A FEW PERSPECTIVES FOR THE REVITALIZATION OF SERICULTURE IN DANUBE - KRIŞ -MUREŞ – TISZA EUROREGION

CÂTEVA PERSPECTIVE PENTRU REVITALIZAREA SERICICULTURII ÎN EUROREGIUNEA DUNĂRE - CRIŞ - MUREŞ – TISA

OANA IANOŞEVICI[1], I. CSŐSZ[1], SIMONA MARTIN[1]

[1]Banat's University of Agricultural Sciences and Veterinary Medicine Timişoara, Agricultural Management Faculty, Timisoara, Romania; o_ianosevici@yahoo.com

Abstract: *The sericulture is practiced for a long time in Banat region because there were favorable conditions for the mulberry tree culture. It is one of the zootechnics branches which have as preoccupations the breeding and improvement of silkworms, feeding base and pre-industrialization of cocoons. Why sericulture? Because this subject is very attractive and currently still less studied. It's demanded for the natural silk thread, which has outstanding qualities, being characterized by strength and durability. The requirements for the natural silk have increased during the last few years, both for domestic consumption and export.*

Key words: *silkworm breeding, sericultural companies, households, EU requirements, strategic projects*

INTRODUCTION

I want to submit the issue of a less discussed sector of the zootechnics, the sericulture, an occupation which previously had a special proportion within Banat region, implicitly in the DKMT Euroregion. The region known as "Central European Kitchen" (Kovács, 2006) might be able to cover the own consumption and even to export a significant amount of products on this branch.

At the beginning of the 17th century, the first mulberry trees were planted in Hungary along the Danube River. It was at the initiative of the Government of Pest that we owe the achieved progress in the past few years (the creation at Szegszard of a special institute, the installation of spinnery

at Pancsova and Neusatz or Ujvidek, the development of nurseries, the distribution of plants and seeds). Then, the sericulture has developed along the Danube (Szegszard, Neusatz, Sermin and Pancsova), the Save River (Sissek, Agram), the Timiș River and at the NW end of the Great Hungarian Plain (at Sopron). The cocoons quality in Hungary was excellent and provided an advantageous investment on the French and Italian markets. (Groffier, 1900)

According to the book authors of "From the chronology of Timiş County" (Dudaş, 2004), the general Mercy, chief of the Banat Imperial Administration, has encouraged the plantation of mulberry trees in 1719 in Timisoara and Ciacova districts. In 1724, in Timisoara, is established the first silk manufactory. In 1732, the abbot Clemente Rossi will promote the plantation of mulberry trees and the silkworm breeding. On December 29th 1733, Dejean will declare his intention to the interim governor, on planting 143.000 mulberry trees between Timisoara Citadel and the House from the Green Forest.

Interesting details about the silkworm breeding, Steube offers us in his book "Nine years in Banat (1772-1781)": Neither Romanians neither Serbs aren't engaged in the silkworms breeding, but even more do the German, Italian and French settlers. All the cocoons produced in Banat had to be brought to Vrsac (which also belongs to the Banat region), where every pound is paid by 30 kreutzers.

MATERIALS AND METHODS

The authors of this paper have completed three phases. In the first phase – preparatory – it has been required a theoretical and bibliographical documentation concerning the sericulture of Banat, it has been defined the issue and formulation of the main hypotheses in order to constitute an explanatory and convincing model, inducing the importance and activity of the researched subject. The second phase – on the ground – has been one of most important, in terms of a dialogue with the ex-manager of sericultural Company SERIOR, in Oravița, Mr. Costică Jumanca. The final phase has been drawn up and completed by the collected information. The drafting of this paper was made in laboratory, based on the notes from the ground, the existing material and consulted bibliography.

RESULTS AND DISCUSSIONS

A starting point for this issue could be the result of Sibiu conference in October 2010, with the participation of Dacian Cioloş – the Member of the European Commission in charge with the Agriculture and Rural Development – where he has presented some points regarding the future of semi-subsistence and subsistence holdings that, if are well organized, could find their place on the market. Therefore, I think that the sericulture could contribute to their development and would increase the economic competitiveness of the region and would help to maintain the employment in small farms in the rural areas.

What are the measures to encourage the development of sericulture? What are the financing programs for sericulture (for the plantation of mulberry trees, for the establishment and/or modernizing of the silkworm breeding, storage and processing units)?

