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A Research Report

Animal Welfare: Perceptions of Nonmetropolitan Nebraskans

2011 Nebraska Rural Poll Results

Rebecca J. Vogt
Randolph L. Cantrell
Bradley D. Lubben
Connie Reimers-Hild

University of Nebraska Lincoln

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Table of Contents

List of Appendix Tables and Figures

Executive Summary

The manner in which food animals are produced, shipped and processed has been in the news lately. Specifically at question is whether or not current livestock practices adequately ensure the welfare of food animals. With a sizable animal agriculture production sector in the state of Nebraska, this is an important issue. How do rural Nebraskans feel about animal welfare issues? Do their opinions differ by age, education or their experience with livestock production? This paper provides a detailed analysis of these questions.

This report details 2,490 responses to the 2011 Nebraska Rural Poll, the sixteenth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about animal welfare. For all questions, comparisons are made among different respondent subgroups, that is, comparisons by age, occupation, region, etc. Based on these analyses, some key findings emerged:

- ***Almost all rural Nebraskans recognize the importance of livestock and poultry production to the state's economy***. Ninety-seven percent agree or strongly agree with the statement that livestock and poultry production are important to Nebraska's economy.

- ***Most rural Nebraskans are familiar with livestock care practices.*** Over one-half (62%) of rural Nebraskans agree or strongly agree with the statement, "I am familiar with current animal care practices used to raise livestock and poultry."
    - ✓ *Many rural Nebraskans have experience raising beef cattle, poultry and swine. They have less experience with dairy production.* Four in ten rural Nebraskans are currently raising beef cattle or have in the past. One-third (33%) are currently raising poultry or have in the past and one in three have experience raising swine. Sixteen percent of rural Nebraskans have experience with dairy production.

- ***Most rural Nebraskans believe animal welfare means providing adequate exercise, space and social activities for the animals in addition to food, water and shelter.*** The vast majority of rural Nebraskans (95%) agree that animal welfare means providing adequate food, water and shelter to livestock animals. Most rural Nebraskans (69%) agree, though, that animal welfare means more than providing adequate food, water and shelter; that it also includes adequate exercise, space and social activities for the animals***.***

- ***Most rural Nebraskans trust livestock farmers, especially on family farms, and their veterinarians to care for their animals.*** Most rural Nebraskans (84%) believe livestock farmers and their veterinarians know how best to care for their animals. And, almost three-quarters (74%) believe the welfare of animals is better protected on family farms than on large, corporate farms.

- ***Most rural Nebraskans believe that current regulation of the state's livestock practices is adequate to ensure animal welfare.*** Just over one-half (56%) of rural Nebraskans agree that

current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals. And, over one-third (36%) *disagree* that more regulation is needed to ensure the welfare of food animals. One in three (30%) of rural Nebraskans agree with that statement. A sizeable proportion of rural Nebraskans (approximately one-third), though, have no opinion about the adequacy of current regulation or the need for additional regulation.

- ✓ *Persons with agriculture occupations are more likely than persons with different occupations to agree that current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals.* Just over three-quarters (77%) of persons with agriculture occupations agree with this statement, compared to 44 percent of persons with sales or office support occupations.
- ✓ *Persons with agriculture occupations are more likely than persons with different occupations to disagree with the statement that more regulation of livestock practices is needed to ensure the welfare of food animals.* Almost seven in ten (69%) persons with agriculture occupation disagree with this statement, compared to 20 percent of persons with food service or personal care occupations.

- ***Most rural Nebraskans believe regulation will impact the cost of food.*** Over one-half (57%) agree that regulation of Nebraska livestock practices will raise the cost of livestock production and the cost of food.
  - ✓ *Persons working in agriculture are more likely than persons with different occupations to believe regulation will impact food prices.* Three-quarters (75%) of persons with agriculture occupations agree that regulation of Nebraska livestock practices will raise the cost of livestock production and the cost of food. In comparison, only 41 percent of persons with food service or personal care occupations agree with this statement.

Introduction

The manner in which food animals are produced, shipped and processed has been in the news lately. Specifically at question is whether or not current livestock practices adequately ensure the welfare of food animals. With a sizable animal agriculture production sector in the state of Nebraska, this is an important issue. How do rural Nebraskans feel about animal welfare issues? Do their opinions differ by age, education or their experience with livestock production? This paper provides a detailed analysis of these questions.

The 2011 Nebraska Rural Poll is the sixteenth annual effort to understand rural Nebraskans' perceptions. Respondents were asked a series of questions about animal welfare.

Methodology and Respondent Profile

This study is based on 2,490 responses from Nebraskans living in the 84 non-metropolitan counties in the state. A self-administered questionnaire was mailed in March and April to approximately 6,400 randomly selected households. Metropolitan counties not included in the sample were Cass, Dakota, Dixon, Douglas, Lancaster, Sarpy, Saunders, Seward and Washington. The 14-page questionnaire included questions pertaining to well-being, community, animal welfare, technology and work. This paper reports only results from the animal welfare portion of the survey.

A 39% response rate was achieved using the total design method (Dillman, 1978). The sequence of steps used follow:

1. A pre-notification letter was sent requesting participation in the study.
2. The questionnaire was mailed with an informal letter signed by the project director approximately seven days later.
3. A reminder postcard was sent to the entire sample approximately seven days after the questionnaire had been sent.
4. Those who had not yet responded within approximately 14 days of the original mailing were sent a replacement questionnaire.

Appendix Table 1 shows demographic data from this year's study and previous rural polls, as well as similar data based on the entire nonmetropolitan population of Nebraska (using the latest available data from the 2000 U.S. Census). As can be seen from the table, there are some marked differences between some of the demographic variables in our sample compared to the Census data. Certainly some variance from 2000 Census data is to be expected as a result of changes that have occurred in the intervening eleven years. Nonetheless, we suggest the reader use caution in generalizing our data to all rural Nebraska. However, given the random sampling frame used for this survey, the acceptable percentage of responses, and the large number of respondents, we feel the data provide useful insights into opinions of rural Nebraskans on the various issues presented in this report. The margin of error for this study is plus or minus two percent.

Since younger residents have typically been under-represented by survey respondents and older residents have been over-represented, weights were used to adjust the sample to match the age distribution in the nonmetropolitan counties in Nebraska (using U.S. Census figures from 2010).

The average age of respondents is 51 years. Sixty-six percent are married (Appendix Table 1) and 69 percent live within the city limits of a town or village. On average, respondents have lived in Nebraska 43 years and have lived in their current community 28 years. Fifty-four

percent are living in or near towns or villages with populations less than 5,000. Ninety-six percent have attained at least a high school diploma.

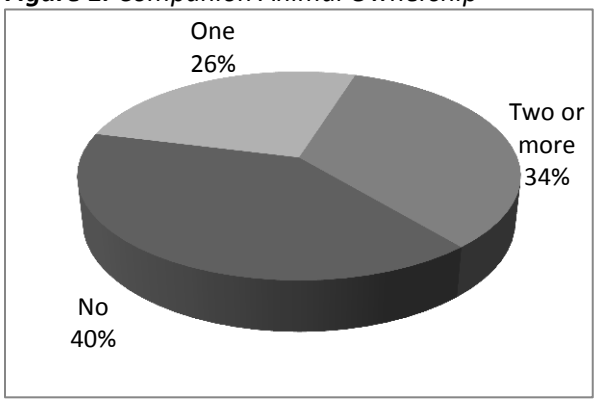
Forty-three percent of the respondents report their 2010 approximate household income from all sources, before taxes, as below $40,000. Forty-seven percent report incomes over $50,000.

