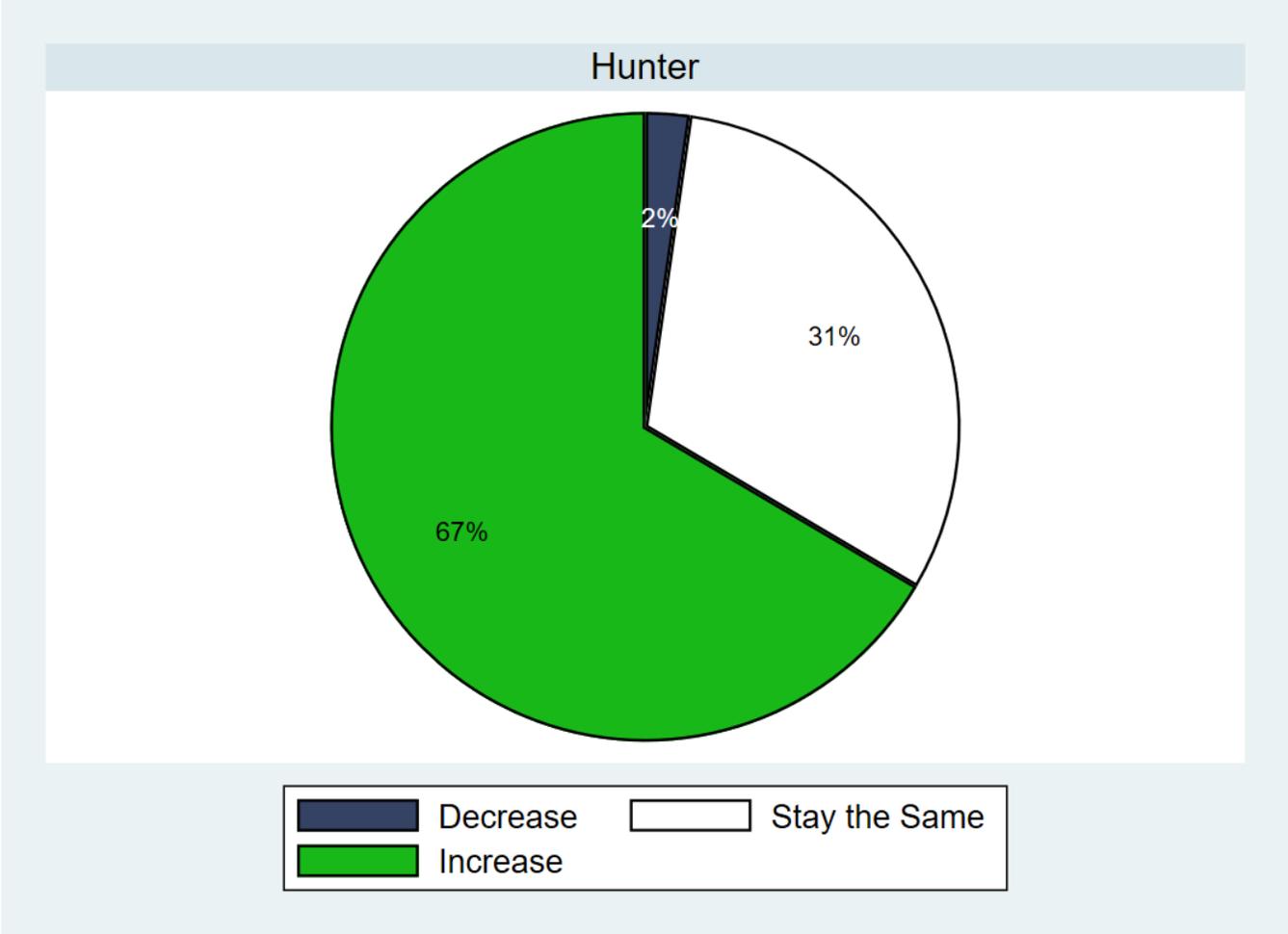


Figure 6. Deer permit area 227 landowners' and hunters' preference for future deer population

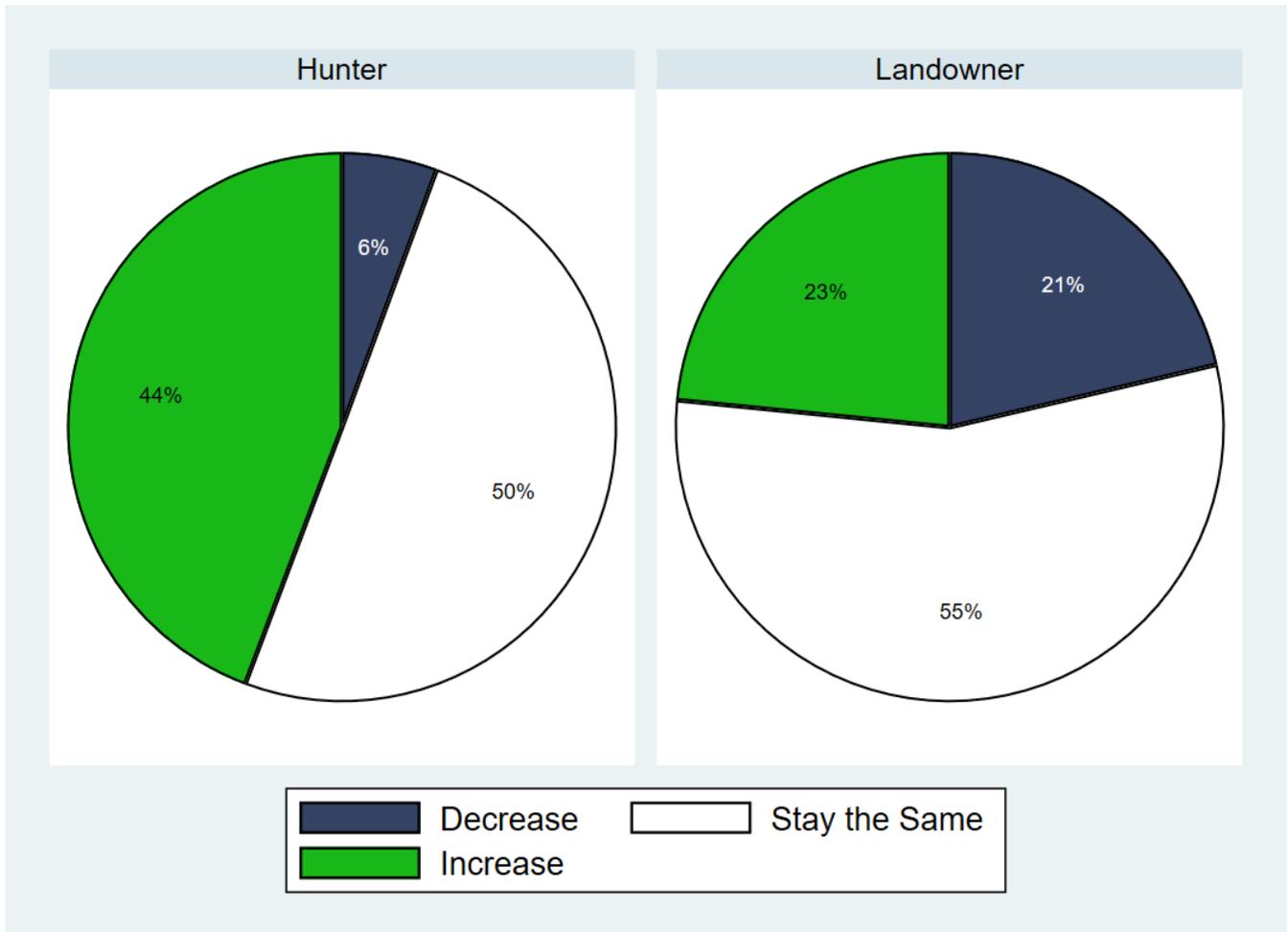


Figure 7. Deer permit area 229 landowners' and hunters' preference for future deer population

