Kansas Department of Wildlife and Parks Survey of Landowners on Opinions About Deer Populations in Kansas



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Report Prepared by

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Conducted March 26 through June 8, 2004

Executive Summary

All univariate results reported in this Executive Summary can be found in detail in the Appendix, which contains all questionnaire items and the relative frequency (percentage) distributions on discrete items and the means and medians for all continuous items. Results by Deer Management Unit (DMU) outlined in this Executive Summary are detailed in the body of the report with tables and discussion. Trend results reported in the Executive Summary are also detailed in the body of the report with charts and discussion.

The primary objectives of this survey for the Kansas Department of Wildlife and Parks (KDWP) were to:

- → Categorize landowners' perceptions of changes in deer populations
- Assess landowners' attitudes toward deer populations
- → Obtain estimates of deer populations and the hunter harvest of deer on lands owned or operated by the survey recipient
- Assess perceived destructiveness of deer, and types and levels of damage incurred
- Assess landowners' knowledge and use of damage control and abatement techniques
- → Determine landowners' support of deer hunting and deer population management
- → Determine landowner farming/ranching operation characteristics
- → Analyze trends on selected issues

From analyses of survey results, we find that:

- A slight plurality (33%) of landowners perceive an increase in the deer population in their area over the previous three years (2000 2003), while nearly the same percentage (32%) believe that the population has remained about the same. When asked to compare this year's population at this time of the year to the deer population at the same time of the year one year ago, only 22% indicated an increase, while 47% believe that the population is about the same. Comparing the results among those who reported damage from deer in 2003 to those not reporting damage from deer in 2003, one very notable pattern is the propensity of those who experienced damage to report an increase at a much higher rate than those who did not experience damage. Not surprisingly, the reverse pattern is found for "decrease," with those who did not experience damage consistently reporting higher rates of decrease than those who experienced damage. This pattern exists without exception in every DMU.
- → When asked how many deer they would like to have on their farm or ranch, 16% would like to have more, while 34% (the single largest percentage) would like to have the same number they now have. About 31% would like to have fewer, and 12% would like to have no deer on their land. About 12% are uncertain. Statewide results show that a plurality (48%) of those who experienced no deer damage in 2003 prefer the same amount of deer, while the plurality and near majority (49%) of those who did experience damage in 2003 prefer fewer deer. There is a consistent tendency across all DMUs for those who experienced damage to desire fewer deer than those who did not experience damage.
- Landowners report a mean number of deer on their property in 2003 of 17, and a mean maximum number at any one time in 2003 of 22. Observing differences across deer management units (DMU) in the state, the mean density of deer generally found on landowners' operations and the maximum number seen at one point in time in 2003 is highest in DMUs 19, 13 and 8. Results from hunters indicate that DMUs 13, 10, and 3 have the highest mean densities of antlerless deer harvested, while the lowest densities are found in DMUs 2, 4 and 18.
- The mean number of antlered buck taken by hunters on land owned by respondents is 1.9, while the mean number of antlerless deer taken is 2.3.
- → When asked whether there should be more, the same, or fewer of several specific types of deer, the plurality (38%) for respondents have "no opinion" with respect to *mule deer*. The percentage desiring more is 21%, while the percentage desiring fewer is 23%. The plurality response for *white tail* deer is "fewer" (38%). The plurality response for *male* deer is "fewer" (30%), and even more (39%) indicate that there should be *fewer female* deer. There is very little difference in response with respect to *older* versus *younger* deer, with about 31% of respondents indicating there should be fewer of both types.

- About 42% of respondents report that they or other people using their property watch or photograph deer (13% did not answer), 22% plant food plots or leave crops to attract deer (14% did not answer), 17% improve habitat primarily for deer (14% did not answer), 30% hunt for shed antlers (13% did not answer), and about 5% use nonlethal means to reduce conflict with deer.
- → Of twelve recreational activities listed, the largest percentage (60%) of respondents and/or their family members participate in watching wildlife, followed by fishing (53%). Ranking third in a tie is hunting upland (39%) and hunting deer/big game (39%).
- Seventy-five percent report that deer hunting does occur on their property. Seventy-two percent of those who indicate that hunting does occur report that immediate family members hunt on their land, and bout 54% report that other relatives hunt on their property. About 66% report that invited friends hunt, while about 43% report that other landowners hunt.
- A majority (83%) of those who indicate that hunting does occur on their property report that they do not receive any money from allowing deer hunting. Respondents were presented with a number of types of compensation, and asked to indicate "yes" or "no" on whether they receive each type. The most frequent types of compensation are: non-monetary favors (7%), money from lease to hunt (5%), and sale or transfer of hunting permits (5%).
- Forty-four percent indicate that they have experienced some damage to their property from hunters in the past.
- Among those who allow hunting on their property, 61% indicate that they restrict the activities of deer hunters. About 75% restrict where hunting is allowed, and about 65% restrict how many hunters are allowed at once. "When hunting occurs" is the third most common (59%) restriction. The fourth most common (56%) restriction is the use of vehicles.
- From a list, respondents were asked to report the various types of hunting equipment used by themselves and/or others in their family when deer hunting. About 67% use a rifle. About 26% use a compound bow, About 15% use a muzzleloader, and about 8% use a shotgun. About 6% use a pistol and 5 % use a long or recurve bow.
- → About 38% report that deer hunting is a family tradition.
- About 49% of the respondents indicate that hunting does take place on their land during a second season for antlerless deer implemented by KDWP in 1998.
- About 58% of those who indicate that a second, antlerless season of hunting does occur on their land report that immediate family members hunt on their land, and about 43% report that other relatives hunt on their property. About 54% report that invited friends

- hunt, and about 34% report that other landowners hunt. About 33% indicate that "most who ask permission" are allowed to hunt on their property.
- Thirty-four percent indicate that the second season made no difference in controlling the deer on their land, but about 30% feel that it is somewhat beneficial. About 12% feel it is very beneficial, and about 23% do not know how beneficial it is.
- Relative to disruption from hunters during the regular season, less perceived disruption is experienced during the second, antlerless season as only 18% indicate that their operation has been disrupted in some way.
- Fifty percent report that deer caused damage to their land in 2003. About 36% describe this damage as light, and 40% describe it as moderate. About 15% classify this damage as substantial, and 5% call it severe. Only 4% are uncertain of how they would classify the damage.
- In terms of certain deer related issues, 36% classify deer-vehicle accidents as large problems, followed by fence damage by deer at 29%. About 23% indicate that deer attracting hunters is a large problem, while about 21% describe crop/property damage as a large problem.
- Only 21% of respondents took some action to limit deer damage to their property in 2000. Of those who took such measures, 57% increased hunting pressure, and 28% used nonlethal means. About 51% rate their actions as ineffective, while 34% rate them as moderately effective. Only about 4% rate their actions as highly effective.
- About 12% reported the deer damage to KDWP, and after meeting with KDWP, 40% have used a damage control permit to mitigate the damage. About 8% have called the 1-800 hot line.
- A list of factors with potential to increase favorable attitudes toward deer was presented to landowners who were asked to indicate whether each factor would increase their appreciation of deer on their property. The most important factors are: reduced damage (41%), better behavior among hunters (38%), being appreciated by hunters (36%), lower numbers of deer (33%), easier access to permits (28%), and longer seasons (28%).
- From a list of deer management actions, the most important action according to respondents is providing simple deer regulations with 35% describing this as extremely important. About 24% describe collecting estimates on deer populations as extremely important, followed closely by providing liberal hunting at 31%.
- → Using a scale of "extremely satisfied, satisfied, neutral, dissatisfied or extremely dissatisfied", a combined percentage of 31% were extremely satisfied (3%) or satisfied (28%) with the way the KDWP manages deer populations. About 28% were neutral, and

a combined percentage of 23% were dissatisfied (15%) or extremely dissatisfied (8%). About 18% were uncertain about their satisfaction level.