The adoption and implementation of the Community Acquis concerning the sericultural activities can be seen in the table below:

Table 1.

The EU requirements on sericultural activities

Year	EU requirements
2002-2003	the harmonization of quality standards for cocoons and silkworms
2003-2004	the transposition of administrative control system: it has to be assigned the approved organization concerning the attestation of the eligible farmers and their training on contracting, supporting demands and quality of products.
2004-2005	the implementation of the administrative control on the conditions achieved by product (eggs and cocoons)
2003-2005	the adoption of supporting measures, similar to the Community ones concerning the market organization
2005-2006	the adoption of the quality and statistical records

In October 2007, EU has established that the farmers can get a financial support from European funds for the box of silkworm eggs for 133,26 Euros. In order to receive the grant, some conditions of productivity are imposed however: the breeders have to buy from authorized suppliers boxes (it could be the SERICAROM Company from Bucharest) that contain

at least 20.000 eggs, and then they have to obtain and deliver at least 20 kg of cocoons for each box to an authorized processing unit. It also provides a financial support for sericultural development, more specifically for the plantation of mulberry trees and establishing and/or modernizing of silkworm breeding farms and of storage and processing units. In order to encourage the silkworm breeding, the Romanian Government approved 400.000 lei grants, in 2004, for a box of 10 grams of silkworm eggs, the farmer had to deliver at least 20 kg of raw cocoons and 20.000 lei for one kilogram of cocoons delivered for processing. The grant provided for 2005 is 600.000 lei for a box of 10 grams of silkworm eggs.

After the meeting with the ex-manager of the company SERIOR Oravița, in Caraş-Severin County, Mr. Costică Jumanca, I have learned the following facts: since 1974, the sericulture was developed into a farm system:

Table 2.

The sericultural companies before and after 1990 with their social capital

County	State sericultural company, 1974	Joint stock corporations, 1990	Social capital, lei	of which	
				fixed assets, lei	circulating assets, lei
Arad	State Sericultural Company of Ghioroc (6 farms)	SC SERIAR SA Arad	9.501.000	8.976.000	525.000
Caraş-Severin	State Sericultural Company of Oravița (4 farms)	SC SERIOR SA Oravița	14.243.000	13.895.000	348.000
Timiş	State Sericultural Company of Timiso ara (11 farms)	SC SERITIM SA Timişoara	25.272.000	18.026.000	7.246.000
	State Sericultural Company of Lugoj (5 farms)	SC LUGOJANA SA Lugoj	10.628.000	10.047.000	581.000

Until 1990, our country appears on the 6th place in the world and the 2nd place in Europe, being also a founding member of the International Sericultural Commission (Lyon, France). After 1990, the production of silkworm eggs has declined due primarily to the passage under the private

property of the existing mulberry intensive crops. By the 199/1990 Govern Decision, there were created 20 economic agents having as main activity the sericulture and which have achieved an employer's organization called "Silk Road". Unfortunately, the only one left was the organization "SERICAROM" SA Băneasa from Bucharest. The last silk manufactory (from Lugoj) was dissolved.

As all the others commercial societies, SERIOR Oravița had as main activities: the production of planting materials for mulberry trees and the cocoons production. This company collaborated with schools, forest units and households that had to deal with the silkworms breeding; then, SERIOR Company has taken the production of cocoons, paying people according to the cocoons quality. This company had 50 hectares of intensive plantations of mulberry trees and silk-rooms. This sericultural center was composed of four farms: one in Oravița (the main farm), one at Răcăşdia, one at Zorlențu Mare and the last one at Mercina. Currently, excepting Zorlențu Mare, the mulberry trees plantations are still conserved.

The silkworm breeding was done with a farm chief and in presence of an economist. In these farms, about 300 people permanently have worked, adding about 1000 day laborers, especially in the silkworms breeding period. The cocoons production of this company was 15 tons per year.

SERIOR Company gave the cocoons production to the single silk manufactory, in Lugoj and to the two factories: Mătasea Populară (Popular Silk) and Arta Populară (Popular Art), in Bucharest. In the sericultural farms in Oravița, there were special silk thread-treating equipments, shirts-making and macramé-embroidery.

What were the causes which have led to the disappearance of sericulture in Banat?

