

Fine Wool in Portugal

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Introduction

In the last years, 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.

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.

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 ($\leq 20\mu\text{m}$).

Wool Chain

Portugal has established since 1940 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 concern

Several scientific studies on wool quality and improvement were carried out from 1938 until the 70's (Morais, 1938; 1947; 1951, Ferreira *et al.* 1960; Serra *et al.*, 1974).

As we can see on table 1 in a studie done in 1938 in some areas of South Portugal it was still possible to find quite a reasonable percentage of animals with fine wool (15 - 20 μ). The genetic basis of these flocks (Portuguese white Merino) are still available since most farmers in this region have maintained purebreed flocks.

Table 1- Fineness diameter in Southern Regions of Portugal

Diameter	15 - 20 μ	20 - 25 μ	25 - 30 μ	30 - 40 μ
Regions	(%)	(%)	(%)	(%)
Arraiolos	26.3	10.5	42.1	21.2
Évora	9.9	52.2	34.0	4.5
Reguengos	20.0	58.2	20.0	1.9

Source: Morais (1938).

Due to the existence of specialized technicians within the sector, the Ministry of Agriculture has created a structure named: Wool Production and Marketing (1940) who's action was crucial to the wool qualitative and quantitave improvment. The action of these services has been developed into several ways:

- close connection with farmers among whom training actions were done;
- setting up regional courses in sheep shearing;
- training of wool classifiers;

- organization of all the wool marketing circuit through wool concentration, classification, storage and auctioning at a regional level;
- diffusion of scientific studies;
- farmer's aid in order to acquire selected animals.

As a consequence of this activity the farmer's interest in the production of fine wool has increased. The genetic improvement of flocks was notorious, leading to an increase in fine wool production.

Since 1974, the restructuring of the Ministry of Agriculture has resulted in a loss of importance of the wool production sector. From 1974 till now very few studies on wool fineness have been done and the technicians from the Ministry of Agriculture responsible for grading wool have lost the laboratory references as for the fineness. However, wool grading has continued to be made based on the work and large experience of the technicians.

During the last years there was any progress in this sector and there's a risk of losing all the knowledge when these few technicians retires. This will lead to the loss of all the work done throughout the last decades.

All the efforts must be done in order to retrieve the wool sector priorities, making good use of the existent knowledge and giving it a solid scientific basis.

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 2 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 μ) 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 (Frisian, Manchego, Awassi and Assaf) which have been introduced to increase milk production.

Table 2- Evolution of finesses (%) in the 90's in the three places of concentration.

YEARS	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 μ); A - (> 22 - 25 μ) and B - (> 25 - 36 μ)

Source: Chabert, personal communication, (1997)

On table 3 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 μ); B and D classes suffer slight changes. This tendency ought to be changed.

Table 3- Evolution of finesses (%) in the 90's in Portugal

Years	AA (19- 22 μ)	A (> 22 - 25 μ)	B (> 25 - 36 μ)	D Defective
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).

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:

- Set up a laboratory facilities in the ESACB (OFDA).
- Quantify the fine wool production in the concentration places;
- Evaluate the wool quality (standardisation of classification methods) 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.

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