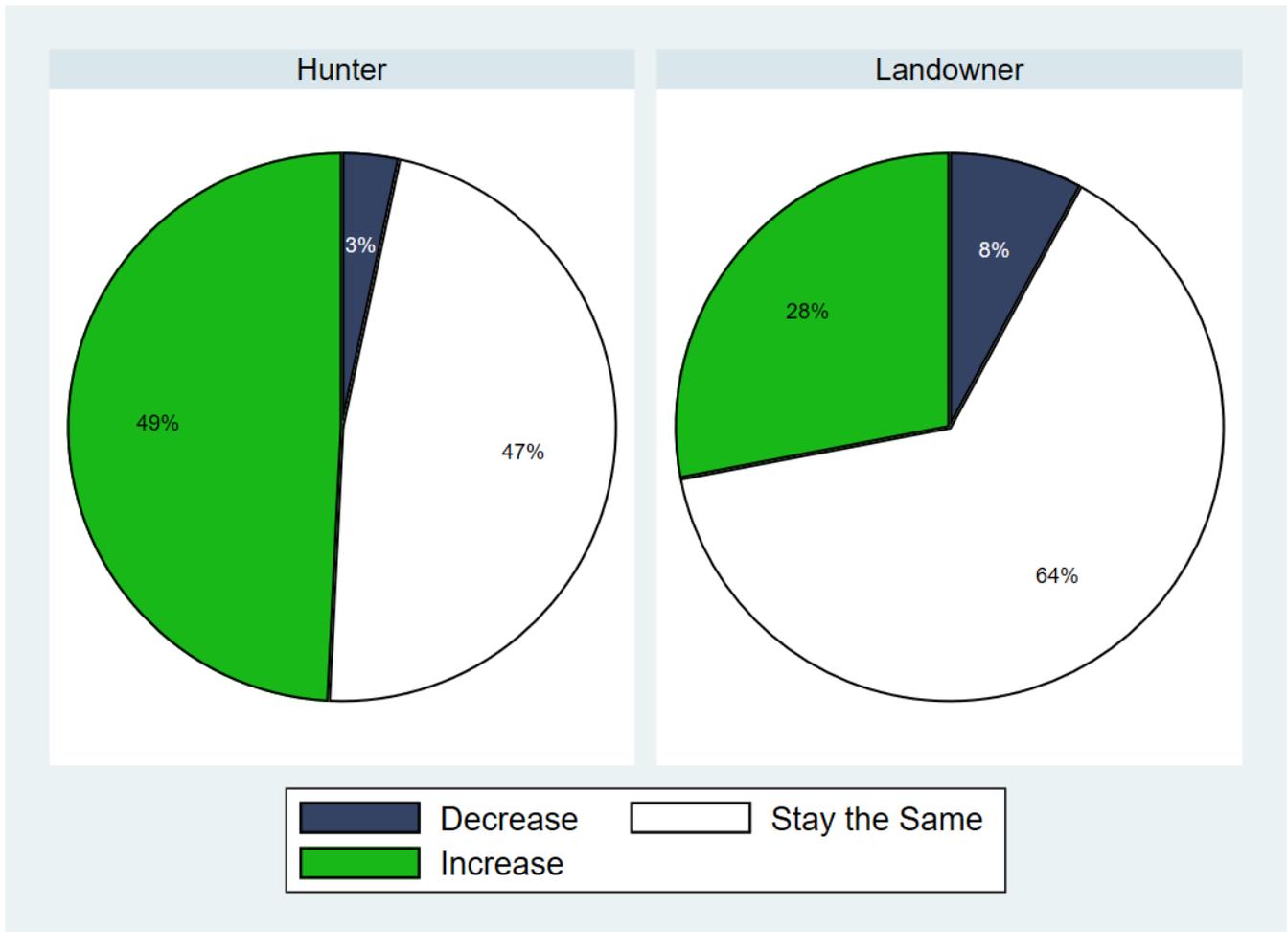


Figure 8. Deer permit area 235 hunters' preference for future deer population

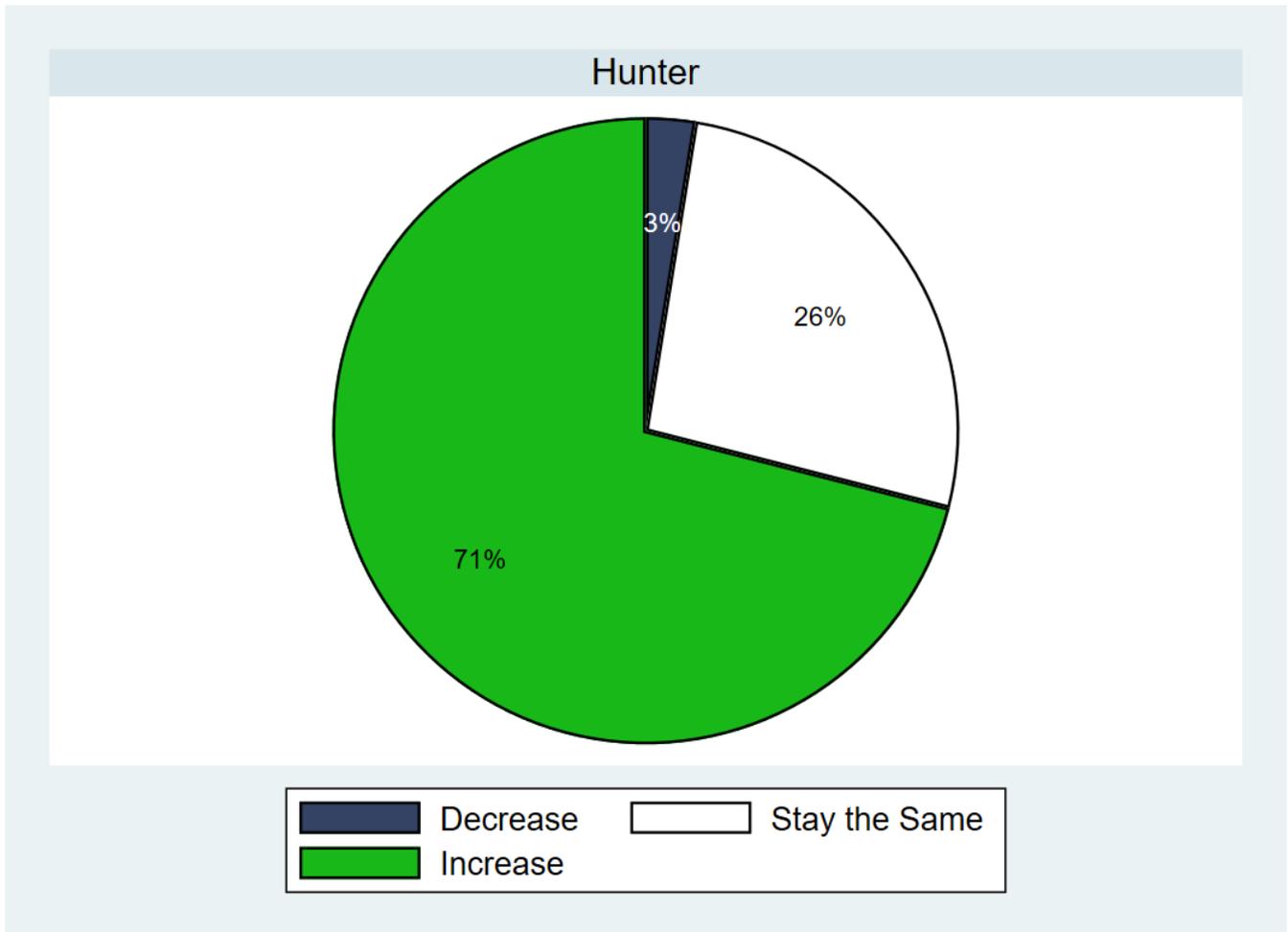


Figure 9. Deer permit area 236 hunters' preference for future deer population

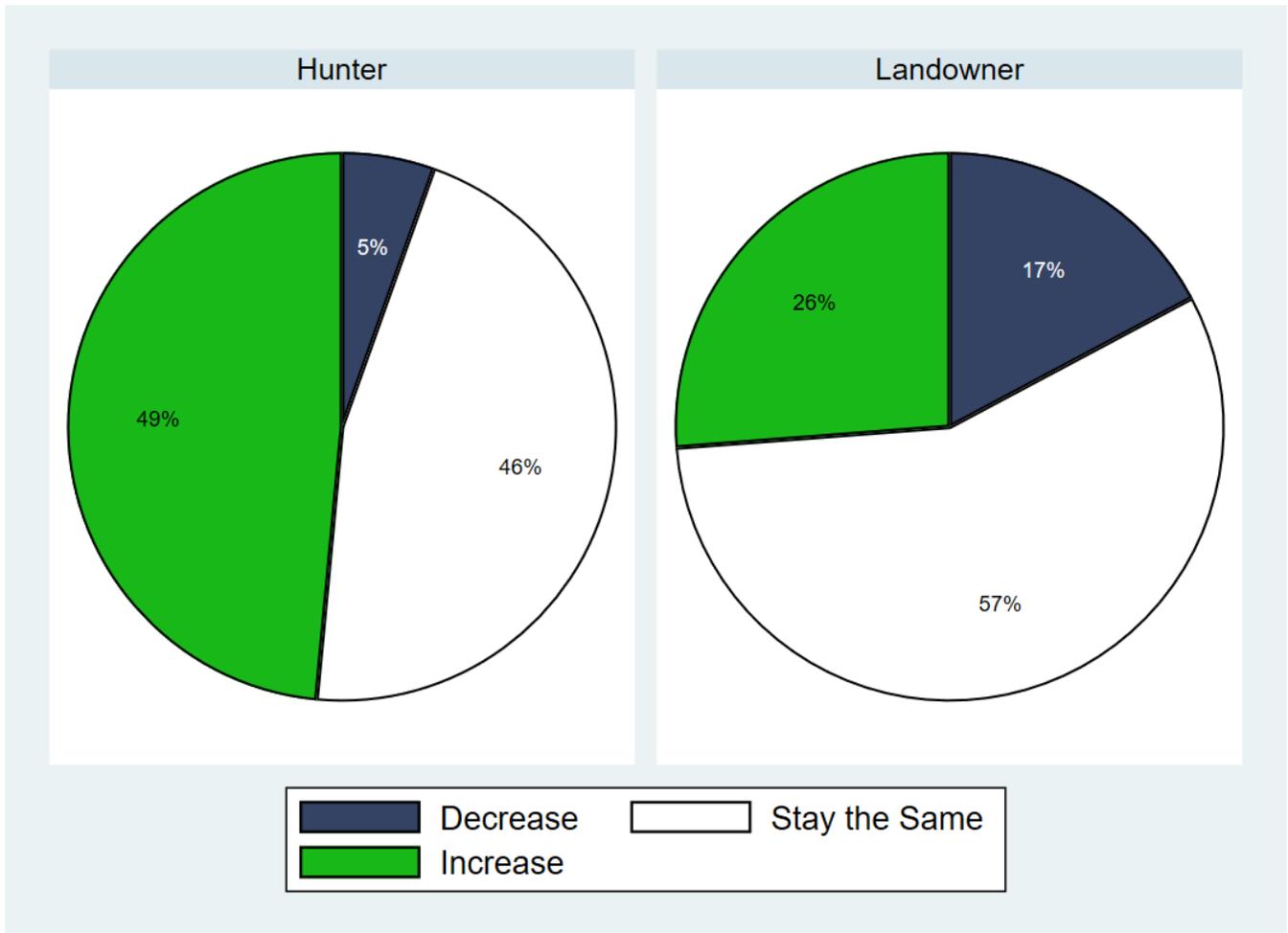


Figure 10. Deer permit area 285 hunters' preference for future deer population

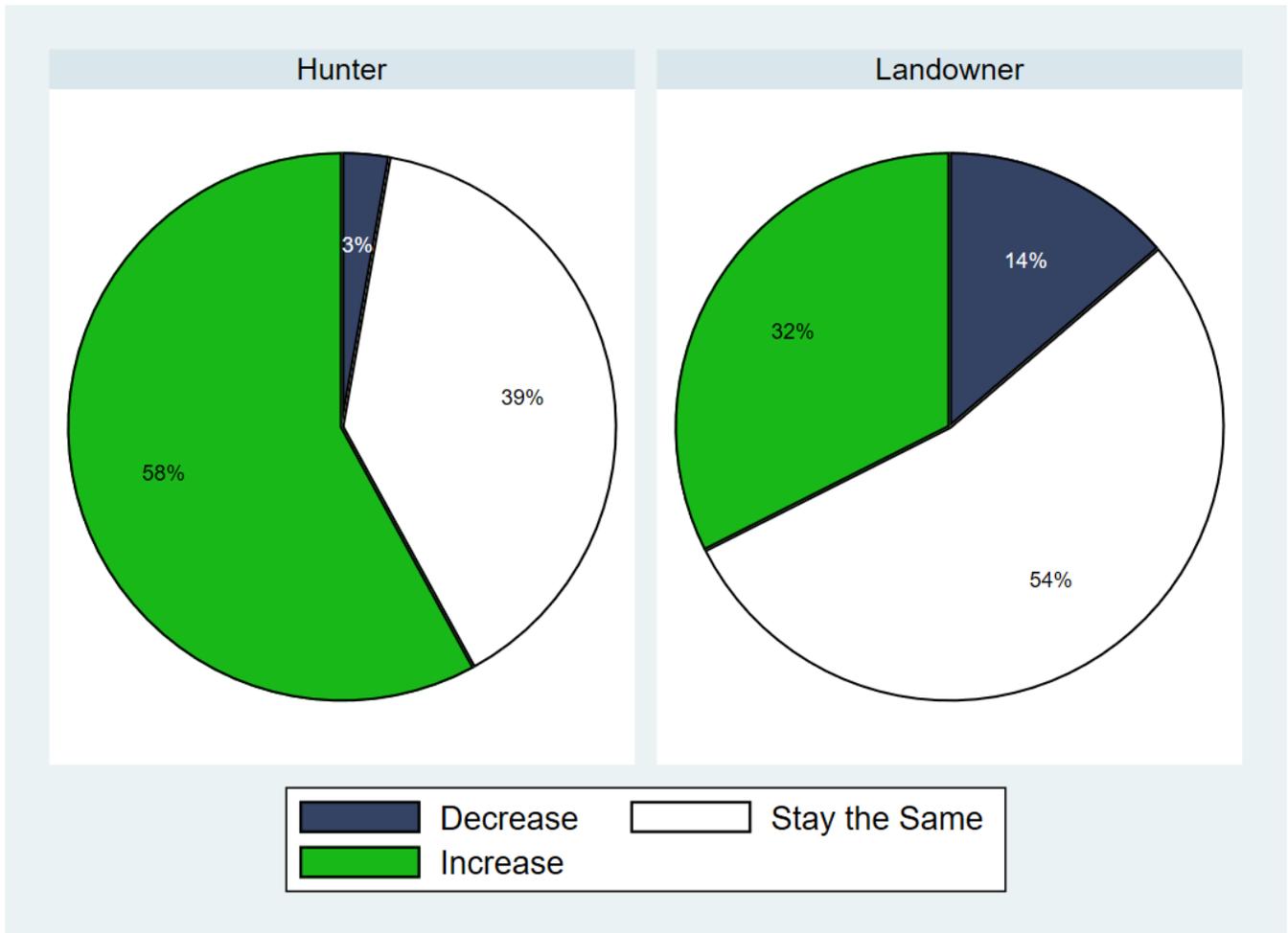


Figure 11. Deer permit area 338 hunters' preference for future deer population



Figure 12. Deer permit area 605 hunters' preference for future deer population



Hunters

We asked hunters to report their recent deer hunting activity. The vast majority (>89%) of hunters reported having hunted deer during the last three years, and 98% in 2021 (Table 5). Among these hunters, around 42% reported that they hunted during the archery season in 2021, while 14% participated in muzzleloader season, and 72% reported hunting during the firearms season A (Table 6). Fewer Block 5 hunters reported hunting during firearm season B (18%), and very few participated in the early antlerless season (2%). Slightly more than a third (35%) of Block 5 hunters reported spending all of their time hunting on private land that they own, while 15% reported spending most of their time hunting on private land that they do not own, 16% some of their time, and 26% reporting none. Hardly any Block 5 hunters reported spending time hunting on land that they lease (93% reported none). Less than half (43%) of hunters reported hunting all of the time on private land that they do not own. Twenty-three percent of hunters reported spending all of their deer hunting time on public land (Table 7).

