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8 **Finnish cattle and pig farmers' perceptions of animal welfare inspections**

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25 Running title: Farmers' perceptions of animal welfare inspections

26 **Abstract**

27 The aim of our study was to broaden the understanding of Finnish cattle and pig farmers'
28 perceptions of the on-site animal welfare inspections carried out by official authorities in livestock
29 farms. The study was conducted using an electronic questionnaire, aimed at 500 Finnish cattle and
30 500 pig farmers. We received responses from 96 cattle farmers and 105 pig farmers, of which 20
31 and 55, respectively, had undergone an animal welfare inspection.

32 We found that most of the farmers recognized the necessity of the animal welfare inspections, but
33 also that a more negative attitude was dominant among farmers who had undergone these
34 inspections. The inspection itself, as well as the inspector, was a more negative experience, if the
35 farmer had not understood the reason for the inspection, was not given an opportunity to be heard,
36 and/or if the farmer considered the inspection report unclear.

37 Our results suggest that although the farmers generally approve of inspections, their own negative
38 experiences affect their perceptions. Inspectors should focus on proper communication and dialogue
39 with farmers and on making the inspection report clear.

40

41 **Keywords:**

42 Animal welfare; Cattle; Farmers perceptions; Livestock farmer; On-farm inspections; Pigs

43

44 **Introduction**

45 The protection of animals kept for farming purposes in the EU is based on a specific directive
46 (Council Directive 98/58/EC). The standards for calves and pigs are also supplemented by species-
47 specific directives (Council Directive 2008/119/EC; Council Directive 2008/120/EC). The
48 directives lay down the minimum standards for the protection of animals and every EU Member
49 State (MS) is obligated to transpose these directives into national law. Furthermore, an EC
50 Regulation (Regulation (EC) No 882/2004) stipulates that official on-farm inspections should be

51 carried out by competent authorities to verify that the minimum standards of the above-mentioned
52 directives are complied with. According to the same regulation, these inspections should be made
53 without prior warning, regularly, on a risk basis, and with appropriate frequency.

54 Official animal welfare control is an important part of ensuring animal welfare on farms. However,
55 official authorities may require no more than the minimum standards laid down in legislation.
56 Anneberg et al. (2013) have discussed the dilemma regarding whether inspectors should only focus
57 on verifying the compliance with legislation or whether inspections should also contain a preventive
58 aspect. A confrontation may arise if the farmer sees animal welfare differently to the inspector, who
59 looks at the issue from a legislative perspective (Sorensen and Fraser, 2010).

60 The Finnish animal welfare control system was changed at the end of 2009 when new official
61 veterinarian posts were created for animal welfare control. This change was due to an existing
62 conflict of interest; the same official veterinarians who were responsible for the veterinary care of
63 the animals also carried out inspections on the same premises, i.e. on their clients. Another aim of
64 the change was to increase resources for animal welfare control. In Finland the animal welfare
65 inspections are mainly based on suspicion of non-compliance but also on sampling (approximately
66 2% of cattle and 3% of pig farms) and on the control of cross-compliances (Evira, 2016). In cases of
67 minor non-compliance, e.g. slightly dirty drinking water, guidance on corrections and promoting
68 animal welfare is given. If the guidance given is found to be ineffective or if the non-compliances
69 are serious, e.g. animals are suffering from thirst, appropriate enforcement measures are taken to
70 ensure correction. An animal owner may be given a prohibition for continuing or repeating an
71 illegal procedure or an order to fulfil obligations within a specific time period. If required for
72 animal protection reasons, official authorities may also take immediate action to ensure the welfare
73 of an animal, e.g. feed or other substances may be acquired from elsewhere or animal may be
74 euthanized. In addition, a notification may be made to the police and EU subsidies may be reduced
75 as a consequence.

76 Although numerous on-site animal welfare inspections are carried out in Europe every year,
77 surprisingly little research has been undertaken on how farmers perceive these inspections. Finnish
78 farmers consider the increased control in Finnish agriculture following accession to the EU an insult
79 to their honesty, intimacy and a violation of the sanctity of their homes (Ådahl, 2007). In the
80 Netherlands, farmers consider the inspections of animals important not only to find the “bad apples”
81 but also to show how well farmers are doing (Bracke et al., 2005). According to Anneberg et al.
82 (2012), Danish farmers perceive animal welfare inspections as necessary, but also unfair and
83 obtrusive. Furthermore, the amount of rules and regulative details make the Danish farmers feel
84 insecure (Anneberg et al., 2012). European farmers have also criticized that some animal welfare
85 regulations and measures are not useful and even detrimental to animals and difficult and costly to
86 implement (Bock and van Huick, 2007). The aim of this study was to broaden the understanding of
87 the perceptions of farmers regarding the necessity and quality of official animal welfare control.