The activity in this company was declining by redeveloping its work into a clothing Center, when the farm was dissolved due to closing the silk manufactory of Lugoj in 1995. For this purpose, the collapse of this sector is practically produced when the other farms involved in the silkworm breeding have disappeared all over the country (because all the sericultural farms gave the cocoons to manufactory of Lugoj for their treatment). Thus, it has been lost a network which ensured the sericultural development. Without a strategy, whose aim had to be the reconstruction of this network,

people were less and less interested of the silkworms breeding. Another important cause was that silkworm breeding was declined after 1990 due to land restitution, by considering that the first returned lands were those planted with mulberry trees.

Proposals

1. Establishing a modern place for silkworm.
2. Developing a program for disseminating the sericultural products.
3. Establishing representative offices, units of product marketing, both in DKMT centers and especially in Euroregional cities:

- for the textile industry weaving sieves for mills, insect-proof nets, fabrics for parachutes; being bad electrically conductive it is used for electrical conductors covers, phone sleeves; balloons used in weather observation have natural silk cover; fishing thread; cinematographic films,.
- In Food Industry: chrysalis cans, which have a sweetish and creamy taste. It has a similar consistency of an eraser, a very good taste, prepared by adding hot peppers. The taste of roasted chrysalis looks like the roasted peanuts.
- In Medicine and cosmetics: for cosmetics, it is used in various and exfoliating creams for skin, stimulating the production of collagen and destroying skin harmful bacteria. In Surgery: Seton threads. Japanese researchers have created a genetically modified silkworm which produces collagen and can be used in bandaging wounds or to produce artificial human tegument.
- Pet foods, food and fish bait or giving luster for animal's fur).

4. Developing centers for mulberry leaf processing that can be used in medicine to treat diseases like diabetes, intestinal worms and constipation.

Projects could be developed for the construction, modernization and expansion of operational buildings and utilities for the processing of natural products, but also for the plantations of mulberry trees. The sericulture could become for households a source of income both through the sale of cocoons and through processing, within households, of silk thread by developing a trade with natural silk products. The socio-economic impact of practicing sericulture could be represented in the figure 1



Figure 1. The socio-economic impact of practicing sericulture

CONCLUSIONS

This branch of economy is seen as a very profitable sector within the Community. This is because the western economy is trying to preserve and develop the branch which produces natural threads, as a form of protection against synthetic threads. The financial funds, available to silkworm breeders through the research programs of the EU, are considerable. There are countries which have neglected this branch of industry, such as France and Italy, which have no production, but currently keeping the genetic heritage.

The current director of the SERICAROM Company, Bucharest said that if we try to do something, it's probably to sight some opportunities. Besides that Romania has a climate that encourages the plantation of mulberry trees, we have a solid genetic heritage (Dobre, 2009).

Starting from the analysis of the ex-sericultural farm situation in Oravița, from the fact that sericulture represented a very important occupation in this region (an area where the climate is favorable to the mulberry tree culture), that some mulberry trees plantations still exist and that in Romania, a certified operator deals with the supply of silkworm eggs, the DKMT Euroregion officials could lead to establishing a center that would revitalize the sericultural Euroregional sector and would stimulate the industry. Real advantages are given by the regional competition absence, increase of the offer awareness or targeting customers outside of the region.

REFERENCES

1. **BÂRCĂ Gh., ROSENTHAL C., ROŞCA O**., 1968, Piscicultura, Apicultura, Sericicultura, Editura Didactică şi Pedagogică, Bucureşti.
2. **DOBRE Laura**, 2009, Fir de borangic, pe tine cine te-a destrămat? Revista « Lumea Satului », Nr. 6, 16-31 martie 2009.
3. **DUDAŞ V.** et al., 2004, Din cronologia județului Timis, Editura Marineasa, Timişoara, 514 pag.
4. **GROFFIER V.**, 1900, La production de la soie dans le monde, Annales de Géographie. t. 9, n°44. pp. 97-118.
5. **KOVÁCS Á.,** 2006, Apicultura în Euroregiunea DKMT « Cămara Euroregiunii », Conferință de specialitate, Editura DKMT Kht. Szeged.
6. **STEUBE J.K.**, 2003, Nouă ani în Banat (1772-1781), Editura de Vest, Timişoara.