Less than a quarter (24%) of hunters reported feeling either “very dissatisfied” or “slightly dissatisfied” with their most recent deer hunting season. Conversely, 63% reported feeling either “slightly satisfied” or “very satisfied” (Table 8). Hunters also reported their agreements with statements about their satisfaction elements of their most recent deer hunting season (Table 9a-9e). Around half of hunters reported disagreement that they were satisfied with the number and quality of legal bucks. A majority of hunters agreed with statements regarding hearing about or seeing bucks, and the number of antlerless deer they saw during the season.

Hunters evaluated the trend in the deer population over the last 5 years in the DPA where they hunt, their satisfaction with the deer population in the DPA where they hunt, and their likelihood to harvest an antlerless deer given the opportunity. More than a third (38%) of hunters reported seeing either slightly fewer or many fewer deer compared to 5 years ago (Table 10). Around a quarter of hunters reported seeing more deer as compared to 5 years ago, while 35% reported seeing around the same number of deer. Half of hunters reported feeling satisfied with the deer population in the DPA where they hunt (Table 11). Slightly more than a third reported feeling dissatisfied, and 16% of hunters were neither satisfied nor dissatisfied with the deer population where they hunt. A clear majority (86%) of hunters reported that they would shoot an antlerless deer given the opportunity (Table 12).

