

## Typical livestock products and rural development: The case of fine wool in Portugal

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### Introduction

One of the new CAP priorities is the extensification and diversification of agro-food production. This policy applies particularly to the Less Favoured Areas (LFAs) where large areas of Portugal are included; The same policy recommends the production of non food commodities which at present are in surplus in the EU. It also seeks to encourage the production of commodities for which there are strong market demands and which will provide employment in rural areas (Russel, 1993).

The specificity of agro-food products linked with protected geographical indication (PGI) and protected designation of origin (PDO) has a fundamental role in the establishment of the strategies of agricultural enterprises and in rural development.

Fine fibre production is according to the EU's policy, specially if the emphasis is given to high quality wool fibre (i.e. fine). Most of the substantial wool produced in the EU's countries is of moderate to poor quality which cannot properly be classed as "fine fibre". The production of high quality fine wool (with a high value) is a good example of diversification into a new product (Russel, 1994). On the other side the programs of genetic improvement of fine wool are dependents on the availability of precise and safe methodology to control the fine wool parameters of quality, to be used in the future in the animals genetic evaluation.

### 1- EU Regulations for Agricultural Products

We can state that protection of agricultural commodities answers to three needs:

- Consumers protection to whom it is guaranteed the product's specificity;
- Farmers protection against illicit competitiveness of other actors that try to put in the market at competitive price products that do not have the required conditions but can confound consumers;
- Development of rural areas by setting alternative productions, diversifying farmer's income and promoting a market equilibrium.

The aim of protecting agricultural products easily identified in what concerns its geographical origin, led that some EU countries created National Labels which provided to farmers a higher income, rewarding an higher qualitative effort and to the consumers it provided high quality products with guaranteed origin and processing. Although the lack of standardisation within national certification systems associated with an increasing competitiveness due to the Marrakesh agreements led to the implementation of an European certification system (Sylvander, 1997).

The EEC regulations nº 2081/92 e 2082/92, are the legal basis concerning PDOs and PGIs. They are the result of deep changes in agricultural policy in which quantitative criteria are replaced by qualitative criteria. The EEC regulation nº 2081/92 defines:

- **Protected Designation of Origin (PDO)**, the name of a region, place or exceptionally a country, which is used to designate an agricultural product originary from that region, local or country which quality and characteristics arise essentially or exclusively from geographical provenience, including natural and human factors and which production and processing occur in a geographical restricted area.
- **Protected Geographical Indication (PGI)**, the name of a region, place or exceptionally a country used to designate an agricultural product originary from that region, local or country which reputation, quality or other characteristic may be reported to the geographical origin and which production or processing happen in a restricted geographical area.

The difference between these two statements lays in the last paragraph. For PGI it is required that only one phase of the product chain must be directed linked with geographical environment. Nevertheless it must be a product originary from that region and have certain characteristics which arise from that same region. PDO highlights the links between product and its origin. It results from a specific process inherited by our culture which preserves the specificity and typicality of the product. The EEC regulation n° 2081/92 does not apply to designations that have become general, (like Brie, Camembert, Cheddar e Gouda). To benefit from the protection granted by the EEC regulations, products must be inscribed in a register book with two kinds of registration, normal or simplified. In the normal process, a Farmer's Association asks the registration of a product to the national authorities, that send it to the EU commission. After analysis, this demand is published in the EU Official Journal jointly with the specifications book. After six months without complains the EU commission inscribes the product in the DPO and PGI book. Portugal has already inscribed fifteen products. The simplified process only can be used to products which already had national protection, like some Portuguese wines.

The register gives to the producers exclusive rights to use the PDO and PGI, which means, industrial ownership.

According the EEC regulation n° 2082/92, PDO and PGI are protected against:

- a) Any kind of direct or indirect commercial utilization from products not included in the register book;
- b) Any encroachment, even if real origin is indicated or is used a word like "type" or "method";
- c) Any false or fraudulent indication as to the provenience, origin, nature or quality;
- d) Any other practice which may confound the consumer.

For the efficacy of the regulations, it is necessary to implement through the EU an effective control system to check if the product is according to the specifications settled in the register book. Every State Member should indicate an independent organisation that guarantees the objectivity and impartiality required (Sainte Marie and Valcheschini, 1996).

