

# Environmentally Sustainable Agriculture Practices

## Alberta Public Opinion Study – February 2019

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Dr. Faron Ellis, Research Chair

[faron.ellis@lethbridgecollege.ca](mailto:faron.ellis@lethbridgecollege.ca)

[www.lethbridgecollege.ca](http://www.lethbridgecollege.ca)

3000 College Drive, South  
Lethbridge, Alberta T1K 1L6



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## Methodology

**Population:** The province of Alberta has a total population of 4,334,025 residents (Statistics Canada, 2018) approximately 78% of which are 18 years of age or older for an adult population of 3,380,540.

**Sample:** Data were collected by Lethbridge College students in the winter of 2019. Students interviewed 1,055 adult Alberta residents by telephone from February 2 to 5, 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](http://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  $\pm 3.0$  percentage points, 19 times out of 20. The margin of error increases when analyzing sub-samples of the data (Calgary  $\pm 5.6$  percentage points, Edmonton and immediate area  $\pm 5.8$  percentage points, North  $\pm 6.3$  percentage points, South  $\pm 6.3$  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 (57.4%) side with Alberta farmers, a considerable jump from the 46.3% who responded similarly last fall. Over one-third believe one or the other levels of government should be primarily responsible, more siding with the provincial government (23.3%) than the federal government (15.0%). Very few Albertans (4.2%) 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 strongly agree (57.4%) while a further 35.1% somewhat agree.

### Water Use

Most Alberta residents (86.5%) also agree that Alberta livestock producers are using water responsibly. Of those who expressed an opinion, two of five strongly agree (43.2%) while an identical proportion (43.2%) somewhat agree.

### Livestock manure recycling

Nine of every ten Alberta residents (91.8%) agree that recycling livestock manure by spreading it on crop fields is an environmentally acceptable practice. A clear majority (63.1%) strongly agree. More than one-quarter (28.8%) somewhat agree.

### Growth hormones

A clear majority of Alberta residents (66.0%) disagree with the practice of using growth hormones in livestock production. Two of every five (39.8%) strongly disagree while slightly more than one-quarter (26.2%) somewhat disagree.

Agriculture and the Environment (%)

Primary responsibility for ensuring sustainable agriculture practices					
	<u>2018</u>		<u>2019</u>		
Federal Government	17.0		15.0		
Provincial Government	32.2		23.3		
NGO Environment Groups	4.5		4.2		
Alberta Farmers	46.3		57.4		

Livestock treated humanely					
	<u>2018</u>	<u>2019</u>		<u>2018</u>	<u>2019</u>
Agree	91.1	92.5	Strongly agree	49.4	57.4
Disagree	8.9	7.5	Somewhat agree	41.7	35.1
			Somewhat disagree	5.2	4.9
			Strongly disagree	3.7	2.6

Water use					
				<u>2018</u>	<u>2019</u>
Agree	87.0	86.5	Strongly agree	41.1	43.2
Disagree	13.0	13.5	Somewhat agree	45.9	43.2
			Somewhat disagree	8.4	9.8
			Strongly disagree	4.6	3.7

Manure spreading					
				<u>2018</u>	<u>2019</u>
Agree	89.7	91.8	Strongly agree	57.4	63.1
Disagree	10.3	8.2	Somewhat agree	32.3	28.8
			Somewhat disagree	6.3	5.1
			Strongly disagree	4.0	3.0

Growth hormones					
				<u>2018</u>	<u>2019</u>
Agree	34.1	34.0	Strongly agree	13.0	16.7
Disagree	65.9	66.0	Somewhat agree	21.1	17.3
			Somewhat disagree	21.7	26.2
			Strongly disagree	44.2	39.8

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

Don't know and refused responses removed from tables

- Responsibility: 2018 = 7.3%; 2019 = 11.9%
- Humane treatment of livestock: 2018 = 6.7%; 2019 = 8.3
- Water use: 2018 = 16.3%; 2019 = 20.0%
- Manure: 2018 = 6.7%; 2019 = 7.9%
- Growth hormones: 2018 = 5.2%; 2019 = 5.0%