Hunters rated the importance of several competing priorities MNDNR could consider when setting deer population goals on scale where 1= not at all important and 5 = very important. Among these priorities, Block 5 hunters rated “deer hunting heritage and tradition” (M = 3.9), “amount of deer mortality during a severe winter” (M = 3.8), and “potential health risks to the deer herd” (M = 3.8) highest (Table 13).

Hunters evaluated the current deer population in the DPA where they hunt, on a scale of much too low to much too high. More than half (54%) of hunters reported that they deer population was about right while 39% believed it was too low or much too low, and 6% believed it was either too high or much too high (Table 14).

When asked if hunters prefer to see the deer population decrease, stay the same, or increase; 57% reported a preference for an increase (Table 15). This compares to 39% that reported a preference for the population to stay the same, and 4% that preferred a decrease. On average, hunters in Block 5 wish to see a 19%

increase in the deer population (Table 16). A majority of hunters in Block 5 (60%) supported establishing regulations to increase the proportion of adult bucks in the DPA where they hunt (Table 17).

We asked hunters how long they have been hunting deer in Minnesota, whether they place feed or minerals out for deer to consume, and if they belong to a deer hunting organization. On average, Block 5 deer hunters have been hunting in Minnesota for 24 years (Table 18). Most hunters in goal setting Block 5 do not place food (83%) or minerals (70%) out for deer to consume (Tables 19 and 20 respectively). Around 6% of Block 5 hunters reported that they belong to a deer hunting organization (Table 21).

Hunters reported their agreement with statements about their trust in the MNDNR on a scale where 1 = strongly disagree, 3 = neither, and 5 = strongly agree. On average, hunters reported moderate amounts of trust with mean values falling between 3.2 and 3.5 (Table 22).

Table 5. Percent of respondents reporting hunting deer during the last three years, by DPA

DPA	2019	2020	2021	Did not hunt
219	89	92	98	1
223	80	87	96	2
224	75	83	97	1
227	90	92	98	0
229	91	91	96	2
235	72	79	93	2
236	83	85	96	1
285	88	91	98	1
338	77	83	96	2
605	83	88	96	2
Block average	84	88	97	1

Table 6. Percent of 2019 deer hunters participating in deer hunting seasons, by DPA

DPA	Archery	Firearm A	Firearm B	Muzzleloader	Early Antlerless
219	39	82	21	18	1
223	50	70	18	13	1
224	40	74	9	8	1
227	42	77	19	13	6
229	42	77	24	14	1
235	45	64	14	11	1
236	48	71	16	8	3
285	32	79	17	10	1
338	36	56	21	21	1
605	44	67	16	23	7
Block average	42	72	18	14	2

Table 7. Percent of respondents effort spent hunting deer on hunting different types of land during their most recent deer hunting season, by DPA

	Response	219	223	224	227	229	235	236	285	338	605	Avg.
	None	39	32	79	30	31	71	23	37	46	45	41
Private land that I own	Some	18	19	6	8	13	7	13	13	7	5	11
	Most	12	13	8	12	14	3	18	17	17	13	13
	All	32	36	7	51	42	18	46	32	30	37	35
Private land that I lease for hunting	None	91	91	96	93	91	90	90	88	92	93	91
	Some	7	2	3	1	1	3	6	4	3	2	3
	Most	1	3	1	3	4	4	0	4	2	0	2
	All	1	4	0	4	3	3	4	4	3	6	3
Private land that I do not own or lease	None	32	32	60	24	21	62	21	20	15	16	26
	Some	32	15	24	11	17	14	14	17	17	10	16
	Most	15	18	9	15	17	7	16	18	15	14	15
	All	39	35	7	50	45	17	49	46	53	60	43
Public land	None	44	41	5	53	50	11	51	60	43	57	41
	Some	26	30	10	29	36	12	29	25	33	26	25
	Most	17	7	15	8	11	13	9	8	8	5	10
	All	14	22	70	9	3	64	11	6	16	12	23

Table 8. Deer hunters' satisfaction with their most recent deer hunting season, by DPA

DPA	Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
219	9	18	11	33	29
223	8	12	12	38	30
224	14	12	13	39	22
227	5	13	11	25	47
229	6	16	13	35	30
235	16	21	17	25	22
236	6	15	9	25	42
285	8	12	15	34	31
338	10	19	15	32	24
605	11	18	11	28	32
Block average	9	15	13	32	31

values are the percent of respondents reporting each category

Table 9a. Deer hunters' agreement with the statement "I was satisfied with the number of legal bucks" during their most recent deer hunting season, by DPA

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
219	22	26	15	28	9
223	26	23	13	25	13
224	30	26	13	21	11
227	17	27	11	26	19
229	26	23	16	25	10
235	36	23	13	21	8
236	19	18	9	31	22
285	21	24	17	29	9
338	28	28	14	21	8
605	27	24	12	25	12
Block average	24	24	14	26	12

values are the percent of respondents reporting each category

Table 9b. Deer hunters' agreement with the statement "I was satisfied with the quality of bucks" during their most recent deer hunting season, by DPA

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
219	23	26	19	23	9
223	24	20	19	23	13
224	33	18	18	19	13
227	18	26	13	27	17
229	26	22	16	27	9
235	35	23	15	18	8
236	20	22	13	27	17
285	24	24	17	29	6
338	30	24	17	21	8
605	27	26	15	19	14
Block average	26	23	16	24	11

values are the percent of respondents reporting each category

Table 9c. Deer hunters' agreement with the statement "I heard about or saw bucks while hunting" during their most recent deer hunting season, by DPA

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
219	15	10	10	39	25
223	14	7	12	39	27
224	17	18	11	28	26
227	12	9	12	30	37
229	11	16	13	35	24
235	32	15	14	22	18
236	10	11	10	34	35
285	10	14	16	38	22
338	15	16	13	34	22
605	14	11	14	36	26
Block average	14	13	13	34	26

values are the percent of respondents reporting each category

Table 9d. Deer hunters' agreement with the statement "I was satisfied with the number of antlerless deer I saw" during their most recent deer hunting season, by DPA

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
219	9	18	14	30	29
223	9	9	9	37	36
224	16	16	12	30	26
227	7	11	10	28	44
229	9	16	14	36	25
235	24	26	9	24	17
236	10	14	9	30	37
285	10	16	12	36	26
338	14	21	11	31	22
605	13	19	12	29	27
Block average	12	16	11	32	29

values are the percent of respondents reporting each category

Table 9e. Deer hunters' agreement with the statement "I was satisfied with the number of deer I saw while hunting" during their most recent deer hunting season, by DPA

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
219	12	23	16	28	22
223	11	15	13	36	25
224	20	18	18	26	18
227	8	19	10	27	36
229	14	17	16	35	19
235	26	29	9	24	13
236	16	18	7	29	30
285	13	24	12	29	21
338	20	26	12	28	14
605	19	19	12	28	21
Block average	15	21	13	29	22

values are the percent of respondents reporting each category

Table 10. Deer hunters' perceived change in the deer population over last 5 years, by DPA

DPA	Many fewer deer	Slightly fewer deer	About the same	Slightly more deer	Many more deer
219	15	21	40	19	5
223	13	24	37	19	7
224	23	21	35	15	6
227	13	15	41	22	9
229	17	15	35	23	9
235	31	30	26	10	3
236	14	21	40	20	5
285	13	19	33	22	12
338	18	25	36	14	6
605	24	21	28	21	6
Block average	17	21	35	19	7

values are the percent of respondents reporting each category

Table 11. Deer hunters' satisfaction with the deer population where they hunt, by DPA

DPA	Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
219	14	23	14	36	13
223	10	18	16	35	21
224	14	31	11	31	12
227	7	19	14	28	32
229	13	15	16	37	18
235	24	29	17	25	4
236	9	18	15	35	23
285	10	22	18	34	17
338	14	4	20	31	11
605	16	22	14	35	13
Block average	13	22	16	33	17

values are the percent of respondents reporting each category

Table 12. Percent of deer hunters that would shoot an antlerless deer, by DPA

DPA	Yes	No
219	89	11
223	89	11
224	89	11
227	83	17
229	86	14
235	91	9
236	81	19
285	83	17
338	82	18
605	88	12
Block average	86	14

values are the percent of respondents reporting each category

Table 13. Deer hunters' mean stated importance for factors to consider in making deer population goals, by DPA

