

# Monitoring public attitudes to livestock industries and livestock welfare

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Forum 2019



# Why monitor public attitudes to livestock industries and animal welfare?

Public attitudes have a role in determining how people behave as consumers and as citizens (Coleman, 2010)

- On-going public concern about livestock animal welfare in Australia
  - I. **Consumer behaviour**
    - limited evidence of **attitudes to livestock welfare** = consumer behaviour; price, health, environment and local production are more important for consumers
    - change in consumer behaviour; > demand for ‘animal welfare friendly’ and ‘ethical production’ products, > vegetarianism and veganism, < red meat consumption/capita
  - II. **Community behaviour**
    - community behaviours performed in opposition to the livestock industry: for example, signing a petition, participating in rallies and ‘speaking’ with family/friends/acquaintances about an issue

# Why monitor public attitudes to livestock industries and animal welfare?

The public is often a key driver of animal welfare change: *public attitudes affect decision makers at the political, regulatory, retail and industry levels*

- Public attitudes to livestock farming and welfare may threaten **social license to farm** and **industry sustainability**

**Social license** granted when industries behave in a manner consistent with their legal obligations and community expectations

- Failure to meet the expectations of the public can lead to increased litigation, increased regulations, and increasing consumer demands

# Monitoring public attitudes to livestock industries and animal welfare

Random telephone survey of Australian general public; 479 participants

- positive attitudes towards livestock animal welfare
- strong relationship between attitudes and meat consumption
- limited knowledge of some husbandry procedures
- poor correlation between perceived and actual knowledge
- high prevalence of community behaviours
- high perceived knowledge but low actual knowledge amongst opinion leaders

## Development of a Public Attitude Monitoring Scheme

Monitoring public attitudes to inform animal welfare policy development

APL Project number 2012/0026  
Department of Agriculture Project number AW1213-17

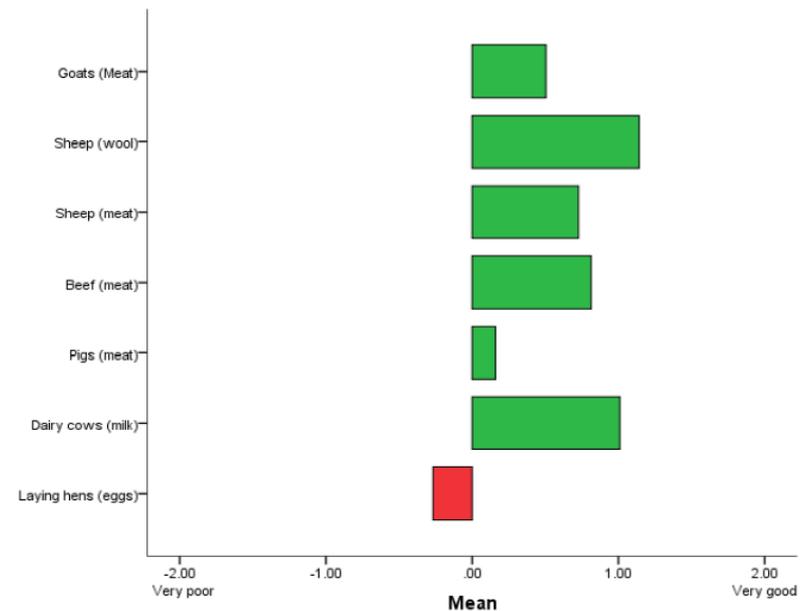


Figure 5. Perceived welfare of livestock animals

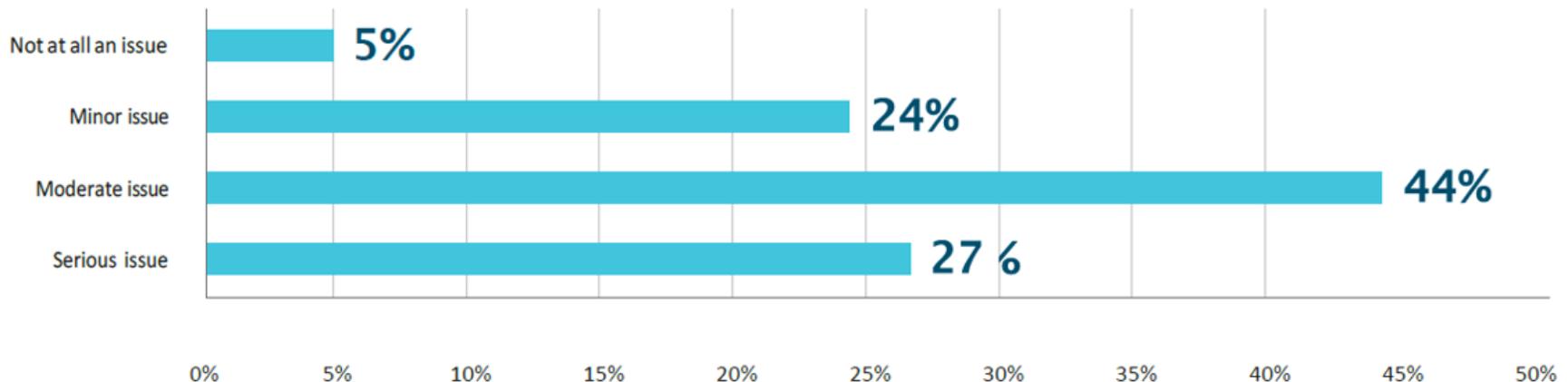
# Monitoring public attitudes to livestock industries and animal welfare

