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Session 9 Poster 13

Improvement of the welfare of Iberian cull sows fattened through the immunocastration *J. García-Gudiño¹, F. Hernández-García¹, M. Izquierdo¹, I. Blanco-Penedo² ¹ CICYTEX, Animal Production, 06187 Guadajira, Spain, ² UdL, Department of Animal Science, 25198 Lleida, Spain*

To enhance the sustainability of Iberian traditional pig production, it is suggested to fatten Iberian cull sows using the natural resources of the dehesa ecosystem. However, during the fattening period, hierarchical aggressions between entire sows may occur due to oestrus, as well as unwanted pregnancies by wild boars in free-range systems. To mitigate these issues, this study aimed to evaluate the performance and welfare of entire and immunocastrated Iberian cull sows during the fattening period. The study was conducted on 36 multiparous Iberian sows at the CICYTEX experimental farm. One group of 18 sows remained entire, while the other group of 18 sows was immunocastrated using Vacsincel® before the fattening phase. After the immunocastration protocol, both groups were fattened in the dehesa using natural resources. The animal welfare of both groups was assessed every five weeks (4 assessments) using the Welfare Quality® protocol. Monthly body weight (BW) measurements were taken, and blood samples were collected for analysis of progesterone and estradiol (ELISA). Statistical analyses were conducted using SAS®. Regarding animal welfare, differences were only observed between the two experimental groups at the end of the fattening period according to the Welfare Quality® protocol. Expression of positive social behaviours was found to be more frequent in immunocastrated Iberian cull sows. Analysis of progesterone and estradiol confirmed the effectiveness of immunocastration. There were no significant differences in BW and average daily gain between the two experimental groups. In conclusion, immunocastration is an optimal management tool to improve the welfare of Iberian cull sows.

Session 9 Poster 14

Impact of outdoor farming on pig welfare: insights from a study in Italy L. Deiana¹, S. Santini¹, D. Bochicchio¹

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The current scientific position on animal welfare promotes farming systems that allow the free manifestation of the species ethogram. For pigs, access to the open air and to grazing areas represents an added value in terms of welfare as a place in which they can express their rooting behavior. This study focuses on five Italian organic farms where pigs are raised outdoors, and grazing is a part of the daily ration. The aim was to investigate how farms organized grazing and free-ranging activities in relation to animal welfare assessed using the app PIG LOW. Furthermore, we have identified the risk factors for parasitic infestation connected to each situation and the related parasitic condition of the animals. The objective was to obtain information on management practices that promote animal welfare and to understand whether and how these influence parasitic infections in pigs. The study was conducted as part of the European ROAM-FREE project in spring 2023. The PIG LOW app was used to evaluate various aspects of animal behavior and environmental conditions during visits to five Italian organic farms where pigs were raised outdoors. This method allowed them to objectively evaluate animal welfare and understand the management practices in place. The results indicate that outdoor farming systems can enhance the welfare of pigs by enabling them to engage in their natural behaviors. Despite the higher risk of parasitic infestation in outdoor environments, the study suggests that appropriate management practices can effectively mitigate these risks. Another fundamental aspect was the pigs' confidence with humans. In most farms, the animals did not exhibit fear towards humans: this shows that the animals feel relaxed and safe, without any sense of danger, which is an excellent outcome from a welfare perspective.