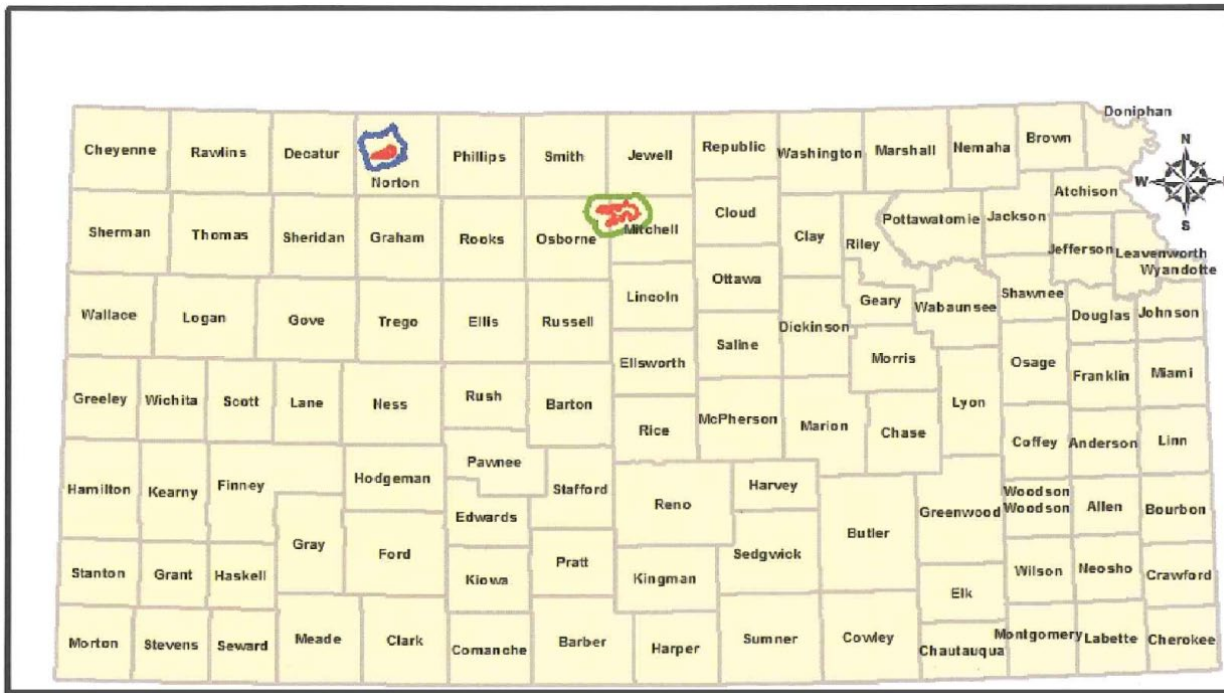


Pheasant Habitat Survey of Residents in the Glen Elder and Norton Areas of Kansas



Prepared For

**Kansas Department of Wildlife,
Parks and Tourism**

By

**The Docking Institute of Public
Affairs**

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The staff of the Docking Institute of Public Affairs and its
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Please do not hesitate to contact our staff with questions, comments or for assistance.