## FUTURE EYE

### Australia's Shifting Mindset on Farm Animal Welfare

**Figure 5** Concern about farm animal welfare

To what extent do you consider farm animal welfare to be an issue?



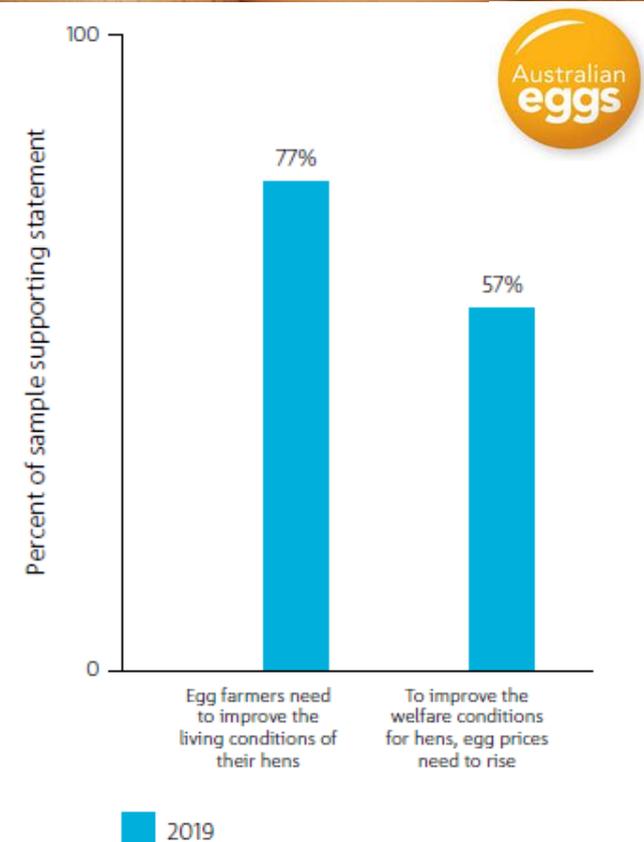
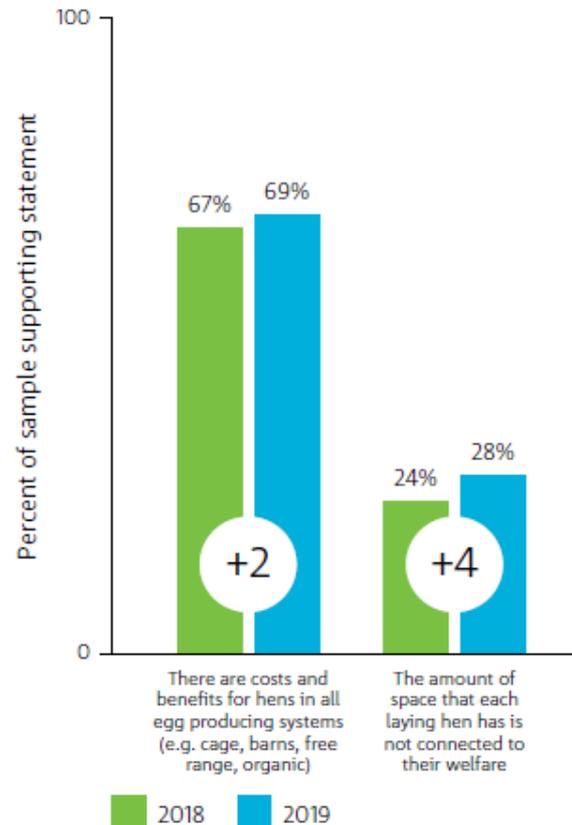
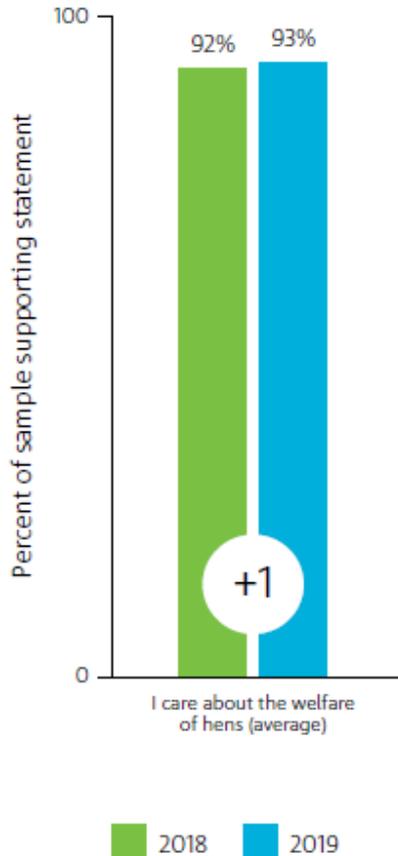
**Figure 6** Concern about specific animals

Do you agree that the welfare of the following farm animals is generally good?