88

89 **Material and methods**

90 *Questionnaire*

91 We developed an electronic questionnaire (E-lomake, Eduix Oy) to evaluate the farmers’
92 perceptions of animal welfare control. This was aimed at 500 Finnish cattle and 500 pig farmers. A
93 request for data was sent to the Finnish Food Safety Authority (Evira), and after authorization,
94 randomized sampling of the farmers (excluding those who had less than 10 cattle or pigs, or who
95 had no email address) was performed by the National Land Survey of Finland. We sent the
96 questionnaire by email in August 2015. The farmers were sent a reminder twice and were given 20
97 days to respond. No prize was offered as an incentive. The data received were analysed
98 anonymously. The electronic questionnaire consisted of seven parts, incorporating 49 questions.
99 Each part had one to eleven questions, which were mainly of the closed type; respondents were
100 asked to choose from a list of given options or state their opinion on given statements on a five-

point Likert scale (1 = fully disagree to 5 = fully agree). In the open-ended questions, the respondents could express their opinions regarding issues related to animal welfare control or clarify the answers they had given in the closed questions. The first part comprised questions about the background of the respondents and their farms. The second part asked the respondents to define the term animal welfare. The third part asked questions about the respondents' knowledge of the requirements of national animal welfare legislation. In the open-ended questions, respondents could express how and what information they would need more of, and whether they would change anything in the current animal welfare legislation. Part four comprised general questions related to the number and importance of animal welfare inspections and the change of the Finnish animal welfare control system. The fifth part was directed only to the respondents who had undergone an animal welfare inspection after 2009, and included questions about the inspection itself and their experiences. In the sixth part, the respondents were asked to express their opinions regarding the enforcement measures and punishments, and in the last part the respondents could give additional comments on animal welfare control and on the questionnaire itself (Appendix 1). Part two and six were not analysed in this survey.

Statistical analysis

Before the data analysis, we grouped the respondents on the basis of their age, gender and work experience, the number and type of animals on their farms, and whether they had undergone an inspection after 2009. The independent samples t-test (two groups) and the ANOVA (more than two groups) were used to evaluate the differences between the datasets. We used the Kolmogorov-Smirnov test to determine the distribution of data and Levene's test to determine the homogeneity of variances. Based on the Levene's test we used post-hoc Tamhane's (variances not equal) or Tukey's test (variances equal). In case the number of responses were low (less than 100) and data was not equally distributed we used the Mann-Whitney U-test (two groups) and the Kruskal-Wallis

125 T-test (more than two groups) to evaluate the differences between the datasets. The relationships
126 between different variables were evaluated using Spearman's correlation.

127 We created the sum variables of positive attitude towards the inspector and the inspection using
128 five-point Likert-scale statements about the inspector and the inspection itself (1 = fully disagree, 2
129 = somewhat disagree, 3 = neither disagree nor agree, 4 = somewhat agree, 5 = fully agree, Table 1).
130 Cronbach's Alpha was used to examine the average correlation of selected statements and thus, the
131 reliability of the created sum variables. In addition, we analysed some of the open questions through
132 content analysis (O'Cathain and Thomas, 2004). We grouped the answers and distinguished
133 common themes. The answers were coded and the codes treated as variables in a quantitative
134 analysis. Although two authors conducted the data analysis, all the authors discussed the
135 interpretation together and consensus was achieved.

136 We analysed the data using SPSS statistical software (IBM SPSS Statistics 22.0, NY, USA). The
137 'Don't know' answers were categorized as 'missing', and ambiguous answers in open-ended
138 questions that could not be interpreted were excluded from the analysis. Statistical significance was
139 accepted at a confidence level of 95% ($P < 0.05$).

140

141 **Results**

142 ***Background of respondents***

143 Of the 500 cattle farmers and 500 pig farmers, 96 (19%) and 105 (21%) responded to the
144 questionnaire (Table 2). The median age of the respondents was 48 years (range 21-65 years) and
145 the median work experience 21 years (range 0-62 years). The geographical distribution of the
146 respondents corresponded quite well with the overall distribution of the farms in Finland (Official
147 Statistics of Finland, 2017a).