Seventy-three percent were employed in 2010 on a full-time, part-time, or seasonal basis. Eighteen percent are retired. Thirty-five percent of those employed reported working in a management, professional, or education occupation. Twelve percent indicated they were employed in agriculture.

Companion Animal and Livestock Experience

Rural Nebraskans were asked a series of questions to determine their experience with animals. First, they were asked if they currently have a companion animal (household pet). Most rural Nebraskans have a companion animal. Sixty percent of rural Nebraskans have one or more companion animals (Figure 1).

Figure 1. *Companion Animal Ownership*

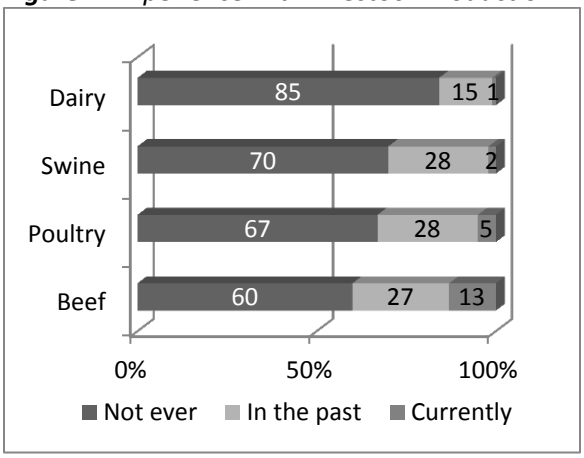


Just over one-quarter (26%) have one companion animal and approximately one-third (34%) have two or more companion animals.

Ownership of companion animals differs by every characteristic examined (Appendix Table 2). The groups most likely to have companion animals include: persons living in or near smaller communities, Panhandle residents (see Appendix Figure 1 for the counties included in each region), persons with higher household incomes, persons under the age of 65, females, married persons, persons with higher education levels, persons with healthcare support or public safety occupations, and persons with sales or office support occupations.

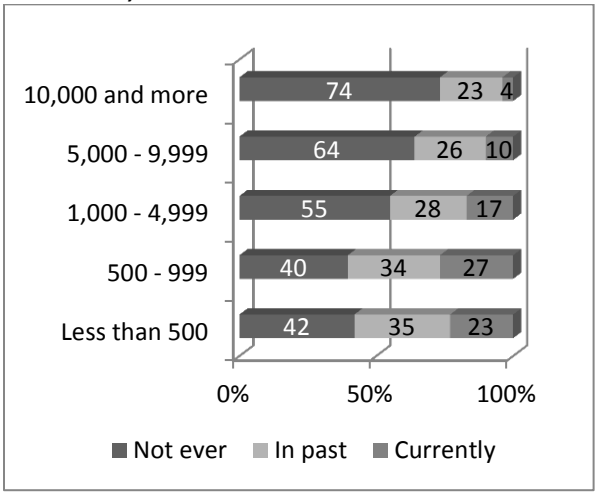
Next, respondents were asked if they or members of their household currently raise various types of livestock and poultry or if they had in the past. Many rural Nebraskans have experience raising beef cattle, poultry and swine. They have less experience with dairy production. Four in ten rural Nebraskans are currently raising beef cattle or have in the past (Figure 2). One-third (33%) are currently raising poultry or have in the past and one in three rural Nebraskans have experience raising swine. Sixteen percent of rural Nebraskans have experience with dairy production.

Figure 2. *Experience with Livestock Production*



Experience with livestock production differs by most of the characteristics examined (Appendix Table 3). People living in or near smaller communities are more likely than those living in or near larger communities to have experience with livestock production. Over one-half (approximately 58%) of persons living in or near communities with populations less than 1,000 are currently raising beef cattle or have in the past (Figure 3). In comparison, just over one-quarter (27%) of persons living in or near communities with populations of 10,000 or more have experience raising beef cattle. Approximately one-quarter of persons living in or near the smallest communities are currently raising beef cattle.

Figure 3. *Experience with Beef Production by Community Size*



Persons living in the North Central region are more likely than persons living in other regions of the state to have experience raising beef cattle. One-half (50%) of North Central residents are currently raising beef cattle (22%) or have in the past (28%). In comparison, just over one-third (36%) of Panhandle residents have experience raising beef cattle. Residents of the Northeast region are the regional group most likely to have experience raising dairy cattle (21%) as well as swine (34%). When examining experience with poultry production, residents of both the Panhandle and South Central regions are the groups *least* likely to have experience.

Persons with lower household incomes are more likely than persons with higher incomes to have experience raising dairy, swine and poultry. Older persons are more likely than younger persons to have experience raising all types of livestock listed: beef, dairy, swine and poultry. Males are more likely than females to have experience raising beef, dairy and swine.

Persons with lower education levels are more likely than persons with more education to have experience raising all types of livestock. And, not surprisingly, persons with occupations in agriculture are more likely than persons with different occupations to have experience raising all types of livestock. Just under one-half (49%) of persons with agriculture occupations are currently raising beef cattle, 11% are currently raising poultry and 10% are currently involved in swine production.

Opinions about Animal Welfare

To find out how rural Nebraskans view issues regarding animal welfare, respondents were given a series of statements and were asked the extent to which they agree or disagree with each.

Almost all rural Nebraskans believe livestock and poultry production are important to the state's economy. Ninety-seven percent agree or strongly agree with this statement (Table 1). The vast majority (95%) also agree that animal welfare means providing adequate food, water and shelter to livestock animals. Most rural Nebraskans (69%) agree, though, that animal welfare means more than providing adequate food, water and shelter; that it also includes

Table 1. *Opinions about Animal Welfare*

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Livestock and poultry production are important to Nebraska's economy.	1%	0.3%	1%	16%	81%
Animal welfare means providing adequate food, water, and shelter to livestock animals.	1	2	2	24	71
I am familiar with current animal care practices used to raise livestock and poultry.	6	9	24	28	34
Animal welfare means more than providing adequate food, water and shelter; it also includes adequate exercise, space, and social activities for the animals.	6	9	17	31	39
The welfare of animals is better protected on family farms than on large, corporate farms.	2	5	19	30	44
Current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals.	2	5	37	34	22
Regulation of Nebraska livestock practices will raise the cost of livestock production and the cost of food.	2	6	35	32	25
Livestock farmers and their veterinarians know how best to care for their animals.	1	3	12	40	44
Food safety is strongly dependent on the care provided to food animals.	1	6	15	42	35
More regulation of livestock practices is needed to ensure the welfare of food animals.	18	18	34	17	13
Consumer demand for animal welfare assurances will create a market niche that will benefit small Nebraska livestock producers.	9	11	43	24	13

adequate exercise, space and social activities for the animals. Given that many rural Nebraskans have had experience with livestock production, it is not surprising that most rural Nebraskans believe they are familiar with current animal care practices used to raise livestock and poultry. Over one-half (62%) of rural Nebraskans agree with that statement.

Most rural Nebraskans (84%) believe livestock farmers and their veterinarians know how best to care for their animals. And, almost three-quarters (74%) believe the welfare of animals is better protected on family farms than on large, corporate farms. Over three-quarters (77%) think food safety is strongly dependent on the care provided to food animals.

