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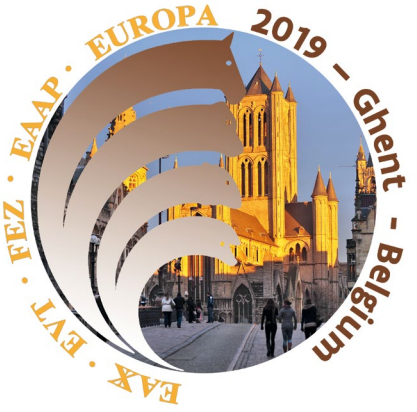

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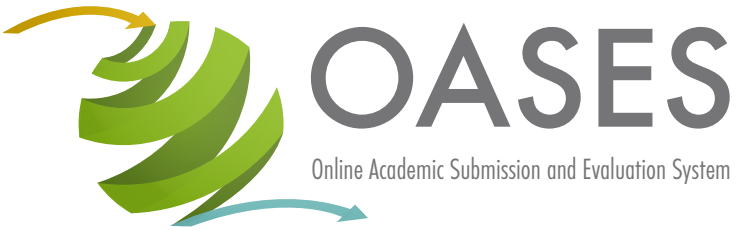

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Importance of Vlashko Vitoroga sheep in agroecological farming regarding food quality and landscape

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Considering the importance of biodiversity for agriculture, global food and health security, the Republic Project was focused on supporting the biodiversity and the role of autochthonous Vlashko Vitoroga sheep in agroecological farming system. Vlashko Vitoroga type of Zackel sheep is an important element of regional agro-biodiversity, relevant to aesthetic value of landscape, the tradition and the cultural heritage of Serbia. Vlashko Vitoroga sheep is an endangered type, registered at the Endangered–Maintained breeds list. This sheep is unique for its adaptation to extreme climatic conditions in the South Banat region, at the edge of Deliblato Sands area. Vlashko Vitoroga sheep is traditionally reared in the pasture based farming systems. The objective of this study is to evaluate the integration of natural resources of the sensitive habitat on robustness and meat characteristics of Vlashko Vitoroga sheep. The results of the study could be important for decision-making strategy for future management of the agroecological livestock system and landscape conservation. The analysis of the botanical composition revealed a high degree of floristic biodiversity, the dominantly present families were *Fabaceae* family, *Poaceae* family and *Lamiaceae* family. Health status and robustness of Vlashko Vitoroga sheep, important for pasture based farming system, were examined by clinical and laboratory investigations. In scope of food security and meat quality the analyses of lamb meat (m. longissimus dorsi) has been performed. The results has shown that fatty acid content and the values of n-6:n-3 fatty acid ratio (1.92±0.44) are in the accordance with results of pasture fed lamb meat. Sensory meat characteristics make consumers prefer Vlashko Vitoroga pasture fed lamb meat as a local product. The obtained results of added value of Vlashko Vitoroga sheep should increase the interest for this endangered breed, sustainable production and regional development.

Grazing frequency using goats to control *Salsola ibérica* scrub in rangelands of northern Mexico

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The aim of this study was to develop a grazing frequency-based model to control *Salsola ibérica* weed by goats in rangeland from northern Mexico. The planting of *S. ibérica* plants was carried out on a plot of 135 m^2 divided in 15 plots (3×3 m, each). Once the plant´s growth achieved 35 cm height, the production of total green biomass (TGB; kg/ha), total dry biomass (TDB; kg/ha), number of plants (NP; n) and foliage area (FA; cm), were determined. Two weekly grazing frequencies were used: GF1 (once) and GF2 (twice), introducing 2 goats/plot during 3 h/d × 5 weeks. The third group (CG) had no animals in the assigned plots. Analyses considered an ANOVA and a Student-T to compare NP, FA, TGB and TDB means and a difference of $P<0.05$ was considered as significant. At the beginning of the study, no differences occurred regarding NP, FA, TGB and TDB among groups. While the CG had a higher NP, FA, TGB and TDB ($P<0.05$), the NP and FA favoured to the GF1 group ($P<0.05$). To conclude, the use of goats demonstrated to be an effective biological control regarding the control of *S. ibérica*; a higher grazing frequency decreased the number of plants and foliage area.