148 Of the cattle farmers, 21% (20/96) and of the pig farmers, 52% (55/105) had undergone at least one
149 animal welfare inspection after 2009. Thirty-six per cent (27/75) of the farmers had undergone a

150 sampling-based inspection, whereas the percentages for inspections based on suspicion of non-
151 compliance and on control of cross-compliances were 27% (20/75) and 12% (9/75). Twenty-five
152 per cent (19/75) of the farmers did not clarify the reason for the inspection.

153 *Necessity of animal welfare inspections*

154 The animal welfare inspections were considered necessary by 72% (142/198), neither necessary nor
155 unnecessary by 14% (27/198) and unnecessary by 15% (29/198) of the respondents. Of the
156 respondents, a total of 133 had clarified their response and more than half of them (71/133) justified
157 inspections with the need to find those who neglect animals or violate animal welfare laws. Of the
158 68 respondents who had undergone an inspection, 42 (62%) evaluated the inspection of their own
159 farm as unnecessary, and 31% (22/70) considered that they had not benefited from the inspection.
160 Only 13% (9/70) of the respondents considered that the inspection promoted the welfare of animals
161 in their own farms.

162 More than 90% (175/193) of the respondents considered the current animal welfare control in
163 Finland sufficient. The change of the Finnish control system had been noticed by 49% (98/201) of
164 the respondents. Of those 98 respondents who had noticed the change, 41 (42%) considered it
165 necessary, 15 (15%) neither necessary nor unnecessary, and 33 (34%) unnecessary. We found a
166 weak negative relationship between the opinions regarding the sufficiency of animal welfare control
167 and the necessity of inspections (Spearman rank $r = 0.29$, $P < 0.001$). Instead, a stronger positive
168 relationship existed between the opinions regarding the necessity of inspections and the necessity of
169 the change (Spearman rank $r = 0.51$, $P < 0.001$).

170 There were statistically significant differences between genders, animal species and whether the
171 farm had been inspected or not in the attitudes towards the necessity of inspections, the sufficiency
172 of animal welfare control and the necessity of the change of the Finnish animal welfare control
173 system (Table 3). The farmers who had undergone an inspection considered the inspections and the
174 change more often unnecessary. Also the male respondents and pig farmers more often considered

175 both the inspections and the changes unnecessary than the female respondents and cattle farmers.
176 However, there was no significant difference between the age groups, or the groups based on
177 working experience.

178 *Effect of communication*

179 We used the created sum variables for the statements concerning the inspector (N of variables = 5,
180 Cronbach's Alpha = 0.96) and the inspection situation (N of variables = 8, Cronbach's Alpha = 0.96)
181 to examine the correlations between different variables related to inspection procedures. Proper
182 communication and dialogue between the farmer and the inspector during the inspection proved to
183 be an important factor affecting the farmers' attitude towards both the inspector and the inspection
184 situation (Table 4).

185 Almost two thirds (49/74; 66%) agreed that communication with the inspector was easy, and 80%
186 (60/75) agreed that the inspection was carried out in mutual understanding. Respondents who felt
187 that communication with the inspector was easy also more often felt that the inspection was made in
188 mutual understanding, and that the inspection increased their knowledge of animal husbandry
189 (Spearman rank $r = 0.72$ and $r = 0.42$, respectively, $P < 0.01$ for both). If the respondents felt that
190 their knowledge of animal husbandry increased, they also perceived the inspection as useful
191 (Spearman rank $r = 0.62$, $P < 0.001$). Moreover, most of the respondents (53/74; 72%) felt that they
192 had been heard during the inspection and this correlated positively with the experience of easy
193 communication with the inspector (Spearman rank $r = 0.74$, $P < 0.001$). The females more often
194 agreed that communication was easy and that the inspection was made in mutual understanding than
195 the male respondents (83% vs. 61% and 89% vs. 77%, respectively, Mann-Whitney U-test, $P < 0.05$
196 for both).

197 The reason for the inspection, the inspection report and/or the process of appealing against the
198 activity of the public authority were unclear for 14% (10/72), 21% (15/70) and 37% (26/70) of the

199 respondents. These respondents also more often considered that the inspection violated their legal
200 protection (Spearman rank $r = 0.28$, $r = 0.33$ and $r = 0.28$, $P < 0.05$ for all).