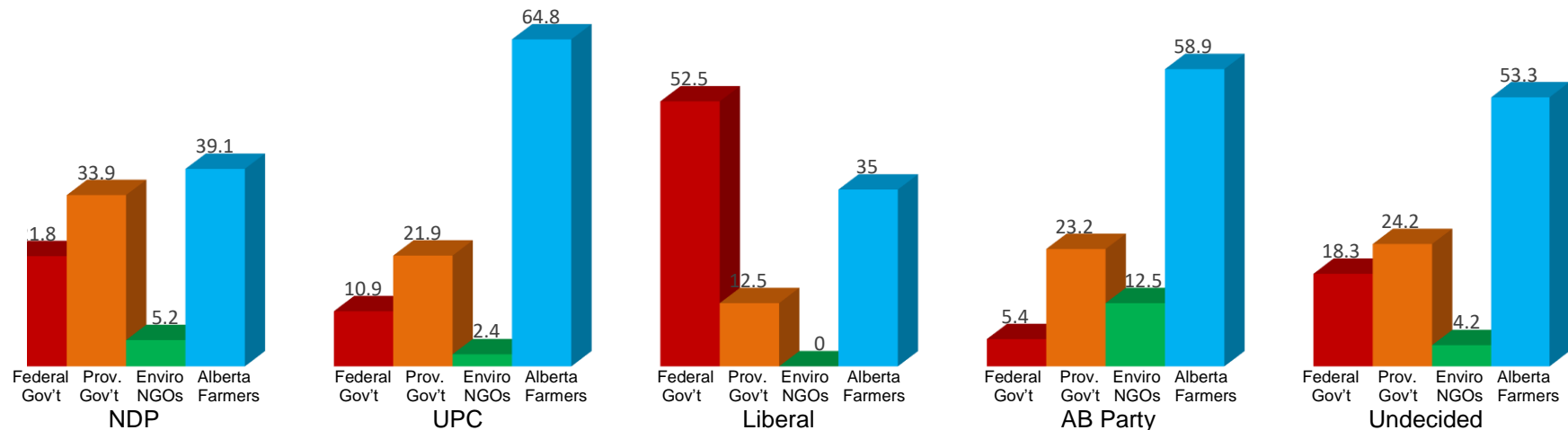
## Primary Responsibility for Ensuring Environmentally Sustainable Agriculture Practices

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, income, education and provincial partisanship. Opinion is not significantly impacted by gender or age.

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 governments. Similarly, residents in all education categories are most likely to select Alberta farmers as the group that should be primarily responsible, but university grads (45.1%) 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 over the federal government.

Alberta residents of all ages are most likely to side with farmers. Support for farmers is strongest among seniors (67.7%) and the youth (61.4%). Although still mostly supportive of farmers (47.1%), those aged 30 to 44 are more supportive of governments than are other age groups (26.2% provincial government and 18.9% federal government.)

Most significantly, sharp political differences in opinion are evident. Provincial Liberal voters are least supportive of Alberta farmers (35.0%) followed by NDP voters (39.1%). Conversely, clear majorities of UCP voters (64.8%), Alberta Party supporters (58.9%) and Freedom Conservative party voters (66.7%) side with Alberta farmers.



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

Gender	Male	Female	Alberta
Federal Government	15.9	14.1	15.0
Provincial Government	25.1	21.7	23.3
NGO Enviro Groups	4.1	4.6	4.2
Alberta Farmers	55.0	59.6	57.4

Area*	Calgary	Edmonton	North	South
Federal Government	16.7	17.9	11.7	13.1
Provincial Government	25.6	26.8	18.9	21.1
NGO Enviro Groups	2.3	5.7	4.1	4.7
Alberta Farmers	55.4	49.6	65.3	61.0

Household Income*	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Federal Government	13.0	17.3	17.0
Provincial Government	22.6	24.0	26.3
NGO Enviro Groups	4.0	5.1	5.3
Alberta Farmers	13.0	17.3	17.0

Education*	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Federal Government	16.9	15.0	7.9	20.8
Provincial Government	15.8	20.7	22.0	31.0
NGO Enviro Groups	3.3	4.1	6.1	3.2
Alberta Farmers	63.9	60.1	63.9	45.1

Age	18-29	30-44	45-64	65 and older
Federal Government	13.6	18.9	16.4	11.4
Provincial Government	23.2	26.2	26.5	17.0
NGO Enviro Groups	1.8	7.8	4.0	3.9
Alberta Farmers	61.4	47.1	53.1	67.7

Provincial Vote*	NDP	UCP	Liberal	AB Party	Free. Con.	Undecided
Federal Government	21.8	10.9	52.5	5.4	4.8	18.3
Provincial Government	33.9	21.9	12.5	23.2	19.0	24.2
NGO Enviro Groups	5.2	2.4	0.0	12.5	9.5	4.2
Alberta Farmers	39.1	64.8	35.0	58.9	66.7	53.3

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

## Livestock Treated Humanely on Alberta Farms (February 2019) (%)

No 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.

Gender	Male	Female	Alberta
Agree	93.5	91.6	92.5
Disagree	6.5	8.4	7.5

Area	Calgary	Edmonton	North	South
Agree	94.5	89.6	95.2	90.7
Disagree	5.5	10.4	4.8	9.3

Household Income	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Agree	90.5	93.6	95.9
Disagree	9.5	6.4	4.1

Education	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Agree	90.8	91.4	94.2	92.7
Disagree	9.2	8.6	5.8	7.3

Age	18-29	30-44	45-64	65 and older
Agree	91.6	92.0	93.0	93.4
Disagree	8.4	8.0	7.0	6.6

Provincial Vote	NDP	UCP	Liberal	AB Party	Free. Con.	Undecided
Agree	92.5	95.5	82.5	86.4	76.2	92.1
Disagree	7.5	4.5	17.5	13.6	23.8	7.9