- The mean number of acres in farm or ranch operations among the respondents is 865, and the median is 390. The mean percentage of total household income that is derived from the agricultural operation is 42%, and the median is 30%.
- About 70% live on their farm or ranch. The mean number of years landowners have owned or operated their farm or ranch is 30 years, and the median is 26 years. From a list of six possible reasons that the respondent decided to own or operate, the single most important reasons is for "family security and lifestyle freedoms."
- → With the exception of around 1975, the percentage indicating deer damage to their property has shown escalating increases from 1965 to 1996. The 2000 results are the same as 1996, indicating at least a leveling. 2003 shows a lowering back to the 1993 level.
- → The 2000 and 2003 data show levels of desire for deer similar to those levels observed in the early 1990s, which is a reversal of the declining desire generally in effect since the 1970s.
- → Clearly in all survey years examined, those respondents who report no deer damage tend to express greater desire to have deer on their property.

Methods

Between March 26 and June 8, 2004 the University Center for Survey Research conducted a survey of 3,582 randomly selected landowners in Kansas from a list of agricultural operators maintained by the Kansas Agricultural Statistics Service (KAS). Two waves of a self-administered mail survey were sent by the KAS on behalf of the Docking Institute's University Center for Survey Research to a sample of landowners from all counties in Kansas. The number of landowners sampled from each county was proportionate to the total number of landowners in the county according to KAS lists.

The self-administered mail survey included return postage to the Docking Institute paid by the Docking Institute. The first copy of the survey was mailed with a cover letter briefly explaining the survey. Signatures of both the Secretary of the Department of Wildlife and Parks and the Director of the Docking Institute appeared on the cover letters. The follow-up wave followed this initial mailing to all those who had not yet responded to the previous wave(s) of mailing. Of 3,582 questionnaires mailed, 153 were undeliverable, 33 were ineligible because they did not live on the land or own the land and had no information about deer on the land, and 4 were returned incomplete because the targeted respondent is deceased. Thus the total number of eligible respondents is considered to be 3,392. The University Center for Survey Research received 1902 completed questionnaires, resulting in a response rate of 56%. Non respondent bias is assessed. KAS administered selected key survey items to a random sample of nonresponders to the self-administered mail survey. Appendix 2 reports the results of that survey and analysis.

Survey Instrument

The Docking Institute and the Kansas Department of Wildlife and Parks agreed on the survey items used. It was the responsibility of KDWP to identify information areas and objectives of the survey. It was the responsibility of the Docking Institute to develop survey items that were technically correct and without bias. Question wording and the design of the survey instrument are the joint property of the Docking Institute and KDWP and are not to be used for additional surveys unless written permission is given by both owners. Appendix 1 contains the questionnaire and the relative frequency (percentages) of answers falling in each response category.

Trend Analyses

The KDWP has conducted this survey over a number of years, and was interested in comparing the results of selected items to past results. An item of high interest is trends in deer damage. Figure 1 shows that between 1965 and 2000 the percentage indicating deer damage to their property has increased at each survey period with the exception of 1975. The most recent year, 2003, is another exception to the trend, the percentage reporting damage has declined to the 1993 level (50%).

Figures 2 and 3 represent the rating of deer damage severity among those who indicated

deer damage had occurred to property they own or operate for the 1996 and the 2000 survey years, respectively. The largest single percentage (39%) in 2000 rate deer damage as "moderate" which is very similar to the plurality rating in 2003, with 40% indicating "moderate."

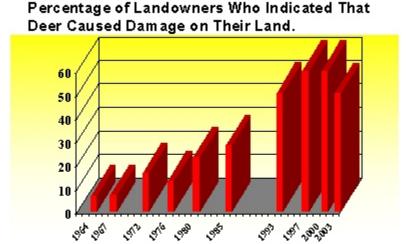


Figure 1

Reporting Damage

Landowner's Opinion on the Severity of Crop Damage Caused by Deer, 2000.

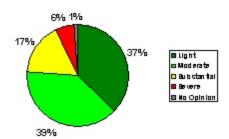


Figure 2

Landowner's Opinion on the Severity of Crop Damage Caused by Deer, 2003.

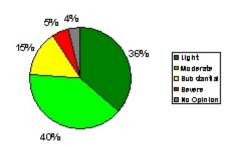


Figure 3

Turning to the change in the desired number of deer (see Figure 4), from the early 1970s through the 1996 survey year, the percentage who wanted fewer deer was on the increase, and the percentage who wanted more deer was on the decline. The 2000 and now the 2003 data mark a

curious reversal of this trend to levels of desire for deer similar to those observed in the early 1990s, which is still far lower in terms of desire than the early 1970s.

Figure 5 shows the desire for deer among those who experienced damage in the survey year and those who did not report damage for the 1996, 2000, and 2003 survey years. Within each survey year, the stacked bar on the *left* reports the feelings of those with damage, while the bar on the right reports the feelings of those without damage. Clearly in all survey years examined, those respondents who report no deer damage tend to express greater desire to have deer on their property. A notable trend is that moving from 1996 to 2003,

there is a slight tendency toward

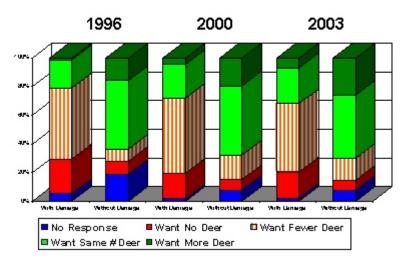
wanting the more deer.



Trends in the Number of Deer That

40% 20% 0% 1986 1242 240 1080 1364,367 293 291 288 Моге ■ Same ■ Fewer Figure 4.

Percent of Landowners with Various Opinions About Deer, Compared by those Experiencing Damage Vs No Damage.



Results Within Deer Management Units on Selected Items

Figure 6 is a map of the 18 deer management units (DMU) of the KDWP. The percentage that each unit represents of the entire group of respondents is noted below the map.

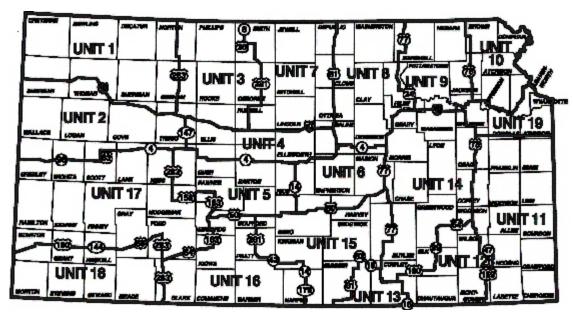


Figure 6

DMU #	%	n	DMU#	%	n
Not Specified	8.0	161	10	5.9	112
1	3.5	67	11	16.4	311
2	2.5	47	12	4	77
3	2.9	55	13	1.1	21
4	2.0	38	14	7.6	145
5	3.2	61	15	7.7	147
6	4.8	92	16	3.4	65
7	4.2	79	17	4.6	88
8	5.6	107	18	2.1	39
9	6.2	118	19	3.8	72

Respondents were asked to report the average number of deer generally on their property in 2003 (see question 5a in Appendix 1). That information was combined with total land in their operation to derive deer densities within DMUs. The far right column of Table 1 shows the mean density of deer per 100 square miles of operation (farm or ranch) in 2003. The statewide mean density is 3,651 per 100 square miles of operation, and across the DMUs density ranges from a low of 531 to a high of 8,801

To assess the extent to which estimates of deer vary by important individual experiences, deer densities were analyzed for those who reported deer damage to their operation in 2003 (see question 22b in Appendix 1) and for those who hunt deer (see question 9 in Appendix 1). Table 1 shows that on a statewide level, the mean deer density observed among those who received no damage (3,677) is essentially no different than the mean density observed among those who reported deer damage (3,626). In addition, of the 19 deer management units, 9 follow the same pattern in which those with no deer damage report a higher mean density of deer per 100 square miles of operation.

