

Environmentally Sustainable Agriculture Practices

Alberta Public Opinion Study – October 2019

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Contents

Methodology	2
Agriculture and the Environment – Summary	3
Primary Responsibility for Ensuring Environmentally Sustainable Agriculture Practices	4
Tabular Data	
Primary Responsibility for Ensuring Environmentally Sustainable Agriculture Practices	5
Livestock Treated Humanely on Alberta Farms	6
Responsible Water Use by Alberta Livestock Producers	7
Recycling Livestock Manure by Spreading on Crop Fields	8
Growth Hormone Use in Livestock Production	9
Demographics	10
Questions	10

Methodology

Population: The province of Alberta has a total population of 4,371,316 residents (Statistics Canada, 2019) approximately 78% of which are 18 years of age or older for an adult population of 3,409,626.

Sample: Data were collected by Lethbridge College students in the fall of 2019. Students interviewed 953 adult Alberta residents by telephone from October 5 to 10, 2019 under the supervision of principal investigator Dr. Faron Ellis, Research Chair, Citizen Society Research Lab. Landline, hybrid and mobile telephone numbers were selected from a sample drawn from InfoGroup directories and supplemented by CSRL lists. We sincerely thank all participants who took time out of their day to respond to our inquiries. Further results from this study and results from past studies can be accessed by visiting the CSRL web pages at: www.lethbridgecollege.ca

Representativeness: Analysis of the demographic data indicates that, within acceptable limits, the sample accurately represents the demographic distribution of the adult population within the province of Alberta. The sample has been statistically weighted where necessary to even better reflect the demographic distribution of the population (gender, area of province and age).

Confidence: The weighted sample yields a margin of error ± 3.17 percentage points, 19 times out of 20. The margin of error increases when analyzing sub-samples of the data (Calgary ± 6.1 percentage points, Edmonton and immediate area ± 6.5 percentage points, North ± 6.6 percentage points, South ± 6.2 percentage points 19 times out of 20).

IB Commons Call Centre: Students conducted interviews using the facilities of the Lethbridge College IB Commons Call Centre. We thank members of Lethbridge College's ITS and AV teams for their support in helping maintain the IB Commons Call Center.

Sponsorship: These data are part of a larger study of the opinions and attitudes of Alberta residents conducted by the Citizen Society Research Lab at Lethbridge College. These questions were derived from student and faculty interest in the topics.

Agriculture and the Environment – Summary

Primary responsibility for ensuring environmentally sustainable agriculture practices

Understanding that everyone has a role to play in ensuring Alberta agricultural practices are environmentally sustainable, when asked to choose who should hold primary responsibility, a clear majority of Alberta residents (45.2%) side with Alberta farmers, virtually the same (46.3%) as those who responded similarly last fall. Approximately half believe one or the other levels of government should be primarily responsible, more siding with the provincial government (32.3%) than the federal government (16.9%). Very few Albertans (5.6%) believe non-governmental environment groups should be primarily responsible.

Humane treatment of livestock

The vast majority of Alberta residents (92.5%) agree that livestock are treated humanely on Alberta farms. More than half (55.7%) strongly agree while a further 36.7% somewhat agree.

Water Use

Most Alberta residents (88.6%) also agree that Alberta livestock producers are using water responsibly. Of those who expressed an opinion, more than two of five strongly agree (44.2%) while an similar proportion (44.4%) somewhat agree.

Livestock manure recycling

Nine of every ten Alberta residents (89.4%) agree that recycling livestock manure by spreading it on crop fields is an environmentally acceptable practice. A clear majority (60.4%) strongly agree. Three in ten (29.0%) somewhat agree.

Growth hormones

A clear majority of Alberta residents (62.1%) disagree with the practice of using growth hormones in livestock production. Two of every five (39.9%) strongly disagree while slightly less than one-quarter (22.2%) somewhat disagree.

Agriculture and the Environment (%)

Primary responsibility for ensuring sustainable agriculture practices					
				<u>2018</u>	<u>2019</u>
Federal Government				17.0	16.9
Provincial Government				32.2	32.3
NGO Environment Groups				4.5	5.6
Alberta Farmers				46.3	45.2
Livestock treated humanely				<u>2018</u>	<u>2019</u>
	<u>2018</u>	<u>2019</u>	Strongly agree	49.4	55.7
Agree	91.1	92.5	Somewhat agree	41.7	36.7
Disagree	8.9	7.5	Somewhat disagree	5.2	5.5
			Strongly disagree	3.7	2.0
Water use					
			Strongly agree	41.1	44.2
Agree	87.0	88.6	Somewhat agree	45.9	44.4
Disagree	13.0	11.4	Somewhat disagree	8.4	8.6
			Strongly disagree	4.6	2.8
Manure spreading					
			Strongly agree	57.4	60.4
Agree	89.7	89.4	Somewhat agree	32.3	29.0
Disagree	10.3	10.6	Somewhat disagree	6.3	6.2
			Strongly disagree	4.0	4.3
Growth hormones					
			Strongly agree	13.0	14.7
Agree	34.1	37.9	Somewhat agree	21.1	23.2
Disagree	65.9	62.1	Somewhat disagree	21.7	22.1
			Strongly disagree	44.2	39.9