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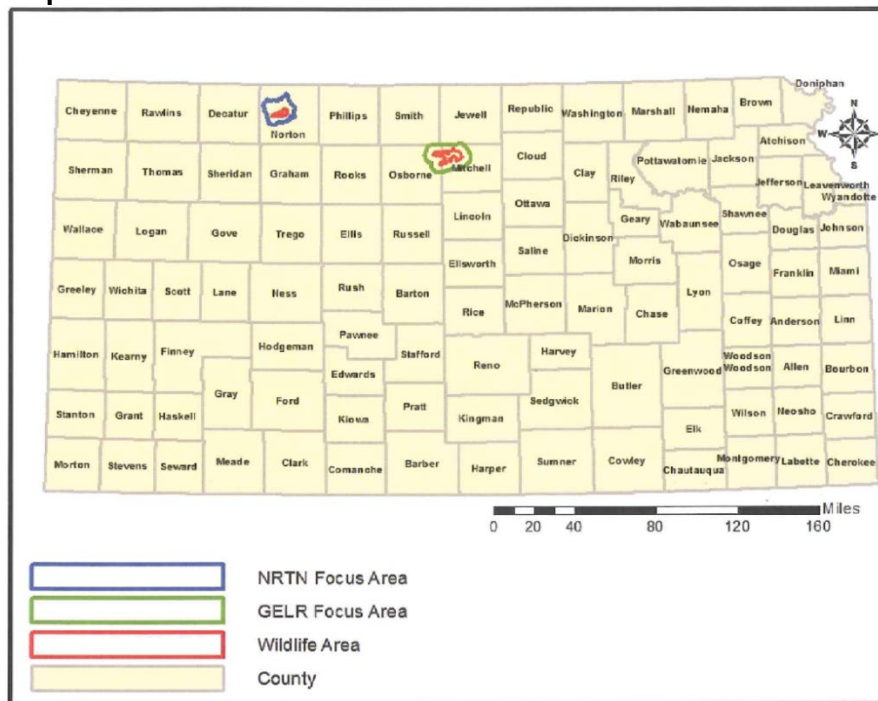
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Description of Study

The purpose of this study is to gather opinions of land owners/operators in two areas of Kansas regarding pheasant hunting and pheasant habitat. Owners with land located around the Glen Elder (Waconda Lake) Wildlife Area and the Norton Wildlife Area (see maps below) were included in this study.

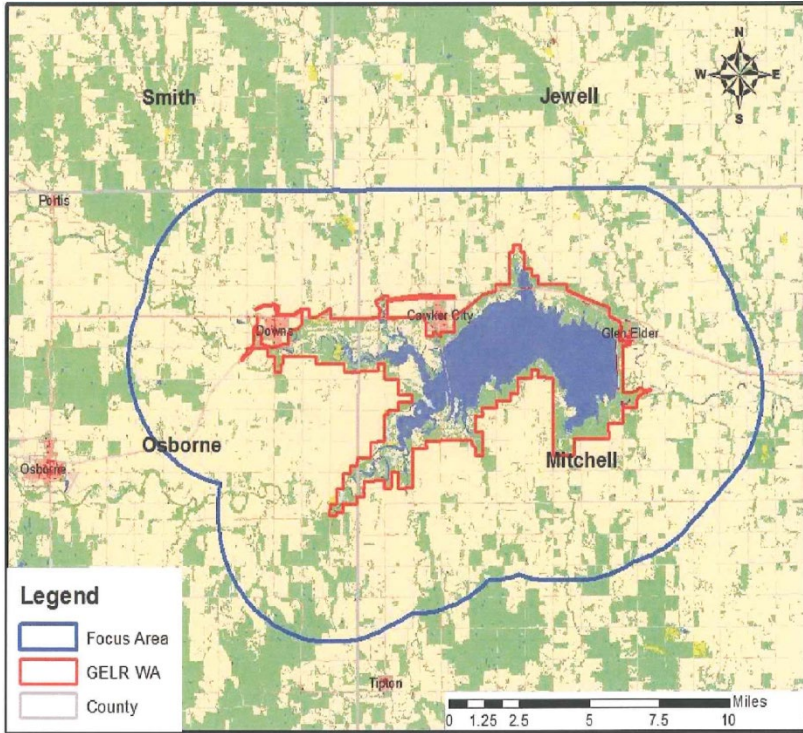
Attempts were made to contact all land owners in the two study areas. The Docking Institute mailed 706¹ survey booklets to known addresses in the area. Telephone interviews were attempted of non-responders to the paper questionnaire. The response rate for this research effort was 30%, providing 214 completed interviews.