When asked about regulation, just over one-half (56%) of rural Nebraskans agree that current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals. And, over one-third (36%) *disagree* that more regulation is needed to ensure the welfare of food animals. One in three of rural Nebraskans (30%) agree with that statement and 34 percent neither agree nor disagree. Most rural Nebraskans believe regulation will impact food prices. Over one-half (57%) agree that regulation of Nebraska livestock practices will raise the cost of livestock production and the cost of food. A sizeable proportion of rural Nebraskans have no opinion about the adequacy of current regulations, the need for additional regulation or the impact of

regulation on the cost of livestock production and food. At least one-third of rural Nebraskans neither agree nor disagree with all the statements regarding regulation.

Opinions are mixed on whether or not consumer demand for animal welfare assurances will create a market niche that will benefit small Nebraska livestock producers. Over one-third (37%) agree with this statement, 20 percent disagree and 43 percent neither agree nor disagree.

Opinions about animal welfare issues differ by many of the characteristics examined (Appendix Table 4). Persons living in or near smaller communities are more likely than persons living in or near larger communities to agree that they are familiar with current animal care practices used to raise livestock and poultry. Almost eight in ten persons living in or near communities with less than 500 people (79%) agree with this statement, compared to one-half (50%) of persons living in or near communities with populations of 10,000 or more.

Persons living in the North Central region are more likely than persons living in other regions of the state to say they are familiar with current animal care practices. Seventy percent of North Central region residents are familiar with current animal care practices, compared to 59 percent of Panhandle residents.

Other groups most likely to agree that they are familiar with current animal care practices used to raise livestock and poultry include: older persons, males, persons with agriculture occupations and persons with experience raising livestock.

Persons with agriculture occupations are *less* likely than persons with different occupations to agree that animal welfare means more than providing adequate food, water and shelter but also includes adequate exercise, space and social activities for the animals. Sixty-one percent of persons with agriculture occupations agree with this statement, compared to 73 percent of persons with sales or office support occupations and persons with healthcare support and public safety occupations. The groups most likely to agree with this statement include: Panhandle residents, persons with lower household incomes, persons age 65 and older, females, persons with lower education levels, and persons with companion animals.

Persons who have had experience raising livestock are more likely than persons with no livestock production experience to agree that the welfare of animals is better protected on family farms than on large, corporate farms. Over three-quarters (78%) of persons with livestock experience agree with this statement, compared to 70 percent of persons with no experience raising livestock.

However, persons with agriculture occupations are more likely than persons with different occupations to *disagree* with the statement that the welfare of animals is better protected on family farms than on large, corporate farms. Fourteen percent of persons with occupations in agriculture disagree with this statement, compared to five percent of persons with management, professional or education occupations and persons with production, transportation and warehousing occupations.

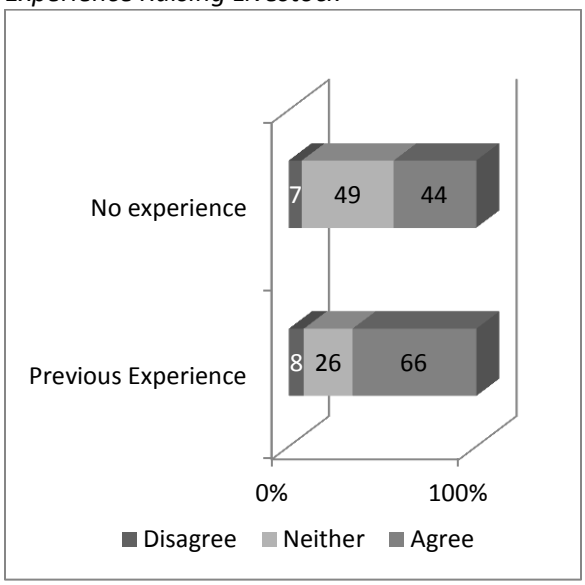
Older persons are more likely than younger persons to agree that the welfare of animals is better protected on family farms than on large, corporate farms. Eighty-two percent of persons age 65 and older agree with this statement, compared to 68 percent of persons age 30 to 39. Other groups most likely to agree with this statement include: persons living in or near smaller communities, persons with lower

household incomes, persons with lower education levels and persons with companion animals.

Persons with agriculture occupations are more likely than persons with different occupations to agree that current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals. Just over three-quarters (77%) of persons with agriculture occupations agree with this statement, compared to 44 percent of persons with sales or office support occupations.

Persons with experience raising livestock are more likely than persons with no livestock production experience to agree that current regulation is adequate to ensure the welfare of food animals (Figure 4). Approximately two-thirds (66%) of persons with livestock production experience agree with this statement, compared to 44 percent of persons with no experience raising livestock. Almost one-half (49%) of persons with no livestock production experience neither agree nor disagree with this statement.

Figure 4. *Belief that Current Regulation Is Adequate to Ensure Welfare of Food Animals by Experience Raising Livestock*



Other groups most likely to agree that current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals include: persons living in or near smaller communities, persons with lower household incomes, older persons, males, persons with lower education levels and persons without companion animals.

Three-quarters (75%) of persons with agriculture occupations agree that regulation of Nebraska livestock practices will raise the cost of livestock production and the cost of food. In comparison, only 41 percent of persons with food service or personal care occupations agree with this statement.

Persons with livestock experience are more likely than persons with no livestock experience to agree that regulation will raise the cost of livestock production and the cost of food. Sixty-four percent of persons with livestock experience agree with this statement, compared to 50 percent of persons with no previous livestock experience.

Persons living in both the North Central and South Central regions are more likely than persons living in other regions of the state to agree that regulation will raise the cost of livestock production and the cost of food. Approximately 60 percent of residents of these two regions agree with this statement, compared to 52 percent of Northeast region residents.

Other groups most likely to agree with this statement include: persons living in or near smaller communities, older persons, males, and persons without companion animals.

Persons with agriculture occupations are more likely than persons with different occupations to agree that livestock farmers and their veterinarians know how best to care for their animals. Ninety-one percent of persons with occupations in agriculture agree with this statement, compared to 77 percent of persons with food service or personal care occupations.

Persons with livestock experience are more likely than persons without livestock experience to agree that livestock farmers and their veterinarians know how best to care for their animals. Ninety percent of persons with livestock experience agree with this statement, compared to 80 percent of persons without livestock experience.

Other groups most likely to agree with this statement include: persons living in or near the smallest communities, persons age 65 and older, and males.

