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of the 3rd Mountain Livestock Farming Systems Meeting
of the European Federation of Animal Science



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Scientific programme

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Livestock management systems affecting the likelihood of predations by large carnivores in the North–Eastern Italian Alps

P. Sartor¹, M. Franchini², A. Zulian³, S. Bovolenta², D. Pasut⁴, S. Filacorda², G. Cozzi¹

¹ University of Padua, Viale dell'Università, 16, 35122 Padua, Italy, ² University of Udine, Via delle Scienze, 206, 33100 Udine, Italy, ³ Azienda Sanitaria Universitaria Friuli Centrale, Via Pozzuolo, 330, 33100 Udine, Italy, ⁴ BIOSFERA S.r.l., Viale Venezia, 52, 33170 Pordenone, Italy

Attacks on livestock threaten grazing practices in mountainous regions, necessitating effective management interventions for human–carnivore conflict mitigation and coexistence enhancement. From June to October 2023, 58 out of 149 stockmen practicing summer grazing on the alpine pasture of the Friuli Venezia Giulia region (North–Eastern Italy) were randomly selected and interviewed. The findings revealed that 43.1% were cattle herders, 15.6% grazed cattle and sheep/goats, and 12.1% only flocks of small ruminants. Pasture management included 53.4% of rotational grazing, 41.4% of free–grazing, and 5.2% of a mix managed (free/rotational) grazing system. All farmers implemented one (6.9%) or several (93.1%) preventive measures against predation events. The presence of sheep and goats significantly increases the likelihood of large carnivore attacks ($\beta = 1.7$, SE = 0.6, $p = 0.004$), as well as the probability of observing a higher number of predated individuals ($\beta = 1.6$, SE = 0.5, $p = 0.005$). The likelihood to observe a lower number of predated animals was significantly higher among those stockmen who adopted the free–grazing system ($\beta = -1.4$, SE = 0.6, $p = 0.02$) and used fixed fences to protect livestock ($\beta = -2.9$, SE = 1.3, $p = 0.04$). Both management practices are more frequently used by cattle herders. Targeted measures are particularly needed for sheep and goats grazing on remote, steep pastures in order to prevent predation events and mitigate raising human–carnivore conflicts.

Session 3

Theatre 1

How to assess animal products quality of mountain livestock farming systems?

B. Martin¹, E. Bailly-Caumette¹, M. Coppa²

¹ Université Clermont Auvergne, VetAgro Sup, INRAE, UMR Herbivores, Theix, 63122 Saint Genes Champanelle, France, ² University of Turin, Dept. of Agricultural, Forest and Food Sciences, L.go Braccini 2, 10095 Grugliasco, Italy

In Europe, the recent decline of ruminant product consumption is accompanied by growing consumer/citizen demand for high-quality products. Expectations are related to both intrinsic quality (product safety, nutritional value and sensory features), and extrinsic quality (animal welfare, environmental footprint, cultural value or farmer income). With their naturalness image and specific intrinsic qualities, mountain products can meet current consumer/citizen demands. Their differentiation is crucial to overcome higher production costs due to limitations in land-use. Research of the past decades highlighted the individual farming practices determining animal products intrinsic quality. Some specific practices encountered in mountain livestock farming (i.e. use of permanent grasslands and local breeds) are among the key drivers of mountain products specificity. Nevertheless, the question of how mountain livestock practices or systems can influence simultaneously the various facets of the intrinsic and extrinsic quality of mountain products is less documented. In this presentation, the emphasis is on recent or ongoing researches that simultaneously take into account intrinsic (safety, nutritional value and sensory characteristics) and extrinsic (animal welfare, environmental footprint, etc.) quality traits. These first studies focused on nutritional quality and environmental impacts assessed by life cycle analyses or multi-criteria approaches. Methodological and conceptual obstacles need to be overcome to take into account other dimensions of the intrinsic (safety, sensory) and extrinsic quality. For the latter, the priority is the inclusion of animal welfare and ecosystem services provided by farms, some of which (i.e. preservation of biodiversity) are essential for characterising mountain farming systems and products.