Animal	Percentage of disagreement
 Chickens for egg production	35%
 Chicken for meat	31%
 Pigs	23%
 Beef cattle	18%
 Sheep & goats	18%
 Dairy cows	17%
 Fish	12%
 Crustaceans	10%



# Monitoring public attitudes to livestock industries and animal welfare



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## The Community Trust in Rural Industries Program

The Community Trust in Rural Industries Program is a collaborative partnership\* involving 10 Rural Research and Development Corporations (RDCs), the National Farmers' Federation (NFF) and New South Wales Department of Primary Industries (NSW DPI) to build the capacity of food and fibre industries to productively engage with the community.

The Community Trust in Rural Industries Program have engaged Voconiq to conduct a three-year program of research on the drivers of community trust in the Australian agricultural sector. The project aims to:

- Engage stakeholders in the industry to understand key issues from a range of internal and external perspectives;
- Identify the drivers of trust in the sector and benchmark Australian community sentiment toward the sector, and;
- Identify best practice activities that support constructive engagement with community members.

# Monitoring public attitudes to livestock industries and animal welfare

## MDC project 'Identifying public and producer attitudes to sheep and cattle welfare to inform education strategies' (P.PSH.0804)

Grahame Coleman, Lauren Hemsworth, Maxine Rice and Paul Hemsworth

Project aims:

- I. identify both producer and community knowledge of and attitudes towards livestock welfare issues in the red meat industry, and their relationships with relevant outcome variables that can impact on the sustainability of the red meat industry,
- II. identify key opinion leaders, that is, influential individuals or groups, and the role of various sources (media, social networks, etc.) in informing the community regarding livestock welfare issues in the red meat industry, and
- III. develop and evaluate communication (education) strategies targeting the general community and, where appropriate, red meat producers.

Part 1: Producer and community knowledge of and attitudes towards sheep and beef cattle welfare (questionnaires and focus group discussions, with both the general public and red meat producers)

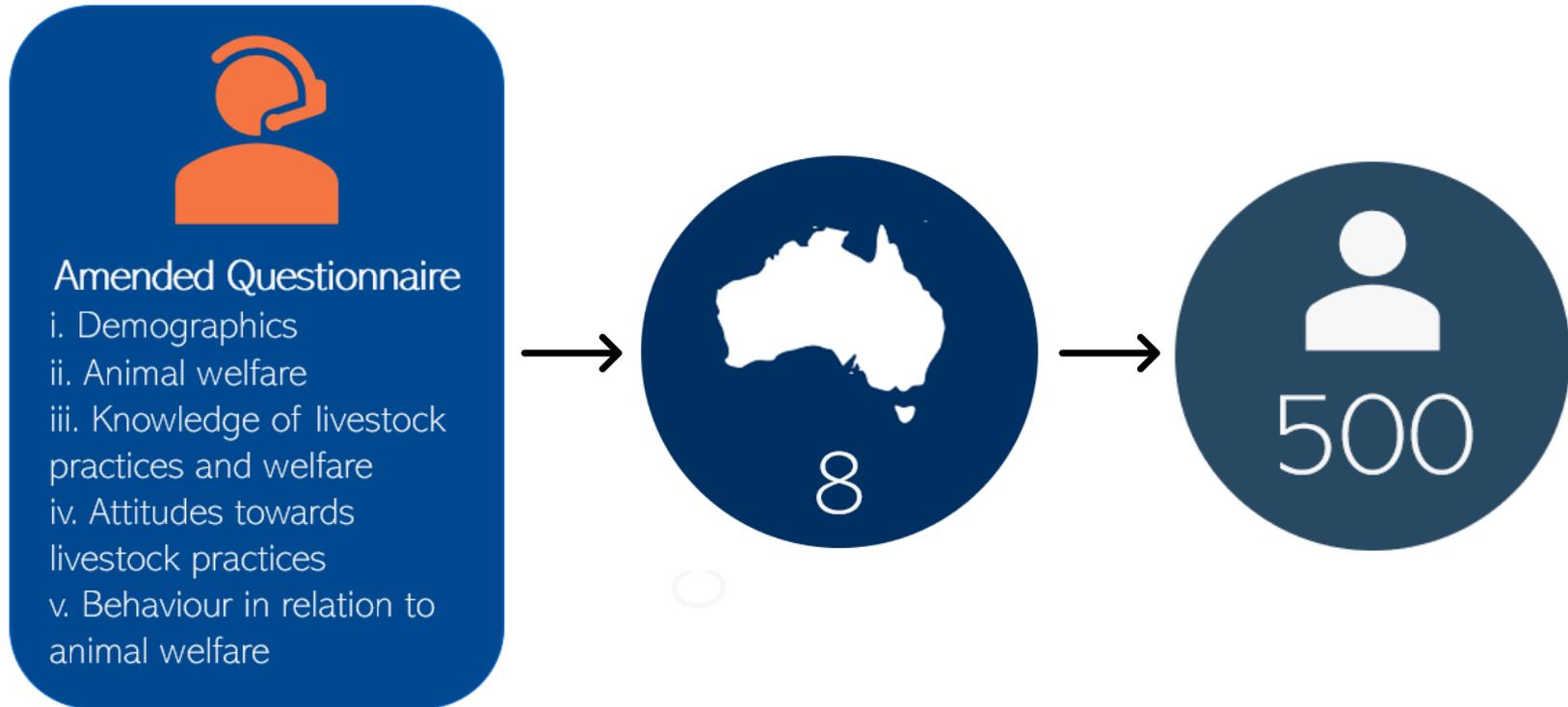
Part 2: Development and evaluation of education strategies for the red meat industry (deliberative forum and intervention)