Item	219	223	224	227	229	235	236	285	338	605	Avg.
Amount of deer mortality during an average winter	3.5	3.6	3.5	3.5	3.5	3.7	3.5	3.4	3.5	3.4	3.5
Amount of deer mortality during a severe winter	3.8	3.8	3.9	3.8	3.8	3.9	3.8	3.7	3.7	3.7	3.8
Potential health risks to the deer herd	3.6	3.8	3.8	3.9	3.7	3.9	3.8	3.6	3.8	3.8	3.8
Public health (human-deer diseases)	3.0	3.4	3.	3.3	3.3	3.5	3.5	3.1	3.2	3.2	3.3
Amount of crop damage from deer	2.5	2.6	2.5	2.6	2.6	2.7	2.8	2.5	2.4	2.6	2.6
Number of deer vehicle collisions	3.1	3.3	3.3	3.2	3.0	3.4	3.4	3.1	3.0	3.0	3.2
Deer over-browsing of forests	2.7	2.7	2.9	2.8	2.7	3.1	2.9	2.7	2.6	2.7	2.8
Impacts of deer on other wildlife species	2.7	2.6	3.0	2.9	2.6	3.0	3.7	2.6	2.6	2.6	2.7
Deer hunting heritage and tradition	3.7	4.0	3.9	4.0	4.0	3.8	4.0	3.8	3.7	3.9	3.9
Hunter satisfaction with deer numbers	3.5	3.7	3.6	3.6	3.7	3.7	3.7	3.6	3.7	3.5	3.6
Public satisfaction with deer numbers	2.8	3.0	3.0	3.0	2.9	3.1	2.9	2.9	3.0	2.8	2.9
Impact of deer hunting on the local economy	3.3	3.5	3.4	3.4	3.4	3.4	3.4	3.1	3.5	3.2	3.3
Quality of bucks (antler size)	3.5	3.6	3.6	3.7	3.6	3.4	3.6	3.6	3.7	3.4	3.6
Damage to gardens and landscaping	2.3	2.2	2.3	2.9	2.1	2.4	2.5	2.1	2.1	2.1	2.2
The ratio of bucks to does	3.4	3.6	3.6	3.7	3.5	3.7	3.6	3.5	3.6	3.4	3.6

responses measured on a unipolar scale, where 1 = not at all important, and 5 = very important

Table 14. Deer hunters' perception of the deer population in the DPA where they hunt, by DPA

DPA	Much too low	Too low	About right	Too high	Much too high
219	9	29	54	7	1
223	6	27	59	7	1
224	11	39	45	4	0
227	5	22	64	8	1
229	9	24	60	7	0
235	15	44	39	2	0
236	5	25	60	6	2
285	5	35	54	5	2
338	11	40	45	4	1
605	11	27	54	4	1
Block average	8	31	54	5	1

values are the percent of respondents reporting each category

Table 15. Deer hunters' preference for future deer populations, by DPA

DPA	Decrease	Stay the Same	Increase
219	5	37	58
223	5	41	55
224	2	31	67
227	6	50	45
229	3	48	49
235	3	27	71
236	5	46	49
285	3	39	58
338	4	29	67
605	4	38	57
Block average	4	39	57

values are the percent of respondents reporting each category

Table 16. Deer hunters' mean preferred percent change in the deer population, by DPA

DPA	Mean percent change	Median percent change	Minimum	Maximum
219	18.3	15	-50	200
223	15.4	10	-50	100
224	21.2	16	-50	100
227	12.5	0	-50	200
229	21.9	0	-50	500
235	26.7	25	-100	200
236	16.5	0	-50	300
285	18.3	15	-50	200
338	24.9	25	-33	400
605	18.3	10	-325	200
Block average	19.1	15	-325	500

Table 17. Deer hunters' support for regulations to increase proportion of antlered bucks in the area they hunt, by DPA

DPA	Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support
219	10	9	27	24	29
223	11	11	21	33	23
224	9	6	25	35	25
227	4	8	24	34	27
229	4	8	25	29	35
235	8	10	24	31	27
236	8	6	25	32	30
285	6	5	27	33	29
338	5	9	23	23	40
605	9	5	24	31	31
Block average	7	8	25	30	30

values are the percent of respondents reporting each category

Table 18. Mean number of years that deer hunters have been hunting deer in Minnesota, by DPA

DPA	Mean
219	25.0
23.1	23.1
224	20.1
227	24.0
229	25.2
235	21.8
236	26.8
285	23.5
338	22.0
605	23.4
Block average	23.6

Table 19. Percent of deer hunters that set out food for deer to consume, by DPA

DPA	Yes	No	Live in CWD management or control zone
219	7	88	5
223	16	79	4
224	9	91	0
227	12	85	3
229	7	92	1
235	4	91	5
236	6	87	8
285	9	88	4
338	4	84	12
605	2	52	45
Block average	7	83	9

values are the percent of respondents reporting each category

Table 20. Percent of deer hunters that set out minerals for deer to consume, by DPA

DPA	Yes	No	Live in CWD management or control zone
219	25	70	5
223	34	62	4
224	15	85	0
227	27	71	2
229	24	75	1
235	8	88	4
236	20	72	8
285	22	75	4
338	18	70	12
605	12	43	45
Block average	21	70	9

values are the percent of respondents reporting each category

Table 21. Percent of deer hunters that belong to a deer hunting organization, by DPA

DPA	Yes	No
219	7	93
223	6	94
224	4	96
227	5	95
229	4	96
235	11	89
236	8	92
285	5	95
338	3	97
605	5	95
Block average	6	94

values are the percent of respondents reporting each category

Table 22. Deer hunters' mean level of agreement with statements about the MNDNR, by DPA

	219	223	224	227	229	235	236	285	338	605	Avg.
The MNDNR does a good job managing deer in MN	3.1	3.2	3.3	3.4	3.2	3.3	3.3	3.2	3.0	3.2	3.2
When deciding about deer management in MN, the MNDNR will be open and honest in the things they say and do	3.3	3.3	3.3	3.4	3.3	3.4	3.4	3.3	3.3	3.3	3.3
The MNDNR can be trusted to make decisions about deer management that are good for the resource	3.2	3.2	3.4	3.3	3.3	3.5	3.4	3.3	3.2	3.4	3.3
The MNDNR will make decisions about deer management in a way that is fair	3.3	3.3	3.4	3.4	3.4	3.5	3.4	3.4	3.3	3.4	3.4
The MNDNR has deer managers and biologists who are well-trained for their jobs	3.4	3.5	3.5	3.5	3.5	3.5	3.6	3.4	3.5	3.5	3.5
The MNDNR listens to the concerns of deer hunters	3.1	3.2	3.3	3.2	3.2	3.3	3.3	3.1	3.1	3.2	3.2

responses measured on a bipolar scale, where 1 = strongly disagree, 3=neither, and 5 = strongly agree

Landowners

Landowners reported the number of acres that they own or lease within a DPA. On average, Block 5 landowners reported owning 118 acres. Among individuals in Block 5 DPAs that reported leasing property, the average lease was 232 acres (Table 23). Forty-five percent of landowners reported having agricultural land use on their property. Of these landowners, only 11% reported experiencing damage from deer (Table 24). Less than half of landowners (37%) reported owning land in forest. Of these individuals, 35% reported having experienced damage from deer. The severity of damage experienced by landowners was mostly minor/negligible (79%). Seventy-seven percent of landowners reported having residential land use on their property, and 22% experienced damage from deer. Landowners experiencing damage from deer to residential land use reported damage that was minor/negligible (60%), moderate (28%), and severe/very severe (12%) (Table 26).

Landowners assessed the damage they have experienced from deer compared to five years ago, and the change they have observed in the deer population on their property. Of landowners that have owned their property for five years or longer, the majority (63%) indicated that the amount of damage they have experienced from deer has remained about the same (Table 27). Landowners' perception of the trend in the deer population over the last 5 years split between those perceiving fewer (29%), about the same amount (41%), and more deer (30%) (Table 28).

More than a third (35%) of landowners reported feeling satisfied or very satisfied with the deer population on their land, while 41% were neutral, and 24% either dissatisfied or very dissatisfied (Table 29). Hunting landowners reported slightly higher levels of dissatisfaction (30%) than non-hunting landowners (18%), while non-hunters were more likely to report neutrality regarding their satisfaction with the deer population on their land (Table 30). Over half of landowners (62%) indicated that the population of deer on their land was "about right," compared to too low (23%) or too high (14%) (Table 31). Non-hunting landowners (70%) were more likely to hold a belief that the current population on their property was "about right" than hunting landowners (53%). Similarly, a higher percentage of hunting landowners (32%) than non-hunting landowners (15%) expressed a belief that the current deer population on their property was too low (Table 32).

When asked what they would like to see happen with future deer populations on their land, a majority (54%) of Block 5 landowners preferred to see the deer population stay the same, compared to 28% that would like to see the deer population increase, and 15% decrease (Table 33). A higher proportion of hunting landowners preferred an increase in the deer population (40%) than non-hunting landowners (17%) (Table 34). Landowners mean preferred change in the deer population was a 5% increase (Table 35).

