AGROSYM

BOOK OF ABSTRACTS

XV International Scientific Agriculture Symposium

"Agrosym 2024"

Jahorina, October 10-13, 2024

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MANIFESTATION OF PAIN IN DAIRY COWS WITH REFERENCE TO ENTERIC METHANE EMISSION

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Abstract

Impaired health causes discomfort and pain in animals and can also influence the increase in methane emissions in dairy cows. The pain experienced by an animal is most easily determined by observing changes in behavior. In this study, the presence of pain was assessed in 120 Holstein-Friesian cows in a tied housing system based on the sum of the values of seven behavioral parameters. In 36 cows, the emission of enteric methane was also measured. The presence of pain was detected in 75.83% of the observed cows. Among the behavioral changes, lower head posture (in 90% of cows) was the most frequently observed, and lack of attention to the environment (in 5.83%) was less frequently observed. Positive correlations with different levels of significance were found between the pain score and: the values of the observed behavioral parameters, the age of the cow and the clinically existing or recently treated disease, most frequently hoof disease. The amount of methane measured was positively correlated with the posture of the cow, i.e. the appearance of the back line ($p<0.05$). The results suggest that certain changes in cow behavior may have multiple clinical significance. Knowing the behavior that indicates pain can contribute to the timely treatment of the animal or to the elimination of the causative factors and thus to a better welfare of the animal.

Keywords*: Behavior, Dairy cows, Enteric methane, Claw diseases, Pain.*