# NAWRDES facilitated project 'Monitoring public attitudes to livestock industries and livestock welfare'

## PROJECT OBJECTIVES

- I. Adapt the questionnaire used in the previous NAWRDE project, APL Project number 2012/0026 monitor trends in public attitudes (and sources of knowledge) relating to animal welfare in the primary industry sector
- II. To provide both generic and industry-specific information on current trends in public attitudes to and knowledge of welfare issues in the livestock industries

# METHODOLOGY



**DATA ANALYSIS:** identification of composite variables for analysis (attitude and trust questionnaire data were analysed using PCA), calculation of knowledge scores, determination of OL, correlation analyses to examine relationships between public attitudes, knowledge, perceived knowledge and behaviour (consumer and community)

# RESULTS: consumer behaviour

**Table 7.** Dietary Habits of Respondents

	2013 survey		2019 survey		
	Frequency	Percentage	Frequency	Percentage	
Meat and vegetable eater	438	91.4	443	88.4	
Vegetarian	35	7.3	33	6.6	
Vegan	3	0.6	19	3.8	
Other	3	0.6	6	1.2	
<b>Total</b>	479	100.0	<b>Total</b>	501	100.0



# RESULTS: consumer behaviour

Table 1. Weekly consumption of animal products from 2013 survey

	<b>Beef</b>	<b>Chicken</b>	<b>Lamb</b>	<b>Pork</b>	<b>Eggs</b>	<b>Seafood</b>	<b>Dairy products</b>
<b>More than 3 times a week</b>	18.8	16.7	2.7	3.1	25.1	5.4	80.4
<b>2-3 times a week</b>	38.8	46.6	13.6	7.5	35.9	18.2	9.2
<b>Once a week</b>	22.8	20.5	30.9	20.5	21.1	30.1	4.8
<b>Less than once a week</b>	9	8.4	30.3	40.7	12.9	30.7	1.7
<b>Never</b>	10.6	7.9	22.5	28.2	5	15.7	4

Table 2. Weekly consumption of animal products from 2019 survey

	<b>Beef</b>	<b>Chicken</b>	<b>Lamb</b>	<b>Pork</b>	<b>Eggs</b>	<b>Seafood</b>	<b>Dairy products</b>
<b>More than 3 times a week</b>	14	18.7	1.8	3.8	27	6.2	75.5
<b>2-3 times a week</b>	37.6	45.2	12.2	17.1	37.6	18.9	13.5
<b>Once a week</b>	28.3	25.8	37.9	29.2	20.5	38.3	5
<b>Less than once a week</b>	16.3	8.7	33.2	36.1	11	26.5	3.5
<b>Never</b>	3.8	1.6	14.9	13.8	3.9	10	2.5

→ no statistical difference in average weekly consumption of the different animal products

# RESULTS: respondents' understanding of animal welfare

**Table 4.** Level of agreement with animal welfare descriptions

Animal welfare descriptions	2013	2019
Humane treatment of animals	4.46	4.54
Caring for our pets	4.54	4.46
Livestock farmers and handlers using best practice	4.41	4.10
Preventing animal cruelty	4.59	4.58
Protecting the rights of animals	4.27	4.20
Livestock farmers and handlers caring for their animals	4.39	4.14
Balancing the needs of animals and people	3.88	3.66

The correlation between the means for the samples was **0.92** (rank order correlation .82)