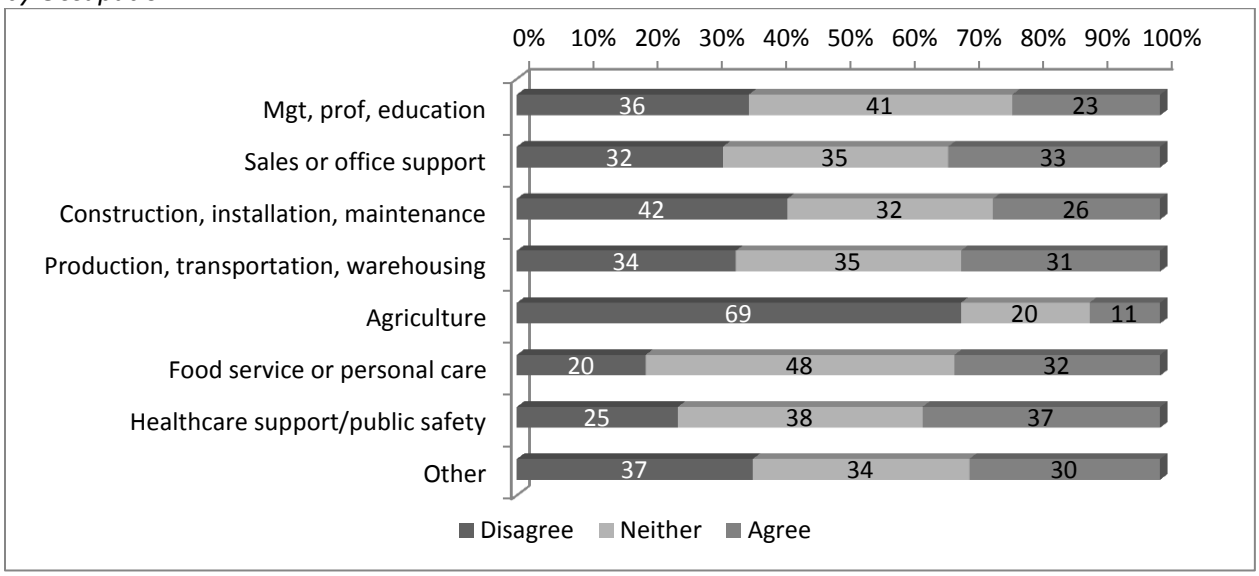
The groups most likely to agree with the statement that food safety is strongly dependent on the care provided to food animals include: persons with lower household incomes, persons age 65 and older, persons with lower education levels and persons with occupations classified as other.

Persons with agriculture occupations are more likely than persons with different occupations to *disagree* with the statement that more regulation of livestock practices is needed to ensure the welfare of food animals (Figure 5). Almost seven in ten persons with agriculture occupation (69%) disagree with this statement, compared to 20 percent of persons with food service or personal care occupations.

Just under one-half (48%) of persons with experience raising livestock *disagree* with the statement that more regulation of livestock practices is needed. In comparison, just under one-quarter (24%) of persons without livestock experience disagree with this statement.

Other groups most likely to disagree with the statement that more regulation of livestock practices is needed to ensure the welfare of food animals include: persons living in or near smaller communities, residents of the North Central region, persons with higher household

Figure 5. *Belief that More Regulation of Livestock Practices is Needed to Ensure Welfare of Food Animals by Occupation*



incomes, older persons, males, persons with higher education levels, and persons without companion animals.

Persons with food service and personal care occupations are more likely than persons with different occupations to agree with the statement that consumer demand for animal welfare assurances will create a market niche that will benefit small Nebraska livestock producers. One-half (50%) of persons with food service or personal care occupations agree with this statement, compared to 28 percent of persons with occupations in agriculture. Just over one-third (36%) of persons with agriculture occupations *disagree* with this statement. Similarly, persons with livestock experience are more likely than persons without livestock experience to *disagree* with this statement. Twenty-nine percent of persons with livestock experience disagree with this statement, compared to 13 percent of persons without livestock experience.

Conclusion

Almost all rural Nebraskans recognize the importance of livestock and poultry production to the state's economy and most rural Nebraskans are familiar with livestock care practices. In fact, many rural Nebraskans have experience raising beef cattle, poultry and swine. They have less experience with dairy production.

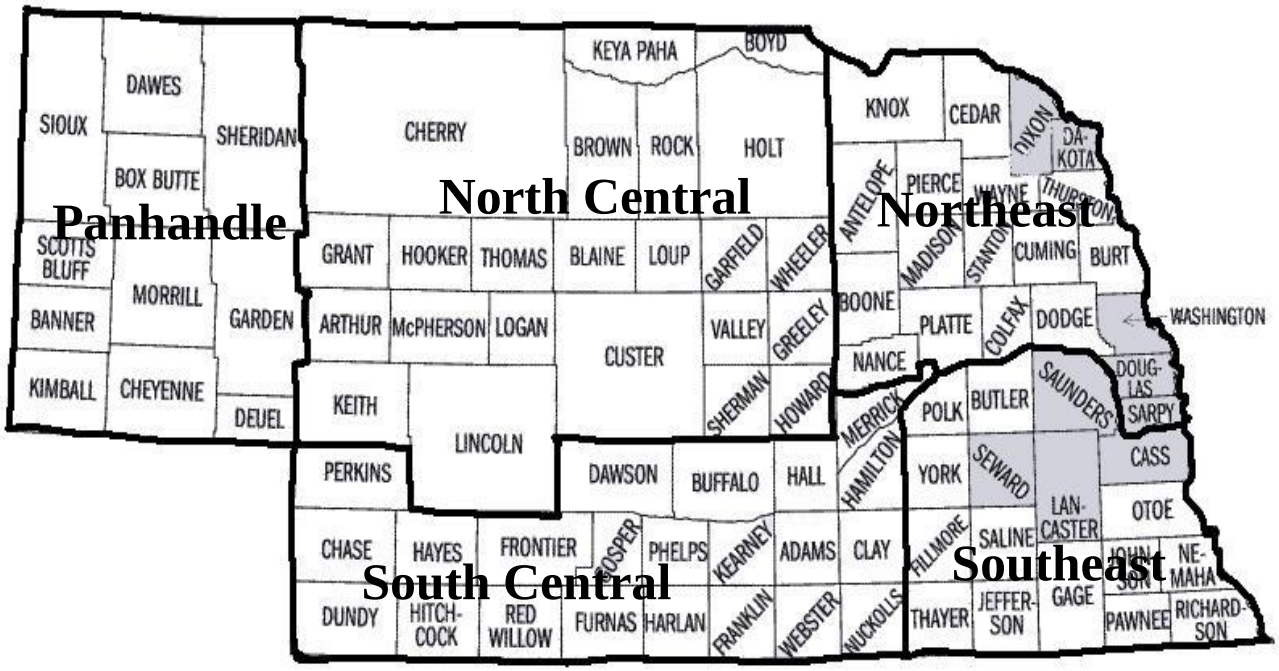
Most rural Nebraskans believe animal welfare means providing adequate exercise, space and social activities for the animals in addition to food, water and shelter. However, the vast majority of rural Nebraskans agree that animal welfare means at least providing adequate food, water and shelter to livestock animals.

Most rural Nebraskans trust livestock farmers and their veterinarians to care for their animals. And, most believe the welfare of animals is better protected on family farms than on large, corporate farms.

Most rural Nebraskans believe that current regulation of the state's livestock practices is adequate to ensure the welfare of food animals. And, over one-third *disagree* that more regulation is needed to ensure the welfare of food animals. A sizeable proportion of rural Nebraskans (approximately one-third), though, have no opinion about the adequacy of current regulation or the need for additional regulation. Persons with agriculture occupations are more likely than persons with different occupations to agree that current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals and they are more likely than persons with different occupations to *disagree* that more regulation of livestock practices is needed to ensure the welfare of food animals.

Most rural Nebraskans believe regulation will impact the cost of livestock production and food. Persons working in agriculture are more likely than persons with different occupations to believe regulation will impact these costs.

