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Strategies of transition towards a more sustainable food model

Contribution of the Malagueña goat

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Abstract. In the last decade the goat industry of Malaga (Spain) had a remarkable development which was accompanied by a progressive intensification of the production system. A significant percentage of the milk and goat products obtained in the province of Malaga are destined for processing and marketing outside the territory. This constitutes one of the main weaknesses of goat production in this area. As consequence, farmers do not participate of the added value obtained from processed products. Likewise, the Andalusian consumers have little knowledge of goat activity and they consume few local goat products. These circumstances lead a progressive abandonment of traditional livestock in spite of its importance from an economic, social and environmental point of view. Aware of this situation, the Malagueña Goat Breeders Association is carrying out a three-year project funded by the Daniel & Nina Carasso Foundation. The programmed actions are grouped around four types of activities: i) to develop an own offer of local and quality products by the goat farmers; ii) creation of a stable tourist services structure; iii) to promote the transition to more sustainable production models such as ecological certification and iv) carried out transversal actions to divulge the diverse activities of the project. The most outstanding actions carried out so far include the opening of the Multifunctional Center of the Malagueña Goat, the approximation level evaluation of the Malagueña goat farms to the organic model, and diverse informative activities such as publications, TV programs and congress presentations.

Keywords. Breeder association – Sustainability – Local products – Tourist services.

I – Introduction

In the last decade the goat industry of Malaga (Spain) had a remarkable development. It had a transition from a traditional and local activities to more professional activities. Likewise, products of this industry now have more presence in the markets, even international ones. This has been accompanied by a progressive intensification of the production system, by increasing the feed purchase and reducing the grazing and the forages cultivation (Bernués *et al.*, 2011).

Andalusia is the Spanish region (Autonomous Community) most producing goat milk and the second of the European Union. Also, the province of Malaga is the highest producer of Andalusia (28%). Most of the milk is sold to dairy industries located in other Spanish Autonomous Communities such as Castilla La Mancha and Castilla y León or in European Union countries like France. In this way, the milk quantity processed in the province of Malaga is scarce compared to the total collection.

All this has a number of negative consequences for the goat industry. One of them is the lack of autonomy that breeders have in terms of feeding goats. Another consequence is related to adverse environmental effects due to the non-use of grazing resources (Castel *et al.*, 2011) and the high global energy consumption. This consumption includes the transport of both purchased foods and sold products. Also a negative consequence is the inability of farmers to defend the price of their

products. This is because market prices, in the case of milk that is the main product obtained, have a high volatility (Ripoll-Bosch *et al.*, 2014). This is accompanied by the fact that farmers have little negotiating capacity and that they do not participate in the processes of transformation and commercialization, which means a loss of the added value of milk.

In addition to the negative aspects related to the production and marketing of goat products, there are also sociological aspects. The Andalusian society has little knowledge of caprine activity in general and the Malagueña breed and its products. The increase in the consumption of products derived from goat production could contribute to the economic, social and cultural development of the Andalusian rural society. Likewise, the development of goat activity as a result of increased consumption of the products would contribute to the maintenance of the natural environment. On the other hand, the goat industry has difficulties in continuously offering products of the Malagueña goat in a market that is dominated by certain agents (links) of the food chain (in particular, processing and distribution of the production). These agents have the ability to influence over the consumer preferences by offering products obtained from other models of intensive production or more industrial transformation which provide them a greater profitability.

These circumstances together with the turbulences of the current agrarian markets, causes cyclical crises in the goat sector, with significant declines in milk sales prices, increases in the prices of animal feed, or both. In Andalusia during the last decade these crises have made that hundreds of familiar goat farms dispraised. All this entails a lack of generational change (with the aging of the farmers) (Bernués *et al.*, 2011), a lack of entrepreneurship and a decrease in investments in research and development, which entails that the consumption of local goat products continues being scarce while the consumers adapt to the agro-food model described.

Therefore, it is urgent to change the predominant agro-food model in order to not repeat that occurred with the cow milk industry of Malaga which has practically disappeared. The concern is greater in this case because it is to maintain an emblematic cattle sector for the province of Malaga, with a breed of goat perfectly adapted to the territory.

Therefore, the Malagueña Goat Breeders Association (CABRAMA) is carrying out a project funded by the Daniel & Nina Carasso Foundation. This project aims to help solve the problems described and thus boost the goat sector and promote their products. It aims to establish an alliance between goat farmers in the province of Malaga and citizens to ensure the survival of farms and facilitates the access of the people to quality food based on local markets.

II – Materials and methods

The programmed actions of the project are grouped around four types of activities: (i) development of an own offer of local and quality products by goat producers; (ii) creation of a stable tourist services structure; (iii) to promote the transition to more sustainable production models such as ecological certification and iv) transversal actions to divulge the content of the project.