201 About a half (37/73; 51%) of the inspections were performed without prior warning and the other
202 half (36/73; 49%) were agreed on beforehand. If the inspection was performed without prior
203 warning, the respondents more often felt that it disturbed the routines of the farm (63% vs. 40%),
204 and violated their legal protection (44% vs. 9%) (Mann-Whitney U-test, $P < 0.05$ for both). In the
205 case of inspections agreed on beforehand, the respondents more often considered that it took place
206 in mutual understanding (89% vs. 70%) and that the atmosphere was more open (81% vs. 58%) (
207 Mann-Whitney U-test, $P < 0.05$ for both).

208 ***Outcome of inspection***

209 According to the farmers, most farms (83%; 62/75) complied with the animal welfare standards or
210 had only minor non-compliances and enforcement measures were used in only 17% (13/75) of the
211 inspected farms responding to the questionnaire. Only in 52% (8/13) of the cases had a new
212 inspection been made after the use of enforcement measures.

213 We found that there was a statistical relationship between the outcome of the inspection
214 (enforcement measures vs. guidance vs. no measures) and the respondents' perceptions of the
215 inspection visit (Figure 1). The relation was significant for four statements: The atmosphere was
216 tense during the inspection (62% vs. 40% vs. 32%, Kruskal-Wallis T-test, $P = 0.042$), The
217 inspectors' observations were appropriate (15% vs. 36% vs. 59%, $P = 0.003$), The inspector acted
218 professionally (46% vs. 64% vs. 80%, $P = 0.016$) and Communication with the inspector was easy
219 (31% vs. 82% vs. 72%, $P = 0.020$) (Figure 1).

220 ***Sufficiency and sources of information regarding legal standards of animal welfare***

221 Of the respondents, 81% (161/199) considered that they were sufficiently familiar with the
222 standards of animal welfare legislation. There was no significant difference regarding this opinion
223 between genders, the age groups, or groups based on working experience. Of those 38 respondents

224 who considered that they were not sufficiently familiar with the legislation, 32 (84%) explained
225 their response with the difficulty in interpreting legislation. If the farmers considered that they were
226 not sufficiently familiar with the standards, they also viewed the inspector more negatively
227 (Spearman rank $r = 0.24$, $P = 0.039$).

228 The 95 responses to the open-ended question ‘Is there something you would like to add, change or
229 remove in the current animal welfare legislation?’ could be divided into three main themes: 1) the
230 option of using common sense instead of measuring millimetres during inspections (32%; 31/95), 2)
231 the legislation should be drawn up by people with practical experience (16%; 15/95) and 3) national
232 standards should be in line with those of other EU Member States (8%; 8/95).

233 The degree of information concerning legal standards was considered sufficient by 66% (127/193)
234 of the respondents, and insufficient by 25% (48/193). The amount of information was more often
235 considered insufficient by cattle farmers and those who had not undergone an animal welfare
236 inspection (t-test, $P < 0.05$ for both) and also young respondents compared to old ones (Tamhane’s
237 test, $P = 0.008$). We found a correlation with the respondents’ opinions regarding the sufficiency of
238 information and their knowledge (Spearman rank $r = 0.45$, $P < 0.001$). The most important sources
239 of legal standards were the farms’ own veterinarians and professional magazines. Slaughterhouses
240 and dairies also had an important role (Figure 2).

241

242 **Discussion**

243 In this study we evaluated livestock farmers’ perceptions of the necessity and quality of official
244 animal welfare control in Finland. We showed here that the farmers’ own experiences of animal
245 welfare inspections made their perception of inspections more negative. There was a statistically
246 significant relationship between the outcome of the inspection and respondents’ perceptions on the
247 inspection visit. Observed negative perceptions might be due to a more serious offence against
248 animal welfare in these farms, thus having impaired the atmosphere during the inspection visit.

249 However, the farmers perceived animal welfare inspections as better if proper communication and
250 dialogue with inspector was achieved during the inspection. If the farmers experienced that
251 communication with the inspector was difficult or that they were not given an opportunity to be
252 heard, both the inspection and the inspector were perceived more negatively. It might be that those
253 farmers who were angry enough bother to answer the questionnaire but still investing in inspectors'
254 communication skills, through training, for example, may enhance collaboration with farmers, also
255 with the challenging ones.

