

ATTITUDES OF ACADEMIC YOUTH TOWARDS THE WELFARE OF FARMED ANIMALS IN POLAND

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The development of agriculture and rural areas depends on a large extent on the level of society's awareness on agriculture. One of the areas of agricultural awareness of citizens is their attitude towards the welfare of farmed animals. The findings of many studies indicate that the level of social awareness in Poland in this area is low, especially among young people. The aim of the study is to determine the attitudes of Polish academic youth towards the welfare of farmed animals and pinpoint selected factors determining this level.

The main source of the data used for the analyses and applications was the primary information obtained from personal research. The research was done in 2016 by using PAPI method on the group of 450 people. The statistical analysis of the studied material encompassed aggregate statistical indicators as well as the non-parametric test „chi square” (χ^2). Apart from the primary sources they also used secondary sources which encompassed both domestic as well as foreign literature.

According to the conducted study, the majority of the participants had an average level of farmed animal welfare awareness (55%). One in three respondents had a low level of farmed animal welfare awareness, and the remaining group represented the high level. The determining factors were: gender, studied faculty, place of residence, and ownership of agricultural holding by the respondents or their parents. A higher level of farmed animal welfare awareness was characterized by women, students of humanistic faculties, people from rural areas as well as the respondents who didn't run a farm.

Keywords: academic youth, animal welfare, farm animals

INTRODUCTION

The development of agriculture and rural areas is highly dependent on the level of the society's knowledge about agriculture. One of the areas of agricultural awareness is knowledge and attitudes of the citizens concerning the welfare of the farmed animals (Frick et al., 1995; Meischen, Trexler, 2003; Kovar, Ball, 2013).

The notion of animal welfare appeared in the second half of the 20th century. It reflects world tendencies in shaping animal life conditions. Farmed animals should be fed, cared for, and kept in housings in a way that fulfils their physiological and biological needs. Production methods complying with the rules of welfare emphasise the animals' well-being in their farming environment. Welfare means that an animal feels positive emotions (pleasure, contentment) and not only negative ones, such as fear and frustration (Bartkowiak et al., 2012; Mroczek, 2013; Gutkowska, Batóg 2016).

Developed countries' populations are increasingly interested in life conditions of farmed animals thanks to numerous information actions of ecological organisations and animal rights protection movements. Consumer pressure caused the implementation of legal solutions protecting animals from excessive exploitation in the European Union (Mroczek, 2013).

In 1998 was published the Council Directive 98/58/EC, which provided general rules for the protection of farm animals. The rules were based upon the European Convention for the Protection of Animals kept for Farming Purposes and reflect the so-called “Five Freedoms”: freedom from hunger and thirst, from discomfort, pain, injury and disease, freedom from express normal behaviour, from fear or distress.

The Lisbon Treaty adopted in 2009, amending the “Treaty on the Functioning of the European Union” acknowledged the recognition that animals are sentient beings. This paved the way for the development of the “Strategy for the Protection and Welfare of Animals”, designed to lay the foundations for improving welfare standards and ensure that these standards are applied in all European Union countries. The guiding principle was “Everyone is responsible”. The Strategy sat out to introduce a set of general principle that simplified and improve enforcement, improve animal keeping and veterinarian training, support EU countries in their compliance with EU rules, build international cooperation

towards improving animal welfare and improve consumer information and their empowerment (European Commission, 2015).

Many studies show that the level of awareness of farmed animals' welfare in Poland is low, particularly among young people (Bartkowiak et al., 2012; Mroczek, 2013). Therefore, the aim of the paper is to determine the attitude of young people from Poland towards the welfare of farmed animals and to identify selected factors determining them. The knowledge of these problems may serve as a basis for the actions of different entities, which will contribute to the increase of animal welfare awareness of the young generation.