Appendix Figure 1. Regions of Nebraska



Metropolitan counties (not surveyed)

Appendix Table 1. *Demographic Profile of Rural Poll Respondents[1] Compared to 2000 Census*

	2011 Poll	*2010 Poll*	*2009 Poll*	*2008 Poll*	*2007 Poll*	*2006 Poll*	*2000 Census*
Age : [2]							
20 - 39	31%	32%	32%	32%	31%	33%	33%
40 - 64	44%	44%	44%	44%	44%	43%	42%
65 and over	24%	24%	24%	24%	25%	24%	24%
Gender: [3]							
Female	60%	59%	57%	56%	59%	30%	51%
Male	40%	41%	43%	44%	41%	70%	49%
Education: [4]							
Less than 9th grade	1%	1%	2%	2%	4%	2%	7%
9th to 12th grade (no diploma)	3%	3%	3%	3%	6%	4%	10%
High school diploma (or equiv.)	26%	25%	26%	26%	26%	28%	35%
Some college, no degree	23%	25%	25%	25%	23%	25%	25%
Associate degree	16%	14%	15%	12%	14%	13%	7%
Bachelors degree	19%	20%	20%	21%	18%	18%	11%
Graduate or professional degree	12%	11%	10%	10%	10%	10%	4%
Household Income: [5]							
Less than $10,000	6%	6%	6%	7%	7%	6%	10%
$10,000 - $19,999	10%	10%	9%	10%	13%	12%	16%
$20,000 - $29,999	13%	13%	13%	14%	15%	14%	17%
$30,000 - $39,999	14%	12%	13%	14%	14%	15%	15%
$40,000 - $49,999	11%	13%	12%	13%	13%	16%	12%
$50,000 - $59,999	12%	11%	13%	11%	12%	12%	10%
$60,000 - $74,999	12%	13%	14%	13%	11%	12%	9%
$75,000 or more	22%	23%	21%	18%	16%	13%	11%
Marital Status: [6]							
Married	66%	71%	68%	70%	70%	70%	61%
Never married	14%	9%	10%	10%	10%	11%	22%
Divorced/separated	11%	11%	11%	11%	10%	9%	9%
Widowed/widower	10%	9%	11%	9%	10%	10%	8%

[1] Data from the Rural Polls have been weighted by age.

[2] 2000 Census universe is non-metro population 20 years of age and over.

[3] 2000 Census universe is total non-metro population.

[4] 2000 Census universe is non-metro population 18 years of age and over.

[5] 2000 Census universe is all non-metro households.

[6] 2000 Census universe is non-metro population 15 years of age and over.

Appendix Table 2. *Current Companion Animal Ownership by Community Size, Region and Individual Attributes*

	Do you currently have a companion animal (household pet)?			
	No	*Yes, one*	*Yes, two or more*	*Significance*
		Percentages		
Total	40	26	34	
Community Size		(n = 2334)		
Less than 500	35	24	40	
500 - 999	28	29	43	χ^2 =
1,000 - 4,999	41	25	34	25.18*
5,000 - 9,999	40	26	34	(.001)
10,000 and up	42	27	31	
Region		(n = 2440)		
Panhandle	31	25	44	
North Central	35	28	37	χ^2 =
South Central	36	26	37	44.51*
Northeast	45	28	28	(.000)
Southeast	48	24	29	
Income Level		(n = 2221)		
Under $20,000	48	25	28	χ^2 =
$20,000 - $39,999	43	23	34	43.42*
$40,000 - $59,999	30	27	43	(.000)
$60,000 and over	36	29	36	
Age		(n = 2447)		
19 - 29	31	29	41	
30 - 39	29	26	45	χ^2 =
40 - 49	27	29	44	203.88*
50 - 64	39	28	33	(.000)
65 and older	62	20	17	
Gender		(n = 2394)		χ^2 =
Male	46	25	29	39.66*
Female	34	27	39	(.000)
Marital Status		(n = 2396)		
Married	33	28	39	
Never married	49	27	24	χ^2 =
Divorced/separated	43	22	36	105.52*
Widowed	62	23	15	(.000)
Education		(n = 2370)		
H.S. diploma or less	45	24	30	χ^2 =
Some college	35	27	39	21.52*
Bachelors or grad degree	39	28	34	(.000)
Occupation		(n = 1721)		
Mgt, prof or education	33	30	37	
Sales or office support	28	36	36	
Constrn, inst or maint	43	30	27	
Prodn/trans/warehsing	36	20	43	
Agriculture	39	28	34	χ^2 =
Food serv/pers. care	34	18	48	41.08*
Hlthcare supp/safety	27	25	48	(.000)
Other	41	27	32	

* Chi-square values are statistically significant at the .05 level.

Appendix Table 3. *Experience with Livestock Production by Community Size, Region and Individual Attributes*

	Do you or members of your household currently raise any of the following types of livestock or poultry or have you in the past?							
	Beef				*Dairy*			
	No, not ever	*Yes, but not currently*	*Yes, currently*	*Chi-square (sig.)*	*No, not ever*	*Yes, but not currently*	*Yes, currently*	*Chi-square (sig.)*
				Percentages				
Total	60	27	13		85	15	1	
Community Size		(n = 2248)				(n = 2055)		
Less than 500	42	35	23		77	22	1	
500 - 999	40	34	27		80	19	1	
1,000 - 4,999	55	28	17	χ^2 =	83	17	1	χ^2 =
5,000 - 9,999	64	26	10	199.85*	88	12	0*	33.80*
10,000 and up	74	23	4	(.000)	90	10	0*	(.000)
Region		(n = 2339)				(n = 2139)		
Panhandle	64	23	13		87	12	1	
North Central	50	28	22		82	16	2	
South Central	62	28	10	χ^2 =	88	12	0*	χ^2 =
Northeast	62	27	11	36.98*	79	20	1	28.82*
Southeast	59	27	14	(.000)	87	13	0*	(.000)
Income Level		(n = 2142)				(n = 1967)		
Under $20,000	59	31	10		77	22	1	
$20,000 - $39,999	62	27	11	χ^2 =	82	16	1	χ^2 =
$40,000 - $59,999	59	28	13	9.06	87	12	0*	41.04*
$60,000 and over	62	24	14	(.170)	91	9	0*	(.000)
Age		(n = 2352)				(n = 2150)		
19 - 29	73	14	13		94	5	1	
30 - 39	63	21	16		91	9	0*	
40 - 49	62	24	15	χ^2 =	89	10	1	χ^2 =
50 - 64	57	28	15	115.11*	86	14	1	166.80*
65 and older	49	42	9	(.000)	68	32	0*	(.000)
Gender		(n = 2302)		χ^2 =		(n = 2107)		χ^2 =
Male	56	29	15	8.43*	82	17	1	11.92*
Female	62	25	12	(.015)	87	13	0*	(.003)
Education		(n = 2282)				(n = 2093)		
H.S. diploma or less	58	30	12	χ^2 =	79	20	1	χ^2 =
Some college	58	27	15	13.54*	85	14	1	37.03*
Bachelors degree	65	23	13	(.009)	91	9	0*	(.000)
Occupation		(n = 1669)				(n = 1544)		
Mgt, prof or education	65	23	13		91	9	0*	
Sales or office support	70	25	6		93	7	0	
Constrn, inst or maint	60	35	6		77	24	0	
Prodn/trans/warehsing	70	24	6		92	7	1	
Agriculture	23	28	49	χ^2 =	73	22	5	χ^2 =
Food serv/pers. care	67	27	6	270.01*	85	15	0	95.83*
Hlthcare supp/safety	69	21	11	(.000)	92	8	0	(.000)
Other	62	27	11		86	13	1	

0* = Less than 1 percent.