## **2. PDO and PGI in Portuguese Agriculture**

Portugal has been using correctly these regulations in order to protect agricultural products. In what concerns livestock products we have:

Meat (11 PDO e 7 PGI), Smoked Ham (2 PGI), Cheese (10 PDO), Honey (9 PDO).

The existence of a legal basis to protect agricultural production is crucial to portuguese agriculture, due to its specificities within the European context. Natural environment, old production technologies and the weakness of agricultural entrepreneurship led to the fact that average productivity is lower than in Europe. CAP and the late reform of the CMOs relative to the mediterranean products had negative impact in Portuguese Agriculture, that can not compete through quantity or costs with other competitors. So, differentiation seems to be the only alternative to stimulate rural activities in LFAs and create a regional value added able to promote sustainable development.

The success of this strategy depends upon:

- Building quality management systems;
- Financial incentives;
- Setting up an aggressive marketing strategy able to give an image of "products with history";
- Setting up global distribution channels in order to reach international markets.

## **3- Wool Chain**

Sheep are bred in Europe essentially for the production of meat and/or milk. Today, wool produced represents a liability for the breeder, as the selling price does not cover the expenses of shearing, which is a physiological necessity for the animal (Gallico, 1994). We think that an effort must be done in protecting fine wool in EU by a labelling system. It will have impact at the production level (increasing income from sheep production, settling rural population in LFAs) at the industry level (availability of

fine wool produced in the EU suitable for the market demands) at the consumers level (providing a certified product) and at the research level (which must provide answers to the needs of the whole chain).

The low scientific interest on the wool research and the low value of this production makes this activity slighted, however unavoidable. Since fine wool of high quality, have been "rediscovered" by the fashion industry in recent years in many European countries it has a great demand on the international markets, so it is very important to do a specific survey of wool quality produced in Portugal and the identification of the best genetic basis.

Portugal has established a system for collecting (livestock cooperatives that also work as wool storage centers) and classifying wool (technicians from the Ministry of Agriculture) so that batches can be grouped for deals with industrial concerns. Nevertheless, most breeders are on their own when negotiating with traders since they do not want to deliver their wool production to the wool storage centers (authorised to certify the product's origin and quality to buyers) and wait four to five months for the wool auctions with higher prices. These farmers receive an identical price irrespective of the quality of wool.

Scientific studies on wool quality and improvement were carried out only until the 70's; Wool prices have been decreasing due to world crisis within the sector. Furthermore and unlike all other textile fibres and animal products, wool is not recognised as an agricultural product under the treaty of Rome. It cannot benefit therefore from any of the agricultural subsidies granted within the European Union. It is relevant to re-evaluate the present situation in what concerns the wool valorization and try to improve or at least keep the wool quality of some flocks, although, it is necessary that selection bodies (herd book) redefine and reintroduce "wool criteria" in genetic selection criteria so that wool improving breeding stock may be identified. Premiums would provide an incentive to produce and disseminate approved breeding stock. This purpose fits into the national policy of conservation of genetic resources and autoctonous breeds. Therefore it is urgent to carry out an objective and directed survey of the wool quality and to identify the best genetic basis in order to set up an initial fine wool flock ( $\leq 20\mu\text{m}$ ).

#### 4- Collected Wool

In Portugal the concentration of the wool is done by farmers associations in three different places in South and Center border (Beja, Évora and Castelo Branco). It is predicted that only 15 to 20% of the total production is delivered in the concentrations places. On table 1 we can observe the percentual distribution of classified wool between 90 and 97. It is shown that in the southern regions of the country (Évora e Beja) the percentage of AA wool (19- 22 $\mu$ ) shifted between 35 to 45%, 1992 excepted. In Castelo Branco region the percentual evolution of AA wool has been decreasing since 1990 (46.4%) reaching its minimum in 1995 (12.9%). This situation results from the crossbreeding between autoctonous and exotic breeds (Frísian, Manchego, Awassi and Assaf) which have been introduced to increase milk production.

