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WELFARE ASSESSMENT IN TWO SHEEP FARMS

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Abstract: This study investigates the reproductive performance and welfare assessment of sheep across two farms in Romania, Farm A and Farm B, each representing distinct climatic conditions and management practices. Data were systematically collected through structured questionnaires, field observations, and laboratory analyses of dietary components. Key reproductive metrics such as fertility rates, prolificacy, neonatal mortality, and inter-lambing intervals were analyzed alongside environmental factors, veterinary management practices, and stress impacts from handling and transport. Results indicated that Farm A, utilizing a free-stall system and a diverse natural diet for Tsigai sheep, reported a fertility rate of 90% and prolificacy of 140%. Conversely, Farm B, employing a closed-stall system with controlled feeding for Assaf sheep, demonstrated slightly superior fertility (95%) and prolificacy (180%). Welfare assessments between 2021 and 2024 revealed an improvement in practices at both farms, with Farm A achieving a score of 89/100 in 2024 and Farm B rising to 85,25/100. Despite these advancements, areas for further improvement remained, particularly in biosecurity, animal handling, and environmental management. Overall, this comparative analysis underscores the influence of management systems and environmental conditions on the reproductive performance and welfare of sheep, providing insights for optimizing practices in similar agricultural contexts.

Keywords: Welfare quality assessment, sheep evaluation, improvement of management.

• Introduction

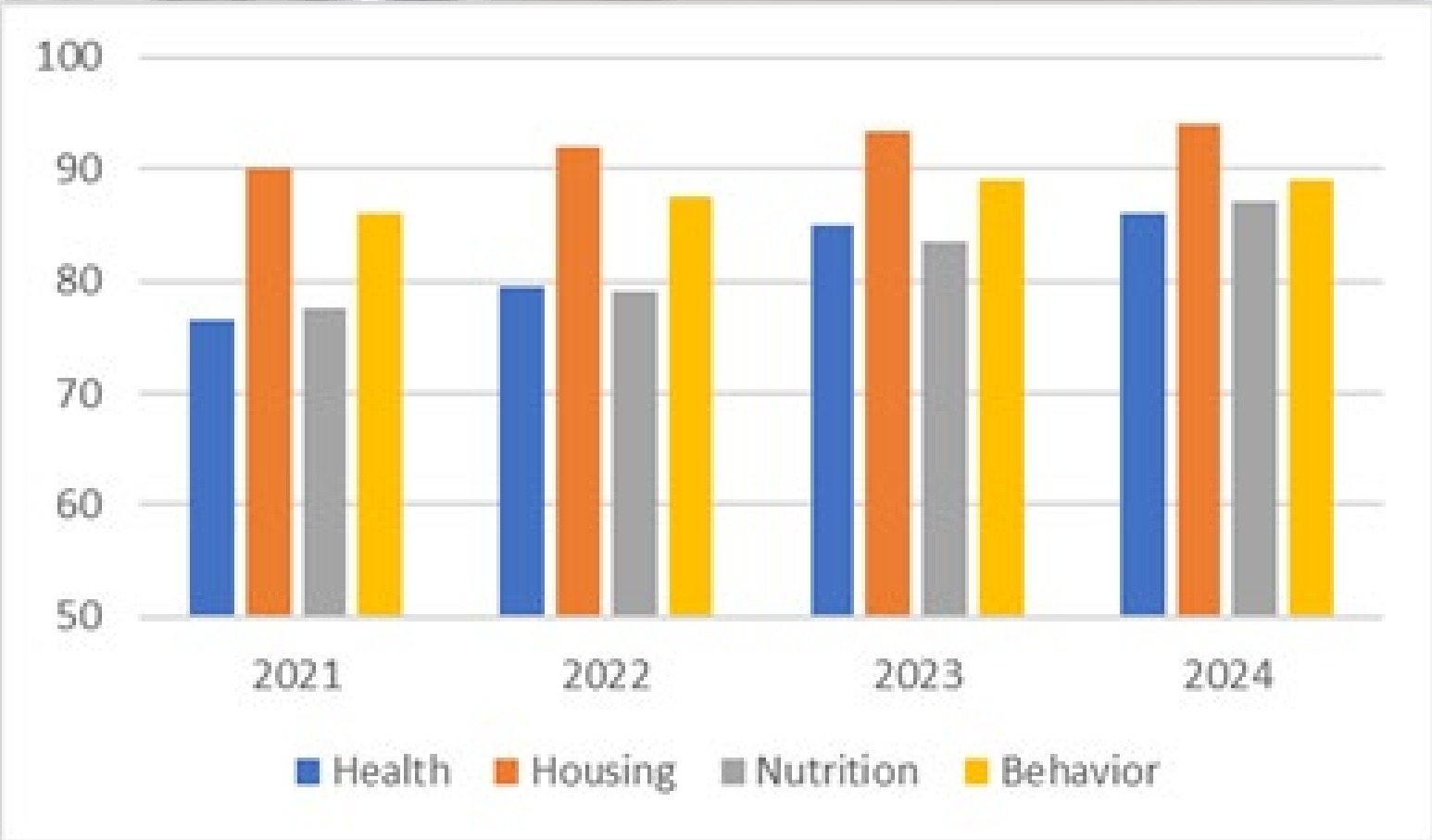
The welfare of sheep, especially those under extensive management, is a complex issue involving several factors, including health, nutrition, environmental conditions, and human-animal interactions. Recent research has highlighted key findings related to sheep welfare, focusing on primary welfare challenges, positive aspects of welfare, and the influence of various stakeholders in evaluating welfare. Common health issues impacting sheep welfare include lameness, skin lesions, and diseases like dermatophilosis, which are often associated with poor body condition scores and insufficient nutrition; consequently, regular health monitoring and immediate treatment are essential to address these concerns. Extensively managed sheep confront specific environmental difficulties, such as heat stress and limited food resources, which can exceed their natural coping abilities and ultimately compromise their welfare. Practices like short tail docking and castration are widespread but raise significant welfare concerns, particularly with a large proportion of ewes having tails docked shorter than the third palpable joint. On a positive note, the notion of positive welfare promotes the idea of providing sheep with opportunities for enriching experiences, including social interactions and positive relationships with humans; however, the development of reliable indicators for such positive welfare remains in its early stages.