Appendix Table 3 continued.

	Do you or members of your household currently raise any of the following types of livestock or poultry or have you in the past?							
	Swine				*Poultry*			
	No, not ever	*Yes, but not currently*	*Yes, currently*	*Chi-square (sig.)*	*No, not ever*	*Yes, but not currently*	*Yes, currently*	*Chi-square (sig.)*
				Percentages				
Total	70	28	2		67	28	5	
Community Size		(n = 2150)				(n = 2152)		
Less than 500	56	40	4		52	40	8	
500 - 999	57	38	4		55	36	9	
1,000 - 4,999	69	29	2	χ^2 =	66	29	5	χ^2 =
5,000 - 9,999	76	23	1	96.72*	73	24	3	74.04*
10,000 and up	79	21	0*	(.000)	74	23	3	(.000)
Region		(n = 2236)				(n = 2240)		
Panhandle	80	20	0*		72	21	6	
North Central	69	30	2		63	31	7	
South Central	72	27	2	χ^2 =	71	25	4	χ^2 =
Northeast	65	32	2	19.51*	65	31	4	21.32*
Southeast	72	26	2	(.012)	65	31	4	(.006)
Income Level		(n = 2054)				(n = 2057)		
Under $20,000	65	35	0*		58	37	5	
$20,000 - $39,999	69	29	2	χ^2 =	66	29	5	χ^2 =
$40,000 - $59,999	74	25	2	24.43*	70	25	5	26.12*
$60,000 and over	75	23	3	(.000)	73	23	4	(.000)
Age		(n = 2245)				(n = 2250)		
19 - 29	85	13	2		80	15	5	
30 - 39	78	18	4		73	21	6	
40 - 49	72	27	1	χ^2 =	68	26	6	χ^2 =
50 - 64	68	30	2	134.14*	67	28	5	116.12*
65 and older	56	44	1	(.000)	53	44	2	(.000)
Gender		(n = 2201)		χ^2 =		(n = 2207)		χ^2 =
Male	68	31	2	7.41*	65	30	5	4.85
Female	73	25	2	(.025)	69	26	5	(.089)
Education		(n = 2188)				(n = 2188)		
H.S. diploma or less	64	35	1	χ^2 =	62	34	4	χ^2 =
Some college	69	28	3	45.87*	66	28	6	32.06*
Bachelors degree	79	21	1	(.000)	75	21	4	(.000)
Occupation		(n = 1608)				(n = 1600)		
Mgt, prof or education	76	23	1		74	22	4	
Sales or office support	83	17	0*		75	22	3	
Constrn, inst or maint	68	31	1		63	32	5	
Prodn/trans/warehsing	75	24	1		73	27	1	
Agriculture	44	45	10	χ^2 =	49	40	11	χ^2 =
Food serv/pers. care	79	20	1	139.49*	69	22	8	67.25*
Hlthcare supp/safety	79	21	1	(.000)	70	21	9	(.000)
Other	76	21	3		75	24	1	

0* = Less than 1 percent.

Appendix Table 4. *Opinions about Animal Welfare by Community Size, Region and Individual Attributes*

	Please indicate the extent to which you agree or disagree with each of the following statements.							
	Livestock and poultry production are important to Nebraska's economy.				***Animal welfare means providing adequate food, water, and shelter to livestock animals.***			
	Disagree	*Neither*	*Agree*	*Chi-square (sig.)*	*Disagree*	*Neither*	*Agree*	*Chi-square (sig.)*
				Percentages				
Total	1	1	97		3	2	95	
Community Size		(n = 2312)				(n = 2305)		
Less than 500	1	1	98		1	1	98	
500 - 999	2	2	96		4	1	95	
1,000 - 4,999	2	1	98	χ^2 =	2	2	96	χ^2 =
5,000 - 9,999	1	2	97	5.90	4	3	93	14.78
10,000 and up	1	2	97	(.658)	3	3	94	(.064)
Region		(n = 2409)				(n = 2402)		
Panhandle	0*	2	97		2	2	97	
North Central	0*	0*	99		1	3	96	
South Central	2	1	97	χ^2 =	4	2	94	χ^2 =
Northeast	1	2	97	17.94*	3	2	95	10.49
Southeast	1	2	97	(.022)	3	2	95	(.232)
Income Level		(n = 2202)				(n = 2199)		
Under $20,000	1	3	97		2	4	95	
$20,000 - $39,999	2	1	98	χ^2 =	3	2	95	χ^2 =
$40,000 - $59,999	2	2	97	6.19	3	2	95	9.73
$60,000 and over	1	1	98	(.402)	3	2	95	(.136)
Age		(n = 2414)				(n = 2411)		
19 - 29	1	1	99		2	2	97	
30 - 39	2	2	96		5	3	92	
40 - 49	1	1	98	χ^2 =	2	3	95	χ^2 =
50 - 64	2	1	97	7.32	3	2	95	11.26
65 and older	1	2	97	(.503)	2	2	95	(.187)
Gender		(n = 2368)		χ^2 =		(n = 2361)		χ^2 =
Male	1	2	98	6.25*	2	2	96	8.93*
Female	2	1	97	(.044)	4	2	94	(.012)
Education		(n = 2347)				(n = 2341)		
H.S. diploma or less	1	2	96	χ^2 =	3	3	95	χ^2 =
Some college	1	1	97	11.60*	3	3	95	4.65
Bachelors degree	2	0*	98	(.021)	3	1	96	(.325)
Occupation		(n = 1705)				(n = 1708)		
Mgt, prof or education	1	1	99		3	2	96	
Sales or office support	3	1	96		5	2	93	
Constrn, inst or maint	1	2	98		2	1	97	
Prodn/trans/warehsing	1	3	96		2	2	96	
Agriculture	1	1	99	χ^2 =	2	1	97	χ^2 =
Food serv/pers. care	4	0	96	26.94*	4	5	91	16.14
Hlthcare supp/safety	2	1	97	(.020)	4	4	92	(.305)
Other	0	3	97		1	1	97	
Have companion animal		(n = 2412)		χ^2 =		(n = 2407)		χ^2 =
Yes	2	1	97	0.85	3	2	95	6.91*
No	1	1	98	(.653)	2	3	95	(.032)
Experience with livestock		(n = 2098)		χ^2 =		(n = 2093)		χ^2 =
Yes	2	1	98	5.56	3	1	97	11.21*
No	1	2	97	(.062)	3	3	94	(.004)

Appendix Table 4 continued.

