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Influence of Farming System on the Quality of Frozen Ram Semen Evaluated by the CASA System

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Abstract: *In the current context of implementing strategies to reduce greenhouse gas (GHG) emissions in the livestock sector, animal husbandry systems are also analyzed from a profitability perspective, with a focus on productive and reproductive performance. The objective of this study was to evaluate the quality of frozen semen from rams exploited in two different systems: stabulation and pasture.*

• Introduction

Environmental and farm management factors play an important role in regulating reproductive function in sheep, influencing spermatogenesis and the fertilization capacity of sperm.

• Material and method

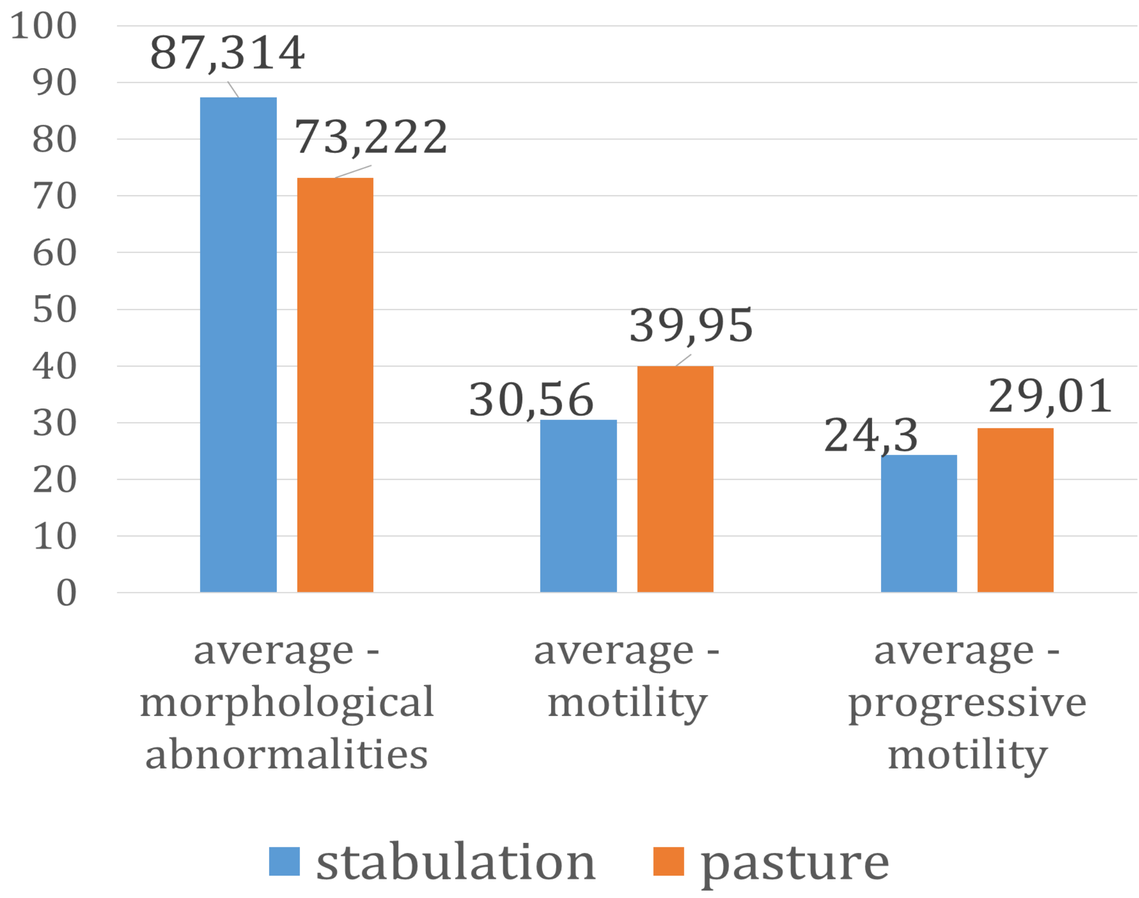
Semen was collected from four Palas Merino rams (two haused in barns and two on pasture) and the quality of the frozen semen was analysed using the CASA system. Five ejaculates from each ram were analyzed.

• Conclusions

Normal morphological values were significantly higher in barn-raised rams compared to pasture-raised rams ($p<0.05$), indicating a favourable influence of controlled conditions on morphological quality. In contrast, motility and progressive motility values were significantly higher in rams raised on pasture ($p<0.05$), suggesting a positive influence of environmental conditions and physical activity on sperm functional parameters.

• Results and discussions

Statistical analysis of semen parameters revealed that rams raised in barns had significantly higher values for normal morphology (87.314%) compared to those raised on pastures (73.222), ($p=0.0015$)). In contrast, the indicators of frozen semen quality, namely total motility and progressive motility of spermatozoa, showed significantly higher values in rams raised on pasture compared those raised in barns ($p=0.0046$ respectively $p=0.0106$).



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