Table 1- Evolution of finesses (%) in the 90's in the three places of concentration

| ÉVORA | BEJA |      |      | CASTELO BRANCO |      |      |      |      |      |
|-------|------|------|------|----------------|------|------|------|------|------|
|       | AA   | A    | B    | AA             | A    | B    | AA   | A    | B    |
| 90    | 35.4 | 34.9 | 15.4 | 51.4           | 27.0 | 12.2 | 46.4 | 22.7 | 17.3 |
| 91    | 44.9 | 20.3 | 20.8 | 42.8           | 24.9 | 15.1 | 34.2 | 29.6 | 14.4 |
| 92    | 37.0 | 26.7 | 14.6 | 50.1           | 23.3 | 15.8 | 39.5 | 27.9 | 19.8 |
| 93    | 40.5 | 29.1 | 15.5 | 54.8           | 17.6 | 8.40 | 29.0 | 28.6 | 25.0 |
| 94    | 41.5 | 19.0 | 25.6 | 45.3           | 29.1 | 15.2 | 24.7 | 27.5 | 30.7 |
| 95    | 47.7 | 25.1 | 19.0 | 49.0           | 26.5 | 9.20 | 12.9 | 32.5 | 31.1 |
| 96    | 29.0 | 30.3 | 17.4 | 39.4           | 31.4 | 18.8 | 18.6 | 25.9 | 29.3 |
| 97    | 34.3 | 35.9 | 18.9 | 41.6           | 31.6 | 15.3 | 28.3 | 24.5 | 24.4 |

AA- (19- 22 $\mu$ ); A - (> 22 - 25 $\mu$ ) and B - (> 25 - 36 $\mu$ )

Source: Chabert, personal communication (1997).

In table 2 it is shown the consolidated data and the tendency for a percentual decrease in AA wool produced (44.4% in 1990 vs. 29.0% in 1996) which correspond to an increase in the production of A wool (> 22 - 25 $\mu$ ); B and D classes suffer slight changes. This tendency ought to be changed.

**Table 2- Evolution of finesses (%) in the 90's in Portugal**

| <b>Anos</b> | <b>AA<br/>(19- 22<math>\mu</math>)</b> | <b>A<br/>(&gt; 22 - 25<math>\mu</math>)</b> | <b>B<br/>(&gt; 25 - 36<math>\mu</math>)</b> | <b>D<br/>Defective</b> |
|-------------|--|---|---|------------------------|
| 90          | 44.4                                   | 28.2  | 14.9  | 12.4                   |
| 91          | 40.6                                   | 24.9  | 16.7  | 17.4                   |
| 92          | 42.2                                   | 25.9  | 16.7  | 15.1                   |
| 93          | 41.4                                   | 25.1  | 16.3  | 17.1                   |
| 94          | 37.1                                   | 25.2  | 23.8  | 13.8                   |
| 95          | 36.5                                   | 28.0  | 19.7  | 15.6                   |
| 96          | 29.0                                   | 29.2  | 21.8  | 19.7                   |
| 97          | 34.7                                   | 30.6  | 19.5  | 15.1                   |

Source: Chabert, personal communication (1997).

### 5- Development Project

We are proposing a project "Evaluation of fine wool production in Portugal" that has been submitted to appreciation within the framework INTERREG II and will be implemented in the South and Center Border of Portugal.

The goals are:

- Evaluate the possibility to increase wool quality produced, associated to the preservation of biodiversity and autoctonous breeds;
- Identify the quality and quantity of fine wool produced in Portugal on the basis of data obtained on the three places of wool storage (Beja, Évora e Castelo Branco) and according to the official system of classification.

To achieve these goals it is necessary to:

- Identify the local areas with higher percentage of fine wools and the producers that have, in their flocks, the highest percentage of these, according to the official system of classification;
- Characterize fine wool produced on the basis of diameter and lenght, from samples of wool obtained in the three places of wool storage and the identification of the animals producing fine wool in the flocks that have a high percentage of AA wool;
- Increase the economic yield of sheep producers and decrease the subsidy dependence through the production of high quality fine wool.

Projects to be implemented:

- Quantify the fine wool production in the concentration places;
- Evaluate the wool quality by laboratory techniques according the IWTO;
- Correlation of AA class wools classified according the official system of classification and according the laboratory evaluated parameters.
- Identification of the flocks and animals producing extra AA wool;
- Setting up a Portuguese White Merino purebreed flock.

#### - Participant institutions

The partner institutions in this project are: Ministry of Agriculture (**DRABI**) and School of Agriculture of Castelo Branco (**ESACB**). The following farmers Associations also participate in the project:: Associação de Criadores de Ovinos do Sul (**ACOS**); - Associação de Produtores de Ovinos do Sul da Beira (**OVIBEIRA**); Cooperativa Ovina de Évora (**COE/UNICADE**)

Broadly these institutions are responsible for:

- Evaluating the quality of the wool according to the methodology defined by the IWTO;
- Classifying wool according to the official system;
- Setting up regional databases on the national Merino breeds and herds;
- Setting up a Portuguese White Merino purebred flock;
- Weighting, identifying and storing the fleeces;
- Keeping computer data (classification/grading and weight) of the fleeces;
- Selling the wool;
- Setting up regional courses in sheep-shearing.