	I am familiar with current animal care practices used to raise livestock and poultry.				***Animal welfare means more than providing adequate food, water and shelter; it also includes adequate exercise, space and social activities for the animals.***			
	Disagree	*Neither*	*Agree*	*Chi-square (sig.)*	*Disagree*	*Neither*	*Agree*	*Chi-square (sig.)*
				Percentages				
Total	15	24	62		14	17	69	
Community Size		(n = 2288)				(n = 2295)		
Less than 500	3	18	79		15	20	65	
500 - 999	10	20	70		13	14	73	
1,000 - 4,999	14	22	63	χ^2 =	14	18	69	χ^2 =
5,000 - 9,999	14	24	62	109.96*	16	17	67	7.11
10,000 and up	22	29	50	(.000)	14	16	70	(.525)
Region		(n = 2381)				(n = 2389)		
Panhandle	19	22	59		9	17	74	
North Central	11	20	70		14	15	70	
South Central	16	24	60	χ^2 =	18	15	68	χ^2 =
Northeast	14	26	60	17.41*	14	17	69	17.09*
Southeast	15	26	60	(.026)	12	18	70	(.029)
Income Level		(n = 2185)				(n = 2191)		
Under $20,000	12	27	62		8	15	78	
$20,000 - $39,999	15	27	58	χ^2 =	11	15	74	χ^2 =
$40,000 - $59,999	18	21	61	9.37	15	15	70	37.69*
$60,000 and over	16	24	61	(.154)	18	20	62	(.000)
Age		(n = 2387)				(n = 2397)		
19 - 29	22	23	55		13	15	71	
30 - 39	21	21	58		13	21	66	
40 - 49	18	23	59	χ^2 =	19	15	67	χ^2 =
50 - 64	12	27	61	65.59*	16	17	67	22.61*
65 and older	7	23	70	(.000)	10	15	74	(.004)
Gender		(n = 2341)		χ^2 =		(n = 2349)		χ^2 =
Male	10	19	71	65.17*	18	18	64	23.51*
Female	18	27	55	(.000)	12	16	73	(.000)
Education		(n = 2321)				(n = 2327)		
H.S. diploma or less	11	27	62	χ^2 =	10	16	74	χ^2 =
Some college	14	26	60	34.24*	15	14	71	25.33*
Bachelors degree	20	19	61	(.000)	17	20	63	(.000)
Occupation		(n = 1703)				(n = 1703)		
Mgt, prof or education	20	24	56		14	21	65	
Sales or office support	22	31	47		15	13	73	
Constrn, inst or maint	9	24	67		12	20	68	
Prodn/trans/warehsing	12	30	58		15	17	68	
Agriculture	3	4	93	χ^2 =	22	17	61	χ^2 =
Food serv/pers. care	24	34	42	145.78*	19	10	71	33.44*
Hlthcare supp/safety	21	21	58	(.000)	17	10	73	(.002)
Other	18	24	58		15	21	64	
Have companion animal		(n = 2384)		χ^2 =		(n = 2394)		χ^2 =
Yes	16	24	61	1.85	14	15	71	8.62*
No	14	25	62	(.397)	15	19	66	(.013)
Experience with livestock		(n = 2075)		χ^2 =		(n = 2087)		χ^2 =
Yes	6	13	81	302.58*	16	16	68	8.25*
No	23	34	43	(.000)	12	18	70	(.016)

Appendix Table 4 continued.

	The welfare of animals is better protected on family farms than on large, corporate farms.				***Current regulation of Nebraska livestock practices is adequate to ensure the welfare of food animals.***			
	Disagree	*Neither*	*Agree*	*Chi-square (sig.)*	*Disagree*	*Neither*	*Agree*	*Chi-square (sig.)*
				Percentages				
Total	7	19	74		8	37	56	
Community Size		(n = 2275)				(n = 2237)		
Less than 500	8	16	76		6	27	66	
500 - 999	9	18	74		9	27	64	
1,000 - 4,999	5	17	77	χ^2 =	7	33	59	χ^2 =
5,000 - 9,999	6	23	71	15.74*	5	40	56	63.53*
10,000 and up	7	22	71	(.046)	9	46	46	(.000)
Region		(n = 2365)				(n = 2324)		
Panhandle	5	22	73		6	41	53	
North Central	7	16	78		8	33	60	
South Central	7	19	74	χ^2 =	7	37	56	χ^2 =
Northeast	8	17	75	10.39	10	37	53	10.71
Southeast	7	23	71	(.239)	7	37	57	(.219)
Income Level		(n = 2169)				(n = 2142)		
Under $20,000	5	13	82		11	29	61	
$20,000 - $39,999	5	18	77	χ^2 =	9	39	53	χ^2 =
$40,000 - $59,999	9	18	73	40.50*	7	41	52	19.13*
$60,000 and over	8	26	67	(.000)	6	39	55	(.004)
Age		(n = 2373)				(n = 2333)		
19 - 29	6	20	74		8	47	45	
30 - 39	10	22	68		6	42	52	
40 - 49	5	24	71	χ^2 =	8	43	49	χ^2 =
50 - 64	7	20	73	40.15*	8	34	58	78.47*
65 and older	6	12	82	(.000)	7	23	69	(.000)
Gender		(n = 2325)		χ^2 =		(n = 2287)		χ^2 =
Male	8	18	74	3.90	6	28	67	77.67*
Female	6	20	74	(.142)	9	43	48	(.000)
Education		(n = 2307)				(n = 2267)		
H.S. diploma or less	6	16	78	χ^2 =	6	30	64	χ^2 =
Some college	7	19	74	16.43*	8	37	55	30.90*
Bachelors degree	6	24	70	(.002)	8	43	49	(.000)
Occupation		(n = 1691)				(n = 1670)		
Mgt, prof or education	5	26	69		8	44	48	
Sales or office support	6	19	75		7	49	44	
Constrn, inst or maint	8	18	75		6	22	72	
Prodn/trans/warehsing	5	23	72		6	43	52	
Agriculture	14	19	68	χ^2 =	3	20	77	χ^2 =
Food serv/pers. care	8	23	68	35.94*	8	44	48	84.67*
Hlthcare supp/safety	10	14	76	(.001)	7	44	49	(.000)
Other	8	17	75		10	43	47	
Have companion animal		(n = 2369)		χ^2 =		(n = 2328)		χ^2 =
Yes	5	20	75	18.83*	9	39	52	19.55*
No	10	19	72	(.000)	6	33	61	(.000)
Experience with livestock		(n = 2067)		χ^2 =		(n = 2036)		χ^2 =
Yes	8	15	78	30.55*	8	26	66	110.21*
No	6	24	70	(.000)	7	49	44	(.000)

Appendix Table 4 continued.