In the first type of activities were proposed the following actions: presentation of the project to CABRAMA members; offering the use by the farmers of the facilities and personnel of the dairy processing plant of the Sociedad Agraria de Transformación (SAT) named «Productos de la cabra Malagueña»; training for the production of dairy products; advice on placing innovative products on the market; advice in the administrative and business field to implement cheese-making projects and for the diversification of activities; establishment of a marketing infrastructure; creation of own brand; and conducting market research. The second type of activities included advice and training to develop tourism related to the consumption of goat products, analysis of administrative requirements to carry out such activities, design and supply of tourist activities, and the design of a strategy to divulge such activities.

Among the actions of the third type of activities, studies were proposed to evaluate the level of approximation of farms associated to CABRAMA to the ecological production model, and the key elements of the sustainability of ecological goat production systems. It was also proposed to carry out a market study on the consumer demand for organic goat products, the analysis of their preferences and the current offer of these products. The fourth type of activities refers to the divulgation of the project, therefore it was proposed the design of advertising in various media, participation in scientific and professional forums, publication of articles of diffusion and the permanent divulgation of activities through the CABRAMA Web and social networks.

The main material resources to support the project include several CABRAMA facilities in Casabermeja (Malaga), such as its own headquarters, the Multifunctional Center of the Malagueña Goat and the SAT Dairy factory. This SAT is an associative entity that transforms and markets products from the Malagueña goat. The CABRAMA staff is responsible for the execution of the project and logistics for events, training activities and publications. Other participants in the project are the Department of *Ciencias Agroforestales* of the *Escuela Técnica Superior de Ingeniería Agronómica* of the *Universidad de Sevilla*, el *Excelentísimo Ayuntamiento de Casabermeja* (Málaga) and FRESYCA (Fédération Régionale des Syndicats Caprins de Charentes-Poitou-Vendée), which is a French group of producers of goat's milk with a large trajectory in the promotion and valorization of the goats products through the own transformation of their products and the use of short marketing channels.

III – Results and discussion

In this section we show the progress of the different programmed activities.

1. Activity 1: own offer of local and quality products

The project was presented at an Assembly of CABRAMA members in February 2017; The documentation for the use of the dairy plant was prepared and the advice and design of an own brand of the products of the Malaga goat has begun, as in the case of the fresh and ripened cheeses of the “El Garrote” brand. Also two livestock farmers started the elaboration of products in the processing plant.

2. Activity 2: stable structure of tourist services

The Multifunctional Center of the Malagueña Goat was built, conditioned and begun their activities in Casabermeja (Malaga). FRESYCA has also been advised in the training for the elaboration of cheeses and in several aspects on short marketing channels (proximity marketing).

3. Activity 3: more sustainable production models

17 goat producer members of CABRAMA were interviewed through a questionnaire of 56 questions included in 9 sections, with the objective of knowing the level of approximation of their farms to the ecological production model. The sections of the questionnaire were: nutritional management, sustainable pasture management, fertilization and soil contamination, pest and weed control, veterinary prophylaxis and care, breeds and breeding, animal welfare, food safety and management and marketing (Mena *et al.*, 2012).

Preliminary results indicate that goat farms had an average rating of 56% of approximation to the ecological model. The nearest aspects to this production model were food safety (91%), animal welfare (63%), pest and weed control (62%), and sustainable pasture management (61%). On the other hand, fertilization and soil contamination (34%), along with management and marketing issues (31%), had the lowest qualification for the conversion to the ecological model.

4. Activity 4: transversal actions for the dissemination of the project

Displays with information about the project were elaborated. They deal with the benefits of sustainable food with products from the Malagueña goat and on the offer of tourist activities of CABRAMA. Informative brochures on the tourist activities offered by the Association were also elaborated. Three articles have been published in magazines related to the agricultural sector: one in the “Labrando Futuro” Magazine (nº 47) and two in the “Málaga Ganadera” magazine (issues 48 and 49). In the last months also we had presentations in TV programmes, two in the program *Tierra y Mar* and one in the program *Cómetelo*, all transmitted by the Canal Sur of the Andalusian Television in Malaga.

Finally, the communication “Consumer preference for dairy products of the Malagueña goat” was presented at the 8th Goat National Forum held in Carmona (Seville) in May 2017, continuing the works about this subject (Ruiz *et al.*, 2014). We also participated in the organization of the Conferences on Animal Health and Food Security organized by ECOVALIA which took place in Casabermeja (Malaga) in March 2017.

IV – Conclusions

The progress obtained so far show the possibilities to make a more sustainable agro-food model based on the Malagueña goat and its products. For CABRAMA is very important to share the results obtained from this project. These results could be used by other professionals and citizens in general, and even in other territories, to develop similar interesting experiences for everyone. The implementation of these types of projects in the predominant agro-food model could favor the dissemination of results which are priority for the whole goat industry.

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