Note: Due to rounding, proportions may not total exactly 100%

Don't know and refused responses removed from tables

- Responsibility: 2018 = 7.3%; 2019 = 6.0%
- Humane treatment of livestock: 2018 = 6.7%; 2019 = 6.8
- Water use: 2018 = 16.3%; 2019 = 14.8%
- Manure: 2018 = 6.7%; 2019 = 6.1%
- Growth hormones: 2018 = 5.2%; 2019 = 3.1%

Primary Responsibility for Ensuring Environmentally Sustainable Agriculture Practices

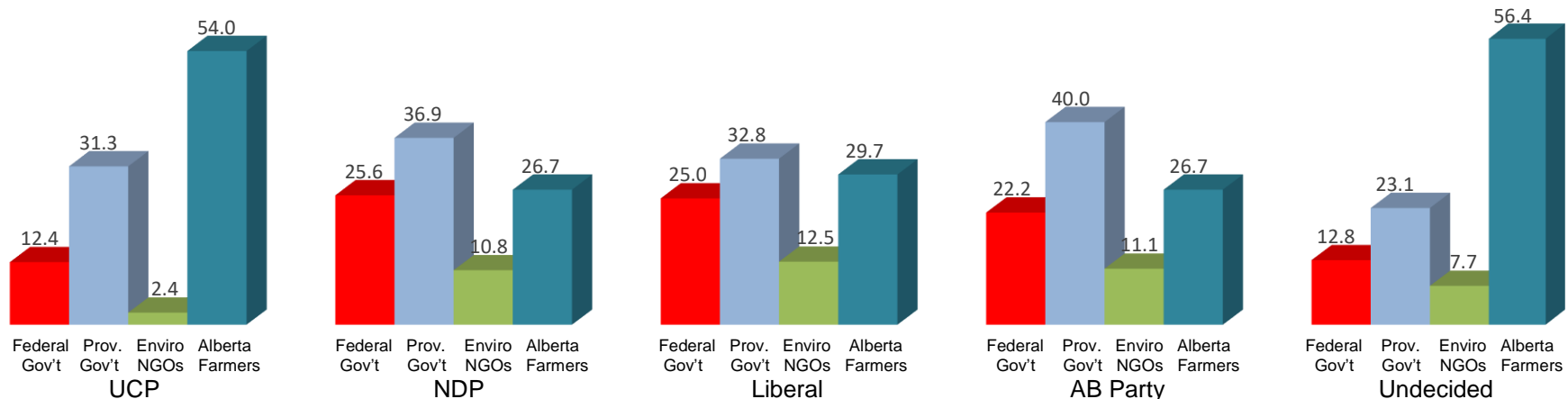
Albertans clearly side with farmers when considering who should hold primary responsibility for ensuring environmentally sustainable agriculture practices on Alberta farms. Opinions about who should hold primary responsibility are significantly impacted by the area of Alberta within which residents live, education, age and provincial partisanship. Opinion is not significantly impacted by gender or Income.

Although most likely to side with Alberta farmers, men are slightly less likely to do so than are women, while women are slightly less likely to side with the provincial government. Similarly, residents in most education categories are most likely to select Alberta farmers as the group that should be primarily responsible, but university grads (34.8%) are slightly less likely to believe farmers should hold primary responsibility than are those with other levels of formal education. A majority of university graduates prefer one or the other levels of government, with more of those siding with the provincial government (37.6%) over the federal government (20.8%).

Alberta residents of most age groups are most likely to side with farmers. Support for farmers is strongest among seniors (52.07%) and the middle-aged (49.2%). Those aged 30 to 44 are slightly more likely to side with the provincial government (39.1%) than farmers (37.0%).

Most significantly, sharp political differences in opinion are evident. Provincial NDP voters are least supportive of Alberta farmers (26.7%) followed by Alberta Party voters (26.7%). Conversely, clear majorities of UCP voters (54.0%) and undecided voters (56.4%) side with Alberta farmers.