Turning to mean density assessments among those who hunt deer and those who do not, the mean deer density is higher among non-hunters (4,097) than among hunters (3,092). In addition, there is a clear pattern toward this tendency within the DMUs, as 13 DMUs show higher mean estimates among non-hunters than among hunters.

Table 1. Deer Density Per 100 Square Miles on Farm and Ranch Operations in 2003: Estimates by Damage Status and Hunting Status

	Damage Hunt Deer					
	Yes	No	Yes	No	A	A 11
DMU	Mean	Mean	Mean	Mean	N	Mean
Not Specified	6223.6	2357.3	3312.0	4620.0	66	3821.8
1	1373.1	1988.1	1371.0	1881.9	53	1663.2
2	381.6	679.9	356.4	647.9	38	530.7
3	4460.5	3913.9	4095.2	4271.1	41	4193.9
4	957.6	1228.8	1232.5	836.2	26	1072.3
5	2097.4	1399.3	1661.1	2085.2	50	1860.1
6	3850.6	2532.7	2280.3	3395.6	75	3007.2
7	2226.3	3540.0	3029.0	2511.5	58	2792.5
8	5660.4	4612.5	3353.9	7070.3	86	5246.1
9	3193.4	3406.1	2471.3	4190.6	89	3289.0
10	5027.7	3585.9	3714.9	4631.3	85	4247.4
11	4244.7	4719.2	4105.2	4760.0	256	4489.3
12	4016.5	6684.9	4129.1	6676.0	70	5198.2
13	8428.4	2256.2	7542.1	4022.4	16	5342.3
14	2502.5	2699.7	2428.8	2768.0	122	2599.5
15	2353.3	4408.8	4669.4	2946.6	123	3422.8
16	5821.8	3479.8	2881.9	9133.4	49	4818.1
17	1062.6	448.9	912.0	558.7	66	690.6
18	968.1	856.5	1102.2	544.5	23	909.9
19	8705.1	8889.9	3001.9	8993.7	60	8800.6
State	3626.0	3677.7	3091.6	4097.1	1386	3651.5

Using respondents' reports of the maximum number of deer seen on their farm or ranch at any one time in 2003 (see question 5b in Appendix 1) and the number of acres in their operation, mean maximum number of deer seen at any one time per 100 square miles was calculated. Like Table 1, Table 2 reports results broken down by those who received damage and those who did not as well as those who hunt and those who do not. The highest means are in DMUs 19, 8, 13, and 10 in order. At the statewide level, the mean maximum number of deer seen at any one time per 100 square miles is 4811 among those who received damage in 2003 and 6,211 among those who did not receive damage in 2003. There is a slight tendency across the DMUs for the mean maximum densities to be higher among those who did not experience damage, with the mean density reported among those with no damage being higher in 10 of the 19 DMUs.

Turning to the differences between the hunting and non hunting landowners, statewide mean maximum density results are dissimilar, at 4,265 among hunters and 6,428 among non hunters. Across the DMUs, non-hunters tend to estimate higher mean maximum density of deer than hunters, with estimates of non-hunters being higher than hunters in 13 of the 19 DMUs.

Table 2. Density of Maximum Number of Deer at One Time Per 100 Square Miles on Farm and Ranch Operations in 2003: Estimates by Damage Status and Hunting Status

	Damage Hunt Deer					
	Yes	No	Yes	No	All	
DMU	Mean	Mean	Mean	Mean	N	Mean
Not Specified	4431.1	1360.3	2293.2	3141.7	48	2639.8
1	1747.9	2203.9	1646.2	2221.8	50	1957.7
2	653.1	590.3	670.5	421.9	34	621.7
3	4228.5	3379.7	3757.4	3782.4	39	3771.5
4	2419.1	2083.9	2928.1	1269.5	26	2290.2
5	1751.7	1588.4	1930.1	1512.1	47	1692.6
6	4003.8	3891.3	3044.9	4394.7	73	3931.4
7	3897.1	9815.8	4472.6	8232.5	58	6652.4
8	6568.1	15940.3	5384.3	15073.5	87	10123.1
9	4122.6	4295.7	3301.1	5256.4	83	4199.7
10	7398.5	6443.5	6332.8	7332.4	83	6903.7
11	5136.4	7044.0	5033.7	7097.8	249	6101.7
12	5593.9	7769.0	5461.7	7857.9	66	6549.6
13	13117.2	3507.8	14043.3	4749.8	17	8029.9
14	3089.2	3526.0	3513.8	3191.9	117	3309.5
15	4224.3	9265.6	5903.2	7605.3	114	6877.6
16	5668.7	7571.2	5273.1	9382.1	45	6429.7
17	1262.5	880.1	1209.9	938.7	64	1029.5
18	1980.0	566.5	1072.2	846.0	23	1181.1
19	13156.3	14846.1	3507.4	14849.6	58	13913.8
State	4811.8	6210.8	4265.4	6427.9	1333	5498.2

From the item that asks respondents to report the number of antlerless deer taken by hunters on their farm or ranch in 2003 (see question 5d in Appendix 1) and the number of acres in their operation, the mean density of antlerless deer killed per 100 square miles was derived. Results from hunters indicate that DMUs 13, 10, and 3 have the highest mean densities of antlerless deer harvested, while the lowest densities are found in DMUs 2, 18 and 4. Across the DMUs, hunters consistently estimate higher numbers of antlerless deer taken than non-hunters, and at a statewide level, the mean density among hunters is much higher (325) than among non-hunters (175) per 100 square miles.

Table 3. Density of Antlerless Deer Harvested Per 100 Square Miles on Farm and Ranch Operations in 2003: Estimates by Damage Status and Hunting Status

	Damage		Hunt	Hunt Deer		
	Yes	No	Yes	No	All	
DMU	Mean	Mean	Mean	Mean	N	Mean
Not Specified	304.5	116.1	167.2	190	62	170.8
1	69.4	109.2	183.6	23.0	32	91.8
2	47.7	5.6	53.8	0.0	23	25.7
3	47.1	544.6	526.2	127.7	32	326.9
4	144.5	70.2	99.9	142.1	19	113.2
5	249.9	127.7	244.0	148.2	39	199.8
6	172.7	101.6	266.9	50.8	63	127.6
7	270.3	262.8	394.5	102.7	56	267.1
8	271.0	200.5	276.1	204.0	81	243.1
9	211.5	115.3	236.9	96.7	72	164.7
10	376.4	392.7	661.6	219.7	72	385.5
11	333.5	321.7	386.2	219.9	223	327.2
12	259.3	188.7	307.0	114.5	63	229.0
13	938.0	65.0	1400.9	148.2	15	472.4
14	280.3	194.8	337.6	143.9	118	237.5
15	229.4	184.8	408.9	99.0	106	206.3
16	145.8	60.3	118.4	117.7	41	112.4
17	267.2	59.6	123.6	155.8	53	141.9
18	133.2	35.1	92.7	59.3	19	71.3
19	461.5	658.4	258.9	646.5	50	556.0
State	268.5	227.9	325.2	175.9	1177	248.0

Turning to the perceived changes in deer populations, respondents were asked whether the deer population in their area had increased, remained the same, or decreased from the population levels three years ago (2003 versus 2000 populations – see question 1 in Appendix 1). A slight plurality (33%) of landowners perceive an increase in the deer population in their area over the previous three years (2000 – 2003), while nearly the same percentage (32%) believe that the population has remained about the same. Table 4 shows responses by DMUs among those who have experienced damage and those who have not. One very notable pattern is the propensity of those who experienced damage to report an increase at a much higher rate than those who did not experience damage. Not surprisingly, the reverse pattern is found for "decrease," with those who did not experience damage consistently reporting higher rates of decrease than those who experienced damage. This pattern exists without exception in every DMU, but difference in estimates among those with and without damage are relatively small in DMU 1.