→ indicating they were **quite stable over time** and that the order of agreement with the various definitions remained fairly stable



# RESULTS: acceptability of animal use

**Table 5.** Respondents' Level of Acceptability of Animal Uses

2013 survey			2019 survey		
	Mean	Standard deviation		Mean	Standard deviation
Companions (pets)	4.68	0.69	Companions (pets)	4.61	0.74
Food	4.10	1.11	Food	3.78	1.25
Clothing	3.18	1.48	Clothing	2.98	1.50
Research	2.44	1.30	Research	2.38	1.30
Sport and entertainment	2.12	1.16	Sport and entertainment	2.06	1.25

Note. Scale ranged from 1 to 5 (1= extremely unacceptable, 5 = extremely acceptable)

→ no statistical difference in acceptability of animal use; *however overall reduction in 2019 survey*



# RESULTS: animal welfare perceptions

**Table 6.** Respondents' Perception of the Welfare of Livestock Animals

2013 survey			2019 survey		
	Mean	Standard deviation		Mean	Standard deviation
Laying hens	2.64	1.20	Laying hens	2.83	1.50
Pigs	3.00	1.33	Pigs	3.12	1.39
Goats (meat)	3.12	1.50	Goats (meat)	3.53	1.70
Sheep (meat)	3.58	1.23	Sheep (meat)	3.52	1.26
Beef	3.72	1.14	Beef	3.59	1.22
Dairy cows	3.95	1.05	Dairy cows	3.78	1.26
Sheep (wool)	4.08	1.03	Sheep (wool)	3.92	1.10

Note. Scale ranged from 1 to 5 (1= very poor, 5 = very good)

→ no statistical difference in respondents perceptions of animal welfare in different livestock species

# RESULTS: animal welfare attitude variables

## Attitudes towards livestock animal welfare

- 2019 scale loaded on **one factor** and explained **41.64% of the variance** compared to **41.27%** in the 2013 sample
- 60% of respondents scored above the neutral point of 3.0 on the subscale, indicating most respondents held positive attitudes towards livestock animal welfare
- the scale structure was the same for the 2013 and the 2019 survey data

## Beliefs about Australian animal welfare standards

- 2019 scale loaded on **one factor** and explained **52.02% of the variance** compared to **45.69%** in the 2013 sample
- 53% (2013 sample: 52%) of respondents held negative attitudes about Australian animal welfare standards

# RESULTS: trust variables

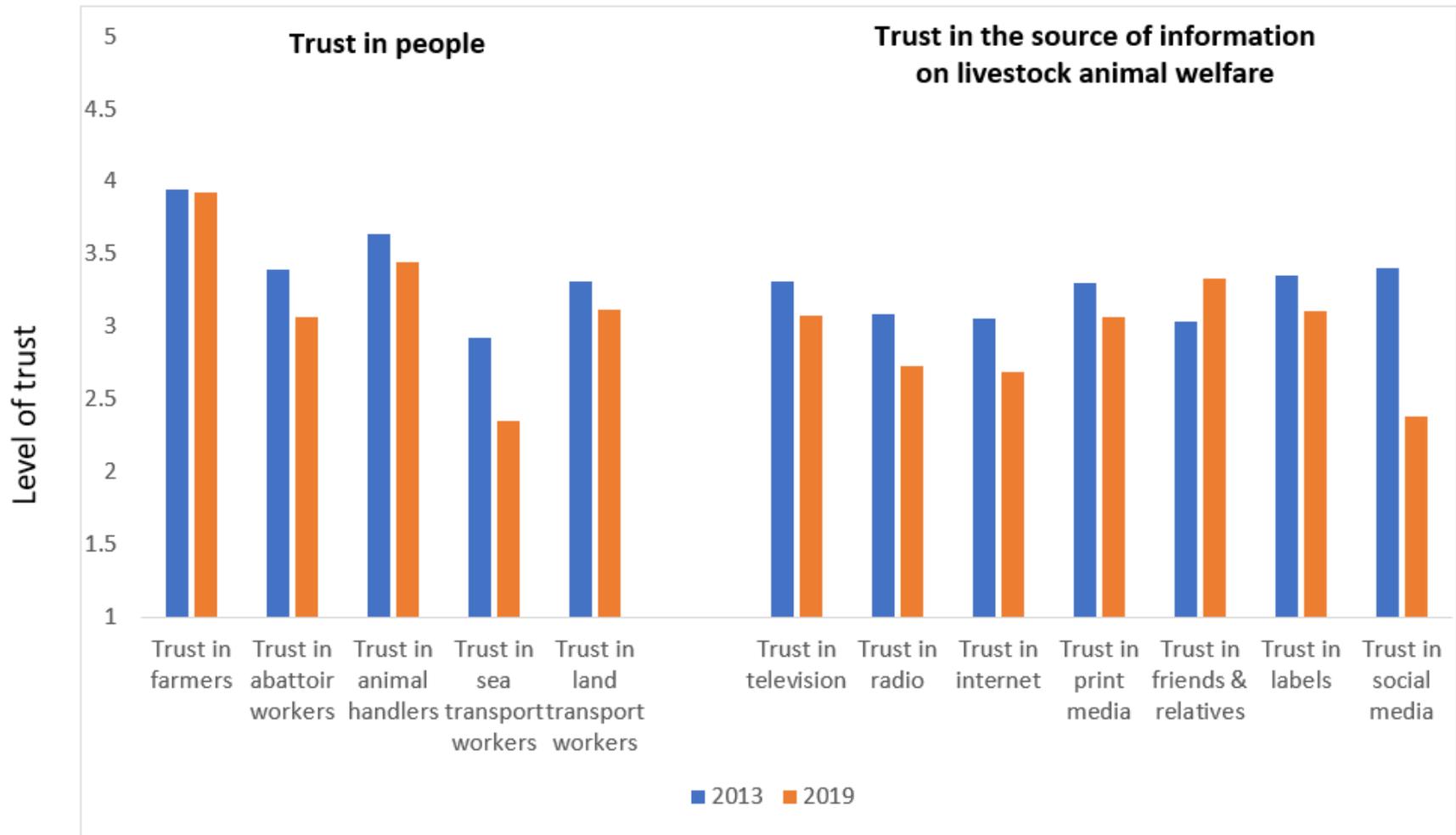
## Trust in the Australian livestock industries