Primary Responsibility for Environment by Provincial Vote



Primary Responsibility for Ensuring Environmentally Sustainable Agriculture Practices (October 2019) (%)

Gender	Male	Female	Alberta
Federal Government	16.8	16.8	16.9
Provincial Government	33.9	30.6	32.3
NGO Enviro Groups	4.9	6.5	5.6
Alberta Farmers	44.3	46.1	45.2

Area*	Calgary	Edmonton	North	South
Federal Government	17.0	21.9	17.3	10.6
Provincial Government	34.7	35.1	29.1	29.0
NGO Enviro Groups	2.7	7.9	9.2	2.9
Alberta Farmers	45.6	35.1	44.4	57.5

Household Income	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Federal Government	17.8	16.2	18.3
Provincial Government	29.7	30.0	40.9
NGO Enviro Groups	5.9	7.7	1.6
Alberta Farmers	46.5	46.1	39.2

Education*	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Federal Government	16.3	14.1	13.2	20.8
Provincial Government	26.3	33.0	29.1	37.6
NGO Enviro Groups	9.4	3.2	3.1	6.8
Alberta Farmers	48.1	49.7	54.6	34.8

Age*	18-29	30-44	45-64	65 and older
Federal Government	16.5	18.8	16.7	15.3
Provincial Government	36.8	39.1	30.3	25.7
NGO Enviro Groups	6.6	5.2	3.8	6.9
Alberta Farmers	40.1	37.0	49.2	52.0

Provincial Vote*	UCP	NDP	Liberal	AB Party	Other Parties	Undecided
Federal Government	12.4	25.6	25.0	22.2	12.8	12.8
Provincial Government	31.3	36.9	32.8	40.0	23.1	23.1
NGO Enviro Groups	2.4	10.8	12.5	11.1	7.7	7.7
Alberta Farmers	54.0	26.7	29.7	26.7	56.4	56.4

Notes: Due to rounding, proportions may not total exactly 100%; * sig < 0.05

Livestock Treated Humanely on Alberta Farms (October 2019) (%)

Few significant differences of opinion are measured between most demographic groups when considering whether livestock are treated humanely on Alberta farms. Vast majorities of all demographic groups believe livestock on Alberta farms are being treated humanely, including all provincial party partisans.

Gender	Male	Female	Alberta
Agree	92.7	92.3	92.5
Disagree	7.3	7.7	7.5

Area	Calgary	Edmonton	North	South
Agree	93.0	89.7	91.1	96.6
Disagree	7.0	10.3	8.9	3.4

Household Income	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Agree	92.1	89.9	96.3
Disagree	7.9	10.1	3.7

Education	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Agree	88.7	95.6	94.7	90.6
Disagree	11.3	4.4	5.3	9.4

Age*	18-29	30-44	45-64	65 and older
Agree	86.7	94.4	92.4	95.6
Disagree	13.3	5.6	7.6	4.4

Provincial Vote*	UCP	NDP	Liberal	AB Party	Other Parties	Undecided
Agree	97.2	90.9	81.3	79.2	89.5	83.8
Disagree	2.8	9.1	18.8	20.8	10.5	16.3

Notes: Due to rounding, proportions may not total exactly 100%; * sig < 0.05

Responsible Water Use by Alberta Livestock Producers (October 2019) (%)

Few significant differences of opinion are measured between demographic groups when considering the water use practices of Alberta livestock producers. Substantial majorities of all demographic groups believe Alberta livestock producers are using water responsibly.

Gender	Male	Female	Alberta
Agree	89.2	87.9	88.6
Disagree	10.8	12.1	11.4

Area	Calgary	Edmonton	North	South
Agree	88.6	92.1	87.7	85.3
Disagree	11.4	7.9	12.3	14.7

Household Income*	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Agree	85.8	87.7	95.3
Disagree	14.2	12.3	4.7

Education	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Agree	86.1	88.1	88.4	90.9
Disagree	13.9	11.9	11.6	9.1

Age*	18-29	30-44	45-64	65 and older
Agree	79.8	90.3	91.7	92.9
Disagree	20.2	9.7	8.3	7.1

Provincial Vote*	UCP	NDP	Liberal	AB Party	Other Parties	Undecided
Agree	93.3	76.7	89.5	84.1	78.9	89.4
Disagree	6.7	23.3	10.5	15.9	21.1	10.6

Notes: Due to rounding, proportions may not total exactly 100%; * sig < 0.05

Recycling Livestock Manure by Spreading on Crop Fields (October 2019) (%)

Few significant differences of opinion are measured between demographic groups when considering the practice of recycling livestock manure by spreading it on crop fields. Even where minor differences of opinion exist, substantial majorities of all demographic groups believe livestock manure spreading is an environmentally acceptable practice.