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

## Responsible Water Use by Alberta Livestock Producers (February 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	86.4	86.6	86.5			
Disagree	13.6	13.4	13.5			
Area*	Calgary	Edmonton	North	South		
Agree	80.4	86.6	92.0	87.9		
Disagree	19.6	13.4	8.0	12.1		
Household Income	Under \$40,000	\$40,001 to \$100,000	Over \$100,000			
Agree	87.1	86.8	87.5			
Disagree	12.9	13.2	12.5			
Education*	High School or less	Some Post-secondary	College-Tech-Trade	University Grad		
Agree	91.5	87.6	85.1	84.2		
Disagree	8.5	12.4	14.9	15.8		
Age	18-29	30-44	45-64	65 and older		
Agree	87.4	82.4	87.6	88.1		
Disagree	12.6	17.6	12.4	11.9		
Provincial Vote	NDP	UCP	Liberal	AB Party	Free. Con.	Undecided
Agree	79.0	91.6	78.9	84.7	61.9	85.6
Disagree	21.0	8.4	21.1	15.3	38.1	14.4

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



## Recycling Livestock Manure by Spreading on Crop Fields (February 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. Slight difference of opinion are measured between age groups with older residents slightly less supportive than are younger residents.

Gender	Male	Female	Alberta			
Agree	92.4	91.2	91.8			
Disagree	7.6	8.8	8.2			
Area	Calgary	Edmonton	North	South		
Agree	90.6	91.5	92.6	93.0		
Disagree	9.4	8.5	7.4	7.0		
Household Income	Under \$40,000	\$40,001 to \$100,000	Over \$100,000			
Agree	89.8	95.0	92.5			
Disagree	10.2	5.0	7.5			
Education	High School or less	Some Post-secondary	College-Tech-Trade	University Grad		
Agree	92.7	94.1	91.4	90.1		
Disagree	7.3	5.9	8.6	9.9		
Age*	18-29	30-44	45-64	65 and older		
Agree	94.2	95.4	91.6	86.3		
Disagree	5.8	4.6	8.4	13.7		
Provincial Vote	NDP	UCP	Liberal	AB Party	Free. Con.	Undecided
Agree	92.7	93.8	95.3	85.0	75.0	91.1
Disagree	7.3	6.2	4.7	15.0	25.0	8.9

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

## Growth Hormone Use in Livestock Production (February 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 (66.0%).

- Men are more evenly split on the issue (59.8% disagree while 40.2% agree) than are women, where nearly three-quarters are opposed (73.6%) and only about one-quarter supportive (26.4%).
- Edmontonians (79.5%) are more opposed than are other Albertans, with approximately two-thirds of Calgarians (64.4%) and northern Albertans (66.4%) opposed at about the provincial average, while southern Albertans are more evenly divided with nearly as many supportive (48.2%) as opposed (51.8%).
- Opposition increases with age. In fact, a clear majority of young Alberta residents (60.0%) agree with the use of growth hormones. Substantial majorities of all other age groups are opposed, with seniors most likely to disagree (83.5%).
- Provincial NDP voters are most opposed to the use of growth hormones (81.5%), followed by their Freedom Conservative Party (65.2%) and Alberta Party counterparts (64.4%). Although also more likely to be opposed than supportive, UCP (57.8%) and Liberal (53.3%) partisan opinion is more split on the issue.

Gender*	Male	Female	Alberta
Agree	40.2	26.4	34.0
Disagree	59.8	73.6	66.0

Area*	Calgary	Edmonton	North	South
Agree	35.6	20.5	33.6	48.2
Disagree	64.4	79.5	66.4	51.8

Household Income	Under \$40,000	\$40,001 to \$100,000	Over \$100,000
Agree	39.0	31.8	37.3
Disagree	61.0	68.2	62.7

Education	High School or less	Some Post-secondary	College-Tech-Trade	University Grad
Agree	36.0	35.1	33.0	32.5
Disagree	64.0	64.9	67.0	67.5

Age*	18-29	30-44	45-64	65 and older
Agree	60.0	37.7	24.6	16.5
Disagree	40.0	62.3	75.4	83.5

Provincial Vote*	NDP	UCP	Liberal	AB Party	Free. Con.	Undecided
Agree	18.5	42.2	46.7	35.6	34.8	24.3
Disagree	81.5	57.8	53.3	64.4	65.2	75.7

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

## Demographics (%)

Area of Province		Gender		Income		Education		Age	
Calgary	28.5	Male	50.0	Under \$60,000	39.0	H-School/less	19.0	18-29	23.7
Edmonton	26.5	Female	48.8	\$60-\$120,000	39.5	Some P-Sec.	20.7	30-44	21.4
North	22.6	Other	1.2	Over \$120,000	21.5	Col-Tech-Grad	29.2	45-64	29.7
South	22.4					University Grad	31.1	65 or older	25.1

Mean age = 48.6 year

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

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)