

## ANIMAL WELFARE IN THE CONTEXT OF SUSTAINABLE RURAL DEVELOPMENT ON THE EXAMPLE OF DAIRY FARMING

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**A b s t r a c t.** The paper presents Polish farmer's opinions about animal welfare and possible benefits and costs of producing under the private brand of high animal welfare standard. Data used in the study were collected using questionnaire interviews in 150 farms in the Mazowieckie and Podlaskie Provinces. It was found, that 41% of farmers expressed their desire to join the brand of some standard with high animal welfare requirements if such a possibility was made in Poland. The majority of them already took steps to raise the level of animal welfare on their farms. High animal welfare requirement gives an opportunity to increase a profitability of milk production. Those requirements imply not only restrictions for farmers and farm development, but also benefit in some significant advantages.

### INTRODUCTION

Rural development is a complex issue. It covers differentiated problems related to social infrastructure, education, off-farm activities and production. The direction of rural development depends on various factors, for example flows of capital, people, goods and information [Kizos et al. 2010]. Sustainable rural development is one of the main objectives of the agricultural policy of the European Union, as well as the maintenance or improvement of biodiversity [Anon 2000 after Ortega et al. 2004]. Nowadays, it seems to be a significant problem, that it becomes more and more hard for farmers to get satisfactory income from their small farms. It causes with people migration from rural areas to cities and intensification of farm production. Intensive farming does not support maintaining a high quality of environmental on rural areas, which is one of the determiners of sustainable rural development [Park et al. 2009]. It also leads to biodiversity degrading. One of the solutions, which could help to hold people on their small farms is giving them an opportunity to improve profitability by producing original, certified and good quality products. As it occurs nowadays, consumers more often search for the certified, safe products coming from "healthy" farming. In case of animal production they want an animal to be treated in a humanitarian way, securing its good welfare and assuring best product quality.

Producing under a certain approved and known standard with the certificate is increasingly popular in Western Europe. Farmers could voluntarily produce under the brand of some animal welfare or organic standard with high animal welfare requirements [Malak-Rawlikowska et al. 2010]. Welfare is defined in relation to animals' ability to control their environment [Broom 1986] or a state in which animals can live in harmony with their environment [Hurnik 1995 after Pisula 1999] or adapt to it [Broom 1996]. Provisions related to animal welfare are perceived rather as farm development constrains, because of imposing an additional restrictions and obligations for farmers. However, there are also advantages from this requirements like higher prices for products and benefits in production characteristics and efficiency. Therefore, an overall impact on farms income is not always clear. Producing with higher animal welfare standards can help to maintain a high quality of environmental on rural areas. On small farms it can be also connected with rearing protected rare farm animals and plants and the same, help to maintain biodiversity, which is necessary in the framework of sustainable rural development [Ortega et al. 2004]. However, farmers would be interested in such production only if it was profitable for them.

The issue of animal welfare is not sufficiently explored in the available literature. The impact of selected animal welfare problems on animal's health and farmer's income has been explored. However, it is not known, how many, if any, Polish farmers could benefited from the possibility of producing under the brand of some animal welfare or organic standard with high animal welfare requirements. For this reason, it is reasonable to undertake the research in this field. The paper aims to examine Polish farmer's opinions about animal welfare, their willingness to join private brand of high animal welfare standard and possible benefits and costs of such activity. Finally, it will answer the question "Does animal welfare can support sustainable rural development?".

## MATERIALS AND RESULTS

Data used in the study was collected using questionnaire interviews in 150 farms in the Mazowieckie and Podlaskie Provinces<sup>1</sup>. Structure of the sample is shown in table 1.

Among the examined farmers, 40.7% expressed their desire to join the brand of a standard with high animal welfare requirements if such a possibility was made in Poland. Free times more farmers in Podlaskie Province were interested in such activity, then in Mazowieckie Province (respectively 60.0% and 21.3%). Farmers believed, that animal welfare is important for consumers and they want animals to be treated in humanitarian way.

Table 1. Structure of the sample by the number of cows and land area

Number of cows	Land area		
	<25 ha	25-50 ha	>50 ha
	%		
10-19	27.3	17.3	0.0
20-49	8.0	30.7	4.7
>49	0.0	6.0	6.0

Source: own studies

Table 2. Farmers interested in joining the brand of standard with high animal welfare

Provinces	%
General	40.7
Mazowieckie Province	21.3
Podlaskie Province	60.0

Source: own studies

<sup>1</sup> Data was collected in 2012 and covers the period from 01.01.2011 to 31.12.2011

The average examined farm, from the group interested in joining animal welfare standard, had over 29 ha of land and hold 26 cows in 2011. The average production of milk was about 152 500 kg. Therefore, rather small than large farmers were interested in such activity. If farmers with small farms joined such standard and had profits from it, they would stay at rural areas and, therefore, support sustainable rural development. It is important for them to know, whether there are financial benefits from higher animal welfare. Farmers have to invest in order to keep animals in higher welfare. They would do it only if they believed it gave them some profits.