Gender	Male	Female	Alberta
Agree	89.8	88.8	89.4
Disagree	10.2	11.2	10.6

Area	Calgary	Edmonton	North	South
Agree	87.6	88.4	91.0	91.1
Disagree	12.4	11.6	9.0	8.9

Household Income	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Agree	86.6	88.3	92.3
Disagree	13.4	11.7	7.7

Education	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Agree	86.0	89.9	91.3	89.5
Disagree	14.0	10.1	8.7	10.5

Age	18-29	30-44	45-64	65 and older
Agree	86.5	88.9	90.2	91.2
Disagree	13.5	11.1	9.8	8.8

Provincial Vote*	UCP	NDP	Liberal	AB Party	Other Parties	Undecided
Agree	95.2	80.0	83.3	88.9	69.8	92.3
Disagree	4.8	20.0	16.7	11.1	30.2	7.7

Notes: Due to rounding, proportions may not total exactly 100%; * sig < 0.05

Growth Hormone Use in Livestock Production (October 2019) (%)

While supportive of Alberta farmers in general, as well as in their practices with respect to the previous three aspects of environmentally sustainable agriculture, opinion is much more divided when Alberta residents consider the use of growth hormones in livestock production. A clear majority of Albertans disagree with the use of growth hormones in livestock production (62.1%).

- Men are more evenly split on the issue (50.2% disagree while 49.8% agree) than are women, where nearly three-quarters are opposed (74.3%) and only about one-quarter supportive (25.7%).
- Edmontonians (69.5%) are more opposed than are other Albertans, with slightly less than two-thirds of Calgarians (62.1%) and northern Albertans (60.6%) opposed. Southern Albertans are more evenly divided with nearly as many supportive (47.1%) as opposed (52.9%).
- Opposition increases with age. In fact, a clear majority of young Alberta residents (57.7%) agree with the use of growth hormones. Substantial majorities of all other age groups are opposed, with middle-aged residents (73.5%) and seniors most opposed (73.3%).
- Provincial NDP voters are most opposed to the use of growth hormones (74.5%), followed by their Liberal counterparts (60.9%). Although also more likely to be opposed than supportive, UCP (54.7%) and Alberta Party supporters (53.2%) are less opposed.

Gender*	Male	Female	Alberta
Agree	49.8	25.7	37.9
Disagree	50.2	74.3	62.1

Area*	Calgary	Edmonton	North	South
Agree	37.4	30.5	39.4	47.1
Disagree	62.6	69.5	60.6	52.9

Household Income*	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Agree	47.2	36.7	33.7
Disagree	52.8	63.3	66.3

Education	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Agree	33.3	37.9	42.7	37.5
Disagree	66.7	62.1	57.3	62.5

Age*	18-29	30-44	45-64	65 and older
Agree	57.7	44.6	26.5	26.7
Disagree	42.3	55.4	73.5	73.3

Provincial Vote	UCP	NDP	Liberal	AB Party	Other Parties	Undecided
Agree	45.3	25.5	39.1	46.8	33.3	27.3
Disagree	54.7	74.5	60.9	53.2	66.7	72.7

Notes: Due to rounding, proportions may not total exactly 100%; * sig < 0.05

Demographics (%)

Area of Province		Gender		Income		Education		Age	
Calgary	28.1	Male	50.3	Under \$60,000	35.2	H-School/less	17.2	18-29	23.4
Edmonton	28.2	Female	49.3	\$60-\$120,000	40.0	Some P-Sec.	20.7	30-44	22.2
North	22.0	Other	0.4	Over \$120,000	24.8	Col-Tech-Grad	24.8	45-64	30.7
South	21.7					University Grad	37.2	65 or older	23.7

Mean age = 48 years

Note: Due to rounding, proportions may not total exactly 100%

Questions

Thinking for a moment about agriculture in Alberta, understanding that everyone has a role to play in ensuring Alberta's agriculture industry is operated in an environmentally sustainable way, which of the following groups do you think should be primarily responsible for ensuring environmentally sustainable agricultural practices?

- The federal government
- The provincial government
- Non-governmental environmental groups
- Alberta farmers
- Don't know (unprompted)
- Refused (unprompted)

Please tell me whether you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with each of the following statements about agriculture in Alberta.

- Livestock on Alberta farms are treated humanely.
 - The use of growth hormones in livestock production is an acceptable practice.
 - Alberta livestock producers are using water resources responsibly.
 - Recycling livestock manure by spreading it on crop fields is an acceptable practice.
- Strongly agree
 - Somewhat agree
 - Somewhat disagree
 - Strongly disagree
 - Don't know (unprompted)
 - Refused (unprompted)