The percentage that report an increase, among those who experienced damage, is at least 60% in DMUs 6, 13, 15, 16 and 19, which is well above the statewide percentage reporting an increase among those who experienced damage (49%).

Table 4 Perceived Three Year Change (2000–2003) in Area Deer Population by Damage Status

					Sample
DMU	Damage	Increased (%)	Remain Same (%)	Decreased (%)	Size
Not Specified	Yes	56.1%	25.8%	18.2%	
	No	31.4%	35.7%	32.9%	
1	Yes	39.4%	33.3%	27.3%	33
	No	39.3%	25.0%	35.7%	28
2	Yes	21.7%	34.8%	43.5%	23
	No	5.3%	52.6%	42.1%	19
3	Yes	37.5%	33.3%	29.2%	24
	No	24.0%	20.0%	56.0%	25
4	Yes	42.9%	33.3%	23.8%	21
	No	15.4%	23.1%	61.5%	13
5	Yes	50.0%	25.0%	25.0%	36
	No	5.0%	45.0%	50.0%	20
6	Yes	75.0%	15.6%	9.4%	32
	No	30.8%	44.2%	25.0%	52
7	Yes	42.5%	35.0%	22.5%	40
	No	19.4%	38.7%	41.9%	31
8	Yes	51.6%	30.6%	17.7%	62
	No	21.6%	37.8%	40.5%	37
9	Yes	18.0%	34.4%	47.5%	61
	No	6.0%	20.0%	74.0%	50
10	Yes	41.1%	39.3%	19.6%	56
	No	28.6%	44.9%	26.5%	49
11	Yes	47.8%	35.3%	16.9%	136
	No	21.7%	44.8%	33.6%	143
12	Yes	58.5%	29.3%	12.2%	41
	No	25.0%	53.1%	21.9%	32
13	Yes	80.0%	20.0%	0.0%	10
	No	44.4%	44.4%	11.1%	9
14	Yes	47.2%	27.8%	25.0%	72
	No	16.1%	40.3%	43.5%	62
15	Yes	71.9%	15.6%	12.5%	64
	No	28.6%	41.3%	30.2%	63
16	Yes	59.5%	32.4%	8.1%	37
	No	25.0%	62.5%	12.5%	24
17	Yes	43.8%	34.4%	21.9%	32
	No	26.2%	31.0%	42.9%	42
18	Yes	41.7%	50.0%	8.3%	12
	No	15.0%	50.0%	35.0%	20
19	Yes	64.9%	29.7%	5.4%	37
	No	23.3%	60.0%	16.7%	30
State	Yes	49.2%	30.5%	20.3%	895
	No	23.0%	40.5%	36.5%	819

Another question asked respondents to indicate how the deer herd in their area had changed compared to the same time one year ago (see question 2 in Appendix 1). Table 5 reports result by those who have experienced damage in the past year and those who have not. As in Table 4, results in Table 5 show that those who received deer damage in 2003 consistently report that deer damage is higher this year at a rate much greater than those who did not experience damage. For example, at the statewide level 35% of those who experienced deer damage reported that the deer population is higher than it was at the same time last year, while only 13% of those who did not receive damage report that the population is higher. This pattern is found, without exception, across all DMUs.

Table 5. Perceived One Year Change in Area Deer Population by Damage Status

					Sample
DMU	Damage	Higher (%)	Same (%)	Lower (%)	Size
Not	Yes	40.7%	45.8%	13.6%	
Specified	No	23.1%	44.6%	32.3%	
1	Yes	21.9%	56.3%	21.9%	59
	No	0.0%	57.1%	25.0%	65
2	Yes	14.3%	52.4%	33.3%	32
	No	0.0%	63.2%	36.8%	28
3	Yes	33.3%	37.5%	29.2%	21
	No	19.2%	30.8%	50.0%	19
4	Yes	40.0%	50.0%	10.0%	24
	No	7.1%	42.9%	50.0%	26
5	Yes	32.4%	52.9%	14.7%	20
	No	5.3%	47.4%	47.4%	14
6	Yes	50.0%	46.7%	3.3%	34
	No	12.2%	65.3%	22.4%	19
7	Yes	35.0%	47.5%	17.5%	30
	No	13.3%	46.7%	40.0%	49
8	Yes	33.3%	53.3%	13.3%	40
	No	10.8%	54.1%	35.1%	30
9	Yes	9.8%	57.4%	32.8%	60
	No	2.0%	44.0%	54.0%	37
10	Yes	26.4%	56.6%	17.0%	61
	No	17.8%	62.2%	20.0%	50
11	Yes	35.6%	54.5%	9.8%	53
	No	10.8%	61.2%	28.1%	45
12	Yes	46.2%	46.2%	7.7%	132
	No	16.1%	74.2%	9.7%	139
13	Yes	70.0%	30.0%	0.0%	39
	No	50.0%	25.0%	25.0%	31
14	Yes	31.1%	58.1%	10.8%	10
	No	13.3%	48.3%	38.3%	8
15	Yes	50.0%	38.7%	11.3%	74
	No	14.3%	60.3%	25.4%	60
16	Yes	45.9%	48.6%	5.4%	62
	No	25.0%	62.5%	12.5%	63
17	Yes	25.0%	53.1%	21.9%	37
	No	9.3%	53.5%	37.2%	24
18	Yes	36.4%	63.6%	0.0%	32
	No	5.0%	70.0%	25.0%	43
19	Yes	44.4%	52.8%	2.8%	11
	No	17.9%	67.9%	14.3%	20
State	Yes	34.7%	51.2%	14.1%	36
	No	13.4%	55.6%	31.0%	28

Table 6 shows results from an attitudinal question measuring respondents' desires to have deer on their farm or ranch (see question 3 in Appendix 1). Again, results are reported for two groups of respondents, those who experienced deer damage in 2003 and those who did not. As a general tendency, statewide results and results within DMUs show that both group tend not to want more deer on their farm or ranch. At a statewide level among those who received damage, the largest single percentage (49%) indicate that they want fewer deer. At a statewide level among those who experienced no damage, the single largest percentage (48%) report that they want the same number of deer. There is a consistent tendency across all DMUs for those who experienced damage to desire less deer than those who did not experience damage.

Table 6. Desire for Deer on the Farm or Ranch by Damage Status

					Want No	Sample
DMU	Damage	More	Same	Fewer	Deer	Size
Not	Yes	1.6%	20.6%	46.0%	31.70%	63
Specified	No	22.2%	34.7%	18.1%	25.00%	72
1	Yes	8.8%	17.6%	55.9%	17.6%	34
	No	14.8%	48.1%	22.2%	14.8%	27
2	Yes	20.8%	41.7%	16.7%	20.8%	24
	No	31.8%	45.5%	13.6%	9.1%	22
3	Yes	12.0%	16.0%	52.0%	20.0%	25
	No	36.0%	44.0%	20.0%	0.0%	25
4	Yes	5.0%	25.0%	60.0%	10.0%	20
	No	50.0%	41.7%	8.3%	0.0%	12
5	Yes	14.7%	14.7%	44.1%	26.5%	34
	No	40.0%	40.0%	20.0%	0.0%	20
6	Yes	2.9%	23.5%	55.9%	17.6%	34
	No	24.5%	52.8%	15.1%	7.5%	53
7	Yes	7.0%	30.2%	58.1%	4.7%	43
	No	21.2%	60.6%	15.2%	3.0%	33
8	Yes	3.0%	19.7%	51.5%	25.8%	66
	No	29.7%	43.2%	24.3%	2.7%	37
9	Yes	12.7%	30.2%	42.9%	14.3%	63
	No	32.0%	44.0%	20.0%	4.0%	50
10	Yes	8.8%	29.8%	43.9%	17.5%	57
	No	36.0%	36.0%	24.0%	4.0%	50
11	Yes	7.1%	29.3%	45.0%	18.6%	140
	No	26.0%	55.2%	13.6%	5.2%	154
12	Yes	7.1%	35.7%	35.7%	21.4%	42
	No	31.3%	56.3%	12.5%	0.0%	32
13	Yes	0.0%	0.0%	80.0%	20.0%	10
	No	9.1%	36.4%	27.3%	27.3%	11
14	Yes	9.2%	26.3%	50.0%	14.5%	76
	No	36.5%	46.0%	14.3%	3.2%	63
15	Yes	6.2%	23.1%	53.8%	16.9%	65
	No	26.4%	51.4%	11.1%	11.1%	72
16	Yes	8.3%	11.1%	63.9%	16.7%	36
	No	26.1%	43.5%	17.4%	13.0%	23
17	Yes	6.3%	28.1%	53.1%	12.5%	32
	No	36.2%	36.2%	21.3%	6.4%	47
18	Yes	0.0%	50.0%	25.0%	25.0%	12
	No	21.1%	68.4%	5.3%	5.3%	19
19	Yes	0.0%	18.9%	64.9%	16.2%	37
	No	22.6%	61.3%	9.7%	6.5%	31
State	Yes	7.2%	25.2%	49.1%	18.5%	913
	No	28.4%	47.8%	16.3%	7.5%	853