It was found, that the majority (72.0%) of examined farmers already took steps to raise the level of animal welfare on their farms. They modernized their cowsheds (46.0%), build a new one (17.7%) or an open run (5.6%). Some of that actions were connected with the adaptation to cross-compliance requirements. However, the motivation of the majority of them was to increase animal welfare. In farmer's opinion higher animal welfare leads to veterinary cost decreasing and milk yield increasing. They believed, that it was worth to invest in animal welfare, though it was very costly. Another 47.3% of them were planning to undertake action in order to increase animal welfare.

Among examined group of farmers, 61% provided their animals with access to pasture. Costs of treatment were lower at farms benefiting from the pasture than at farms not benefiting from the pasture. At the same time, the average milk yield was higher at farms benefiting from the pasture than at farms not benefiting from the pasture. Similar relation was found in case of gross margin. Detailed information is listed in table 2. It is in accordance with the earlier studies – it was found, that farms using pasture obtained higher net farm income, than if they had not benefited from the pasture [Gajos 2011]. This result is related to improved health status of animals and lower costs of feeding. Keeping dairy cows year-round inside the building raises many implications for animal welfare, including: predisposition to various diseases and behavioral changes, limitation of movement, increased stress levels [Sossidou et al. 2004]. Lack of pasture and limitation of movement affects the incidence of lameness [Lewandowski 2008]. It confirms, that farmers, who do not use pasture could get some financial benefits from raising the level of animal welfare by providing cows with access to pasture. However, many farmers did not do it. The reasons for not using pasture are shown in table 3.

The majority of farmers (54.5%) did not use pasture, because they believed that it is too time consuming. In 22% of examined farms, pastures were too far away from the farm. Almost 30% of examined farmers believed, that it is just not necessary. Those farmers did not have knowledge about the positive consequences of using pasture. Pasture is not absolutely necessary for milk production, however there are many advantages from using it.

Another important factor related to animal welfare is culling rate. The average culling rate in examined group of farms was 17.4%. Among them, 19.3% were characterized by culling rate higher than 25.0%. It was found in previous study, that culling rate increased by

Table 3. Reasons for not using a pasture  
(there was a possibility to mark more than 1 answer)

Provinces	Reason		
	too far away from the farm	not necessary	takes too much time
	%		
General	22.1	28.6	54.5
Mazowieckie Province	19.2	26.9	65.4
Podlaskie Province	23.5	29.4	45.1

Source: own studies

1% would cause a decrease in net farm income [Gajos, Małazewska 2012]. According to that study, in case of average farm interested in joining the brand of a standard with high animal welfare requirements, culling rate decreased by 1% would cause an increase in net farm income by 732 PLN. Culling rate could be decreased by providing animals with better conditions, e.g. access to pasture, ability to regular movement, loose housing, high quality of feed, friendly staff. Cows living in better conditions are healthier, therefore produce more milk [Kołaczkowski 2006] and are less likely to get sick or injured. Many of farms characterized by high culling rate do not provide animals with access to pasture or other form of regular movement. Therefore, there is a possibility for them to decrease that rate.

Summarizing, providing animals with better conditions can positively effect the profitability of milk production. Small farmers can get significant financial benefits from raising the level of animal welfare in their farms. Furthermore, by producing under the brand of high animal welfare standard they could get higher price for their products. This may encourage them to stay at rural areas and prevent people migration to urban areas. The high level of animal welfare in such farms achieved e.g. through the use of pasture can help to maintain a high quality of environment on rural areas and contribute to their sustainable development.

## CONCLUSIONS

Presented research confirmed, that Polish farmers are interested in producing under the brand of high animal welfare standard. Many of them already took steps to increase welfare of their animals. They did it, because they believe it will improve the profitability of milk production. It has been presented, that animal welfare requirements imply not only restrictions for farmers, but also benefit in some significant advantages. Producing under the brand of private animal welfare standard is an opportunity for small farmers to get satisfactory income from their activity. It could stop people migration from villages to cities and contribute to sustainable rural development. Producing with higher animal welfare standards can help to maintain a high quality environment on rural areas, which is one of the determiners of sustainable rural development.

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### Streszczenie

W pracy przedstawiono opinie rolników na temat dobrostanu zwierząt oraz możliwe korzyści i koszty z prowadzenia produkcji pod marką prywatnego standardu zakładającego wysoki poziom dobrostanu zwierząt. Dane wykorzystane w pracy zostały zebrane z wykorzystaniem kwestionariusza wywiadu w 150 gospodarstwach rolnych w województwie mazowieckim i podlaskim. Stwierdzono, że 41% rolników byłoby zainteresowanych przystąpieniem do prywatnego standardu zakładającego wysoki poziom dobrostanu zwierząt jeżeli taka inicjatywa istniałaby w Polsce. Większość z nich już podjęła kroki mające na celu podniesienie poziomu dobrostanu w ich gospodarstwach. Wymogi związane z zapewnieniem zwierzętom wysokiego poziomu dobrostanu dają możliwość do zwiększenia opłacalności produkcji mleka. Wymogi te oznaczają nie tylko ograniczenia dla rolników i rozwoju gospodarstwa, lecz także pozwalają na osiągnięcie znaczących korzyści.

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