Map 1: Two Focus Areas

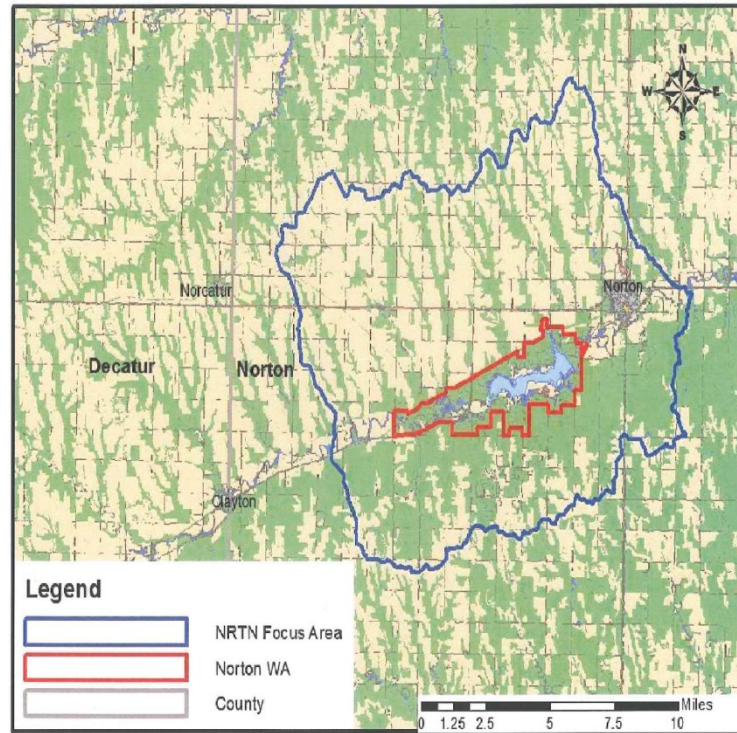


¹ The original list from KDWPT included 781 addresses, 506 in the Glen Elder area and 275 in the Norton area. After duplicates were removed, 706 remained with 452 in the Glen Elder area and 254 in the Norton area (or 64% and 36% of the sample, respectively). Of the 214 completed questionnaires, 130 came from the Glen Elder area and 84 came the Norton area (or 61% and 39%, respectively.)

Map 2: Glen Elder (Waconda Lake) Wildlife Area



Map 3: Norton Wildlife Area



Introduction to Findings

A modified version of the survey instrument given to respondents is shown below, with frequencies and percentages included. Following univariate analysis, bivariate analysis is shown (with comments), comparing responses from Glen Elder and Norton on key variables. After which, a map is provided showing responses to incentive questions by Census Block Groups.

Survey Instrument and Univariate Analysis

Survey Introduction

The Kansas Department of Wildlife, Parks and Tourism (KDWPT) is interested in your opinions about encouraging land owners to improve pheasant habitat in your area by increasing CRP and/or provide buffers or brood strips for pheasant habitat. Pheasant populations are dependent on nesting and brooding cover for their persistence and growth. Providing pheasant nesting areas and brooding cover will support hunting opportunities and improve the local economy.

IMPORTANT: Your opinions are very important to us. Even if you are not interested in wildlife habitat or participation with KDWPT, your opinions are vital to ensure that the opinions of all land owners are part of the decision-making process.

Current Land Use Practices

To begin, we would like to know about your current land and land use practices. KDWPT is interested in the possibility of increasing the pheasant population in your area and your answers will help us with this determination.

Q1. Which of the following best describes your situation. Please select ONE answer:

Answer	Frequency	Percent
<input type="radio"/> I am an owner of land and reside on the same land	52	24.3%
<input type="radio"/> I am an owner of land but someone else is the tenant on the land	108	50.5%
<input type="radio"/> Both - I am an owner of land and resident on it and I also own land for which someone else is a tenant	54	25.2%
Total	214	100

Q2. Which of the following best describes the use of your land? **Please select ALL that apply:**

Item	Frequency	Percent
<input type="checkbox"/> No Till Production	135	63.1%
<input type="checkbox"/> Conventional Till Production	78	36.4%
<input type="checkbox"/> Precision Farming operation	40	18.7%
<input type="checkbox"/> Reduced or Minimal Till	76	35.5%
<input type="checkbox"/> A ranch consisting mostly of rangeland	43	20.1%
<input type="checkbox"/> Other	17	7.9

Answer to Q2 Other:

“Other” Answer Provided	Frequency	Percent
Some CRP Land 3	3	17.6%
Some Cultivated Land 3	2	11.8%
Some Crop/Pasture 1	1	5.9%
Some Grassland 2	2	11.8%
Some Irrigated Land 2	2	11.8%
Some Pasture 3	3	17.6%
Some Rangeland 1	1	5.9%
Unsure 3	3	17.6%
Total	17	100

Q3. Do you have land currently enrolled in the Conservation Reserve Program (CRP) or the Continuous Signup Conservation Reserve Program (CCRP or buffers)?

