



Original Research Paper

PRESERVATION AND VALORIZATION OF THE HAMRA SHEEP BREED

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Abstract

The sheep breed Hamra is in a very detrimental situation, the numbers are lacking, it is almost in danger of extinction in our country. There is still a very small herd in the racial cradle. This sheep breed must be saved, because it has potentialities in measures to provide solutions in the national economy. During the colonial period the port of Marseilles received annually more than a million heads of Algerian sheep, , To answer a specific demand (of Hamra meat) from the French consumer . This rescue falls within the framework of a national biodiversity conservation policy, which will enable the sheep breed Hamra to be restored and integrated into the national economy by the conservation and multiplication of the largest number of. A response from the public authorities is desired to provide solutions to this genetic leaching not only for the Hamra breed but also for other sheep breeds such as: D'men, Rembi, Barbarine, Berber, Tadmit and some genetic populations such as Tazegzawt and Srendia. "Rustic" biodiversity is nevertheless valuable, however, especially in the face of adaptation to climate change and the scarcity of forage resources.

Kyewords: Biodiversity, Hamra Sheep breed, Preservation, Conservation and Algeria

Introduction

Fifteen years ago, Algeria laid down a program for developing agricultural. This later had effects on the main sectors of the government all aiming for establishing food safety in the country. Nevertheless, with the fall of the oil pensions we try to diversify our exports except (off) hydrocarbons. Certainly, agriculture is a very promising sector that has made the prosperity of several countries. However, what we should export? In addition, what the agricultural products that will be requested by our customers. Difficult to answer so many questions especially when it has known that in the absence of management policy and conservation of the biodiversity. For several decades, the losses incurred in the national agricultural genetic resources but also in the heritage (natural and genetic) have been incommensurable. (Gaouar et al., 2004; Gaouar et al., 2011; Gaouar et al., 2014; Gaouar et al., 2015 a,b; Gaouar et al., 2016; and Gaouar, 2016).

Since the start of the politics of the agricultural revival in 2008, the role of public authorities in the valuation of agricultural products has become increasingly obvious through the establishment of statutory and institutional devices concerning the quality of products of agricultural origin. In addition, the legislative framework regulating the standardization, certification and designation of origin of the various agricultural products.

Several agricultural quality products are now inventoried, including: "Meat of sheep breed Hamra". In fact it is not without reasons that this product is recognized of quality since its characteristics "excellent meat organoleptic and taste with a good conformation of carcass (small leg and rounded and thin chops) Elsewhere in the past a great reputation on the French market under the name of the "small oranais".

This particular characteristic of the sheep Hamra is probably at the origin of its reputation which has surpassed its area to see its meat (legs and chops) land on the plates of the Parisians, the Lyonnais and the Marseillais Guillaume, 2008.

Current Situation of the Reed Hamra

Today the Hamra race is in a very detrimental situation, the numbers are lacking, it is almost in danger of extinction in our country. There remains a very small herd in the racial cradle (Rebia., 2016).

Indeed, apart from some former breeders who still hold a reduced number of cross sheep descending from the breed Hamra Meradi. , 2012, this type of sheep has become unknown today by the majority of the new generation of breeders. They express a mistrust of this genetic type. For them the profit prevails at the expense of the quality of the Hamra breed, they choose the Ouled Djellal because it allows a better productivity.

The reason is that these sheep are suspected to come illegally from Morocco, which is false in most cases since they are cross sheep. This type of "barrage" constitutes a stumbling-block for the maintenance of the few blood that remains at the level of the farms ,This confusion is due to the ignorance of the various security services and national customs of the phenotypical particularities of the different breeds of sheep making up the national sheep heritage, hence the need for the high commandments (security and customs) to launch training in collaboration with The agricultural services so that the elements operating in the different fields can distinguish the racial differences between Algeria and its neighbors.

This sheep breed must be safeguarded, as it has potentialities in measures to provide solutions in the national economy. During the colonial period, the port of Marseilles received more than one million heads of Algerian sheep annually (from 1929 until the last years of colonization), in response to a specific demand (Hamra meat) from the French consumer (Guillaume, 2008)

The same type of sheep genetics in Morocco (Béni Ghil breed) is better valued in our neighbors, the breed population is estimated at 1,700,000 head of which 400,000 ewes registered in the breeding and genetic improvement project, The National Sheep and Goat Association of Morocco (ANOC). Its meat has already been labeled since 2010; this label is highly prized by European countries especially by Italy and Turkey (Kharroubi, 2013).

