OPINIONS EXPRESSED BY CATTLE BREEDERS ON HUMAN-ANIMAL RELATIONS AND THE CONDITIONS IN WHICH ANIMALS ARE KEPT

OPINIE HODOWCÓW BYDŁA NA TEMAT RELACJI CZŁOWIEK – ZWIERZĘ I WARUNKÓW UTRZYMANIA ZWIERZĄT

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ABSTRACT

The survey included 69 Polish farmers running private farms which focus on cattle breeding. Based on the survey results, and answers given by dairy and beef cattle breeders, it was found that the majority of respondents present the right attitude towards animals, and that they understand the influence of the person being in charge of a herd on the behaviour of animals and production results. The majority of the surveyed breeders continue to keep their cattle in stall barns, with more than 70% believing that this system provides good conditions for animals, and approximately 10% believe this is the best system possible. Approximately 80% of breeders is of the opinion that the animal housing system used has an effect on the condition of animals' legs. The majority of breeders say that their animals are kept in either good or very good environmental conditions.

Keywords: cattle breeding, human-animal relations, environmental conditions, welfare

ABSTRACT

Badaniami ankietowymi objęto 69 polskich rolników prowadzących gospodarstwa indywidualne skoncentrowane na hodowli bydła. Na podstawie rezultatów przeprowadzonych ankiet i uzyskanych od hodowców bydła mlecznego i mięsnego odpowiedzi, stwierdzono, że zdecydowana większość respondentów deklaruje właściwy stosunek do zwierząt, dostrzega wpływ osoby zajmującej się stadem na zachowanie bydła i osiągane wyniki produkcyjne. Ponad połowa hodowców nie widzi przeszkód w nadawaniu praw zwierzętom. Większość

ankietowanych hodowców utrzymuje bydło w systemie uwięziowym, przy czym ponad 70% uważa, że w tym systemie można zapewnić zwierzętom dobre warunki utrzymania, a około 10% ankietowanych uważa ten system za najlepszy dla zwierząt. Około 80% hodowców jest przekonanych, że system utrzymania ma wpływ na zdrowotność kończyn. Większość ankietowanych uważa, że ich zwierzęta przebywają w dobrych bądź bardzo dobrych warunkach środowiskowych.

Słowa kluczowe: hodowla bydła, relacje człowiek-zwierzę, warunki środowiskowe, dobrostan

DETAILED ABSTRACT

Zarówno w Polsce, jak i na Świecie coraz więcej uwagi w chowie i hodowli przywiązuje się do dobrostanu zwierząt. Dobrostan jest pojęciem bardzo szerokim, łączącym dziedziny etyczne, naukowe, ekonomiczne a także polityczne [4, 5, 8, 16]. Pod żadnym pozorem nie można o nim zapomnieć w nowoczesnym chowie i hodowli zwierząt. Polskie jak i Unijne ustawodawstwo Unii Europejskiej dokładnie określa, jakie prawa mają zwierzęta hodowlane oraz precyzyjnie definiuje minimalne wymogi dla poszczególnych grup i kategorii zwierząt hodowlanych, tak aby spełniony był ich dobrostan. W wielu dyrektywach, ustawach i rozporządzeniach określone są ponadto wymogi jak postępować ze zwierzętami gospodarskimi podczas obrotu, transportu i uboju [19]. Porównanie systemów utrzymania bydła - uwięziowego z wolnostanowiskowym nie daje jednoznacznych odpowiedzi, który z nich ma korzystniejszy wpływ na wydajność mleka, stan zdrowia i płodność krów [12, 17]. Duże zróżnicowanie systemów utrzymania krów powinno zapewniać odpowiedni komfort bytowania zwierząt, który łączy się z uzyskiwanymi wynikami produkcyjnymi [11].

Celem przedstawionej pracy było zbadanie opinii polskich hodowców bydła na temat relacji do zwierząt i do warunków ich utrzymania.

Badaniami objęto 69 hodowców bydła, głównie z powiatu pilskiego w województwie Wielkopolskim (Polska). Wszyscy ankietowani byli rolnikami prowadzącymi gospodarstwa indywidualne. Ankietowanie przeprowadzono w okresie od 30 czerwca do 31 listopada 2010 roku. Spośród ankietowanych 20 zajmowało się wyłącznie produkcją mleka, 30 zajmowało się wyłącznie produkcją opasów, natomiast 19 rolników prowadziło zarówno opas, jak i produkcję mleka. Najwięcej ankietowanych hodowców utrzymywało zwierzęta na uwięzi. W każdej grupie hodowców stanowili oni ponad 50%, w grupie hodowców bydła opasowego aż 70%.