We asked landowners if they were aware that MNDNR offers technical assistance for deer damage issues, if they allow hunting on their property, if they lease any of their property for deer hunting, and if they impose any deer harvest restrictions on their property. On average, 19% of landowners reported awareness that MNDNR offers technical assistance for deer depredation issues (Table 36). The proportion of landowners allowing hunting on their property increased with the amount of land they owned, and averaged 40% (Table 37). Very few (1%) of landowners lease their land for deer hunting (Table 38). The majority of landowners (75%) did not impose any restrictions on the deer that hunters could take on their property (Table 39).

We asked landowners several questions about their deer hunting activity. Around a third of Block 5 landowners reported hunting deer in each of 2019, 2020, and 2021 respectively. Roughly, 9% indicated that they hunt deer but did not hunt during one of those three years, and 50% indicated that they do not hunt deer at all (Table 40). Among deer hunting landowners, 38% reported doing all of their hunting on private land that they own, while 3%, 20% and 13% of landowners reported doing all of their hunting on land that they lease, private land that they do not own, and public land, respectively (Table 41). Around 75% of landowners indicated that they would shoot an antlerless deer given the opportunity (Table 42), and landowners have been hunting deer in Minnesota for an average of 29 years (Table 43).

Landowners rated their agreement with five statements about their trust in the MNDNR on scale from 1 = strongly disagree, to strongly agree, and a mid-point of neither. Landowners, on average, were neutral regarding their trust in the MNDNR. Mean values ranged from 3.4 to 3.6 for trust items (Table 44).

Respondents rated the importance of several priorities MNDNR could consider when setting deer population goals. Responses were recorded on a scale where 1 = not at all important, and 5 = very important. Among the items evaluated, landowners placed the highest importance on “potential health risks to the deer herd” (M = 3.9) (Table 45).

We asked landowners if they place food or minerals out for deer to consume. A small number of landowners (11%) reported feeding deer (Table 46), while 14% reported placing minerals out for deer to consume (Table 47).

Table 23. Mean acres owned and leased by landowners, by DPA

DPA	Acres Owned			Acres Leased*		
	Mean	Min	Max	Mean	Min	Max
219	152.5	2	10000	171.4	20	800
223	86.2	2	25002	161.4	14	1500
224	-	-	-	-	-	-
227	75.7	2	6000	264.8	3	1200
229	82.3	2	5780	159.3	5	900
235	-	-	-	-	-	-
236	64.8	2	13000	116.0	5	700
285	211.0	2	16000	303.4	10	2300
338	163.3	2	14000	448.9	6	5780
605	151.1	2	11000	228.4	14	2500
Block average	118.4	2	25002	232.3	3	5780

*among those reporting having leased 1 acre or more

Table 24. Percent of landowners with agriculture on their land, percent experiencing damage from deer, and severity of damage, by DPA

Agriculture	Own or lease		Experience damage		Severity of Damage*		
	Yes	No	Yes	No	Minor/ Negligible	Moderate	Severe/Very Severe
219	49	51	7	93			
223	31	69	7	93			
224	-	-	-	-	-	-	-
227	45	55	15	85			
229	45	55	13	87			
235	-	-	-	-	-	-	-
236	30	70	9	91			
285	67	33	15	85			
338	54	46	13	87			
605	44	56	11	89			
Block average	45	55	11	89			

values are the percent of respondents reporting each category

*too few respondents reported experiencing damage, and prevented analysis of this question

Table 25. Percent of landowners with forest on their land, percent experiencing damage from deer, and severity of damage, by DPA

Forest DPA	Own or lease		Experience damage		Severity of Damage		
	Yes	No	Yes	No	Minor/ Negligible	Moderate	Severe/ Very Severe
219	37	63	27	73	77	13	10
223	44	56	32	68	79	12	9
224	-	-	-	-	-	-	-
227	43	57	42	58	75	16	10
229	34	66	31	69	86	7	7
235	-	-	-	-	-	-	-
236	36	64	37	63	79	18	3
285	34	66	44	56	85	13	2
338	34	66	40	60	77	7	16
605	34	66	35	65	71	25	4
Block average	37	63	35	65	79	14	7

values are the percent of respondents reporting each category

Table 26. Percent of landowners with residential land use on their land, percent experiencing damage from deer, and severity of damage, by DPA

Residential DPA	Own or lease		Experience damage		Severity of Damage		
	Yes	No	Yes	No	Minor/ Negligible	Moderate	Severe/Very Severe
219	75	25	15	85	72	13	15
223	85	15	30	70	68	21	11
224	-	-	-	-	-	-	-
227	81	19	28	72	55	28	17
229	69	31	16	84	77	13	11
235	-	-	-	-	-	-	-
236	76	24	23	77	48	50	2
285	71	29	16	84	66	26	8
338	75	25	21	79	60	15	25
605	76	24	25	75	45	45	10
Block average	77	23	22	78	60	28	12

values are the percent of respondents reporting each category

Table 27. Landowners' perceived trend in damage from deer over 5 years, by DPA

DPA	Much less damage	Slightly less damage	About the same damage	Slightly more damage	Much more damage
219	15	6	68	8	3
223	20	6	54	13	6
224	-	-	-	-	-
227	20	5	65	8	3
229	16	6	68	7	2
235	-	-	-	-	-
236	27	8	56	6	4
285	27	4	62	5	3
338	15	8	65	10	3
605	14	44	68	9	5
Block average	19	6	63	8	4

values are the percent of respondents reporting each category

Table 28. Landowners' perceived trend in the deer population over the last 5 years, by DPA

DPA	Many fewer deer	Slightly fewer deer	About the same number of deer	Slightly more deer	Many more deer
219	9	15	45	23	12
223	8	18	36	26	11
224	-	-	-	-	-
227	10	16	41	19	14
229	12	16	44	21	7
235	-	-	-	-	-
236	18	17	37	20	8
285	17	18	43	16	5
338	12	20	45	14	8
605	13	15	45	17	10
Block average	12	17	41	20	10

values are the percent of respondents reporting each category

Table 29. Landowners' satisfaction with the current deer population in the area of their property, by DPA

DPA	Very dissatisfied	Slightly dissatisfied	Neutral	Slightly satisfied	Very satisfied
219	7	14	42	17	21
223	6	15	37	15	26
224	-	-	-	-	-
227	13	11	42	14	19
229	12	11	38	12	26
235	-	-	-	-	-
236	10	14	34	16	25
285	11	17	44	14	13
338	7	16	50	6	21
605	16	12	48	8	17
Block average	10	14	41	13	22

values are the percent of respondents reporting each category

Table 30. Landowners' satisfaction with the deer population on their land, by DPA and hunting status

DPA	Non-hunting Landowners			Hunting Landowners		
	Dissatisfied	Neutral	Satisfied	Dissatisfied	Neutral	Satisfied
219	7	53	41	30	35	35
223	21	33	45	21	39	39
224	-	-	-	-	-	-
227	22	48	30	27	37	37
229	15	38	47	35	37	28
235	-	-	-	-	-	-
236	19	38	43	31	29	39
285	24	50	27	34	38	28
338	15	53	31	35	44	21
605	22	53	24	38	37	26
Block average	18	45	36	30	37	33

values are the percent of respondents reporting each category

Table 31. Landowners' perception of the deer population on their land, by DPA

DPA	Much too low	Too low	About right	Too high	Much too high
219	4	21	61	12	1
223	4	18	63	13	1
224	-	-	-	-	-
227	7	13	54	17	5
229	8	16	65	10	1
235	-	-	-	-	-
236	5	19	61	13	2
285	8	20	59	10	3
338	5	18	66	8	2
605	8	12	60	16	3
Block average	6	17	62	12	2

values are the percent of respondents reporting each category

Table 32. Landowners' perception of the deer population on their land, by DPA and hunting status

DPA	Non-hunting Landowners			Hunting Landowners		
	Too low/much too low	About right	Too high/much too high	Too low/much too low	About right	Too high/much too high
219	12	75	14	34	53	13
223	17	71	11	25	59	16
224	-	-	-	-	-	-
227	19	55	25	22	59	19
229	15	79	7	37	46	16
235	-	-	-	-	-	-
236	15	66	19	35	54	10
285	15	72	13	42	45	13
338	15	75	10	38	51	11
605	14	65	21	32	52	16
Block average	15	70	15	32	53	15

values are the percent of respondents reporting each category

Table 33. Landowners' preference for future deer populations, by DPA

DPA	Decrease	Stay the Same	Increase
219	13	57	30
223	13	56	31
224	-	-	-
227	21	55	23
229	8	64	28
235	-	-	-
236	17	57	26
285	14	54	32
338	13	62	25
605	19	55	26
Block average	15	54	28

values are the percent of respondents reporting each category

Table 34. Landowners' preference for future deer populations, by DPA and hunting status