Answer	Frequency	Percent
<input type="radio"/> Yes	47	22%
<input type="radio"/> No (Skip to Q3d)	167	78%
Total	214	100

Q3a. If YES, about how many acres would you estimate that you have currently enrolled in CRP or CCRP?

Please estimate the number of acres here: _____

	Acres
Mean	98.91
Median	40
Range	2 to 749

Q3b. Thinking about the next year or so, do you plan to continue with this same level of participation in CRP or CCRP?

Answer "Yes" from Q3a above	Frequency	Percent
<input type="radio"/> I will most likely continue with the SAME level of participation (<i>Skip to Q3d</i>)	40	85.1%
<input type="radio"/> I will most likely INCREASE the number of acres enrolled in CRP/CCRP	2	4.3%
<input type="radio"/> I will most likely REDUCE the number of acres enrolled in CRP/CCRP	3	6.3%
Don't Know	2	4.3%
Total	47	100

Q3e. If you plan to INCREASE or REDUCE the number of acres in CRP/CCRP, how many acres do you plan to increase or decrease.... (If you do not participate or do not plan to participate in the CRP/CCRP program, please skip to Q3d.)

Estimate the number of ADDITIONAL acres here: _____

Estimate the number of acres you plan to TAKE OUT of CRP/CCRP here: _____

	Acres Planning to Add to CRP/CCRP	Acres Planning to Remove from CRP/CCRP
Mean	155	92.67
Median	155	35
Range	150-160	10-233

Q3d. What do you consider to be a reasonable rate per acre/per year for CRP/CCRP participation (please enter a dollar value below)?

Please enter per acre per year amount here: \$ _____ (per acre/per year)

	\$ per Acre per Year
Mean	\$77.79
Median	\$60
Range	\$5 - \$1,000

Walk-In Hunting

Now we have a few questions about KDWPT’s Walk In Hunting Area (WIHA) Program. Some land owners/tenants participate in the WIHA Program and other do not.

Q4. Do you participate in the Walk In Hunting Area Program?

Answer	Frequency	Percent
<input type="radio"/> Yes (<i>skip to Q5</i>)	23	10.7%
<input type="radio"/> No	191	89.3%
Total	214	100

Q4a. What are some of the reasons that you do NOT participate in the Walk In Hunting Program?

Please select the appropriate answers below. If you have more than one reason, please rank the reasons, with 1 being MOST IMPORTANT, 2 being SECOND MOST IMPORTANT, etc...

Do you not participate because...

Reason “No” from Q4 above	Ranking (Most 1s)	Frequency	Percent
<input type="checkbox"/> I am uncomfortable allowing hunters walk in access to my property	2	111	51.8%
<input type="checkbox"/> I save the hunting for myself, family, or those who ask	1	154	71.9%
<input type="checkbox"/> I already lease hunting rights to other private entities	3	14	6.5%
<input type="checkbox"/> KDWPT does not offer enough money for WIHA (<i>Answer Q4c</i>)	4	22	10.2%
<input type="checkbox"/> Other Reason	5	43	20%

Answer to Q4b Other:

“Other Reason” Answer Provided	Frequency	Percent
Leave Issue to Tenant / Renter	5	10.9%
Unaware of Program <ul style="list-style-type: none"> • Don’t know if land is suitable • Unsure about Liability 	9	19.6%
Previous Negative Experiences: <ul style="list-style-type: none"> • Hunters hunting without permission • Hunters leave gates open • Hunters leave trash on property • Hunters hunt on un-harvested land • Hunters do not respect property – taking batteries from tractors 	10	21.7%
Unsuitable Land: <ul style="list-style-type: none"> • Crops have limited Pheasant cover • Have cattle on property • Land is used for pasture / grazing • Land is next to golf course / residential area 	10	21.7%
Miscellaneous: <ul style="list-style-type: none"> • Safety of others • Control: <ul style="list-style-type: none"> ○ “Hunting should be private not government controlled” ○ “I want to be in charge!” • KDWPT did not want to work with me • Don’t allow hunting • “Was going to sign up but state guy drove on my land” • “Walk-in hunting does not allow for the pickup of deer with a vehicle. This makes it impossible for most people to hunt. Until this rule is changed, I will not participate.” 	12	26%
Total	46	100

Q4c. What do you think is a reasonable amount per acre for participate in WIHA? _____ (per acre/per season)

	\$ per Acre per Season
Mean	\$19.1
Median	\$10
Range	\$3 - \$75

Q4d. Would you consider participating in a WIHA contract if walk-in hunting was delayed to the Saturday after the opening of pheasant season?