Wyniki przeprowadzonych ankiet poddano analizie statystycznej. Dla wybranych cech o charakterze jakościowym obliczono frekwencje oraz ich procentowy udział w badanej grupie.

istotności różnic między frekwencjami analizowano przy użyciu testu χ^2 Pearsona. Analizy statystyczne wykonano w programie Statistica 9.0 [20].

Na podstawie przeprowadzonej ankiety hodowców bydła mlecznego i mięsnego, stwierdzono, że zdecydowana większość respondentów określa swoje relacje ze zwierzętami jako dobre, dostrzegają wpływ osoby zajmującej się stadem na zachowanie bydła oraz osiągane wyniki produkcyjne. Większość ankietowanych dostrzega, że praca ze zwierzętami niesie ryzyko uszczerbku na zdrowiu. Ponad połowa hodowców zgadza się z nadawaniem praw zwierzętom. Większość ankietowanych nadal utrzymuje bydło w systemie uwięziowym. Ponad 70% hodowców uważa, że w tym systemie można zapewnić zwierzętom dobre warunki utrzymania, a około 10% ankietowanych uważa ten system za najlepszy. Około 80% hodowców jest przekonanych, że system utrzymania ma wpływ na zdrowotność kończyn. Większość ankietowanych uważa, że ich zwierzęta przebywają w dobrych bądź bardzo dobrych warunkach środowiskowych.

INTRODUCTION

Industrial animal agriculture is based on the concept of maximizing productivity and profits. Selective breeding for maximum productivity in one characteristic of the animal has resulted in genotypes and phenotypes that may predispose the animals to poor health and welfare [6]. Therefore, in Poland, as well as everywhere else, more and more attention is being paid during breeding to animal welfare. Welfare is a very wide term, combing ethics, science, economics, as well as politics [4, 5, 8, 16]. Under no circumstance can it be neglected in modern animal breeding. As pointed out by Lensink [15], the human-animal relationship is very important in conventional animal production, affecting both the welfare of the animals and the farm productivity results. Legislation in Poland, and the rest of the European Union, specifically sets out minimum requirements for each group and category of breeding animals, in order to ensure their welfare. A number of directives, acts, and orders additionally specify requirements for handling farm animals during sale, transportation, and slaughter [19].

Comparison of the stall barn system with the loose housing system fails to provide meaningful answers as to which of the two is better for milk production, animal health, or fertility [12, 17]. Large variations in the housing systems should ensure enough comfort for the animals, and consequently good production results [11].

The objective of the research was to record the opinions of Polish cattle breeders on their relations with animals, and conditions in which the animals are kept.

MATERIALS AND METHODS

The research included 69 Polish cattle breeders, mainly from the *pilski* county in the *Wielkopolskie* province. All of the surveyed breeders run private farms. The survey took place from 30 June until 31 November 2010. The onfarm survey included a face-to-face interview with the farm manager, using a standard questionnaire. We developed a questionnaire, which consisted of multiple-choice and semi closed questions. From among the surveyed farmers, 20 only deal in dairy production, 30 only in beef cattle breeding, and 19 in both dairy production as well as beef cattle breeding.

The majority of the surveyed breeders kept their animals in stall barns. In each of the groups, there were more than 50% of such breeders, and in the beef cattle group as many as 70% (Table 1).

Table 1. Housing systems used by surveyed breeders

Tabela 1. Sposoby utrzymania bydła wśród ankietowanych hodowców

Housing system Sposób utrzymania bydła	Breeder groups Grupy hodowców		
	Dairy cattle Bydło mleczne	Dairy and beef cattle Bydło mleczne i opasy	Beef cattle Opasy
Stall barn Uwięziowy	10 (50.00%)	11 (57.89%)	21 (70.00 %)
Loose housing Wolnostanowiskowy	1 (5.00%)	2 (10.52%)	2 (6.66%)
Stall barn with access to open space Uwięziowy z dostępem do wybiegu	4 (20.00%)	2 (10.52%)	1 (3.33%)
Loose housing with access to open space Wolnostanowiskowy z dostępem do wybiegu	2 (10.00%)	1 (5.26%)	3 (10.00%)
Combined Kombinowany	3 (15.00%)	3 (15.78%)	3 (10.00%)

The results of the surveys were analysed statistically. For selected qualitative traits, we calculated frequencies and their percentages in the examined groups. The significance of differences between frequencies were analysed using the Pearson χ^2 test. Statistical analyses were conducted using Statistica 9.0 software [20].

RESULTS AND DISCUSSION

The results of the survey indicate that all of the respondents believed that animals behaviour is influenced by the character and behaviour of the person taking care of a herd (Table 2). The surveyed breeders understand their influence on the animals they breed, which is very important in modern breeding. This way of thinking has been confirmed in numerous studies and publications [8, 14, 22]. The data analysed by Lensink et al. [14] showed that different characteristics of the farmer were associated with calves' reactivity to people, calves' health, and production success of the veal unit.

