

Animal Welfare Assessment in Extensive Avileña-Negra Ibérica and Asturiana de los Valles Beef Cattle Farms

Luque Manuel^[1], Gallardo Juan Maria^[1], Fernández María^[2], Noval Gerardo^[2], Herraiz Pedro Luis^[3], González Maria de Mar^[3], Alonso Marta Elena^[4]

[1] Real Federación Española de Asociaciones de Ganado Selecto, Madrid, Spain, [2] Asociación Española de criadores de ganado vacuno selecto de la raza Asturiana de los Valles . Asturias, Spain, [3] Real Asociación Española de Criadores de Ganado Vacuno Selecto de Raza Avileña-Negra Ibérica. Ávila, Spain., [4] Departamento de Producción Animal, Facultad de Veterinaria, Universidad de León, Campus de Vegazana s/n, 24071, León, España (Spain)

The objective of this study was to evaluate animal welfare (AW) in extensive beef cattle systems of Avileña-Negra Ibérica and Asturiana de los Valles breeds in Spain. Twelve Avileña and sixteen Asturiana farms were assessed in spring 2023 using an adapted Welfare Quality®-based protocol designed for extensive conditions. In winter 2025, complementary animal-based assessments were conducted in 9 Avileña and 10 Asturiana farms. Statistical analyses included Student's t-test (Statistica 14.0.0.15) and descriptive analysis.

Four welfare principles (good feeding, housing, health and appropriate behaviour) were evaluated through ten criteria combining resource- and animal-based indicators. Body condition and rumen fill scores confirmed adequate nutrition in both breeds across seasons. Water availability and cleanliness were satisfactory, though regional differences in water sources were observed. Resting comfort was generally high, with minimal dirtiness, lesions, lameness or ectoparasites. Mortality rates were very low ($\leq 0.04\%$) and no relevant respiratory or digestive disorders were detected. Hoof condition and locomotion scores indicated negligible lameness prevalence. Climatic variability was greater in Avileña farms, yet Temperature-Humidity Index values did not indicate thermal stress risk. Stocking densities (4.8 vs. 2.7 ha/LSU in Avileña and Asturiana, respectively) ensured freedom of movement. Agonistic behaviours were infrequent. However, flight distance was significantly greater in Avileña cattle, suggesting improvement potential in handling systems and human-animal interactions. Overall, both systems showed high welfare standards, particularly in feeding, housing and health. Raising farmers' awareness that investing in improved handling facilities enhances not only animal welfare but also the efficiency of sanitary campaigns, vaccinations, deworming and reproductive management (e.g., artificial insemination and pregnancy diagnosis) will strengthen economic sustainability and social acceptance, as consumers increasingly favour products from high-welfare systems. These studies were carried out within the framework of the BOVEX 4.0 project.