Proposed approach:

The Hamra ovine breed must be restored and integrated into the national economy through the conservation and multiplication of the largest number of staff, A response from the public authorities is sought to provide solutions to this genetic leaching not only for the Hamra breed but for other sheep breeds as well: D'men, Rembi, Barbarine, Berber, Tâadmit and some genetic populations such as Tazegzawt and Srendia (Djaout, 2016).

However, the so-called "rustic" biodiversity is valuable, especially in the face of adaptation to climate change and the scarcity of fodder resources. To this end, projects must be developed in favor of animal genetic heritage in blind loss and which we need to maintain a pastoral economic activity.

The speed of reorientation of the national sheep farming will now be indispensable with a legislative reinforcement that regulates the delimitation of breeding areas for each genetic type. The challenges will therefore be to: protect biodiversity and heritage, foster adaptation to climate change, combat desertification, reduce natural risk and local socio-economic development.

The process of safeguarding the sheep genetic heritage must begin with the conservation of more purebred animals, which will serve as a basis for multiplication and dissemination as part of a process of developing networks of committed volunteer promoters For the reconstitution of pure herds Hamra. These efforts aim at enhancing the qualities of the Hamra breed to achieve labeling of its meat (Figure1)

The creation of a fund for the conservation of animal biodiversity is justified from this point of view to cover all livestock breeds that are threatened with extinction.

The conservation of the small numbers of Hamra pure breed in institutionalized farms cannot be the ideal solution to safeguard it. The livestock of the demonstration farm of Ain el Hadjar (ITELV, Saida) has existed since 1963, without any renewal of blood. Consanguinity is then generalized on the set of animals that compose it and constitutes one of the main perils that threatens this breed. The risk of genetic problems is high; It is therefore appropriate to renew all broodstocks by the breeders of the existing breeding nuclei in the wilaya of Naama.

The action plan for the conservation of the Hamra breed must be implemented "in situ", and that in private farms (in consultation with the profession). The public authorities' support for sheep farming remains below the expectations of breeders, particularly those who want to organize themselves around a breed that is disappearing and whose value is crucial for the future of the farming economy of our breeding. The involvement of this profession requires, on the part of the public authorities, the setting up of a support system specific to this type of action, In order to compensate for the deficit in terms of value compared to other breeds, notably that of Ouled Djellal. With a view to the conservation and multiplication of the Hamra sheep population, Particular attention should be given to the problem of consanguinity, which constitutes a stumbling-block in conservation action. Scientists (geneticists and zootechnicians) must be combined for better genetic and technical management of herds. Currently, the population of the breed Hamra (pure breed genotypically) does not exceed about 1000 heads and is distributed in 5 nuclei:

- Two in the wilaya of Saida with a breeding population estimated at 280 head (one nucleus at one breeder and the other at the ITELV station).
- Three in the wilaya of Naama with an estimated breeding population of 500 head. (Two from private breeders and the third from the ORVO farm).

According to the FAO, it is impossible to keep a breed below 50,000 heads. The rehabilitation of this breed requires an increase in its membership, which must be achieved both at the level of highly motivated breeders and at the level of the ITELV and ORVO farms in collaboration with the **CNIAAG**

In addition, specific grants to purebred breeders are an important asset in increasing numbers. The newly founded association in Naama is a considerable achievement which must be strengthened by the development of similar associations in the wilayas of Saida, Tlemcen and El Bayedh and work to restructure the whole into a national sheep breeding association Hamra Which involves all the players in the sector (from the breeder to the chef). The choice of breeders involved must be done in close consultation with breed associations and specific specifications.

