



## SOCIETÀ ITALIANA DELLE SCIENZE VETERINARIE Joint meeting

LXIX Convegno S.I.S.Vet XV Convegno S.I.C.V. XIII Convegno S.I.R.A. XII Convegno A.I.P.Vet XI Convegno So.Fi.Vet. II Convegno R.N.I.V. PERUGIA 15-17 GIUGNO 2015

Dipartimento di Medicina Veterinaria Via S. Costanzo, 4 - 06126 Perugia



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I contributi presenti negli Atti del Convegno potranno essere citati utilizzando il codice **ISBN** 978-88-909002-0-7



## USE OF OVINE AS ECOSYSTEM SERVICE: SAFEGUARDING BIODIVERSITY TO IMPLEMENT THE FARM'S INCOME ALSO THREATENED BY CLIMATE CHANGE

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Given the importance of rangeland resources for the provision of forage for livestock grazing, as well as for biodiversity conservation, the definition of management strategies for semi-extensive farming systems has both economic and environmental consequences. Maintenance of extensive farming is, in turn, the main tool to preserve the valuable biodiversity of these ecosystems. In fact, grazing has major impacts on species composition and forage feed value, because livestock foraging strategy, disturbance intensity and grazing history strongly influence the competitive relationships among species. Thus, grazing management has major impacts on ecosystem services provided by semi-natural grasslands, such as aesthetic value (mainly determining the level of touristic attraction of pastoral landscapes), soil conservation, carbon storage, cultural heritage, etc. However, from the farmers' point of view, low-intensity farming often means intensive human labor and small yield. Therefore, current socio-economic changes such as abandonment of farms and reduction in the number of people working in mountain agriculture are causing severe land use changes, which led to a dramatic decline of biodiversity in grassland area. The farmer's income is a key question in grassland biodiversity conservation. The sustainability of extensive farming depends on the conservation of forage resources, but also on the ability to promote animal welfare, which, in turn, is influenced by the amount and quality of food, that produces morphological and functional modifications at different levels of the digestive apparatus. In addition, in Mediterranean areas, trends in climate change mainly cause greater aridity during summer and likely lead to the worsening of extensive farming sustainability. As a consequence of this, the multi-tasking use of grazing activities is a key tool in supporting the extensive farming. Firstly, it has to be considered that the conservation of these open ecosystems is a key element within the European Agricultural Policies, particularly since the 92/43/EEC Directive stated that the conservation of grasslands is a high priority for European farmers, that are largely helped in this direction by financial supports aimed to aware management actions. To this regards, there is a good example represented by the agro-environmental agreement of Marche Region, devoted to a bottom-up setup of strategies for grassland conservation. Farmers that operate following these guidelines receive a financial compensation in addition to those normally made available by the European Agricultural Policies. Moreover, this new task of mountain farmers could be inserted in a wide range of ecosystem services (carbon storage, conservation of aesthetic values, fire prevention, integration of touristic attractors, etc) that might be recognized for the Payment for Ecosystem Services (PES) that is one of the key actions inside the UE policies for nature conservation.