MATERIALS AND METHODS

The main source of data used in the study was primary information from authors' own study conducted in 2016 using the PAPI method on a group of 450 people. Minimum sample size was determined as 433 people. After data reduction, 436 questionnaires were further analyzed. University students from the Małopolskie Province were interviewed. The gender composition of the sample reflects the general population (Statistical Office, 2015). 59% of the respondents were women and 41% were men (Table 1). The average age was 22 years. The youngest participant was 18 years old, the oldest was 26 years old. Persons studying natural sciences (31%) and humanities (30%) were dominant. The remaining group were students of technical (24%) and other (15%) faculties. Almost 55% of the respondents lived in rural areas, the remaining persons lived in urban areas. Half of the inhabitants of rural areas lived in an agricultural household. Average area of such agricultural holding was 7.6 ha.

Table 1. The structure of the respondents (%)

Specification	(%)	
Gender	Woman	59
	Man	41
Place of residence	Village	55
	Town	45
Ownership of agriculture holdings	Yes	23
	No	77
Studied faculty	Technical	24
	Humanistic	30
	Natural science	31
	Other	15

Source: own research, n=436

The index of awareness of farmed animal welfare (IAFAW) was used to measure and assess the attitudes of academic youth towards animal welfare. The index was constructed based on the principles of agricultural awareness index construction described by B. Birkenholz (1993). One of the modules of this index concerns animal welfare awareness. The questionnaire proposed by B. Birkenholz (1993) allows the differences of agribusiness system between particular countries to be taken into account. The questionnaire had three parts. The first part contained statements requiring marking a positive ("yes") or negative ("no") answer or declaring lack of knowledge ("I do not know"). Correct answers were scored 1 point each, whereas incorrect and "I do not know" answers were scored 0 points each. Two questions in this part concerned young people's knowledge on farmed animals. In the second part of the questionnaire, a five-grade Likert scale was used. This part consisted of a dozen of statements regarding agricultural awareness, including three on animal welfare. The maximum score in this module was 3, whereas the minimum was -15. The index of awareness of farmed animal welfare value is the sum of results obtained by the respondents in both parts. Therefore, IAFAW allows values of 3–18 points. The last part contained the respondent's particulars.

The statistical analysis of the studied material encompassed aggregate statistical indicators as well as the non-parametric test „chi square” (χ^2) allowing for an assessment of the significance of relationship between variables if at least one of them is non-measurable. All hypotheses were verified on the significance level $\alpha = 0.05$.

Apart from the primary sources they also used secondary sources which encompassed both domestic as well as foreign literature. Results of studies were presented in a descriptive, tabular and graphic form.

RESULTS AND DISCUSSION

The mean value of the index of awareness of farmed animal welfare was 10 points. The respondents with the lowest level of knowledge on animal welfare scored 5 points and the highest result was 17 out of 18 points. In order to verify the result using the χ^2 test, the results were divided in three ranges: low level of awareness of farmed animal welfare (5-8 points), medium level (9-12 points), and high level (13-17 points). According to the conducted study, the majority of the participants had a medium level of knowledge about farmed animal welfare (55%). Every third respondent was characterised by little knowledge on the subject, whereas the remaining persons had a high level of awareness of farmed animal welfare (Fig. 1).

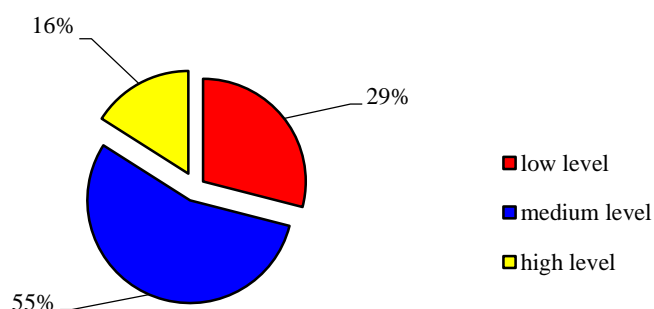


Figure 1. The levels of the index of awareness of farmed animal welfare in the group of respondents under study (%)
Source: own research, n=436

Based on the conducted analysis, one can state that the level of awareness of farmed animal welfare is determined by several factors, one of which is gender ($\chi^2=10.4$; $df=2$). Women had a higher level of awareness. Average result in women was 11.2 points, whereas in men it was 9.6 points. In women, there were more persons representing high and medium levels of awareness of farmed animal welfare. Men were mostly on the low level. Only one in ten men was characterized with a high level of farmed animal wellness awareness. The obtained results are consistent with the results of the Eurobarometer 442 Report. According to the research, women are characterized by a higher awareness of farmed animal welfare level in comparison with men (European Commission, 2015, p. 11) (Fig. 2).