256 If the farmers experience inspections as an unwanted penetration into their territory, this might
257 hinder any fruitful discussions and co-operation. Also Anneberg et al. (2012) recognised that the
258 dialogue between inspectors and farmers has an important influence on the outcome of the
259 inspection. In addition, officials' good cooperation skills and a negotiative approach have been
260 highlighted in food control (Läikkö-Roto and Nevas, 2014; Kettunen et al., 2017). We found that
261 female farmers had a more welcoming attitude towards the inspection than the male farmers:
262 females may possibly have more animal-centred thoughts (Maria, 2006) or better social skills than
263 men. Furthermore, in Finland most of the inspectors are females, which could also have an impact
264 on the attitudes and this should be studied further. In addition, it would be of interest to evaluate
265 how the inspectors perceive the inspections. We also found that the cattle farmers' perception of
266 inspections was more positive than that of pig farmers. Bock et al. (2007) argued in their study
267 concerning French, Swedish and Dutch farmers that cattle farmers may also possibly feel closer to
268 their animals compared to pig farmers. Another reason influencing this difference might be a
269 termination of a long period of transition concerning a tightened legislation on pig welfare,
270 demanding e.g. group housing of sows and gilts.

271 It was worrying that almost one third of the participating Finnish farmers considered that the
272 inspection carried out on their farm violated their legal protection. Although the purpose of an
273 inspection is to ensure that animal welfare requirements are met, the farmers appeared to consider

274 them an attack against the business and property to which they are entitled. Lepistö and Hänninen
275 (2011) argued that the obligation of public authorities to use administrative enforcement measures
276 that conflict with basic rights such as freedom to conduct a business creates a strong contradiction.
277 We found four main reasons for the farmers seeing the inspection as a violation of their legal
278 protection: they did not understand the reason of the inspection, the appeal process and/or the
279 inspection report were unclear, and the inspection was performed without prior warning. With the
280 exception of prior warning, these reasons could easily be influenced by the proper communication
281 and dialogue and writing skills of the inspector.

282 We found that about half of the inspections were agreed on beforehand, despite the demand for
283 performing animal welfare inspections without prior warning deriving from EC Regulation No
284 882/2004. It is not surprising that the farmers experienced an inspection more negatively if it was
285 carried out without prior warning, as in Finland, most farms are family farms (Official Statistics of
286 Finland, 2017b), and the inspections might be considered an infringement of the inviolability of the
287 home. It should be discussed whether the efficacy of the control might improve if inspections were
288 announced beforehand, as this way the farmers would react more positively and hence be more
289 receptive. A better dialogue between the farmer and the inspector could be achieved. According to
290 Hitchens et al. (2017), one of the ways of finding poor animal welfare is the owner not being
291 notified of an inspection beforehand, i.e., more non-compliance is detected when owners are not
292 expecting an inspection. More research on the advantages and disadvantages of prior warning is
293 needed to evaluate the utility of the demand for performing inspections without prior warning.

294 We also noticed that if the reason for the inspection remained unclear, the farmers not only felt that
295 their legal protection was violated, but they also felt more negatively about the inspection. Farmers
296 may be confused, as farms are inspected for different reasons, not only for animal welfare but also
297 for registration and marking, food hygiene and use of fields. Also in our study it was seen that the
298 farmers had difficulties in distinguishing animal welfare inspections from other types of official

299 inspections. However, based on the responses to open-ended questions, the farmers who had
300 undergone an animal welfare inspection could be identified and thus the interpretation of the results
301 was not compromised. In addition, the non-compliances detected on some of the inspections may
302 lead to a reduction of EU subsidies, although not all lead to this. Anneberg et al. (2013) stated that
303 farmers' understanding of inspections would result in a more positive attitude towards them. We
304 thus conclude that it is crucial that the reason and the content of the inspection are clearly
305 communicated to the farmer.

306 We also found that almost half of the farmers did not know how to appeal about the activities of
307 authorities. In addition, in some cases the inspection report was considered unclear. When official
308 power is used, the right to appeal should be highlighted, as it is a fundamental right and ensures that
309 the object of supervision has an opportunity to a fair trial (Administrative Procedure Act 2003). The
310 administrative process of animal welfare control should guarantee the legal protection of the
311 farmers. In her research on the Finnish animal welfare control system from 1996 to 2006, Wahlberg
312 (2010) argued that the official authorities carrying out the inspections were not adequately
313 acquainted with the administrative process, as the owner was officially heard in only 8% of animal
314 welfare inspections, and this is a legal requirement in Finland (Administrative Procedure Act 2003).
315 One of the aims of changing the Finnish control system was to improve the use of administrative
316 measures, and this shows that although there is still scope for improvements in the hearing process,
317 clear progress has been made since 2006, as now almost half of the farmers who did not comply
318 with the legislation felt that they had been heard.