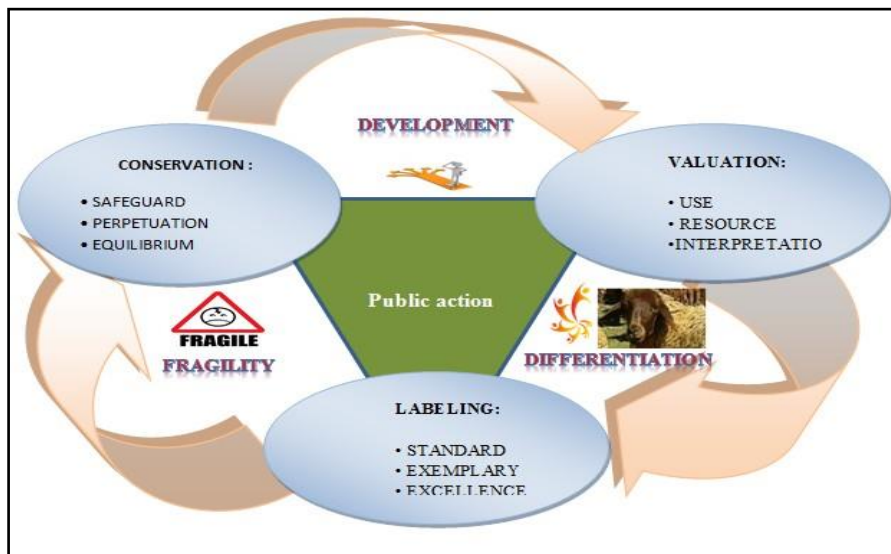


Figure 1. Procedure for safeguarding the Hamra breed

These are genetic actions (breeders or multipliers) and not commercial actions (horsehair). It is important to learn from past experiences and failures to avoid repeating the same mistakes (including lack of profession in a livestock development program). The five nuclei of Hamra breeding will be the production base of future breeders to be disseminated through the network, which will be set up in collaboration with the breed associations. Products originating from the nuclei of the ITELV and ORVO farms will be made available exclusively to associations, which are responsible for populating other future breeding farms.

Given the current low sheep population, the increase in the number of animals by multiplication alone should not be chosen as an exclusive solution because the results will be very long. To shorten delays in such a "conservation" program, the genetic voice of "absorption crossing" may be a variant of choice using Hamra rams (to be produced by breeders and stations) and sheep Currently exploited in the racial cradle. This scheme is to be developed on a large number of animals (minimum 100 000 heads) in order to reach the limit of conservation in record time using modern reproductive control techniques (synchronization of heat, artificial insemination by Endoscopy and embryonic transplantation on ewes of another breed).

The efforts to be undertaken must lead to the initiation of a project to revitalize and develop Hamra livestock in the region. The first steps envisaged in this process will be the following:

Step 1: Creation of a multiplier breeder network (Skeleton of the conservation scheme) which will be the credible source of the broodstock. The current nuclei, already existing, will form the basis of the network which will be expanded as new breeders become available.

Step 2: Establishment of a network of breeders of absorption of the genetic type currently exploited in the region by the use of Hamra rams coming from the ITELv and the farm of Ain Ben Khelil (ORVO, Naama).

Step 3: To put on the ground formulas associating the breeders members of the networks cited and

convinced by the need to promote this genetic type in the conditions of its terroir.

Members of the networks must be bound by long-term contracts with specifications specifying the rights and duties of the registered breeder. The networks in question must be monitored, and supported directly by the agricultural services in order to increase the numbers and distribute the products (male and female).

Step 4: Initially take more attractive measures by prioritizing the breeders who are members of the networks within the framework of barley endowment by the interprofessional board of cereals and pulses with improvement of the rations quantities per ewe, Which would be fully justified for the organization of the two schemes (breeders and crossbreeding) pending the texts that determine the support to be given in the framework of preservation of the biodiversity.

Step 5: Upgrading and mobilization of the structures of ITELV (Ain El Hadjar, Saida), CNIAAG (Belhandjir, Ain Sefra) and L'ORVO (Ain El Hadjar unit, FP of Bougtob El Bayadh and the unit of Ain ben khelil, Naama) to make them operational and up to the missions assigned to them.

These institutional partners must accompany the rescue and multiplication actions of the Hamra breed with a reinforcement and improvement of their frameworks.

Valuation

Today The Sheep Hamra is relegated to oblivion with a reputation of animal undesirable because of the numerous seizures observed in recent years, By the security and customs services (suspected of originating in Morocco) without forgetting that it is considered uneconomical economically by all the breeders of the region. It is repositioning on a regional scale and its valorization, in the eyes of breeders, into a much differentiated product for which it is worth paying a higher price by users becomes therefore a top priority.

In this context, the main concern remains to obtain quickly a geographical indication for the Hamra breed in order to recognize it as a national heritage, identify it, protect it and strengthen its marketing.

The term "upgrading" is often used only to refer to the economic aspect of the use of a breed but let us not forget that the Hamra breed, with its specific feeding behavior and wild character, also proves its value in areas other than the sale of products. The example of maintenance and the balance of difficult and / or fragile pastoral areas that often requires the presence of animals with a lively and exploring attitude "marked character in this breed" when searching for food.

