

Book of Abstracts

of the 4th EAAP Regional Meeting 2026



Book of Abstracts No. 41 (2026)
Sassari – Italy
Mediterranean Region
20-22 May, 2026

Drinking water microbiology and mortality in beef calves under extensive conditionsA. Benito Díaz¹, M. Montañés Foz¹, R. Bodas Rodríguez¹, A. Sarmiento García², J. J. García García¹¹ *Technological Agricultural Institute of Castile and León (ITACyL), Ruminant Research Unit, Burgos-Portugal road, km 119, 47071 Valladolid, Spain,* ² *University of León, Department of Animal Production, Vegazana Campus, s/n, Faculty of Veterinary Medicine, 24007 León, Spain*

Drinking water quality is frequently considered a relevant component of health management in extensive beef cattle systems, where animals may have access to non-chlorinated water sources. This study evaluated the association between the microbiological quality of drinking water and calf mortality across different age stages in beef cattle farms located within the same region of Castile and León (Spain). A total of 22 drinking water samples from 22 farms were analysed for aerobic colony counts at 22 °C, coliforms, *Escherichia coli*, enterococci and *Clostridium perfringens*. In parallel, mortality data were recorded at the farm and classified into three age categories: 0–2 days, 3–15 days and >15–365 days. Associations between microbiological parameters and mortality were assessed using analysis of variance. No statistically significant relationships were observed between any of the analysed microbiological variables and mortality in any age category ($p > 0.05$). No evidence of association was detected for neonatal mortality (0–2 days) or for deaths occurring between 3 and 15 days of age. A trend ($p < 0.10$) towards higher mortality in calves older than 15 days was observed in farms where *C. perfringens* was detected in drinking water. Despite the geographical proximity of the some farms, substantial variability in microbiological water quality was observed between holdings. Overall, these findings suggest that drinking water microbiology alone has limited explanatory value for calf mortality in extensive beef systems. The results support a multifactorial interpretation of losses and indicate that the role of *Clostridium perfringens* should be further explored in larger studies.

Grape stem inclusion in the diet of fattening young bulls affected erythropoiesis in the short-termI. Casasús¹, D. Villalba², S. Lobón¹, M. Joy¹, C. Conesa¹, M. Blanco¹¹ *CITA - IA2, Av Montañana 930, 50059 Zaragoza, Spain,* ² *Universitat de Lleida, Av Rovira Roure 191, 25198 Lleida, Spain*

To promote circularity, grape (*Vitis vinifera*) stems, a fibrous agro industrial by product, can be included in beef fattening diets at low doses (up to 6%) without deleterious effects on performance. The polyphenols present in grape have antioxidant and anti-inflammatory effects, but their iron-chelating properties may impair erythropoiesis. However, most studies examined grape pomace or other byproducts rather than grape stems, with potentially different polyphenolic profiles. Young bulls (162 days old; 173 kg BW, $n=24$) were fed iso-energetic (1.04 FU/kg DM) and iso-proteic (11.2% DM) concentrates ad libitum for 17–20 weeks. Concentrates contained different proportions of grape stem and barley straw in inverse ratios: 0% stem (6% straw), 3% stem (3% straw) and 6% stem (0% straw). Bulls were bled during the pre-experimental period, after 3 weeks and 19 weeks on concentrates. A complete blood count was performed, including variables related to the erythrocyte (red blood cell) series, leukocyte (white blood cell) series, and platelet parameters. The antioxidant status was determined through malondialdehyde (MDA) concentrations. Regarding the red blood cell parameters, haematocrit and haemoglobin were greater in 6%stem than in 0% stem after 3 weeks on the diets, but differences disappeared after 19 weeks. Mean corpuscular volume was greater in 6%stem than in 0%stem only after 19 weeks. In the white series, total leukocytes were not affected by the proportion of grape stems, but the granulocyte populations differed after 19 weeks. The percentage of neutrophils was greater in 3% than in 6%stem bulls whereas the percentage of lymphocytes tended to be lower in 3%stem bulls than in their counterparts. Consequently, neutrophil:lymphocyte ratio was greater in 3%stem bulls than 6%stem bulls. Neither platelet counts nor MDA concentrations were affected by the proportion of grape stem. In conclusion, our results do not support a negative effect of grape stem on erythropoiesis, and rather indicate a positive initial response. However, we could not confirm an anti-inflammatory effect of grape stem or a reduction of oxidative stress of young bulls.