319 A repeat inspection was carried out in our material in only half of the cases in which enforcement
320 measures were taken, even though this should be done routinely. Kettunen et al. (2015) found in a
321 study related to food control that although the use of enforcement measures led to compliance in
322 most of the violations, verifying compliance after the enforcement decision was essential. The

323 importance of ensuring the correction of the violations using re-inspection or another documented
324 way should also be emphasized in animal welfare control.

325 We found it somewhat controversial that although the Finnish farmers had a somewhat negative
326 attitude towards exact standards (e.g. measuring millimetres) and would have preferred more
327 practical approaches, the main reason for their hesitation remained difficulties in interpreting the
328 law due to its abstract expressions. Anneberg et al. (2012) also found that interpretation of the law
329 created uncertainty among Danish farmers, since it is subjective, meaning that farmers might be
330 treated differently. The Finnish Animal Welfare Act (1996) contains many expressions, such as
331 premises must have *sufficient* space; the animal must obtain *suitable* feed; and when an animal falls
332 ill, it must obtain *appropriate* care, which are open to various interpretations. These expressions
333 permit flexibility in animal welfare standards and make it possible to evaluate the conditions based
334 on animal welfare rather than precise, measurable engineering standards. The interpretations may
335 vary depending on the inspector and this might lead to unequal treatment of farmers. Therefore,
336 central organization is essential for providing proper guidance on the sections of legislation that are
337 open to various interpretations, and also for educating the official authorities. Effective guidance
338 and juridical aid from the central administration are important for ensuring good governance and the
339 adequate use of enforcement measures (Lepistö and Hänninen, 2011).

340 It was not surprising that veterinarians were the most important sources of information, since
341 Finland has comprehensive veterinary organization delivering both clinical and prophylactic service
342 for food animals. More than half of the Finnish cattle farms and most of the Finnish pig farms
343 belong to the system; in cattle farms the herd health veterinarian makes a minimum of one annual
344 health care visit and in pig farms at least three to four annual visits. Both farm types have a herd
345 health plan drawn up in collaboration with a veterinarian (ETT, 2017). We found that if the farmer
346 considered their knowledge insufficient, they perceived the inspection situation more negatively.
347 Thus, we suggest that educating both the veterinarians, who take care of the farms, and the farmers

348 in legislation may result in better attitudes towards inspections. This is in line with the previous
349 recommendations on intensifying the effect of food control through guidance on legislation (Nevas
350 et al., 2013; Läikkö-Roto and Nevas, 2014). The low return rate of the questionnaire (20%)
351 questions whether the responses were representative of all Finnish farmers. The geographical and
352 age distribution of the respondents represented well the Finnish population of farmers so that we
353 assume our sample was representative. Therefore, we did not add a follow-up study to investigate
354 the reasons for not responding. In addition, several of our results are in accordance with previous
355 studies: Finnish farmers have recognised that inspections are an important way to find those who do
356 not follow the standards, which was also the case with Dutch and Danish farmers (Bracke et al.,
357 2005; Anneberg et al., 2012). Bock and van Huick (2007) also reported that the farmers experience
358 the imbalance between national legislation and legislation elsewhere unfair and our study supported
359 these results. Finally, our study confirmed that it is important to involve farmers in developing the
360 process of inspections as they may reveal issues that can be fixed. We show here that a high
361 proportion of the responding Finnish cattle and pig farmers recognized the necessity of animal
362 welfare inspections, but a farmer's own negative experience of animal welfare inspection could
363 make their perception of the usefulness of inspections more negative.

364

365 **Animal welfare implications and conclusion**

366 We argue that a more positive perception of animal welfare inspections could be achieved by
367 investing in a trusting and professional atmosphere for the inspection, with proper client
368 communication and dialogue and clear delivery of the reasoning of the outcomes. In addition, the
369 better atmosphere may reduce confrontations between farmers and inspectors, and thus lead to
370 better collaboration and improvements in animal welfare. Finally, as the administrative process in
371 animal welfare control seemed to be somewhat unclear to Finnish farmers, it would be important to

372 educate them in the content of the process, and to educate the inspectors in how to use the process
373 in a way that ensures the legal protection of the farmers.

374

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