Beef quality differentiation in the framework of Serrana de Teruel endangered breed conservation programme

Sanz, A.[1], Alberti, P.[1], Blasco, I.[1], Ripoll, G.[1], Alvarez-Rodriguez, J.[1], Bernues, A.[1], Olaizola, A.[2], Zaragoza, P.[2], Rodellar, C.[2], Sanz, A.[2], Martin-Burriel, I.[2], Picot, A.[3], Congost, S.[3], Abril, F.[3] and Vijil, E.[3], [1]CITA de Aragón, Animal Production, Avenida Montañana 930, 50059 Zaragoza, Spain, [2]Facultad de Veterinaria de Zaragoza, LAGENBIO, Miguel Servet 177, 50013 Zaragoza, Spain, [3]CTA de Aragón, DGA, Avenida Movera 580, 50194 Zaragoza, Spain; asanz@aragon.es

Serrana de Teruel (ST) is a dark or tabby-breed raised traditionally in South Aragon due to its great coping ability to harsh environments. Characterization of population structure, and morphological, zootecnic and genetic values of ST were conducted. Individuals showed medium to high homogeneity and harmony degree, being most of the animals straight profiled, eumetric and sublongilineus, although smaller in size than other close breeds. The thirty microsatellites analysed for biodiversity studies showed good diversity values despite its low effective population size (180 individuals in 2007). These studies provided basis for a conservation genetic programme and in 2007 ST was officially breed recognised. Germplasm banks were established, containing 6400 doses of semen from 7 males, and 40 embryos obtained from 10 males and 5 females. To assess their viability, ten embryos were transferred to receptor cows, being pregnant 4 of them. In order to guarantee the long term maintenance of ST, a prospective study of the meat value chain was carried out. A qualitative questionnaire was applied to all stages of the meat chain, from farmer to consumer, in the breed influence area. Concurrently, carcass and meat quality of ST calves was studied and several diversification alternatives for labelled calves market have been assessed (animals slaughtered at 470 and 700 kg live-weight, bulls and steers). Good performances and high quality products with no commercial constraints in the beef market were obtained. This study should provide the standard requirements for a labelled meat product that allows the farmer survival and assures ST breed conservation.