Respondents were asked about their general attitude toward deer on their property (see question 4 in Appendix 1). Table 7 shows results for those experiencing deer damage and those who did not. At the statewide level, only 13% of those who experienced damage in 2003 indicate that they enjoy deer around. In stark contrast, 52% of those who did not experience damage indicate that they enjoy deer around. This large difference exists within all DMUs, with the percentages saying that they "enjoy deer around" commonly above 50% among those who did not experience damage and always below 23% among those who did experience damage. Still, even those with damage tend to express an interest in having deer around. The response category with the single largest percentage (54%) of responses among those with damage at a statewide level and across all DMUs is the "I enjoy deer, but they cause problems at times" category.

Table 7. General Attitude Toward Presence of Deer in Area by Damage Status

		Enjoy Deer	Enjoy But	Deer Are	Sample
DMU	Damage	Around	Problematic	Nuisance	Size
Not	Yes	7.6%	50.0%	42.4%	66
Specified	No	38.5%	41.0%	20.5%	78
1	Yes	11.4%	57.1%	31.4%	35
	No	26.7%	53.3%	20.0%	30
2	Yes	12.5%	58.3%	29.2%	24
	No	40.9%	45.5%	13.6%	22
3	Yes	3.8%	65.4%	30.8%	26
	No	61.5%	26.9%	11.5%	26
4	Yes	9.5%	42.9%	47.6%	21
	No	50.0%	42.9%	7.1%	14
5	Yes	21.6%	40.5%	37.8%	37
	No	68.2%	27.3%	4.5%	22
6	Yes	5.9%	58.8%	35.3%	34
	No	60.7%	32.1%	7.1%	56
7	Yes	16.3%	67.4%	16.3%	43
	No	62.5%	28.1%	9.4%	32
8	Yes	13.4%	46.3%	40.3%	67
	No	48.6%	43.2%	8.1%	37
9	Yes	21.9%	39.1%	39.1%	64
	No	48.0%	48.0%	4.0%	50
10	Yes	14.0%	50.9%	35.1%	57
	No	54.5%	36.4%	9.1%	55
11	Yes	14.3%	60.0%	25.7%	140
	No	58.3%	36.2%	5.5%	163
12	Yes	15.0%	52.5%	32.5%	40
	No	67.7%	25.8%	6.5%	31
13	Yes	0.0%	70.0%	30.0%	10
	No	36.4%	45.5%	18.2%	11
14	Yes	12.8%	55.1%	32.1%	78
	No	55.6%	36.5%	7.9%	63
15	Yes	9.1%	56.1%	34.8%	66
	No	47.3%	40.5%	12.2%	74
16	Yes	13.5%	51.4%	35.1%	37
	No	50.0%	37.5%	12.5%	24
17	Yes	8.8%	58.8%	32.4%	34
	No	54.2%	37.5%	8.3%	48
18	Yes	7.1%	78.6%	14.3%	14
	No	42.9%	52.4%	4.8%	21
19	Yes	5.4%	45.9%	48.6%	37
	No	54.5%	36.4%	9.1%	33
State	Yes	12.5%	53.9%	33.7%	930
	No	52.4%	38.1%	9.6%	890

Like Table 7, Table 8 presents results on general attitude toward the presence of deer in one's area. However, Table 8 reports results by hunting status (those who hunt and those who do not hunt) rather than damage status. Not unexpectedly, hunters tend to respond "enjoy deer around" at a higher rate than non-hunters. This is true at both the statewide level, 43% versus 23% respectively, and within most DMUs.

Table 8. General Attitude Toward Presence of Deer in Area by Hunting Status

		Enjoy Deer	Enjoy But	Deer Are	Sample
DMU	Hunt	Around	Problematic	Nuisance	Size
Not	Yes	38.5%	38.5%	23.1%	39
Specified	No	13.6%	51.9%	34.6%	81
1	Yes	23.8%	57.1%	19.0%	21
	No	16.7%	54.8%	28.6%	42
2	Yes	43.8%	43.8%	12.5%	16
	No	16.0%	52.0%	32.0%	25
3	Yes	47.6%	47.6%	4.8%	21
	No	22.6%	45.2%	32.3%	31
4	Yes	44.4%	33.3%	22.2%	18
	No	6.7%	53.3%	40.0%	15
5	Yes	42.3%	26.9%	30.8%	26
	No	36.7%	40.0%	23.3%	30
6	Yes	59.3%	33.3%	7.4%	27
	No	27.6%	50.0%	22.4%	58
7	Yes	44.1%	52.9%	2.9%	34
	No	29.4%	47.1%	23.5%	34
8	Yes	38.8%	51.0%	10.2%	49
	No	11.5%	40.4%	48.1%	52
9	Yes	42.9%	42.9%	14.3%	49
	No	22.8%	45.6%	31.6%	57
10	Yes	46.3%	41.5%	12.2%	41
	No	25.0%	47.1%	27.9%	68
11	Yes	45.1%	47.9%	6.9%	144
	No	29.9%	47.9%	22.2%	144
12	Yes	47.6%	40.5%	11.9%	42
	No	25.9%	40.7%	33.3%	27
13	Yes	37.5%	62.5%	0.0%	8
	No	8.3%	58.3%	33.3%	12
14	Yes	44.4%	41.3%	14.3%	63
	No	20.5%	52.1%	27.4%	73
15	Yes	40.5%	47.6%	11.9%	42
	No	25.6%	45.6%	28.9%	90
16	Yes	36.4%	54.5%	9.1%	33
	No	16.0%	36.0%	48.0%	25
17	Yes	57.7%	30.8%	11.5%	26
	No	26.0%	52.0%	22.0%	50
18	Yes	31.6%	68.4%	0.0%	19
	No	25.0%	58.3%	16.7%	12
19	Yes	33.3%	41.7%	25.0%	12
Q	No	27.8%	38.9%	33.3%	54
State	Yes	43.3%	44.9%	11.8%	730
	No	23.2%	47.4%	29.4%	980

Appendix 1

2004 Kansas Landowner Opinion Survey on Deer

We greatly appreciate your help in monitoring the deer population in Kansas. When the questions refer to your land, this means all the rural land you own or operate. Even if you have seen no or very few deer on your land, the information you can provide is still important. When finished, return the questionnaire to us in the postage paid envelope provided.

