

1 **Appendix 1**

2 **Survey of Veterinary and Agriculture Students' Attitudes to Animal Welfare at Slaughter and Transport and their Moral Reasoning**  
3 **Methods to Resolve Ethical Dilemmas relating to Transport**

4  
5  
6 Dear Student,

7  
8 The purpose of the proposed study is to advance our understanding of attitudes in different Southeast Asian countries in Veterinary and  
9 Agriculture Students. We are asking you to complete a survey which will take approximately 10 minutes. If you experience any distress as a  
10 result of thinking about transport and slaughter, or for any other reason, you are welcome to stop completing the survey at any time and to  
11 contact the project staff.

12  
13 Your inclusion in this survey will help the University of Queensland to make recommendations to improve transport and slaughter practices and  
14 to understand the position of stakeholders in the processes.

15  
16 Your results will be treated as confidential and you will be able to return the survey form anonymously. Your participation is voluntary. We will  
17 provide feedback to the organiser in each country that will be relayed to you if you are interested.

18  
19 This study adheres to the Guidelines of the ethical review process of The University of Queensland and the National Statement on Ethical  
20 Conduct in Human Research. Whilst you are free to discuss your participation in this study with project staff (central staff, Clive Phillips,  
21 contactable on +61754601158 & local staff, Prof. Dr Zulkifli Idrus, contactable on 03-89466908), if you would like to speak to an officer of the  
22 University not involved in the study, you may contact the Ethics Coordinator on 617 3365 392.

23  
24 Upon completion of the survey, you can choose to participate in a draw to win a Springer Animal Welfare Series book worth AUD\$150 and a T-  
25 shirt.

26  
27 Thank you very much for taking your time to help us out in this survey.

28

29 **Section 1 Demographic Background**

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31 1. Please indicate your gender.

32 a. Male

33 b. Female

34

35 2. Please indicate your age. \_\_\_\_\_

36

37 3. Please indicate your current education status in your university.

38 a. First year undergraduate

39 b. Second year undergraduate

40 c. Third year undergraduate

41 d. Fourth year undergraduate

42 e. Fifth year undergraduate

43 f. Master's degree

44 g. PhD, doctorate or other advanced degree

45 h. Other, please specify: \_\_\_\_\_

46

47 4. Please indicate the major subject of your study.

48 a. Veterinary science

49 b. Animal science / Animal studies / Animal production

50 c. Agriculture / Agricultural science / Agribusiness

51 d. Forestry / Horticulture

52 e. Fisheries

53 f. Environmental sciences

54 g. Other, please specify: \_\_\_\_\_

55

56 5. Please indicate your religion, if any?

57 a. Muslim

58 b. Christian

59 c. Buddhist

60 d. Hindu

61 e. Jewish

62 f. I don't follow any religion/atheist

63 g. Other, please specify: \_\_\_\_\_

64

65 6. Please indicate place of residence of your family.

66 a. Urban - city/town

67 b. Acreage/large block

68 c. Rural – country town

69 d. Rural – farming property

70 e. Other

71

72 7. Do you have any experiences in looking after farm animals (sheep, cattle, dairy cow, chicken and/or pigs)?

73 a. Extensive

74 b. Moderate

75 c. Some

76 d. None

77

78 8. Please indicate the duration (number of years) that you have lived with companion animals (pets): \_\_\_\_\_

79

80 9. Please indicate your financial status: how much money would you estimate you usually spend per month, including all living expenses,  
81 housing and any sundry expenses?

82 Please give an average in local currency: \_\_\_\_\_

83

84 **Section 2 Attitudes to Animal Welfare at Slaughter**

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86 In this section, we are focusing on your attitudes towards cattle and sheep welfare at slaughter.

87 Please rate the acceptability of the practices described below:

88

	1 Extremely unacceptable	2 Unacceptable	3 Neither unacceptable nor acceptable	4 Acceptable	5 Extremely acceptable
Killing young animals that are still depending on their parents					
Allowing animals to experience pain during slaughter					
Using animals that have died naturally for products					
Killing animals when they are seriously injured or ill					

Letting animals to see each other getting slaughtered					
Regarding companion animals only, euthanising healthy and unwanted pets (such as dogs and cats) due to overpopulation.					