- 2019 scale loaded on **one factor** and explained **71.87%** of the variance in trust compared to **72.77%** in the 2013 sample
  - some variability in the participants' responses to this scale; 38% (2013: 26.8%) of the sample of respondents reported low trust, the majority report high trust
- trust declined between the two samples ( $t_{974}=4.17, p<.01$ )

## Trust in livestock animal welfare information

- 2019 scale loaded on **one factor** and explained **38.80%** of the variance compared to **42.52%** in the 2013
- trust declined between the two samples ( $t_{976}=4.59, p<.01$ )

# RESULTS: trust variables



# RESULTS: knowledge variables

## Perceived knowledge of livestock industries

- 2019 scale loaded on **one factor explaining 66.78% of the variance** (65.20% in 2013)
  - knew least about the pork and sheep meat industries, and most about the egg industry
- no change between the two samples

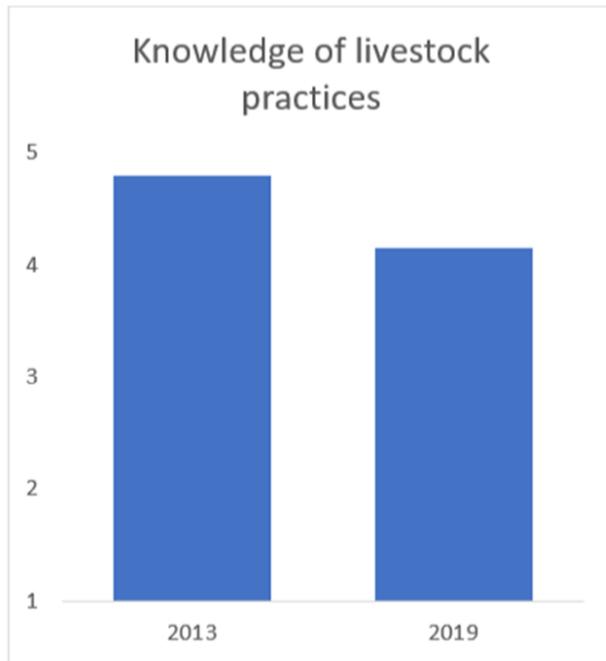
**Table 10.** Distributions of Perceived Knowledge of Livestock Industries (2019: n=501, Cronbach's alpha = 0.87 ; 2013: n=479, Cronbach's alpha=0.86). Shaded rows = 2013 sample, clear rows = 2019 sample.

	Nothing at all (%)	Very little	A little bit	A moderate amount	A lot (%)
Pork	23.8	35.7	22.5	12.5	5.4
	14.4	31.9	31.3	16.2	6.2
Sheep (meat)	15.4	31.3	30.7	15.7	6.9
	12.8	25.9	29.7	20.0	11.6
Sheep (wool)	14.0	26.7	26.9	24.0	8.4
	11.8	17.8	30.7	24.8	15.0
Beef	11.3	25.1	32.4	22.8	8.6
	7.0	21.6	33.3	25.7	12.4
Egg	12.3	23.8	32.2	22.3	9.4
	7.2	21.2	33.5	27.1	11.0

# RESULTS: knowledge variables

Actual knowledge of livestock industries

→ knowledge was lower in 2019 sample compared to 2013 sample ( $t_{978}=6.73, p<.01$ )