Answer "No" from Q4 above	Frequency	Percent
<input type="radio"/> Yes	21	10.9%
<input type="radio"/> Maybe	64	33.3%
<input type="radio"/> No	107	55.7%
Total	192	100

KDWPT is considering a program to offer competitive incentives for implementing conservation practices that will help the pheasant population and other wildlife in your area. These practices include, but are not limited to, both new enrollment, reenrollment, and mid-contract management practices (e.g., disking/inter-seeding) of CRP whole field, establishing grass borders, brood strips, and delayed spraying (please see attached cover letter for a description of practices).

Cover Crops

Q5. Cover crops are a relatively new practice. Cover crops are grown on cropland and may have potential to improve pheasant habitat. Timing of seeding and plant development will be critical in order to provide necessary brood rearing benefits. Are you interested in providing cover crops to provide pheasant habitat?

Answer	Frequency	Percent
<input type="radio"/> Yes	29	14.6%
<input type="radio"/> Maybe	60	30.2%
<input type="radio"/> No (<i>Skip to 5a</i>)	110	55.2%
Total	199	100

Thinking of the practice outlined above, what do you consider to be a reasonable rate per acre/per year to receive to work with KDWPT personnel to implement **Cover Crops**?

\$ _____ (per acre/per year)

	\$ per Acre per Year
Mean	\$83.62
Median	\$50
Range	\$2 - \$700

Grass Buffers

Q5a. Grass Buffers are small areas of CRP within crops that are odd areas or less productive. Buffers are typically seeded with grass and forbs – providing pheasant nesting areas and brooding cover. Are you interested in providing grass buffers to provide pheasant habitat?

Answer	Frequency	Percent
<input type="radio"/> Yes	33	17%
<input type="radio"/> Maybe	68	35.1%
<input type="radio"/> No (<i>Skip to 5b</i>)	93	47.9%
Total	194	100

Thinking of the practice outlined above, what do you consider to be a reasonable rate per acre/per year to receive to work with KDWPT personnel to implement **Grass Buffers**?

\$ _____ (per acre/per year)

	\$ per Acre per Year
Mean	\$85
Median	\$65
Range	\$2 - \$1,000

Stubble Height Management

Q5b. Wheat stubble fields provide pheasant nesting areas and brooding cover. Are you interested in managing stubble to provide pheasant habitat?

Answer	Frequency	Percent
<input type="radio"/> Yes	48	24.2%
<input type="radio"/> Maybe	59	29.8%
<input type="radio"/> No (<i>Skip to 5c</i>)	91	46%
Total	198	100

Thinking of the practice outlined above, what do you consider to be a reasonable rate per acre/per year to receive to work with KDWPT personnel to implement **Stubble Height Management**?

\$ _____ (per acre/per year)

	\$ per Acre per Year
Mean	\$59.87
Median	\$22.5
Range	\$5 - \$1,200

Brood Strips

Q5c. Brood strips provide pheasant nesting areas and brooding cover. No residual herbicide is applied to the growing wheat in the designated brood strips (although the remaining field can be treated as desired). Are you interested in managing brood strips to provide pheasant habitat?

Answer	Frequency	Percent
<input type="radio"/> Yes	16	8.1%
<input type="radio"/> Maybe	49	24.9%
<input type="radio"/> No (<i>Skip to 5d</i>)	132	67%
Total	197	100

Thinking of the practice outlined above, what do you consider to be a reasonable rate per acre/per year to receive to work with KDWPT personnel to implement **Brood Strips**?