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90

91 **Section 3 Attitudes to Animal Welfare at Transportation**

92 In this section, we are focusing on your attitudes towards cattle and sheep welfare during transportation.

93

94 How acceptable do you think the practices described below are?

95

Issue	1 Extremely unacceptable	2 Unacceptable	3 Neither unacceptable nor acceptable	4 Acceptable	5 Extremely acceptable
Livestock transport by ship					
Livestock transport by road					
Exporting livestock from Australia, a developed country, to developing countries in Middle East, Indonesia, and Asian countries					

Consumption of products from imported animals					
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96

97 How concerned are you about the following?

98

Issue	1 Extremely unconcerned	2 Unconcerned	3 Somewhat concerned	4 Concerned	5 Extremely concerned
The provision of food and water to animals before or during transport					
Transporting animals with sufficient space and proper facilities					
Transporting animals in an environment with clear air and minimal ammonia					
Transporting animals from a developed country with extensive animal welfare legislation to a developing country with limited or no animal welfare legislation					

99

100 9. Regarding animals' transportation, what is the maximum distance you consider to be acceptable?

101 a. Ship transportation: \_\_\_\_\_ km

102 b. Road transportation: \_\_\_\_\_ km

103

104 10. Attitudes to animal products that are imported or exported.

105 a. I prefer imported products over exported ones.

106 b. I prefer exported products over imported ones.

107 c. I do not mind either.

108



109 **Section 4 Case Scenarios Regarding Animal Export**

110

111 There are 3 case scenarios presented in this section. Several questions will then be given at the end of each case. Please rank the questions in  
112 order of importance (1 being the most important and 9 being the least important).

113

114 Case 1

115 *Background Information*

116 Thousands of cattle and sheep are sent from Australia to the Middle East each year, a journey of some 10-14 days. En route, the animals will  
117 face challenges of heat stress, ammonia accumulation, lack of feed, overcrowding. Exporter companies are required to employ a veterinarian  
118 and/or stockperson to accompany long haul shipments of cattle, who should meet with the Captain of the ship regularly to discuss the animals'  
119 welfare, and they should also complete a voyage report, which identifies the mortality and documents any problems during the voyage. If  
120 mortality exceeds a threshold of 0.2% for cattle, there is a government investigation. Government theoretically has the power to stop shipments  
121 of the animals by any exporter.

122

123 *Scenario*

124 You are employed by a live export company as a veterinarian or stockperson to accompany cattle on long haul shipments to Egypt. The ship is  
125 loaded in Fremantle in August with 500 Angus steers, which have been trucked from Victoria, held overnight and loaded first thing in the  
126 morning. Up until the equator the voyage goes well, but as you approach the Persian Gulf the wind drops and the temperatures climb to over  
127 40°C. With limited ventilation capacity on the vessel, the cattle close to the engine room are obviously stressed by the heat, with open mouthed  
128 panting and copious salivation. You advise the captain not to enter the Gulf until the temperatures have dropped. He answers that he has a  
129 schedule to keep to and must continue.

130

131 The next day as you approach the Suez Canal, you find three cattle dead and you notice that the internal temperature on the ship is 46°C. You  
132 advise the captain not to enter the Canal, but to wait out in the Gulf where there is a breeze. He insists on continuing and does not accept your  
133 report, which includes the mortalities. By the end of the voyage, ten cattle have died and relations between yourself and the captain are even  
134 more strained. You are aware that any complaints to the company may jeopardise your position.

135

136

137 *Questions*

138 We are now going to ask which are the main questions that you would consider in deciding whether to complain to the company. You don't need  
139 to know the answers to the questions, we just want to know which you think are the right questions to ask.

140

141 We will offer you nine possible questions. Read these carefully and decide which is the most important, then second most important, third most  
142 important and fourth most important, up to the least important.