DPA	Non-hunting Landowners			Hunting Landowners		
	Decrease	Stay the same	Increase	Decrease	Stay the same	Increase
219	11	70	18	13	49	38
223	16	61	17	11	50	40
224	-	-	-	-	-	-
227	29	54	17	13	56	30
229	5	75	20	12	50	39
235	-	-	-	-	-	-
236	21	61	18	11	50	38
285	14	67	19	14	38	48
338	16	71	13	8	45	47
605	21	63	16	16	40	44
Block average	17	66	17	12	48	40

values are the percent of respondents reporting each category

Table 35. Landowners' mean preferred percent change in the deer population, by DPA

DPA	Mean percent change	Median percent change	Minimum	Maximum
219	5.5	0	-99	100
223	5.7	0	-100	100
224	-	-	-	-
227	1.2	0	-100	100
229	9.1	0	-90	110
235	-	-	-	-
236	4.2	0	-75	100
285	7.7	0	-100	100
338	2.1	0	-100	80
605	2.0	0	-90	100
Block average	4.8	0	-100	110

Table 36. Percent of landowners aware that MNDNR offers technical and financial assistance for deer depredation problems, by DPA, and acres owned

DPA	2-19 acres	20-79 acres	80-319 acres	320+ acres	Average
219	21	24	28	21	22
223	24	28	33	33	26
224	-	-	-	-	-
227	16	25	33	23	19
229	18	31	25	44	20
235	-	-	-	-	-
236	13	24	21	14	15
285	14	18	37	24	17
338	15	23	26	19	17
605	14	14	25	26	16
Block average	17	23	29	24	19

values are the percent of respondents reporting each category

Table 37. Percent of landowners that allow hunting on their property, by DPA, and acres owned

DPA	2-19 acres	20-79 acres	80-319 acres	320+ acres	Average
219	31	79	89	96	45
223	34	72	83	50	42
224	-	-	-	-	-
227	26	73	89	100	41
229	25	63	79	88	35
235	-	-	-	-	-
236	32	71	86	92	41
285	31	51	81	84	41
338	27	66	74	71	38
605	23	61	78	79	35
Block average	29	67	83	83	40

values are the percent of respondents reporting each category

Table 38. Percent of landowners that leased their property for deer hunting, by DPA.

DPA	Yes	No
219	2	98
223	2	98
224	-	-
227	2	98
229	1	99
235	-	-
236	1	99
285	2	98
338	0	100
605	1	99
Block average	1	99

values are the percent of respondents reporting each category

Table 39. Percent of landowners imposing different harvest restrictions on their property, by DPA

DPA	Antlerless harvest is restricted, but hunters can take any legal buck	Buck harvest is restricted to large antlered bucks, but hunters can take any antlerless deer	Buck harvest is restricted to large antlered bucks, and antlerless harvest is also restricted	No restrictions on the type of deer that can be harvested	Other
219	4	6	3	80	7
223	1	13	5	59	11
224	-	-	-	-	-
227	10	8	11	64	8
229	6	4	13	7	6
235	-	-	-	-	-
236	3	3	4	77	12
285	4	0	5	82	8
338	1	8	7	81	2
605	3	9	4	73	9
Block average	4	6	6	75	8

values are the percent of respondents reporting each category

Table 40. Percent of landowners reporting hunting deer during the last three years, and those that do not hunt, by DPA

DPA	2019	2020	2021	Did not hunt these years	Do not hunt
219	49	47	48	9	36
223	52	49	50	9	34
224	-	-	-	-	-
227	35	34	36	9	49
229	32	33	32	10	53
235	-	-	-	-	-
236	31	29	28	9	59
285	38	36	36	7	51
338	24	22	22	11	60
605	25	23	20	8	64
Block average	36	35	34	9	50

values are the percent of respondents reporting each category

Table 41. Landowners' time spent hunting on different land ownership types, by DPA

	Response	219	223	224	227	229	235	236	285	338	605	Avg.
Private land that I own	None	22	29	-	26	43	-	24	25	31	31	29
	Some	20	17	-	10	13	-	25	26	24	20	19
	Most	23	17	-	17	6	-	10	10	11	14	14
	All	35	37	-	47	38	-	41	43	33	34	38
Private land that I lease for hunting	None	88	92	-	89	89	-	96	89	92	89	91
	Some	4	2	-	1	6	-	0	6	3	1	3
	Most	3	6	-	3	4	-	4	4	0	4	4
	All	4	1	-	7	1	-	0	1	5	5	3
Private land that I do not own or lease	None	46	47	-	51	55	-	51	53	54	53	50
	Some	18	17	-	16	11	-	15	14	16	13	15
	Most	11	19	-	16	12	-	18	19	8	10	15
	All	25	18	-	18	22	-	16	14	23	23	20
Public land	None	58	51	-	68	53	-	53	56	58	69	57
	Some	23	28	-	14	19	-	18	14	16	18	20
	Most	14	11	-	10	10	-	12	4	5	9	10
	All	5	10	-	9	18	-	17	26	21	4	13

values are the percent of respondents reporting each category

Table 42. Percent of hunting landowners that would shoot an antlerless deer, by DPA

DPA	Yes	No
219	80	20
223	82	18
224	-	-
227	71	29
229	72	28
235	-	-
236	73	27
285	66	34
338	75	25
605	75	25
Block average	75	25

values are the percent of respondents reporting each category

Table 43. Mean number of years that hunting landowners have been hunting deer in Minnesota, by DPA

DPA	Mean
219	30.9
223	30.3
224	-
227	30.7
229	30.9
235	-
236	30.2
285	27.8
338	26.0
605	25.7
Block average	29.4

Table 44. Landowners' mean level of agreement with statements about the MNDNR, by DPA

	219	223	224	227	229	235	236	285	338	605	Avg.
The MNDNR does a good job managing deer in MN	3.6	3.4	-	3.4	3.4	-	3.6	3.1	3.6	3.5	3.4
When deciding about deer management in MN, the MNDNR will be open and honest in the things they say and do	3.6	3.4	-	3.5	3.5	-	3.6	3.3	3.7	3.5	3.5
The MNDNR can be trusted to make decisions about deer management that are good for the resource	3.6	3.4	-	3.6	3.6	-	3.7	3.3	3.6	3.5	3.5
The MNDNR will make decisions about deer management in a way that is fair	3.7	3.4	-	3.5	3.6	-	3.7	3.3	3.7	3.5	3.6
The MNDNR has deer managers and biologists who are well-trained for their jobs	3.6	3.6	-	3.7	3.6	-	3.7	3.3	3.7	3.6	3.6
The MNDNR listens to the concerns of landowners	3.5	3.3	-	3.3	3.5	-	3.5	3.2	3.5	3.5	3.4

responses measured on a bipolar scale, where 1 = strongly disagree, 3=neither, and 5 = strongly agree

Table 45. Landowners' mean stated importance for factors to consider in making deer population goals, by DPA

	219	223	224	227	229	235	236	285	338	605	Avg.
Amount of deer mortality during an average winter	3.6	3.7	-	3.7	3.6	-	3.5	3.5	3.5	3.2	3.6
Amount of deer mortality during a severe winter	3.9	3.9	-	3.8	3.7	-	3.7	3.9	3.6	3.3	3.7
Potential health risks to the deer herd	4.0	3.9	-	3.9	3.8	-	4.0	3.9	3.9	3.6	3.9
Public health (human-deer diseases)	3.9	3.5	-	3.8	3.6	-	3.9	3.8	3.7	3.6	3.7
Amount of crop damage from deer	3.4	3.0	-	3.3	3.1	-	3.2	3.2	3.3	3.3	3.2
Number of deer vehicle collisions	3.7	3.6	-	3.8	3.5	-	3.7	3.6	3.8	3.8	3.7
Deer over-browsing of forests	3.2	3.2	-	3.3	3.2	-	3.3	3.0	3.2	3.2	3.2
Impacts of deer on other wildlife species	3.1	3.0	-	3.2	3.1	-	3.2	2.9	3.2	3.0	3.1
Deer hunting heritage and tradition	3.7	3.6	-	3.4	3.5	-	3.3	3.5	3.4	3.2	3.4
Hunter satisfaction with deer numbers	3.4	3.5	-	3.2	3.2	-	3.1	3.3	3.1	3.0	3.2
Public satisfaction with deer numbers	3.1	3.1	-	3.2	3.0	-	3.1	3.1	3.0	3.0	3.1
Impact of deer hunting on the local economy	3.3	3.4	-	3.1	3.2	-	3.1	3.2	3.0	3.0	3.2
Quality of bucks (antler size)	3.2	3.2	-	3.2	2.9	-	2.8	2.9	2.9	2.7	3.0
Damage to gardens and landscaping	3.1	2.8	-	3.0	2.8	-	2.9	2.7	3.0	3.1	2.9
The ratio of bucks to does	3.3	3.4	-	3.4	3.2	-	3.2	3.2	3.2	3.1	3.3

responses measured on a unipolar scale, where 1 = not at all important, and 5 = very important