\$ _____ (per acre/per year)

	\$ per Acre per Year
Mean	\$123.2
Median	\$50
Range	\$6 - \$1,500

Delayed Spraying

Q5d. Most herbicides kill forbs/weeds that are beneficial to pheasant chicks. Wheat stubble is typically sprayed shortly after harvest, not allowing these broadleaf plants to grow. Delayed spraying until mid-August, or so, will provide the necessary requirements for pheasant brood habitat. Are you interested in delayed spraying to provide pheasant habitat?

Answer	Frequency	Percent
<input type="radio"/> Yes	21	10.6%
<input type="radio"/> Maybe	52	26.1%
<input type="radio"/> No (<i>Skip to 5e</i>)	126	63.3%
Total	173	100

Thinking of the practice outlined above, what do you consider to be a reasonable rate per acre/per year to receive to work with KDWPT personnel to implement **Delayed Spraying**?

\$ _____ (per acre/per year)

	\$ per Acre per Year
Mean	\$131.62
Median	\$45
Range	\$5 - \$2,500

Grass-Only Herbicides

Q5e. Volunteer wheat is often the target of herbicide applications within wheat stubble fields. Most herbicides also kill broadleaf weeds that are beneficial to pheasant chicks. Would you be willing to use a grass selective herbicides in your wheat stubble and allow some forbs to persist for pheasant habitat?

Answer	Frequency	Percent
<input type="radio"/> Yes	21	10.7%
<input type="radio"/> Maybe	52	26.4%
<input type="radio"/> No (Skip to 6)	124	62.9%
Total	197	100

Thinking of the practice outlined above, what do you consider to be a reasonable rate per acre/per year to receive to work with KDWPT personnel to implement **Grass-Only Herbicides**?

\$ _____ (per acre/per year)

	\$ per Acre per Year
Mean	\$104.74
Median	\$50
Range	\$5 - \$600

Finally, we have a few questions about pheasant hunting.

Q6. How beneficial do you feel pheasant hunting is to the LOCAL ECONOMY.

Answer	Frequency	Percent
<input type="radio"/> Very Beneficial	100	46.7%
<input type="radio"/> Somewhat Beneficial	102	47.7%
<input type="radio"/> Not at All Beneficial	9	4.2%
<input type="radio"/> I Don't Know	3	1.4%
Total	214	100

Q7. How important do you feel it is for local land owners to encourage pheasant habitat protection?

Answer	Frequency	Percent
<input type="radio"/> Very Important	86	40.2%
<input type="radio"/> Somewhat Important	108	50.5%
<input type="radio"/> Not at All Important	15	7.5%
<input type="radio"/> I Don't Know	4	1.9%
Total	214	100

Q8. Do you or members of your family regularly hunt pheasants?

Answer	Frequency	Percent
<input type="radio"/> Yes	135	63.1%
<input type="radio"/> No	75	35%
<input type="radio"/> Refused to Answer	4	1.9%
Total	214	100

Bivariate (cross-tabulation data) Analysis

The previous tables provided univariate analysis of each question. The following tables will provide cross-tabulation data comparing the responses for each question by study area. For example, the table below shows responses to the question asking whether hunting is beneficial to the local economy, with percentages shown for Glen Elder and Norton respondents, respectively. Because the sample sizes for each study area were relatively small, the total number of responses to each question is shown. For example, 51.2% of the 84 respondents in Norton indicated that they thought hunting was very beneficial to the local economy.

Hunting Beneficial to Local Economy	Glen Elder (Percent of 130)	Norton (Percent of 84)
Very Beneficial	43.8%	51.2%
Somewhat Beneficial	50.1%	44%
Not at All Beneficial	4.6%	3.6%
Don't Know	1.5%	1.2%
Total	100	100

Important for Local Landowners to encourage Pheasant Hunting	Glen Elder (Percent of 130)	Norton (Percent of 84)
Very Important	33.1%	51.2%
Somewhat Important	55.4%	42.9%
Not at All Important	9.2%	4.8%
Don't Know	2.3%	1.2%
Total	100	100

Comments: Of the 130 respondents in Glen Elder and 84 of the respondent in Norton, at least 90% (each) indicated that they thought hunting was **at least** “somewhat beneficial” to the local economy.