143

144 For each scenario, select the question that you think is important. Do not choose the same question more than once. You can change the  
145 questions at any time if you wish. At the end of your choices, review what you have selected to make sure that you do not want to change the  
146 questions any more.

147

148 Rank which of the following questions are most important in solving the dilemma of whether to complain to the company (questions were  
149 presented in random order):

150

151 Authors: Questions ranked by the students in order of declining importance:

Rank	Questions	Moral
	order	Judgment
1	Is being cruel to the cattle by allowing them to suffer contrary to Australian law?	MN
2	Do you believe that the morality of allowing cattle to die is more important than your future with the company?	UP

- |          |   |    |
|----------|---|----|
| <b>3</b> | Is it a requirement under Australian law for you to provide a report on the welfare of the cattle during the voyage?        | MN |
| <b>4</b> | Is allowing the cattle to die in this way contrary to the Australian Standards for the Export of Livestock?                 | MN |
| <b>5</b> | Do the cattle deserve better treatment than the captain is prepared to offer?   | UP |
| <b>6</b> | Can you justify the shipment by the benefits to the Egyptian consumers, who will have a source of safe and nutritious food? | UP |
| <b>7</b> | Would your position with the company be jeopardized by taking action, or enhanced by taking no action?                      | PI |
| <b>8</b> | Can you find the time to argue with the captain about how he has managed the shipment?                                      | PI |
| <b>9</b> | Would a dispute with the company be long, arduous and stressful?  | PI |

152

153 PI = Personal interest; MN = Maintaining norms; UP = Universal principles

154

155 Case 2

156 *Background Information*

157 The increasing demand in Asia for dairy products has created a growing demand for high quality dairy heifers. As there is a shortage of these in  
158 most Asian countries and milk prices in Australia and New Zealand are low, dairy farmers in Australian and New Zealand have developed a  
159 lucrative trade to send heifers by ship to ports in China, Pakistan and other countries with potentially high output dairy farming industries.

160

161 *Scenario*

162 You a veterinarian or agricultural advisor with a client who is a dairy farmer in Victoria. The client has increasing debt problems and  
163 increasingly low milk prices, relative to the cost of production. You hear that there is a market for some of his dairy heifers in Pakistan, however,  
164 there have also been reports of cows sent there suffering with little food, inadequate care and high mortality rates. You consider the ethical issues  
165 about advising him to sell heifers to an exporter who is shipping high quality heifers to Pakistan.

166

167

168 *Questions*

169 We are now going to ask which are the main questions that you would consider in deciding whether to advise the farmer to sell his heifers to an  
170 export company. You don't need to know the answers to the questions, we just want to know which you think are the right questions to ask.

171

172 We will offer you nine possible questions. Read these carefully and decide which is the most important, then second most important, third most  
173 important and fourth most important, up to the least important.

174

175 For each scenario, select the question that you think is important. Do not choose the same question more than once. You can change the  
176 questions at any time if you wish. At the end of your choices, review what you have selected to make sure that you do not want to change the  
177 questions any more.

178

179 Rank which of the following questions are most important in solving the dilemma of whether to advise the farmer to sell his heifers to an export  
180 company: (questions were presented in random order)

181

182 Authors: Questions ranked by the students in order of declining importance:

Rank order	Questions	Moral Judgment
1	Do you believe that the morality of allowing cattle to suffer is the principal issue to consider?	UP
2	Do you believe it is expected of you as a veterinarian to maintain the welfare of the cows at all times?	MN
3	Do you feel obligated under Australian policies (e.g. Australian Veterinary Association or Codes of Practice for the Welfare of Cattle) to offer advice to the farmer that will make his business prosper?	MN
4	Can you justify the shipment by the benefits to the Pakistani consumers, who will have a source of safe and nutritious food?	UP
5	Would your relationship with the client be jeopardized by withholding this advice, or conversely enhanced by making this recommendation, which might bring further clients?	PI
6	Is allowing the cattle to die in this way contrary to the Australian Standards for the Export of Livestock?	MN