Over eighty percent of the surveyed farmers believed that good treatment of animals translates into good economic results of production (Table 2). It is positive that breeders see this relation, but it is also important that they act accordingly on a daily basis when dealing with animals. Berthenshaw and Rowlinson [1] report that the treatment of individuals, including calling a cow by her name, was associated with higher milk yields. Lensink et al. [14] in their study on the farmers' influence on calves' behaviour, health and production of a veal unit, concluded that farmers who have a positive attitude towards animals and towards their work are more likely to obtain better production results, at least in part because of a better control of the calves' health. Bertenshaw et al. [2] concluded that positive contact with commercial heifers during rearing for at least 30 min during the last 6 weeks of gestation can improve both animal welfare and production.

Nearly 90% of the surveyed farmers believed that working with animals is connected with risk, and may be a cause of health problems (Table 2). Breeders realise what the dangers are (for instance, infection with animal related diseases, being wounded by horned animals), and therefore they are more careful and pay more attention to ensuring hygiene in the places were animals are kept. Experiments and observation help dealing with most of the dangers, such as being hit by horned animals. Waiblinger et al. [21] show ways to keep horned dairy cows in loose housing, they claim that negative attitudes towards horned cows can be changed by new knowledge and experience.

The majority of surveyed breeders (over 50%) said that animal rights are not going too far. This opinion was the most widespread among dairy and beef cattle breeders – exceeding 70%; at the same time, this is the group with the smallest number of negative opinions about animal rights. Over 16% of the surveyed beef cattle breeders and 5% of dairy cattle breeders believed that animal rights are going too far because some of these rights are absurd (Table 2). Current housing systems are increasingly more often developed to suit legal standards and consumer expectations. Apart from the safety of farming products, EU legislation on farming policy emphasises requirements concerning animal welfare and environmental protection [19]. The issue of animal welfare on farms is also becoming more important in Poland, for instance, when the Polish

regulations are being adjusted to the EU law [15]. The abovementioned results are a testament to the awareness of the surveyed breeders of animal treatment issues, and mean that they care about animal welfare.

Over 60% of the surveyed farmers believed that their animals were kept in good conditions, with very good conditions indicated by 20% of the surveyed dairy cattle breeders, and 30% of the beef cattle breeders (Table 3). Among the dairy and beef cattle breeders, as many as 15% stated that the conditions in which their animals are kept are good enough. Probably the farmers who deal with both types of breeding are aware of the significant influence of housing conditions on the whole of production and understand the necessity to modernise the current infrastructure. As Reklewski [18] emphasises, the details in barn equipment and finishing materials may very significantly affect the health of cows. Many breeders point out that failure to adapt technology to suit natural behaviour and adaptation capabilities of animals leads to financial losses through lowered effectiveness of milk production, and reproduction, as well as worse health of cows [7, 24].

The loose housing system using deep litter was considered the most convenient for cattle by over 60% of the surveyed farmers. More than 20% in each of the surveyed groups replied that the best was the loose housing system using slatted floor. Whereas approximately 10% of the surveyed breeders thought the same of the stall barn system (Table 3). At present, the latter system is becoming less frequent due to the fact that it is improper for highly productive cows. New loose housing barns have their parameters based on examining cattle behaviour and animal welfare regulations. Therefore, they are considered to be more animal friendly [18, 13].

Some authors [3, 11, 17] underline the advantages of the loose housing system, which are healthier animals, less work to do, a modern milking system, and more technologically advanced process. The indoor system, on the other hand, helps with individual control over animals or early detection of diseases, but at the same time – because milking takes place in the actual beds, it is connected with higher risk of udder inflammation [9, 12].

Approximately eighty percent of the surveyed farmers said that the housing system affects the condition of animal legs. The largest group was constituted by dairy cattle breeders (Table 3). Winnicki et al. [23] present the opinion that loose housing systems are a cause of lameness among cows. As Reklewski reports [18], in buildings with rubber mats on the floor, cows walked faster, and did not slip or fall. The author concludes that the cows with the best condition of hoofs were found in barns where bed stalls had sand or mattresses on the floor, and there was rubber floor in the corridors [18].

In our research, approximately three quarters of the surveyed farmers stated that good conditions for animals may be ensured with stall barn system (Table 3). Kołacz and Dobrzański [10] emphasise that the recommended system is loose housing with or without designated stalls. Keeping animals loose in groups is more suited to their natural behavioural needs than the stall barn system. Furthermore, the former is connected with higher work efficiency of personnel as well as good milking hygiene [7, 12, 17, 24].

