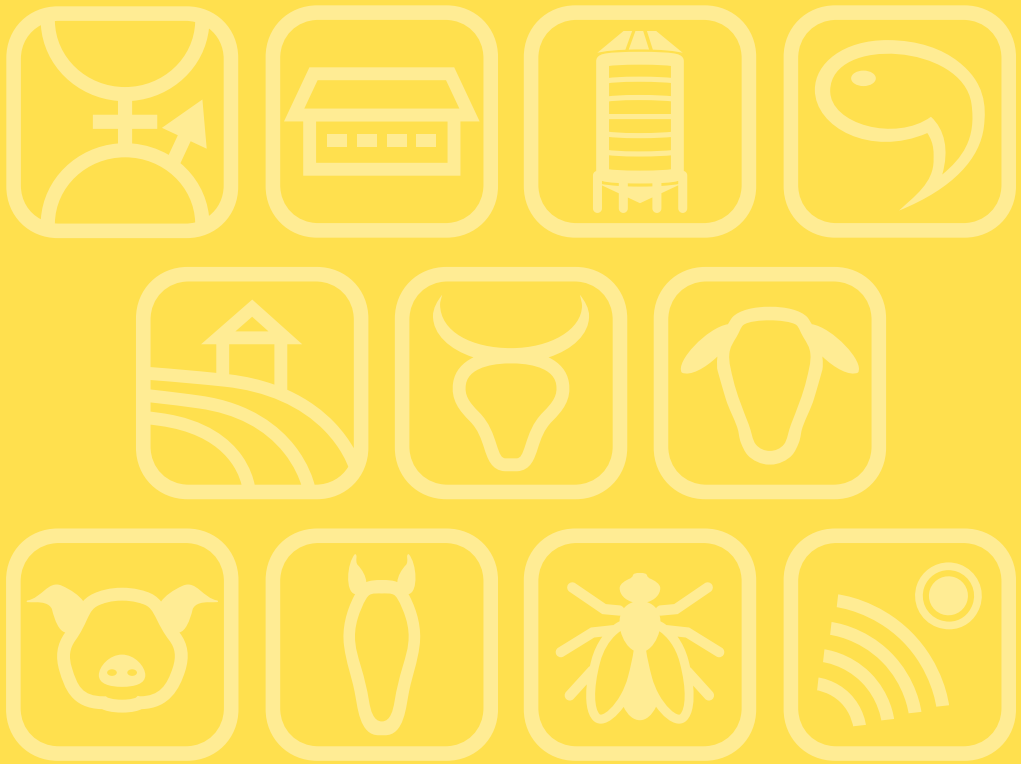


Book of Abstracts of the 72nd Annual Meeting of the European Federation of Animal Science



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Attitudes of Peruvian llama farmers towards genetic improvement*M. Wurzinger¹, C. Silva¹, J. Candio¹, A. Cruz¹, E. Quina² and G. Gutiérrez¹**¹Universidad Nacional Agraria La Molina, Av. La Molina s/n, Lima, Peru, ²DESCOSUR, Cal. Malaga Grenet 678, Arequipa, Peru; maria.wurzinger@boku.ac.at*

Farmers' active participation is mentioned as an essential factor for the sustainable implementation of breeding programs. Technical expertise, know-how, access to information, but also personal attitudes towards breeding issues influence farmers' decisions. Therefore, this study aims to better understand llama farmers' attitudes towards genetic improvement. An online survey was carried from November to December 2020. A snowball sampling technique was applied as the invitation was sent by e-mail, or WhatsApp and participants were asked to forward to further interested persons. A total of 80 respondents completed the survey. The questionnaire consisted of 11 questions related to attitudes. Data on-farm management practices and farm characteristics were collected. Attitudes were measured using a Likert-Scale. Participants were on average 38 years old, and 55% of them had completed higher education. The majority of the farmers kept two different types of llamas, namely K'ara (meat-type) and Chaqu (fibre type). 57% of the respondents reported collecting performance data, and 77% also performed controlled matings in their herds. Pedigree information was collected by only 18% of the farmers, and artificial insemination and embryo transfer are currently not used. A common practice to replace breeding males is purchasing males from another farmer (48%), followed by replacement within own herd (29%). Current purchasing decisions for breeding animals are based on performance data, phenotypic appearance, but also the prestige of the owner, and advice from colleagues are taken into account. Two-third of the respondents stated that crossbreeding of the two types should be avoided, and it is relevant to maintain the two types separately. Although technologies (artificial insemination, genotyping of animals) are not yet readily available, farmers considered them as possible useful strategies. Exchange of breeding males, comparison of animals of different herds, participation in a breeding organization were ranked as important elements of a breeding program by more than 60% of the respondents. In general, a very positive attitude towards breeding and different elements of a breeding program was documented.

The future of llama keeping in Peru: a sustainability assessment*D. Luque, J. Candio, G. Gutiérrez and M. Wurzinger**Universidad Nacional Agraria La Molina, Av. La Molina s/n, Lima, Peru; maria.wurzinger@boku.ac.at*

Llamas play a vital role for about 95,000 rural families in the Peruvian Andes. They provide meat, fibre, manure for agricultural production, are used as pack animals, and form part of the cultural heritage. Meat is mostly used for home consumption as access to formal markets is limited. The production system can be described as a low-input, pasture-based system at an altitude of 4,000 m and above. High poverty rates and a low human development index are characteristics of llama rearing regions. These figures show that these farmers are marginalized not only geographically but also socially. Although llama husbandry's importance for rural areas is repeatedly emphasized, there is no functioning agricultural extension service, hardly any investment, and no longer-term development plans. Nowadays, farmers see their livelihoods more and more challenged by environmental and economic changes. Many, especially young people, see migration to urban regions as the only alternative for their future. There has been no comprehensive assessment of llama husbandry's sustainability to develop possible strategies for a successful future. Therefore, this study takes a case study approach and aims to evaluate the sustainability of the llama keeping activities of a cooperative in the Pasco region in the central Peruvian Andes. The cooperative owners are 200 smallholder farmers who jointly manage their llamas on communal grazing land. The sustainability assessment of food and agriculture (SAFA) guidelines of FAO were used to assess the four dimensions: good governance, social well-being, environmental integrity, and economic resilience. Out of the 116 proposed indicators, 67 were considered relevant. For evaluating each indicator, information was taken from management documents of the cooperative and reports. Interviews with the management board and staff members were carried out. The first results indicate shortcomings in all four themes, but especially in the economic one. Although according to the FAO, this method is also suitable for smallholders, the evaluation of some indicators was challenging due to missing data. The study shows that farmers' efforts alone are not enough, but that public long-term support such as creating sales markets and the provision of technical know-how is also needed.