- 7 Do the cattle deserve better treatment than the Pakistani farmers are able to offer? UP
- 8 Can you afford to lose a valued client who has reliably consulted with you for several years? PI
- 9 If the farmer finds out that you have not advised in his best financial interests, would he think badly of you? PI

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184

185 Case 3

186 *Background Information*

187 The live export trade in sheep to the Middle East provides a ready source of meat, particularly for religious festivals in which the meat is shared with the purchaser's neighbours and poor people in the region. The journey is long, about 12 days, and there are often welfare problems en route, such as the build-up of ammonia, high temperatures, inability of some sheep to eat, and contagious diseases such as salmonellosis.

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190

191 *Scenario*

192 Sheep are in surplus in Australia as a drought has been decimating farming land for nearly 5 years. A shipment of sheep has been sent to Saudi Arabia but has been rejected at the port because the Saudi veterinary inspector says that he has detected a high prevalence of scabby mouth (pustular dermatitis), 6%. Although another country, Bangladesh, has already said that it will take any sheep rejected, the shipping and export companies would lose millions of dollars in lost revenue. You are accompanying the shipment on behalf of the shipping company in the role of veterinarian or stockperson and are asked to determine the extent of scabby mouth in the sheep. You assess a sample of each deck and come to the conclusion that approximately 7% of the sheep are infected. The captain of the ship meets with you and asks you to consider that some were not very serious cases and it should be reported as 5%, this being the legal limit for sheep to enter Saudi Arabia in live shipments.

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199

200

201 *Questions*

202 We are now going to ask which are the main questions that you would consider in deciding whether to agree to the captain's demand that you  
203 revise your estimate of the prevalence of scabby mouth in the shipment. You don't need to know the answers to the questions, we just want to  
204 know which you think are the right questions to ask.

205

206 We will offer you nine possible questions. Read these carefully and decide which is the most important, then second most important, third most  
207 important and fourth most important, up to the least important.

208

209 For each scenario, select the question that you think is important. Do not choose the same question more than once. You can change the  
210 questions at any time if you wish. At the end of your choices, review what you have selected to make sure that you do not want to change the  
211 questions any more.

212

213 Rank which of the following questions are most important in solving the dilemma of whether to agree to the captain's demand that you revise  
214 your estimate of the prevalence of scabby mouth in the shipment: (questions were presented in random order)

215

216 Authors: Questions ranked by the students in order of declining importance:

Rank	Questions	Moral
order		Judgment
1	Do you believe that being honest in reporting the prevalence is the principal issue to consider?	UP

- |          |  |    |
|----------|--|----|
| <b>2</b> | Do you feel obligated under Australian policies (e.g. Australian Veterinary Association or Codes of Practice for the Welfare of Cattle) to report the accurate prevalence?           | MN |
| <b>3</b> | Do you believe it is expected of you as a veterinarian or stockperson to report your most accurate estimate?   | MN |
| <b>4</b> | Can you justify any falsification by the benefits to the Saudi consumers, who want to ensure a source of safe and nutritious food?   | UP |
| <b>5</b> | Is falsifying the records in this way contrary to the Australian Standards for the Export of Livestock?  | MN |
| <b>6</b> | Do the sheep deserve better treatment than the Saudi authorities are able to offer?  | UP |
| <b>7</b> | Would your relationship with the shipping company be jeopardized by agreeing to this demand, or conversely would you get additional work if you are seen to be flexibly in this way? | PI |
| <b>8</b> | Can you afford to lose a valued shipping client who has reliably employed you for several years?   | PI |



9 If your veterinary colleagues find out that you have not been honest in PI  
your assessment, would they think badly of you?

217

218 Thank you very much for taking your time to answer the questions! If you are interested to participate in the draw for an animal welfare book or  
219 a Centre for Animal Welfare and Ethics T-shirt, please fill in your email address below.

220

221 Email address: \_\_\_\_\_

222

223