DEER ON THE LAND YOU OWN OR OPERATE

1.	During the past 3 years (2000-2003) has the deer population in your area:
	(Please circle the number that corresponds to your answer)

1	Increased in number from level three years ago	33.0%
2	Remained the same	31.8%
3	Decreased in number from level three years ago	25.3%
8	Don't know	8.4%

2. Compared to this time last year, is the deer herd: (Circle your answer)

1	Higher this year	21.5%
2	About the same	46.7%
3	Lower this year	19.4%
8	Don't know	11.1%

3. How many deer would you like to have on your farm or ranch: (Circle your answer)

1	More than I have now	16.2%
2	Same as I have now	33.5%
3	Fewer than I have now	30.9%
4	I want no deer on my land	12.3%
8	Don't know	5.0%

4. How do you feel about having deer on and around your property: (Circle your answer)

1	I enjoy having deer around	30.6%
2	I enjoy deer, but they cause problems at times	44.2%
3	I generally regard deer as a nuisance	20.9%
8	Don't know	2.4%

5. Please indicate your best estimate for the number of deer in each category below that occurred on your property last year (2003).

a. Average number of deer <i>generally</i> on your property.	Mean = 16.5	Median = 8.0
b. Maximum number of deer at one time last year.	Mean = 21.6	Median = 12.0
c. Number of antlered bucks killed by hunters.	Mean = 1.3	Median = 0.0
d. Number of antlerless deer hunters took last year.	Mean = 1.5	Median = 0.0

6. Regarding Kansas deer management, please tell us whether you think there should be more, the same, or fewer of each type of deer mentioned below. (Please circle only one answer in each row.)

				No
	More	<u>Same</u>	<u>Fewer</u>	<u>Opinion</u>
a. Mule Deer	21.3%	17.6%	23.1%	38.1%
b. White-Tailed Deer	13.8%	20.1%	37.5%	18.6%
c. Male Deer	18.9%	28.1%	29.9%	23.1%
d. Female Deer	9.5%	28.3%	38.7%	23.5%
e. Older Deer	15.4%	24.3%	30.8%	29.5%
f. Younger Deer	11.6%	28.5%	30.7%	29.2%

RECREATIONAL USES OF LAND AND DEER

7. Last year did you or your family participate in: (Circle your answer)

			No
	<u>Yes</u>	<u>No</u>	<u>Answer</u>
a. Hunting upland game	38.9%	52.6%	8.5%
b. Hunting deer / big game	39.2%	53.9%	6.9%
c. Hunting other	32.5%	55.8%	11.7%
d. Fishing	53.1%	38.7%	8.2%
e. Trapping	6.7%	79.9%	13.5%
f. Bicycling	20.0%	67.0%	13.0%
g. Wildlife photography	19.7%	66.5%	13.8%
h. Watching wildlife	59.4%	30.6%	10.0%
i. Camping / ATV	31.8%	56.1%	12.1%
j. Hiking / Backpacking	16.5%	69.9%	13.6%
k. Boating / Swimming	31.5%	56.6%	11.9%
I. Horse riding	27.9%	58.7%	13.4%
o. Other	4.7%	45.2%	50.1%
(If so, what other?)			

8. Which of the following activities do you or people using your property participate in? (Circle your answers)

			No
	Yes	<u>No</u>	<u>Answer</u>
a. Watch of photograph deer	41.7%	45.1%	13.2%
b. Plant food plots or leave crops to attract deer	21.8%	64.5%	13.7%
c. Improve habitat primarily for deer	16.5%	69.2%	14.3%
d. Hunt for shed antlers	30.4%	56.6%	12.9%
e. Use nonlethal means to reduce conflicts with deer	5.1%	74.4%	20.5%

9. Does anyone hunt deer on your property? (Circle your answer)

1	Yes	(If so, please skip to Question 10 now.)	75.4%
2	No		24.6%

9a. If you allow **no deer hunting**, what are the reason(s)? _____(Please skip to **Question 22** now.)

10. In the *last five years*, who have you allowed to hunt deer on your property? (Circle each that you have allowed in the last five years)

			No
	<u>Yes</u>	<u>No</u>	<u>Answer</u>
a. Immediate family members	72.3%	14.2%	13.5%
b. Other relatives	54.3%	26.8%	18.9%
c. Invited friends	66.3%	18.8%	14.9%
d. Other landowners	42.8%	36.5%	20.6%
e. Hunting lessees	10.0%	66.7%	23.3%
f. County residents	38.4%	40.0%	21.5%
g. City residents	34.7%	43.0%	22.3%
h. Out-of-state residents	19.3%	57.2%	23.4%
i. All who ask permission	21.4%	59.3%	19.2%
j. Most who ask permission	38.3%	39.9%	21.8%
k. Other	4.9%	34.2%	60.9%
(If so, what other?)			

11. Did you receive any of the following forms of compensation for allowing deer hunting on your property in 2003? (Please circle only one answer in each row.)

			No
	Yes	<u>No</u>	<u>Answer</u>
a. Money from leasing your property to hunters	5.0%	87.0%	8.1%
b. Money from daily access fees charged to hunters	0.6%	90.7%	8.8%
c. Payment for providing food or lodging to hunters	1.0%	89.9%	9.1%
d. Payment for other services (i.e., guides) to hunters	0.8%	90.1%	9.1%
e. Sale or transfer of hunting permits	4.7%	86.2%	9.1%
f. Non-monetary compensation or favors	6.9%	84.2%	8.9%
g. Any other form of compensation not listed	1.3%	87.7%	11.1%
k. Other	2.6%	62.3%	35.1%

12. Have you ever experienced damage to your property from hunters? (Circle your answer)

1	Yes	43.9%
2	No	44.6%
8	Don't know	11.5%

13. Have hunters created inconveniences for you or disrupted your operation in some way? (Circle your answer)

1	Yes	39.5%
2	No	52.3%
8	Don't know	8.2%

14. Do you restrict the activities of deer hunters? (Circle your answer)

	(If not, please skip to Question 16 now.)	
	No	39.0%
1	Yes	61.0%

15. Do you place any of the following restrictions on deer hunters using your property? (Circle answers)

			NO
	<u>Yes</u>	<u>No</u>	Answer
a. When they hunt	58.6%	30.5%	10.8%
b. Where they hunt	75.2%	15.1%	9.7%
c. How many hunters at a time	65.3%	21.9%	12.7%
d. Harvest bucks only	10.5%	73.0%	16.5%
e. Equipment they may use	24.5%	59.8%	15.7%
f. Species (whitetail or mule deer) they may take	11.8%	69.8%	18.4%
g. Use of vehicles	55.9%	31.2%	12.8%
h. Antlerless first or only	9.2%	71.9%	18.9%
i. Other	5.4%	42.6%	52.0%
(list)			

16. Do you or members of your family use the following deer hunting equipment? (Circle answers)

			No
	Yes	<u>No</u>	<u>Answer</u>
a. Shotgun	7.7%	76.1%	16.2%
b. Rifle	66.5%	23.9%	9.6%
c. Compound Bow	26.1%	59.2%	14.7%
d. Muzzleloader	15.1%	68.8%	16.0%
e. Pistol	5.8%	76.8%	17.4%
f. Long or Recurve Bow	5.0%	77.8%	17.2%

17. Is deer hunting a tradition in your family?

1	Yes	38.4%
2	No	52.7%
8	No Answer	8.9%

Since 1998 the Kansas Department of Wildlife and Parks has allowed a **second deer season** designed to slow the growth of deer herds. This second season allows hunters to take antlerless deer only.