Table 46. Percent of landowners that set out food for deer to consume, by DPA

DPA	Yes	No	Live in CWD management or control zone
219	9	90	1
223	16	83	2
224	-	-	-
227	18	81	2
229	9	91	0
235	-	-	-
236	11	86	3
285	9	90	1
338	12	86	2
605	6	88	6
Block average	11	87	2

values are the percent of respondents reporting each category

Table 47. Percent of landowners that set out minerals for deer to consume, by DPA

DPA	Yes	No	Live in CWD management or control zone
219	11	87	1
223	20	77	2
224	-	-	-
227	22	76	1
229	11	88	0
235	-	-	-
236	12	85	3
285	16	83	3
338	12	86	2
605	5	89	6
Block average	14	84	2

values are the percent of respondents reporting each category

Appendix A.

Hunter Questionnaire

Q1. For each of the last three years, please check the years that you hunted deer in Minnesota, or if you did not hunt deer during these years. *(Check all that apply).*

_____ 2019 _____ 2020 _____ 2021 _____ I hunt deer, but didn't hunt these years *(Please skip to Q8).*

Q2. Which of the following seasons did you hunt during the year that you hunted deer most recently? *(Check all that apply).*

_____ Archery _____ Firearm A _____ Firearm B _____ Muzzleloader _____ Early antlerless

Q3. 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).*

	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

Q4. Overall, how satisfied were you with your most recent deer hunting season? *(Circle one number).*

Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
1	2	3	4	5

Q5. How much do you agree or disagree with the following statements about your most recent deer hunting season? (Circle one number for each).

	Strongly disagree	Slightly disagree	Neither	Slightly agree	Strongly agree
I was satisfied with the number of legal bucks I saw	1	2	3	4	5
I was satisfied with the quality of bucks I saw	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 I saw	1	2	3	4	5
I was satisfied with the number of deer I saw while hunting	1	2	3	4	5

Q6. Compared to 5 years ago, what trend have you seen in the deer population in the permit area where you hunt most often? (Circle one number). *If you weren't hunting this area 5 years ago, please skip to Q7.*

Many fewer deer	Slightly fewer deer	About the same number of deer	Slightly more deer	Many more deer
1	2	3	4	5

Q7. Overall, how satisfied are you with the current deer population in the permit area where you hunt most often? (Circle one number).

Very dissatisfied	Slightly dissatisfied	Neither	Slightly satisfied	Very satisfied
1	2	3	4	5

Q8. Will you shoot an antlerless deer given the opportunity?

_____ Yes _____ No

Q9. Please rate the importance of the following factors used in making deer population goals. (*Circle one number for each*).

	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
Quality of bucks (e.g., Antler size)	1	2	3	4	5
Damage to gardens and landscaping	1	2	3	4	5
The ratio of bucks to does	1	2	3	4	5
Other (please specify):	1	2	3	4	5

Q10. Do you think the deer population where you hunt most often is: (*Circle one number*)

Much too low	Too low	About right	Too high	Much too high
1	2	3	4	5

Q11. What would you like to happen to deer population levels in the area where you hunt most often in the next 5 years? (*Check one*).

_____ Decrease _____ Stay the same _____ Increase

Q11a. If you would like the deer population in the area you hunt most often to increase or decrease, what percent would you like it to change? (e.g., 25%) →

Increase or Decrease by _____ %

Q12. How much would you support or oppose a regulation that would increase the proportion of antlered bucks in the deer permit area where you hunt most often? (Circle one number)

Strongly oppose	Slightly oppose	Neither	Slightly support	Strongly support
1	2	3	4	5

Q13. Including 2021, how many years have you been hunting deer in Minnesota? _____ Years

Q14. Do you deliberately set out food for wild deer to consume (e.g., deer feeder)? **Do not report food plots.**

_____ Yes _____ No _____ I hunt or live in a CWD management or control zone or surveillance area

Q15. Do you deliberately set out minerals for wild deer to consume (e.g., salt blocks)?

_____ Yes _____ No _____ I hunt or live in a CWD management or control zone or surveillance area

Q16. Are you a member of a deer hunting organization (e.g., Minnesota Deer Hunters Association)?

_____ Yes _____ No

Q17. How much do you agree or disagree with the following statements about the Minnesota Department of Natural Resources (MNDNR)? (Circle one number for each).

	Strongly disagree	Slightly disagree	Neither	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 MN, the MNDNR will be open and honest in the things they say and do	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

Landowner Questionnaire

Q1. How many total acres did you own and/or lease at the end of 2021?

_____ Acres owned _____ Acres leased

Q2. Did you own or lease any land that was in the following land uses in 2021, and did deer cause any damage to those land uses in 2021? (Check all that apply).

Land use	Owned or leased		Experienced damage	
Agriculture	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Forest	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Residential	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> No

← If you did not own or lease any of the following in 2021 please skip to Q6.

Q3. How would you describe the total amount of damage from deer that you experienced in 2021? (Circle one).

Negligible	Minor	Moderate	Severe	Very Severe
1	2	3	4	5

Q4. How would you compare the total amount of damage from deer you experienced in 2021 to what you experienced 5 years ago? (Circle one). If you did not own or lease land 5 years ago, please skip to Q6.

Much less damage	Slightly less damage	About the same damage	Slightly more damage	Much more damage
1	2	3	4	5

Q5. Over the past 5 years, what trend have you seen in the deer population in the area of your property? (Circle one).

Many fewer deer	Slightly fewer deer	About the same number of deer	Slightly more deer	Many more deer
1	2	3	4	5

Q6. How satisfied are you with the current deer population in the area of your property? (Circle one).

Very dissatisfied	Slightly dissatisfied	Neutral	Slightly satisfied	Very satisfied
1	2	3	4	5

Q7. Do you think the deer population in the area of your property is: (Circle one)

Much too low	Too low	About right	Too high	Much too high
1	2	3	4	5

Q8. What would you like to happen to deer population levels in the area of your property in the next 5 years? (Check one).

Decrease Stay the same Increase

Q8a. If you would like the deer population in the area of your property to increase or decrease, what percent would you like it to change? (e.g., 25%) → Increase or Decrease by _____ %

Q9. Are you aware that MNDNR offers technical and financial assistance to landowners for deer depredation problems?

Yes No

Q10. Did you allow hunting on your property during the 2021 deer seasons?

Yes No (Please skip to Q13).

Q11. Do you lease any of your property for deer hunting?

Yes No

Q12. Did you personally impose any deer harvest restrictions, other than state regulations on your property in 2021? (Check one).

- Antlerless harvest is restricted, but hunters can take any legal buck
- Buck harvest is restricted to large antlered bucks, but hunters can take any antlerless deer
- Buck harvest is 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): _____

Q13. For each of the last three years, please check the years that you hunted deer in Minnesota, or indicate if you are not a deer hunter. (Check all that apply).

_____ 2019 _____ 2020 _____ 2021 _____ I hunt deer, but didn't hunt these years (Please skip to Q15).

_____ I do not hunt deer at all (Please skip to Q17).

Q14. 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 for each).

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

Q15. Will you shoot an antlerless deer given the opportunity? _____ Yes _____ No

Q16. Including 2021, how many years have you been hunting deer in Minnesota? _____ Years

Q17. How much do you agree or disagree with the following statements about the Minnesota Department of Natural Resources (MNDNR)? (Circle one for each).

	Strongly disagree	Slightly disagree	Neither	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 MN, the MNDNR will be open and honest in the things they say and do	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

Q18. Please rate the importance of the following factors used in making deer population goals. (Circle one number for each).

	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
Quality of bucks (e.g., Antler size)	1	2	3	4	5
Damage to gardens and landscaping	1	2	3	4	5
The ratio of bucks to does	1	2	3	4	5
Other (please specify):	1	2	3	4	5

Q19. Do you deliberately set out food for wild deer to consume (e.g., deer feeder)? **Do not report food plots.**

_____ Yes _____ No

Q20. Do you deliberately set out minerals for wild deer to consume (e.g., salt blocks)?

_____ Yes _____ No