	Regulation of Nebraska livestock practices will raise the cost of livestock production and the cost of food.				***Livestock farmers and their veterinarians know how best to care for their animals.***			
	Disagree	*Neither*	*Agree*	*Chi-square (sig.)*	*Disagree*	*Neither*	*Agree*	*Chi-square (sig.)*
				Percentages				
Total	9	35	57		3	12	84	
Community Size		(n = 2251)				(n = 2277)		
Less than 500	10	29	62		2	6	92	
500 - 999	9	25	66		5	6	89	
1,000 - 4,999	8	35	58	χ^2 =	4	12	84	χ^2 =
5,000 - 9,999	8	38	54	25.59*	1	11	88	44.93*
10,000 and up	8	39	53	(.001)	4	16	80	(.000)
Region		(n = 2340)				(n = 2373)		
Panhandle	10	35	56		4	14	83	
North Central	7	33	61		1	13	85	
South Central	7	33	60	χ^2 =	3	11	86	χ^2 =
Northeast	12	36	52	17.48*	5	11	84	12.93
Southeast	8	38	55	(.026)	3	12	85	(.114)
Income Level		(n = 2157)				(n = 2176)		
Under $20,000	11	33	56		3	10	87	
$20,000 - $39,999	6	34	60	χ^2 =	4	14	82	χ^2 =
$40,000 - $59,999	8	40	52	17.18*	4	12	85	5.49
$60,000 and over	10	34	55	(.009)	3	13	84	(.483)
Age		(n = 2350)				(n = 2380)		
19 - 29	8	41	51		5	19	77	
30 - 39	9	39	53		4	17	80	
40 - 49	9	38	53	χ^2 =	2	12	86	χ^2 =
50 - 64	8	33	58	31.83*	3	10	87	47.91*
65 and older	10	26	65	(.000)	3	6	90	(.000)
Gender		(n = 2302)		χ^2 =		(n = 2332)		χ^2 =
Male	9	27	64	45.18*	3	10	87	6.02*
Female	8	41	51	(.000)	3	13	83	(.049)
Education		(n = 2286)				(n = 2316)		
H.S. diploma or less	8	31	61	χ^2 =	3	10	87	χ^2 =
Some college	8	37	54	8.70	3	12	84	6.60
Bachelors degree	10	36	55	(.069)	3	14	83	(.159)
Occupation		(n = 1672)				(n = 1686)		
Mgt, prof or education	10	39	51		3	13	84	
Sales or office support	7	43	50		3	15	82	
Constrn, inst or maint	13	26	61		7	9	84	
Prodn/trans/warehsing	10	33	57		3	17	80	
Agriculture	6	19	75	χ^2 =	2	7	91	χ^2 =
Food serv/pers. care	10	49	41	66.39*	4	19	77	29.22*
Hlthcare supp/safety	6	46	48	(.000)	5	8	87	(.010)
Other	7	39	55		1	12	86	
Have companion animal		(n = 2345)		χ^2 =		(n = 2376)		χ^2 =
Yes	9	37	54	15.36*	3	13	85	2.40
No	8	30	62	(.000)	4	11	85	(.301)
Experience with livestock		(n = 2046)		χ^2 =		(n = 2067)		χ^2 =
Yes	9	27	64	48.74*	2	7	90	44.63*
No	8	42	50	(.000)	4	17	80	(.000)

Appendix Table 4 continued.

	Food safety is strongly dependent on the care provided to food animals.				***More regulation of livestock practices is needed to ensure the welfare of food animals.***			
	Disagree	*Neither*	*Agree*	*Chi-square (sig.)*	*Disagree*	*Neither*	*Agree*	*Chi-square (sig.)*
				Percentages				
Total	7	15	77		36	34	30	
Community Size		(n = 2265)				(n = 2261)		
Less than 500	11	16	73		44	34	22	
500 - 999	11	12	78		47	27	27	
1,000 - 4,999	10	15	75	χ^2 =	39	34	26	χ^2 =
5,000 - 9,999	4	15	81	27.59*	35	33	32	50.89*
10,000 and up	5	16	79	(.001)	28	37	35	(.000)
Region		(n = 2357)				(n = 2352)		
Panhandle	6	15	79		32	35	34	
North Central	7	14	79		40	39	21	
South Central	8	15	77	χ^2 =	37	33	30	χ^2 =
Northeast	7	17	76	3.25	34	34	32	20.32*
Southeast	8	14	78	(.918)	38	30	32	(.009)
Income Level		(n = 2168)				(n = 2159)		
Under $20,000	6	11	83		29	29	42	
$20,000 - $39,999	5	16	79	χ^2 =	30	37	33	χ^2 =
$40,000 - $59,999	9	18	73	17.75*	39	34	27	55.51*
$60,000 and over	8	16	76	(.007)	41	37	22	(.000)
Age		(n = 2365)				(n = 2359)		
19 - 29	9	17	74		27	42	31	
30 - 39	7	19	74		33	41	26	
40 - 49	7	18	75	χ^2 =	36	34	29	χ^2 =
50 - 64	8	14	79	24.05*	42	30	28	46.54*
65 and older	5	11	84	(.002)	39	27	34	(.000)
Gender		(n = 2320)		χ^2 =		(n = 2310)		χ^2 =
Male	7	16	76	1.31	49	29	21	121.27*
Female	7	15	78	(.520)	27	37	36	(.000)
Education		(n = 2301)				(n = 2292)		
H.S. diploma or less	5	12	83	χ^2 =	33	29	39	χ^2 =
Some college	9	15	76	24.65*	34	36	30	51.93*
Bachelors degree	8	19	74	(.000)	42	37	21	(.000)
Occupation		(n = 1684)				(n = 1687)		
Mgt, prof or education	8	18	74		36	41	23	
Sales or office support	9	15	76		32	35	33	
Constrn, inst or maint	7	17	77		42	32	26	
Prodn/trans/warehsing	7	18	75		34	35	31	
Agriculture	13	11	77	χ^2 =	69	20	11	χ^2 =
Food serv/pers. care	8	18	75	25.08*	20	48	32	134.30*
Hlthcare supp/safety	2	16	82	(.034)	25	38	37	(.000)
Other	3	12	85		37	34	30	
Have companion animal		(n = 2362)		χ^2 =		(n = 2355)		χ^2 =
Yes	7	16	77	0.63	34	36	30	10.65*
No	7	15	78	(.729)	40	31	29	(.005)
Experience with livestock		(n = 2061)		χ^2 =		(n = 2056)		χ^2 =
Yes	9	13	78	13.18*	48	28	24	128.33*
No	6	17	77	(.001)	24	41	35	(.000)

Appendix Table 4 continued.

	Consumer demand for animal welfare assurances will create a market niche that will benefit small Nebraska livestock producers.			
	Disagree	*Neither*	*Agree*	*Chi-square (sig.)*
		Percentages		
Total	20	43	37	
Community Size		(n = 2242)		
Less than 500	24	46	30	
500 - 999	25	41	35	
1,000 - 4,999	21	43	37	χ^2 =
5,000 - 9,999	23	43	35	13.03
10,000 and up	18	44	38	(.111)
Region		(n = 2328)		
Panhandle	18	45	36	
North Central	24	45	31	
South Central	21	42	37	χ^2 =
Northeast	18	43	39	10.29
Southeast	21	42	37	(.245)
Income Level		(n = 2143)		
Under $20,000	16	38	46	
$20,000 - $39,999	19	42	40	χ^2 =
$40,000 - $59,999	20	50	30	32.31*
$60,000 and over	23	43	34	(.000)
Age		(n = 2338)		
19 - 29	12	48	40	
30 - 39	18	49	34	
40 - 49	23	45	33	χ^2 =
50 - 64	24	41	36	38.76*
65 and older	24	37	40	(.000)
Gender		(n = 2290)		χ^2 =
Male	28	40	32	54.71*
Female	15	45	40	(.000)
Education		(n = 2275)		
H.S. diploma or less	17	40	43	χ^2 =
Some college	22	45	34	20.16*
Bachelors degree	22	44	34	(.000)
Occupation		(n = 1676)		
Mgt, prof or education	21	50	29	
Sales or office support	17	50	33	
Constrn, inst or maint	24	41	35	
Prodn/trans/warehsing	17	45	38	
Agriculture	36	36	28	χ^2 =
Food serv/pers. care	9	41	50	62.18*
Hlthcare supp/safety	16	46	38	(.000)
Other	27	41	32	
Have companion animal		(n = 2333)		χ^2 =
Yes	19	45	36	9.67*
No	24	40	36	(.008)
Experience with livestock		(n = 2038)		χ^2 =
Yes	29	39	32	74.44*
No	13	48	39	(.000)

CARI Research Report 11-2, July 2011