About 88% of the 130 Glen Elder respondents indicated that they thought it was **at least** “somewhat important” for local landowners to encourage pheasant hunting, while about 94% of Norton respondents indicated that encouraging hunting was **at least** “somewhat important.”

The following questions assess the percent of the population who have an interest in cover crops, grass buffers, stubble high management, brood strips, delayed spraying, and grass-only herbicides.

Interest in Cover Crops	Glen Elder (Percent of 121)	Norton (Percent of 78)
Yes	11.6%	19.2%
Maybe	30.6%	29.5%
No	57.8%	51.3%
Total	100	100

Interest in Grass Buffers	Glen Elder (Percent of 120)	Norton (Percent of 74)
Yes	15.8%	18.9%
Maybe	37.5%	31.1%
No	46.7%	50%
Total	100	100

Interest in Stubble Height Management	Glen Elder (Percent of 120)	Norton (Percent of 78)
Yes	20%	30.8%
Maybe	30.8%	28.2%
No	49.2%	41%
Total	100	100

Interest in Brood Strips	Glen Elder (Percent of 120)	Norton (Percent of 77)
Yes	7.5%	9.1%
Maybe	22.5%	28.6%
No	70%	62.3%
Total	100	100

Interest in Delayed Spraying	Glen Elder (Percent of 120)	Norton (Percent of 79)
Yes	8.3%	13.9%
Maybe	24.2%	29.1%
No	67.5%	57%
Total	100	100

Interest in Grass-Only Herbicides	Glen Elder (Percent of 119)	Norton (Percent of 78)
Yes	8.4%	14.1%
Maybe	24.4%	29.5%
No	67.2%	56.4%
Total	100	100

Comments: Over 50% of respondents in both study areas indicated that they were not interested in participating in cover crops, brood strips, delayed spraying, or grass-only herbicides. Half or more of respondents in both study areas indicated that they might be or are interested in grass buffers and stubble height management. This table shows the “yes” and “maybe” responses only:

Yes or Maybe Interest in Incentives by Study Area

	Yes		Maybe		Yes+Maybe	Yes+Maybe	Difference (GL-N)
	Glen Elder	Norton	Glen Elder	Norton	Glen Elder	Norton	
Cover Crops	11.6%	19.2%	30.6%	29.5%	42.2%	48.7%	-6.5%
Grass Buffers	15.8%	18.9%	37.5%	31.1%	53.3%	50.0%	3.3%
Stubble Height Man.	20.0%	30.8%	30.8%	28.2%	50.8%	59.0%	-8.2%
Brood Strips	7.5%	9.1%	22.5%	28.6%	30.0%	37.7%	-7.7%
Delayed Spraying	8.3%	13.9%	24.2%	29.1%	32.5%	43.0%	-10.5%
Grass-Only Herbicides	8.4%	14.1%	24.4%	29.5%	32.8%	43.6%	-10.8%

Again, most respondents were not interested in participating in most of the items listed. But of those indicating “yes” or “maybe,” Norton respondents were more open to the various options than were Glen Elder respondents. The column on the right shows that only about 32% of Glen Elder respondents were open to possible participating in Delayed Spraying and Grass-Only Herbicides, each, but about 43% of the Norton respondents felt the same way.

The questions below ask about respondent's participation in CRP/CCRP.

Participation CRP / CCRP	Glen Elder (Percent of 130)	Norton (Percent of 84)
Yes	13.1%	35.7%
No	86.9%	64.3%
Total	100	100

Increase or Reduce CRP / CCRP Participation (of Participants)	Glen Elder (Percent of 17)	Norton (Percent of 28)
Keep Same Level	88.2%	89.3%
Increase Acreage	5.9%	3.6%
Reduce Acreage	5.9%	7.1%
Total	100	100

Comments: Norton respondents show a significantly higher participation rate (35.7%) than Glen Elder respondents (13.1%) in CRP/CCRP. The desire to increase or reduce participation in the CRP/CCRP was similar among the two groups.

The following questions ask about participation in walk-in hunting.