**Table 11.** Knowledge of Livestock Practices. Shaded rows = 2013 sample, clear rows = 2019 sample.

	% Correct	% Don't know <sup>a</sup>
Halal meat – in Australia, production of Halal approved meat typically involves a reversible method of stunning	26.7	13.6
	26.5	0.0
Pre-slaughter stunning – renders an animal unconscious immediately prior to stunning	51.1	6.7
	46.1	0.0
Kosher meat – in Australia, Kosher approved meat typically comes from animals that have not undergone any method of stunning	53.0	17.3
	42.9	0.2
Crutching – shearing of wool around the rear end of the sheep	58.7	6.3
	53.9	0.0
Mulesing – cutting and removal of skin around the rear end of a sheep	61.8	9.2
	50.5	0.0
Feedlotting – fattening animals in a relatively small enclosure	72.0	4.4
	73.9	0.0
Tail docking – removal of a tail	77.7	4.2
	79.8	0.0
Free-range chickens – chickens that have access to an outdoor area as they please	77.7	0.8
	41.7	0.0

Note: <sup>a</sup> Don't know options were classified as incorrect

# RESULTS: community behaviours

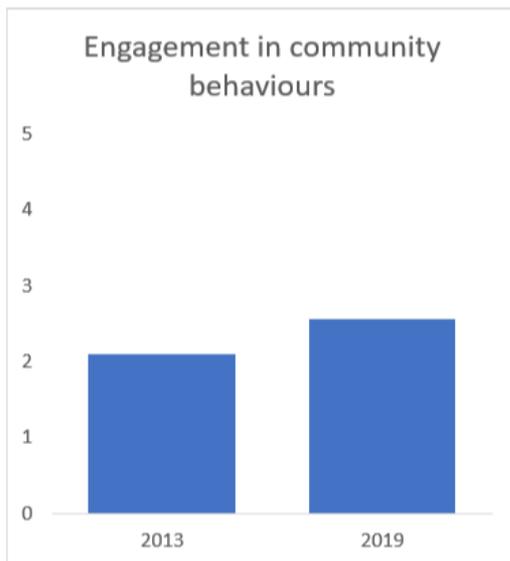
- In both samples, 75% of the sample engaged in at least one community behaviour to express their dissatisfaction
- community behaviours increased between the two samples ( $t_{978}=3.65, p<.01$ )

**Table 14.** Types of Activities Engaged in by Respondents in order to Express Dissatisfaction

	2013	2019
Spoken to colleagues, family members, or friends	55.3	69.1
Donated money to animal welfare organisations <sup>a</sup>	46.6	54.5
Signed a petition	36.3	46.7
Shared or liked a page on a networking site (e.g., Facebook)	25.7	N/A
Volunteered your services to animal welfare organisations <sup>a</sup>	11.7	16.8
Written a letter to a politician	9.4	11.8
Written a letter to a newspaper	4.0	3.8
Contributed to an online collaborative project (e.g., Wikipedia)	3.8	N/A
Posted a video or other media to a content community (e.g., Youtube) <sup>b</sup>	3.8	N/A
Called a radio talk back segment	7.5	2.4
Written a blog (e.g., Twitter)	1.5	N/A
Created a group on a networking site (e.g., Facebook)	1.3	N/A
Social media activities <sup>b</sup>	N/A	40.3

*Note.* <sup>a</sup> Animal welfare/rights groups most commonly noted by respondents discussed in text

<sup>b</sup> Social media activities were collapsed into one category for the 2019 sample.



# RESULTS: opinion leaders

→ proportion of **opinion leaders** identified in the 2019 sample was smaller (7%) than in the 2013 sample (15%) but characteristics were similar; *they tended to be more negative about farm animal welfare, had higher perceived knowledge but no better actual knowledge than the remainder of the sample (non-opinion leaders)*

**Table 15.** Group means for the two clusters identified using 2-step cluster analysis. Shaded rows = 2013 sample, clear rows = 2019 sample.

	During the past six months, how many people have you told about farm animal welfare in Australia?				Overall, in <u>all</u> of your discussions with friends and neighbours how often are you used as a source of advice on farm animal welfare in Australia?		
	Mean		S.D.		Mean		S.D.
	Mean	S.D.	Mean	S.D.	Mean	S.D.	
2013 Non-leaders	1.92	1.21	1.76	0.97	1.60	0.85	
Opinion leaders	4.03	1.09	4.12	0.86	3.80	1.02	
2019 Non-leaders	2.64	1.48	2.39	1.29	2.44	1.12	
Opinion leaders	1.32	.85	1.68	1.13	3.97	.90	