EVALUATION CRITERION	SUB-CRITERION	FARM
FEED QUALITY	Quality of feed	Good quality Adequate provision
	Access to water and mineral supplements	Good quality water, adequate mineral supplements
SHELTER	Quality of shelter	Well-maintained facilities
HEALTH	Bedding and ventilation	Good bedding and ventilation
	Disease prevention and treatment protocols	Separate health indicators
WATER QUALITY	Health monitoring and record keeping	Good monitoring records health and
	Availability and access to water	Adequate availability and access to water
COMFORT	Water quality parameters (pH, temperature, etc.)	Good quality parameters
	Density of livestock and available space	N/A
ANIMAL HANDLING AND MOVEMENT	Rest areas and social interaction opportunities	No enrichment activities
	Handling practices	Appropriate handling practices
	Transport and movement practices (N/A)	Transport and movement practices (N/A)

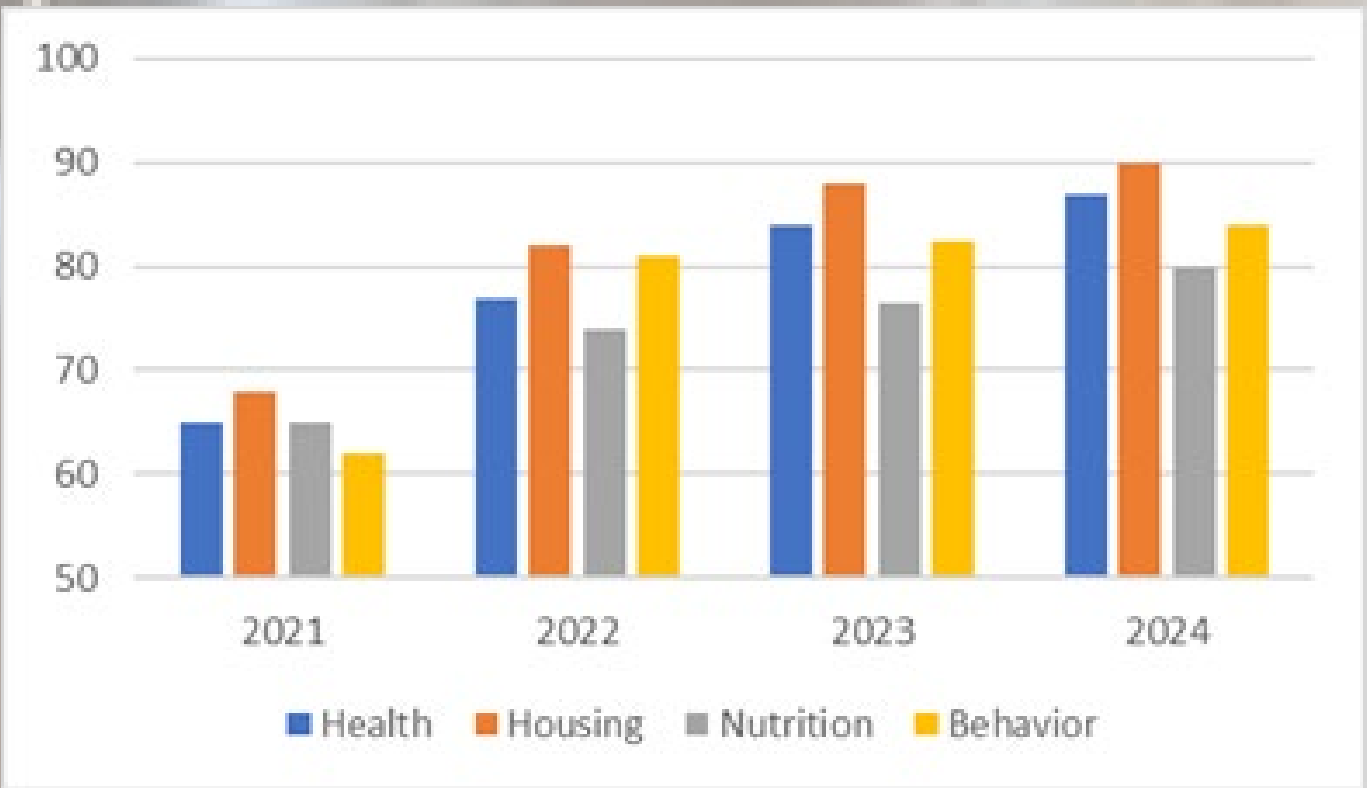
• Results and discussions



General welfare scoring



Farm A criterion scoring



Farm B criterion scoring

• Conclusions

Farm A has a lower mortality rate and a higher fertility rate compared to Farm B. To improve welfare, both farms should focus on providing better ventilation, reducing stress and improving access to space and natural behaviors. Ongoing monitoring and evaluation of welfare indicators are necessary to identify areas for improvement and to ensure the best possible outcomes for the animals. Both farms provide adequate feed and nutrition for the ewes, but the free-range system on Farm A allows for a more varied and natural diet, whereas the stall system on Farm B requires supplementation with minerals from other sources.

Acknowledgement