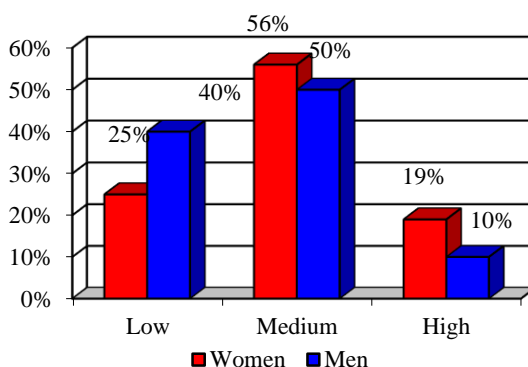


Figure 2. The structure of respondents according to the levels of index of awareness of farmed animal welfare and gender (%)
Source: own research, n=436

A statistically significant correlation between the level of awareness of farmed animal welfare and the studied faculty was revealed ($\chi^2=22.3$; $df=6$). On average, natural sciences students had the highest score (11.6 points). Almost 30% of this group had a high level of awareness of farmed animal welfare. In the group of humanities students, the average result was 10.3 points. Every fifth respondent represented a high level of animal welfare awareness. The average result of students of remaining faculties was 9.6 points. Almost 15% of this group had a high level of awareness of farmed animal welfare. The students of technical faculties had the lowest result (8.9 points). In this group, only one in ten respondents was characterized by a high awareness level (Fig. 3).

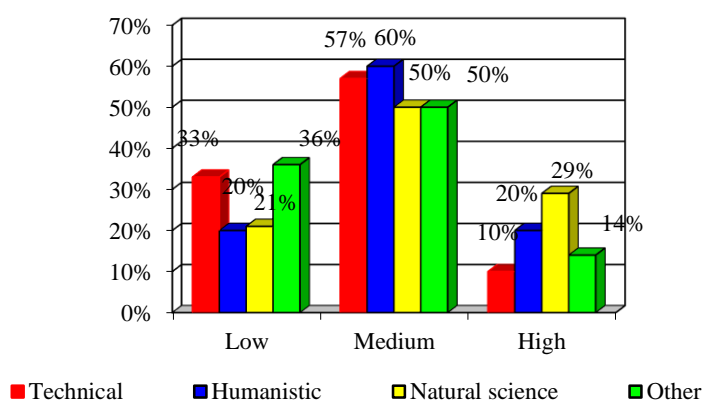


Figure 3. The structure of respondents according to the levels of index of awareness of farmed animal welfare and studied faculty (%)
Source: own research, n=436

Another factor determining the level of awareness of farmed animal welfare was the place of residence. According to the conducted studies, the inhabitants of rural areas had a higher level of agricultural awareness. The average score of this group was 11.8 points. The inhabitants of urban areas scored almost 2 points less. The χ^2 test analysis showed that there are statistically significant differences in the level of agricultural awareness between the inhabitants of rural and urban areas ($\chi^2=8.2$; $df=2$). The obtained results are consistent with the results obtained by other authors (Birkenholz, 1993). In both groups, persons with a medium level of awareness of farmed animal welfare dominated, but in rural areas inhabitants a higher share of people representing a high level of animal welfare knowledge was observed (7 pp of difference) (Fig. 4).