In order to perpetuate the existence of this sheep genetic type, it must be the object of valorization processes in several forms (marketable or not). The best known is the mobilization of official and distinctive territorial sign that is to say that establish a link between the geographical origin and products. However, the dynamics of valorization are not systematically carried out through the signs, which obviously make it possible to ensure a direct income for breeding this breed; it is possible to envisage shapes, which can be made with the production of foodstuffs,

The maintenance of steppe and / or specific areas (northern vineyards) and the valorization of non-food products (first-generation wool).

To remain solely on the meat product, the geographical indication is a prodigious means that provides quality. However, the efforts must be directed towards a strategy of collective valorization to be developed with the association of breeders, grouping of economic operators, Butchers' networks, large retailers in the north and the consumer association; which will lead to obtaining a distinctive image of the quality of meat "Hamra" by its labeling (Figure 2)

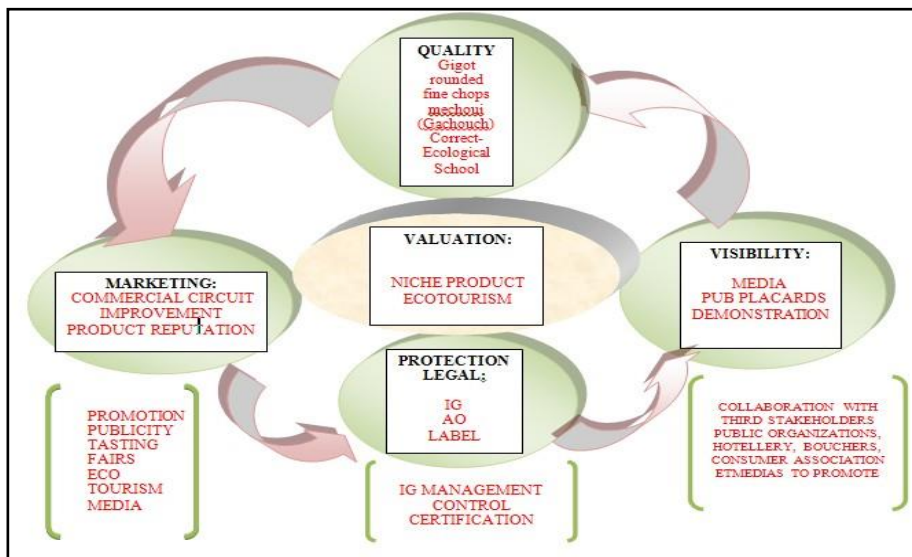


Figure 2. Main pillars of Hamra meat valorization

The challenge for breeders and economic promoters of this breed is to strengthen the reputation of Hamra meat. The search for specific and remunerative outlets for Hamra meat must be based on the characteristics of butcher, organoleptic and taste. The achievement of high positioning in the mind of the consumer, remains linked to the collective work of the various actors extra chain in agreement with breed breeding professionals. These alliances between the partners of the chain will enable the sustainability of the actions of valorization of the sheep Hamra.

The economic operators involved in the project can improve the reputation of Hamra meat and its market value by developing a marketing strategy around this product nationally and internationally to sell it as a niche product. This objective will only be achieved if consumers are firmly in demand of this meat at the region of origin and perceive it as exclusive, By developing a preference for this product on the basis of history, the richness of the courses in aromatic plants, the purity and the simplicity of the past that are linked to it.

This breed is part of the regional rural heritage and therefore has an important cultural and socio-economic element. He is known, Around the world, when a typical product is widely known in markets to "host" the history, customs and land that saw it born, it has a unique competitive advantage.

The Hamra breed must be preserved and managed rationally and sustainably in order to be valued in a dynamic economic development of a territorial region of the country, in order to maintain a production of red meat of quality and fragile ecological balances.

The design, therefore, of a strategy of valorization of the Hamra breed must be based on the following main axes: Diversification of its range (specific leg, thin chops and its famous "méchoui lamb" and intensification of production as well as optimization of its marketing.

Regulation, organization and encouragement through the preparation of a framework that is both adequate and stimulating for breeders' breeders.

Promotion and facilitation by creating positive synergies with other sectors, the preservation of biodiversity and its sustainable management. To put in place physical and financial action plans at the level of the directorates of the services of agriculture and forestry through the concerned wilayas. These plans include direct financial support from cow-calf producers, Technical assistance and support for promoters and project promoters in relation to the Hamra breed and the valorization of its meat.

Labeling:

Conservation and valorization are two complementary stages, the actions of which are carried out in parallel in order to manage the risk of fragility of the device for safeguarding the sheep breed Hamra.

Once the distinction is made for Hamra meat in the markets, the economic promoters must launch the labeling process to give it the exemplary and excellence it deserves.

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