18. Did anyone hunt deer on your land during this second deer season? (Circle your answer)

1	Yes	48.8%
2	No	51.2%
	(If not, please skip to Question 22 below.)	

19. Who has participated in this **second season** for deer hunting on your property? (Circle each that has hunted on your land during this second season since it was implemented in 1998)

			No
	<u>Yes</u>	<u>No</u>	<u>Answer</u>
a. Immediate family members	58.4%	27.0%	14.6%
b. Other relatives	43.1%	39.6%	17.3%
c. Invited friends	54.3%	31.4%	14.3%
d. Other landowners	33.9%	47.6%	18.6%
e. Hunting lessees	6.7%	72.6%	20.7%
f. County residents	32.6%	49.1%	18.3%
g. City residents	31.1%	50.9%	18.0%
h. Out-of-state residents	10.6%	69.4%	20.0%
i. All who ask permission	15.3%	66.7%	18.0%
j. Most who ask permission	33.0%	47.6%	19.4%
k. Other	3.6%	46.9%	49.4%
(What other?)			

20. How beneficial was the second deer season in controlling the deer herd on your land? (Circle your answer)

1	Very Beneficial	11.7%
2	Somewhat Beneficial	30.4%
3	Made No Difference	34.4%
8	Don't know	23.4%

21. Have hunters created inconveniences for you or disrupted your operation in some way during this second season? (Circle your answer)

1	Yes	18.0%
2	No	75.6%
9	No Answer	6.4%

PROBLEMS WITH DEER

22. Did deer cause damage to your land in 2003? (Circle your answer)

1	Yes	50.0%
	No	50.0%
	(If not, please skip to Question 30 now)	

23. How would you describe the level of the damage caused by deer to your crops or property within the past 12 months? (Circle only one answer)

Light damage	Moderate damage	Substantial damage	Severe damage	Don't know
36.3%	39.7%	14.8%	5.2%	4.0%

24. In relation to deer on your land, please indicate how much of a problem each of the following items are for you. (Please circle only one answer in each row.)

	Not a	Somewhat of	Great	No
	<u>Problem</u>	<u>a Problem</u>	Problem	Opinion
a. Crop / property damage	13.1%	59.6%	20.9%	6.3%
b. Competition with livestock for forage	43.8%	31.2%	8.4%	16.5%
c. Transmission of disease	45.3%	17.7%	6.3%	30.7%
d. Fence damage by deer	16.8%	45.3%	29.8%	8.1%
e. Deer / vehicle accidents	21.3%	33.8%	35.9%	9.0%
f. Deer attract hunters who trespass	28.9%	35.8%	22.8%	12.5%

25. Did you take any action to limit deer damage to your property in 2003? (Circle your answer)

1	Yes	21.2%
2	No	78.8%
	(If not, please skip to Question 30 now.)	

26. Which of the following means did you use on your property to limit deer damage? (Circle your answers)

			No
	Yes	<u>No</u>	<u>Answer</u>
a. Increased hunting pressure during regular seasons	57.4%	23.8%	18.8%
b. Used nonlethal means	27.7%	41.1%	31.2%
c. Used some other means	15.8%	39.6%	44.6%
(What other?			

27. How would you rate your overall effectiveness at limiting deer damage on your property in 2003? (Circle only one answer)

Highly effective	Moderately effective	Ineffective	No opinion
5.4%	33.7%	51.0%	9.9%

28. Did you contact Kansas Department of Wildlife and Parks concerning the damage? (Circle your answer)

1	Yes	12.4%
	No	87.6%
	(If not, please skip to Question 30 now.)	

29. After meeting with KDWP, which of the following activities do you use on your property? (Circle your answers)

			NO
	<u>Yes</u>	<u>No</u>	<u>Answer</u>
a. Damage Control Permit	40.0%	28.0%	32.0%
b. Hunter Referral Program	4.0%	40.0%	56.0%
c. Called 1-800 hot line	8.0%	40.0%	52.0%
d. Requested to be considered for WIHA lease	0.0%	40.0%	60.0%

30. Have you experienced damage from any of the listed species of wildlife? Circle either YES or NO for each species or group. Then RANK each group you checked with a YES. Start with the most destructive species and give it a value of 1. Select the next most important species causing you concern and give it a rank of 2. Continue that process for each species you circle with a YES.

	Yes	No	<u>Rank</u>	(Based on % "Yes")
Antelope	. 2.0%	98.0%	18	
Bats	. 0.5%	99.5%	20	
Beaver	. 22.6%	77.4%	7	
Blackbird	. 22.3%	77.7%	9	
Bobcat	. 12.6%	87.4%	13	
Coyote	. 32.4%	67.6%	4	
Deer	. 49.9%	50.1%	1	
Ducks / Geese	. 13.1%	86.9%	12	
Elk	. 0.6%	99.4%	19	
Fox	. 3.3%	96.7%	17	
Gophers / Moles	. 43.4%	56.6%	3	
Hawks / Owls	. 13.6%	86.4%	10	
Prairie Dogs	. 11.5%	88.5%	14	
Rabbits / Hares	. 13.4%	86.6%	11	
Raccoon	. 30.2%	69.8%	5	
Rats / Mice	. 44.2%	55.8%	2	
Skunk	. 23.8%	76.2%	6	
Squirrel	. 6.2%	93.8%	16	
Turkey	. 22.5%	77.5%	8	
Other Name of other species:		91.0%	15	

BACKGROUND INFORMATION

31. Approximately how many ACRES of your farm or ranch are in the following types of uses:

TYPE	ACRES		TYPE	ACRES	
	Mean	Median		Mean	Median
Corn	51.0	0.0	Soybeans	54.6	0.0
Milo	57.7	0.0	Wheat	167.6	8.5
Alfalfa	21.3	0.0	Orchard	0.4	0.0
Nursery	0.1	0.0	Woodlands	21.7	0.0
Garden Crop	0.4	0.0	Pasture / Hay .	301.4	75.0
Forage Sorgh	num . 9.8	0.0	Pond / Wetlands	s. 3.8	0.0
CRP / Idle .	44.1	0.0	Other	9.1	0.0

Total number of acres in farm / ranch Mean = 865.1 Median = 390.0

34.	Please use the	e Deer Managemen	t Unit map a	at the back	of the	questionnaire	to tell	us i	n which
	COUNTY and D	eer Management U	Init most of	your land	is locat	ted.			

Doci Wanagement on #	County	Deer Management Unit #
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33. Where do you live? (Circle only one answer)

2 3 4	On this farm or ranch	2000 people)	6.1% 11.1% 7.0%
34. How r	many years have you owned or operated this land?	Mean = 29.9 Years	Median = 26 Years

35. Approximately what percent of your household's net income in 2003 was derived from agricultural products from this land? Mean = 41.9% Median = 30.0%

36. Which of the following are reasons you decided to own or operate this property? (Circle your answer)

			No
	Yes	<u>No</u>	<u>Answer</u>
a. Economic return from crop production	12.5%	28.4%	29.0%
b. Economic return from livestock production 4	19.2%	24.4%	26.3%
c. To maintain family traditions or obligations 5	4.3%	21.0%	24.7%
d. Defray taxes or use as an investment or land value speculation 1	2.4%	53.0%	34.6%
e. Recreational uses or wildlife benefits	22.9%	44.3%	32.8%
f. Family security and lifestyle freedoms 6	9.4%	10.1%	20.5%

Please tell us the **single most** important reason in the question above (number 36) by writing its letter here _____.

FUTURE DIRECTIONS

37. Would the following factors improve *your* appreciation of the deer on *your property:* (Circle your answers)

			No
	Yes	<u>No</u>	Answer
a. Reduced damage	41.5%	27.3%	31.2%
b. Better behavior of hunters	37.6%	28.8%	33.6%
c. More hunter restrictions	14.3%	47.8%	37.9%
d. Direct monetary returns	24.1%	39.6%	36.2%
e. Deer damage insurance	14.3%	48.1%	37.6%
f. More opportunities to see deer	22.7%	42.6%	34.7%
g. Being appreciated by hunters	36.4%	28.2%	35.4%
h. Lower numbers of deer	32.5%	35.9%	31.7%
i. Longer seasons	28.7%	37.5%	33.9%
j. Better information about deer	15.8%	45.1%	39.1%
k. Easier access to permits	28.0%	36.2%	35.8%
I. Bigger / quality deer	26.8%	36.1%	37.2%
m. Some other factor(s)	5.2%	27.5%	67.3%
(What other?)			