Participation in Walk-In Hunting	Glen Elder (Percent of 130)	Norton (Percent of 84)
Yes	10%	11.9%
No	90%	88.1%
Total	100	100

Reasons for Non-Participation in Walk-In Hunting (of Non-Participants)	Glen Elder (Percent of Total)	Norton (Percent of Total)	Total
I am uncomfortable allowing hunters walk in access to my property	64%	36%	100
I save the hunting for myself, family, or those who ask	59.7%	40.3%	100
I already lease hunting rights to other private entities	71.4%	28.6%	100
KDWPT does not offer enough money for WIHA (Answer Q4c)	59.1%	40.9%	100

Participation in Walk-In Hunting if Delayed to Saturday before Season	Glen Elder (Percent of 118)	Norton (Percent of 74)
Yes	9.3%	13.5%
Maybe	32.2%	35.1%
No	58.5%	51.4%
Total	100	100

Comments: Overall, at least about 60% of Glen Elder respondents who did not participate in hunting were more likely to site all the reasons provided for not participating. Only 40% and fewer Norton respondents were likely to site the reasons provided for not participating.

A higher percentage of Norton respondents (48.5%) than Glen Elder respondents (41.5%) indicated that they would or might be interested in participating in walk in hunting if scheduled on the Saturday before the season began.

The following questions ask if families regularly hunt pheasants and how they use the land.

Family Regularly Hunt Pheasants	Glen Elder (Percent of 130)	Norton (Percent of 84)
Yes	62.3%	64.3%
No	36.2%	33.3%
Refused to Answer	1.5%	2.4%
Total	100	100

Land Situation	Glen Elder (Percent of 130)	Norton (Percent of 84)
Own and Operate	20%	31%
Own but Rent to Tenant	51.5%	48.8%
Own and Rent other land as Tenant	28.5%	20.2%
Total	100	100

Land Usage	Glen Elder (Percent of Total)	Norton (Percent of Total)	Total
No Till Production	60%	40%	100
Conventional Till Production	64.1%	35.9%	100
Precision Farming operation	60%	40%	100
Reduced or Minimal Till	71.1%	28.9%	100
A ranch consisting mostly of rangeland	39.5%	60.5%	100

Comments: Most respondents in both areas own land but rent it out. However, most respondents in Glen Elder are more likely to own and rent other land as tenant (28.5%) than own and operate their land (20%) and, conversely, respondents in Norton are more likely to own and operate their own land (31%), than to own and rent other land as a tenant (20.2%).

Comparing land usage in the Glen Elder and Norton areas, the bottom table shows that higher percentages of Glen Elder respondents report practicing no till production, conventional till production, precision farming, and reduced/minimal till production than do Norton respondents. However, 60.5% of the Norton respondents report operating rangeland, compared to 39.5% in Glen Elder.

Census Block Groups Map

To provide a better picture of interest in the six incentives that might be offered to land owners to encourage pheasant habitat, “yes” and “maybe” responses from respondents with addresses in Norton, Osborn and Mitchell Counties were mapped by Census Block Groups. Block Groups are statistical subdivisions of census tracts, and are generally defined to contain between 600 and 3,000 people. As such, the maps presented here show the number of respondents that are (“yes”) or might be (“maybe”) interested in each incentive.

Many of the land owners interviewed reside in cities or other areas away from the land they own. Since the map shows residential location of the land owners, they are meant to provide a rough pattern of interest by location. The map is based off of 247 responses from 88 respondents, at most. That is, each dot represent a “yes/maybe” response with regard to one of the incentives listed. Many respondents did not provide “yes” or “maybe” responses to any of the items listed. These respondents are not shown in the map. Other respondents provided "yes/maybe" to only one item, while others provided positive responses to many items. As such, the dots represent “yes/maybe” responses, not individual survey respondents.

The map on the next page shows seven counties in north Kansas, including the three of interest: Norton, Osborne and Mitchell.

NOTE: The map distributes responses throughout each of the Census Block Groups (outlined by thin red lines). In rural areas, Census Block Groups can be rather large geographically. This compares to urban block groups, which are easier to conceptualize as grouped Census Blocks (basically a city block surrounded on each side by a street). As such, the locations of dots on the map do not represent addresses. The dots are distributed within each Census Block Group randomly each time a map is created.

Map 4: Yes/Maybe Responses to Incentives within Census Block Groups