# RESULTS: Predicting community and consumer behaviour

**Table 17.** Correlates of Community Behaviour and Reported Frequency of Meat Consumption.

Shaded rows = 2013 sample, clear rows = 2019 sample

	<b>Comm. Bah.</b>	<b>Beef</b>	<b>Chicken</b>	<b>Lamb</b>	<b>Pork</b>	<b>Eggs</b>	<b>Seafood</b>	<b>Dairy</b>
Attitudes towards livestock animal welfare	.40**	-.25**	-.16**	-.22**	-.20**	-.14*	.00	.06
	.45**	-.22**	-.03	-.17**	-.20**	-.04	.05	-.15**
Attitude towards eating meat	-.36**	.47**	.39**	.36**	.29**	.16*	.11*	.21**
	-.33**	.29**	.09	.27**	.17**	.09*	.00	.16**
Beliefs about welfare standards in the Australian livestock industries	-.43**	.30**	.17**	.23**	.23**	.11*	-.01	.12*
	-.47**	.33**	.08	.25**	.25**	.07	.03	.16**
Trust in the people involved in Australian livestock industries	-.37**	.31**	.21**	.28**	.22**	.10*	.00	.02
	-.44**	.30**	.07	.22**	.25**	.06	.03	.06
Welfare ratings	-.36**	.29**	.26**	.32**	.26**	.13*	.06	.18*
	-.38**	.25**	.03	.27**	.15**	.02	.06	.14**
Perceived knowledge	.12**	.02	-.05	.18**	.08	-.01	.02	-.03
	.02	.10*	.06	.24**	.09	.03	.08	.06
Knowledge of livestock practices	.00	.10*	-.01	.07	.11*	-.03	.01	.05
	-.07	-.02	-.01	.12*	-.04	.03	.00	.02

In summary, data from 2019 survey indicate several things:

1. The measures used are reliable over time
2. People's engagement in animal welfare issues is increasing
3. People's attitudes are tending to become more negative
4. People's trust is declining
5. There is an increased use of and trust in personal information sources of animal welfare information rather than institutionalised sources
6. There is an increasing risk to licence to farm

In summary, data from 2019 survey indicate several things:

**1. The measures used are reliable over time**

- stability of the measures of attitude, knowledge and behaviour are important indicators of their reliability over time, and such stability allows comparisons across time
- these results lend confidence to the continued use of these measures for monitoring trends in public attitudes, knowledge and behaviour

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In summary, data from 2019 survey indicate several things:

1. The measures used are reliable over time
- 2. People's engagement in animal welfare issues is increasing**
  - opinion leaders' communication activities increased and the distribution of the opinion leadership scale showed a trend for more people to be more engaged over time
  - respondents' generally reported more community behaviours
  - suggests a greater awareness of animal welfare issues in the general population
3. People's attitudes are tending to become more negative
4. People's trust is declining
5. There is an increased use of and trust in personal information sources of animal welfare information rather than institutionalised sources
6. There is an increasing risk to licence to farm

In summary, data from 2019 survey indicate several things:

1. The measures used are reliable over time
2. People's engagement in animal welfare issues is increasing
- 3. People's attitudes are tending to become more negative**
  - there has been a trend for some public attitudes to livestock animal welfare to become more negative, while others have shown little change
  - most categories of acceptability of animal use showed a small decrease over time
4. People's trust is declining
5. There is an increased use of and trust in personal information sources of animal welfare information rather than institutionalised sources
6. There is an increasing risk to licence to farm

In summary, data from 2019 survey indicate several things:

1. The measures used are reliable over time
2. People's engagement in animal welfare issues is increasing
3. People's attitudes are tending to become more negative
- 4. People's trust in the Australian livestock industries is declining**
  - both trust and approval ratings of people working in abattoirs and those responsible for transporting livestock by land and, in particular, sea
  - trust correlated significantly with both consumer and community behaviours, therefore this decrease in trust represents a threat both to the sale of animal products and licence to farm
5. There is an increased use of and trust in personal information sources of animal welfare information rather than institutionalised sources
6. There is an increasing risk to licence to farm

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3. People's attitudes are tending to become more negative
4. People's trust is declining
- 5. There is an increased use of and trust in personal information sources of animal welfare information rather than institutionalised sources**
  - people remain most trusting of information obtained from product labels, television, print media or from conversations with friends, relatives or colleagues
  - trust in social media and animal welfare websites has declined
6. There is an increasing risk to licence to farm

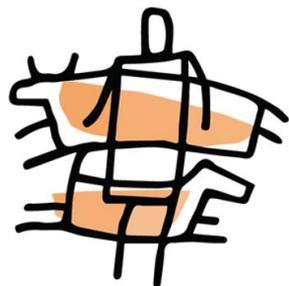
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## 6. There is an increasing risk to licence to farm

- the relationships between attitudes and demographic variables and community and consumption variables were reasonably consistent across the samples, indicating these variables remain important predictors of community and consumer behaviour
- attempting to deal with these attitudes may be a key way of mitigating the threats that community behaviours pose for licence to farm

NAWRDES facilitated project



The Animal Welfare Science Centre



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