Please tell us the **single most** important factor in the question above (number 37) by writing its letter here _____.

38. How important is it for the Kansas Department of Wildlife and Parks to take the following deer management actions? (Circle one answer per question)

	Extremely <u>Important</u>	Somewhat <u>Important</u>	<u>Neutral</u>	Somewhat <u>Unimportant</u>	Extremely <u>Unimportant</u>
 a. Provide simple 					
deer regulations	35.4%	26.4%	22.3%	1.6%	1.4%
b. Provide liberal					
hunting opportunities	21.7%	24.7%	30.0%	4.8%	5.8%
 c. Collect estimates on 					
deer populations	24.2%	28.4%	26.7%	4.3%	2.6%
d. Allowing more nonresident	ts				
to hunt	12.4%	14.4%	31.0%	9.7%	18.8%
e. Maintain accurate deer					
harvest data	18.1%	27.4%	30.2%	7.1%	3.4%
f. Provide more law enforcen	nent				
during seasons	22.7%	20.9%	32.2%	6.1%	5.4%

[NOTE: On each item in the above list, after summing the percent providing a rating and subtracting the total from 100%, the remainder is the percentage who provided no answer]

39. How do you feel about the way the Kansas Department of Wildlife and Parks manages deer populations? (Circle one answer)

1	I am extremely satisfied
2	I am satisfied
3	I feel neutral about their effort
4	I am dissatisfied
5	I am extremely dissatisfied 7.7%
8	Don't know

Appendix 2

Self-administered mail survey non-responder analysis.

During the week of June 7, 2004, KAS administered selected key survey items to a random sample of nonresponders to the self-administered mail survey. The total number of respondents on the telephone survey of mail survey non-responders is 67. The margin of error at a 95% confidence level for a sample of this size (67) is 12%. Considering that, the results on most items in the phone survey are remarkably similar to results of the self-administer mail survey. See the descriptive phone survey results on the questionnaire below. Most differences in response distribution between the two survey groups are within the survey margin of error. Estimates of mean numbers of deer are lower among non-responders to the mail survey.

About 60% of the phone survey respondents recalled seeing the self-administered questionnaire sent by mail. When respondents who recalled receiving the questionnaire were asked why they did not fill it out and return it, the majority (77%) indicate that they just did not have time to fill out the questionnaire, while another substantial percentage (20%) indicated that they misplaced the questionnaire.

Phone Survey - Kansas Landowner Opinion Survey on Deer Non-Responders

Hello, May I speak with _____ ____? I am calling on behalf of the Kansas Department of Wildlife and Parks regarding a survey of land owners previously mailed to you. Your opinions are very important to us and I would like to ask you a few questions now over the phone. This is very short version of survey that was mailed to you and will take about five minutes. May I ask you a few questions? 2 No 11.9% SURVEYOR [] Check here if refuses to complete phone survey, please write any remarks here: The first few questions I have deal with deer on your land. 1. During the past 3 years (2000 - 2003), would you say the deer population in your area has: 1 Increased in number from level three years ago 34.5% 3 Decreased in number from level three years ago ... 12.1% 8 Don't know 6.9% 2. Compared to this time last year, is the deer herd: 2 About the same 49.2% 3. How many deer would you like to have on your land? 1 More than you have now 10.2% 2 Same as you have now 22.0% 4 Do you want NO deer on your land 22.0% 4. Which statement best represents your opinion? 1 I enjoy having deer around 28.8% 2 I enjoy deer, but they cause problems at times 35.6% 3 I generally regard deer as a nuisance 32.2% 5. Please indicate your best estimate for the number of deer in each category that I will read that occurred on your property last year (2003). Median= 7.5 a. Average number of deer *generally* on your property. Mean= 9.7 b. Maximum number of deer at one time last year. Mean=14.7 Median=10.0 c. Number of antlered bucks killed by hunters. Mean= 0.9 Median= 0.0 d. Number of antlerless deer hunters took last year. Mean= 1.0 Median= 0.0

6. Regarding Kansas deer management, please tell us whether you think there should be more, the same, or fewer of each type of deer I will mention:

	<u>More</u>	<u>Sam e</u>	<u>Fewer</u>	No Opinion
a. Mule Deer	5.6%	20.4%	33.3%	40.7%
b. White-Tailed Deer	7.3%	18.2%	36.4%	38.2%
c. Male Deer	9.6%	15.4%	32.7%	42.3%
d. Female Deer	1.9%	15.4%	42.3%	40.4%
e. Older Deer	2.0%	15.7%	35.3%	47.1%
f. Younger Deer	7.8%	11.8%	35.3%	45.1%

7. Do you allow anyone (including yourself) to hunt on your property?

1	'es	74.1%
2	Jo	25.9%

We are almost finished. I have a few questions about deer and damage to your land.

8. Did deer cause damage to your land in 2003?

1	Yes	
2	No [If no, p	please SKIP to Question 9]
3	Don't Know	[If Don't Know, please SKIP to Question 9] 5.1%

8a. Using the scale I will read, how would you describe the level of the damage caused by deer to your crops or property within the past 12 months?

Light Damage	Moderate Damage	Substantial Damage	Severe Damage	Don't know
33.3%	44.4%	14.8%	3.7%	3.7%

8b. Did you take any action to limit deer damage to your property in 2003?

1	Yes	. 11.5%
2	No	. 84.6%
8	Don't Know / No Answer	. 3.8%

9. Using a scale that ranges from Extremely Satisfied to Extremely Dissatisfied, how do you feel about the way the Kansas Department of Wildlife and Parks manages deer populations?

Extremely				Extremely	Don't
Satisfied	Satisfied	Neutral	Dissatisfied	Dissatisfied	Know
0.0%	47.5%	18.6%	22.0%	6.8%	5.1%

Finally, do you recall receiving the paper questionnaire in the	mail?
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1	Yes	. 58.9%
2	No [If No, please SKIP to Question 12]	. 37.5%
R	Don't Know IIf Don't Know please SKIP to Question 121	3.6%

11. Among the following options, which best describes why you were unable to complete the questionnaire?

1	I did not have enough time to fill it out	77.1%
2	I do not have deer on my land	0.0%
3	I misplaced the questionnaire	20.0%
4	I do not complete surveys I receive in the mail	2.9%

Is there anything that yo	u would like to add?
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Thank you for your time.

The results of the open-ended questions (why the respondent did not complete the phone survey and question 12) were put into themes. The results of these themes are listed below:

Why the respondent did not complete the phone survey:

	<u>Percent</u>	Frequency
1 Already completed the survey	14.3%	1
2 Does not believe in hunting	14.3%	1
3 Does not do surveys	28.6%	2
4 Does not have time	28.6%	2
5 Ineligible	14.3%	1

Question 12 (Is there anything you would like to add?

		Percent	Frequency
1	Deer have damaged property	22.2%	6
2	Harvest more deer	14.8%	4
3	Need more game wardens	7.4%	2
4	KDWP pay for damage to property or auto caused by deer	7.4%	2
5	Reduce the number of auto accidents caused by deer	7.4%	2
6	Dislikes the KDWP	3.7%	1
7	Does not like deer	3.7%	1
8	Enjoy deer	3.7%	1
9	Increase enforcement of poaching laws	7.4%	2
10	Landowners should get free license to hunt deer	3.7%	1
11	Limit out-of-state hunters	3.7%	1
12	Lower the speed limit at deer crossings	3.7%	1
13	Need a check station to be sure deer taken on the right tag	3.7%	1
14	Turkeys are over populated	3.7%	1
15	Allow bow hunting in city limits	3.7%	1