#### **6- Economic, social and regional interest of the Project**

The strategic interest in breeding animals for fine fibre production was tacitly recognised in a report presented to the European Parliament (Hyland, 1996). In this report, several structural measures were recommended, in order to stimulate wool production, emphasizing the measures which may lead to improve the quality of the fibre and to create "labell-marks" with the purpose of promoting market niches for the animals textile fibres produced in Europe.

The social aspect is significant as the sheep production sector involves thousands of people across Portugal. The standard of living of these people could be improved if wool was more efficiently used. Crossbreeding to improve certain aspects of the animal's meat and milk is resulting in genetic deterioration. Purebred races, the fruit of hundreds of years of painstaking selection have disappeared or are at risk. Every country in Europe has its own breeds of sheep. This genetic heritage, from which the wool stock of the major Southern hemisphere producers originates, must be preserved in the interest of biodiversity. Available data show us an existence of 1.000.000 Portuguese White Merino female sheep, 100.000 Portuguese Beira Baixa Merinos and 25.000 Portuguese Black Merinos. These breeds are the genetic basis of fine wool producers and they represent roughly 50% of the total number of sheep.

Although there are 350 million consumers in the EU, the textile industry of the European Union, is in severe decline. It is forecast that by 2001, only 30 % of the clothes bought in the European Union will be made here and that 1.5 million jobs will be lost as a result (Lanner, 1995).

This project is relevant to different areas:

**At the producers level**, the quality improvement will increase the competitiveness of Portuguese fine wools promoting higher incomes for sheep breeders. As most of the fine wool production is carried out in an extensive production system, in poor soils, this project may lead to:

- Settling the rural populations and maintaining the farming activities;
- It will promote the enhancement of less favoured areas;
- Improvement of the endogenous resources, namely the autoctonous Merino breeds;
- Create wool labels and promote products on the basis of product originality with emphasis on its role to support traditional skills and act as a driving force for rural development. The conservation of a genetic heritage and job creation in rural areas could also appeal to consumers (Corcoran, 1994).

The revalorization of wools of high quality, means an income diversification of the chain production (Production and Industry) and will doubtlessly influence the local and rural development and thus, it may be another tool to reduce human desertification of the interior region of Portugal; therefore, it will help settle down the active population of the border areas.

**At the Industry level**, and in the short term, the textile industry will benefit with an increase in the quality of the wool fibre; in the medium and long term, the increase of high quality wool will make possible to be less dependent on the import of high quality raw materials and from price variations in the international markets, assuring that the added value lost in the import process will be retained in the area.

**At the Portuguese-Spanish cooperation level**, as it is possible to cooperate with the School of Agriculture of Badajoz (University of Extremadura - Spain) the project will cover an geographical area

with 3 million Merino females. The cooperation will make possible to know all the productive potential of that region.

**At the research level**, it will be possible to get the knowledge of the precise parameters of wool quality (diameter and length) and establish effective criteria to select and improve wool quality in herds.

#### **7- Conclusions:**

The problem of rural areas as suggested by Mannion and Phelan (1997) is directly linked to their capacity to develop new functions (non-farming business and services, like agro-tourism) and link them to real demands and markets. The implementation of any policy must include measures that not only enable internal diversification (like fine wool labels) of the rural economy but also those that support the development and retention of competitive farm business (

The typical livestock products with quality designations (PDO and PGI) are designed to preserve the specificity (production is remote and scattered throughout rural areas) and the typicality of products for consumers, to create "rarity" with specific prices that reflect consumers preferences.

As for the fine wools, some of the measures that should be taken are:

- Aid for maintaining and establishing autoctonous Merino purebred flocks in desertified areas, using extensive breeding systems environmental friendly;
- Set up regional databases on the national Merino breeds and herds;
- Quality grading for European wools and standardisation of classification methods in order to establish quality related price scales;
- Reinforce knowledge about fibre production through educational and training systems;
- Develop knowledge of the world fibre markets and fibre trading;
- Look at the development of vertically integrated fibre related enterprises from fibre to finished product.

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