CONCLUSIONS

Based on the survey of dairy and beef breeders, it was concluded that the large majority of respondents think of their relations with animals as being good; they realise that the person in charge of a herd has influence on cattle behaviour and production outcome. The majority understand that working with animals is related to health risks. More than half of the breeders agree that animals should have their rights. The majority of the surveyed farmers continue to keep their livestock in stall barns. Over 70% of breeders believe that this system ensures good breeding conditions for animals, and approximately 10% believe that this is actually the best known system. Approximately 80% of breeders are of the opinion that which system one uses affects the condition of the legs of animals. The majority said that their animals are kept in either good or very good environmental conditions.

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Table 2. Breeders' opinions on human-animal relations

Tabela 2. Opinie hodowców na temat – relacja człowiek zwierzę

Breeder groups Grupy hodowców		
Dairy cattle Bydło mleczne	Dairy and beef cattle Bydło mleczne i opasy	Beef cattle Opasy
'Yes' answers (in %, as compared to the group) **Odpowiedzi - Tak (w % w stosunku do grupy)**		
Does the character and behaviour of people in charge of a herd affect animal behaviour? **Czy na zachowanie się zwierząt ma wpływ charakter i zachowanie się osób zajmujących stadem?** *(p=0.5283)*		
20 (100.00%)	19 (100.00%)	30 (100.00%)
Does good treatment of animals translate into good financial results? **Czy dobre traktowanie zwierząt przekłada się na wyniki ekonomiczne produkcji?** *(p=0.1486)*		
16 (80.00%)	18 (94.74%)	26 (86.66%)
Is there a risk involved in working with animals, and can it lead to any health problems? **Czy praca przy zwierzętach jest ryzykowna i może wywołać uszczerbek na zdrowiu?** *(p=0.6560)*		
17 (85.00%)	17 (89.47%)	27 (90.00%)
Are animal rights going too far? **Czy nadawanie praw zwierzętom jest zbyt daleko idące?** *(p=0.4345)*		

	Dairy cattle Bydło mleczne	Dairy and beef cattle Bydło mleczne i opasy	Beef cattle Opasy
No - Nie	13(65.00%)	14 (73.68%)	16 (53.33%)
Yes - Tak	5 (25.00%)	2 (10.52%)	5 (16.66%)
Yes because animals should only serve for production purposes Tak, ponieważ zwierzęta powinny służyć tylko do produkcji	1 (5.00%)	1 (5.26%)	0 (0.00%)
Yes because some animal rights are absurd Tak, ponieważ niektóre prawa nadawane zwierzętom są absurdalne	1 (5.00%)	1 (5.26%)	5 (16.66%)

Table 3. Breeders' opinions on animal housing

Tabela 3. Opinie hodowców na temat – utrzymania zwierząt

Questions Pytania	Breeder groups – Grupy hodowców		
	Dairy cattle Bydło mleczne	Dairy and beef cattle Bydło mleczne i opasy	Beef cattle Opasy
Please assess the conditions in which your animals are kept? **Jak ocenia Pan/Pani warunki w jakich przebywają hodowane przez Państwa zwierzęta?** *(p=0,4491)*			
Very good – Bardzo dobre	4 (20.00%)	2 (10.52%)	9 (30.00%)
Good - Dobre	15 (75.00%)	14 (73.68%)	18 (60.00%)
Good enough - Dostateczne	1(5.00%)	3 (15.78%)	3 (10.00%)
What do you think is the best housing system for cattle? **Jaki Pan/Pani zdaniem jest najlepszy system utrzymania dla bydła?** *(p=0.9661)*			
Stall barn - Uwięziowy	2 (10.00%)	3 (15.79%)	3 (10.00%)
Loose, on slatted floor- Wolnostanowiskowy na podłodze szczelinowej	5 (25.00%)	4 (21.05%)	8 (26.66%)
Loose, on deep litter - Wolnostanowiskowy na głębokiej ściółce	11 (55.00%)	11 (57,89%)	19 (63.33%)
Does housing system influence leg condition? **Czy system utrzymania wpływa na zdrowotność kończyn?** *(p=0.8693)*			
Yes answers (in %, as compared to the group) Odpowiedzi - Tak (w % w stosunku do grupy)	17 (85.00%)	15 (78.94%)	24 (80.00%)
Can the conditions be good for animals if kept in stall barns? **Czy możliwe jest zapewnienie zwierzętom dobrych warunków w chowie na uwięzi?** *(p=0.8874)*			
Yes answers (in %, as compared to the group) **Odpowiedzi - Tak (w % w stosunku do grupy)**	15 (75.00%)	14 (73.68%)	22 (73.33%)