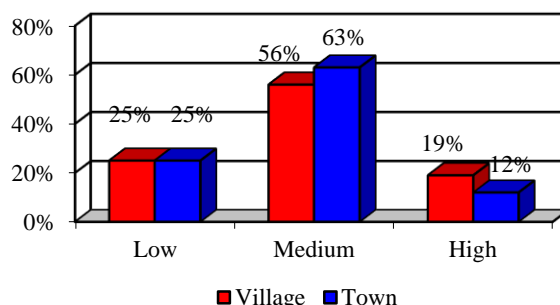
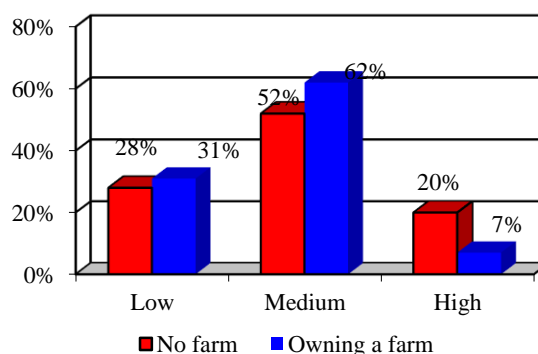


Figure 4. The structure of respondents according to the levels of index of awareness of farmed animal welfare and place of residence (%)
Source: own research, n=436

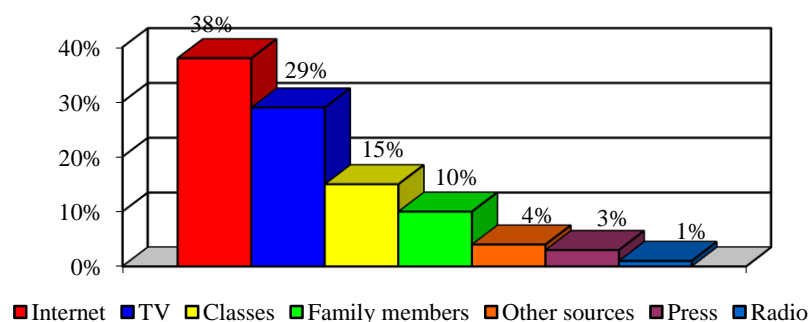
The relation between the awareness of farmed animal welfare level and ownership of agricultural holdings by the respondents or their parents was also studied. According to the statistical analysis conducted, respondents working in agricultural holdings are usually characterised by a lower level of awareness of farmed animal welfare ($\chi^2=7.1$; $df=2$). One in five persons not owning an agricultural holding had a high level of awareness of farmed animal welfare, whereas only 7% of the group of respondents from farming families represented a high level of knowledge on this subject. The obtained results are consistent with the results obtained by other authors (Malak-Rawlikowska, Gębska, 2010) (Fig. 5).



Source: own research, n=436

Figure 5. The structure of respondents according to the levels of index of awareness of farmed animal welfare and ownership of agricultural holdings (%)

The most popular source of information for the students was the internet (38%), then television (29%), classes included in the curriculum (15%), family members (10%), press (3%), and radio (1%) The remaining participants answered “other sources”. This answer was given by persons working in agricultural holdings and participating in diverse training on this subject (Fig. 6).



Source: own research, n=436

Figure 6. Sources of information on the farmed animal welfare (%)

CONCLUSION

The research carried out among Polish students allowed determining the level of awareness of farmed animal welfare and identifying factors affecting and differentiating it. The majority of the respondents were characterised by a medium level of awareness of farmed animal welfare (55%). Almost every third student represented a low level, and 16% had a high level.

The determining factors were gender, studied faculty, place of residence, and ownership of agricultural holdings by the respondents or their parents. Women, natural sciences faculties students, rural areas inhabitants and people who did not own an agricultural holding were characterised by a higher level of awareness of farmed animal welfare.

The group requiring urgent educational actions are people owning an agricultural holding or working in their parents' holding. They had the lowest level of awareness of farmed animal welfare (only 7% of this group represented a high level of awareness). Educating them is particularly important, as they will decide on the quality of life of animals as future farmers.

In the designed educational actions, the preferences of young people regarding the source of information should be taken into account. In the studied group, the most effective channels of educational actions were the internet (38%) and television (29%).

The IFAFW can be used to monitor and assess the level of awareness of farmed animal welfare not only in academic youth, but also in other groups of citizens (children, teenagers, teachers, farmers, etc.). The obtained information may be used to create effective training programmes categorised by particular typological groups and their level of knowledge on the subject.

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