

Native Sheep breeds from Banat

Marcel Matiuti¹, Carmen-Luminita Matiuti²

¹Faculty of Veterinary Medicine – USAMVB Timisoara, Calea Aradului 119, Romania
matiutimarcel@yahoo.com

²Chemistry College Azur – Calea Martirilor 64, Timisoara, Romania

Abstract

Research was carried out on two native sheep breeds traditionally known in Banat, Ratka and the Curly haired sheep of Banat. All the data were recorded and compared with data existing in the database of the Transylvanian Rare Breeds Association. The Ratka breed with its two colour variants – white and black – is steadily decreasing in number, with about 1,800-2,000 animals in 2009. The Banat Ratka was compared to the Hungary Ratka from the point of view of their size, weight, and yields. The Curly haired sheep of Banat is another endangered breed, with about 1,600 animals in 2009. The comparison was made with the Waldshaf breed from Austria and the Cickta breed from Hungary. The obtained products from sheep of the Banat curly haired sheep were: 1.5 – 2.3 kg of wool, with the length of the lock of 18-20.2 cm, finesse of 38-43 microns, the milk production of 60-70 kg are comparable with that of the Waldshaf and Cickta. The exterior of the sheep is also similar. The curly haired sheep population of Banat has undergone a decrease in numbers in the past 20 years, only 1,300 remaining today. Sheep milk is the best for traditional products and it represents an economical gain for breeders. The Curly haired sheep in a breed of high economic interest.

Keywords: sheep, traditional breed, zoogenetic biodiversity.

1. Introduction

In the entire Romanian literature, Rațka is presented as a variety of the tzurcana sheep (Oaia Valahă), though this ancient breed is a breed apart. Studies show that Rațka sheep breed used to predominate until the 18th century in Transylvania and Banat. According to data included in the Annals of the Banat Museum in Timișoara, in the 16th and 17th centuries there were in Banat sheep with long, thick wool and with big horns twisted as a cork-screw.

In the 18th century, when the first German colonists started arriving in the area of Timisoara, they brought with them animals: horses, bulls, sheep, goats. They brought the Norike horse breed from the valley of the Muir river of Austria, latter named the Heavy horse of Banat or Muran, the Pinzgauer bull breed, and the Toggenburg goat breed. At the same time, they brought the forest wild sheep or Waldshaf, a breed with thick wool, with an exterior resembling the Ratka and the Valachian Sheep. Today, individuals from the Waldshaf breed survive only in the Banat area, maybe through the Curly haired sheep of Banat.

2. Materials and methods

We have used the method of investigation using individual household cards. We collected data concerning the known sheep breeds, their area of distribution, the outlook, and yield data, evolution of animal numbers, maintenance, and nutrition.

All the data were recorded and compared with other data existing in the Database of the Transylvanian Rare Breeds Association.

The problem was that we could only find half-breeds whose origin was very difficult to trace, and not pure breed animals. The number of animals we studied did not matter, since we chose to work according to the exhaustivity principle.

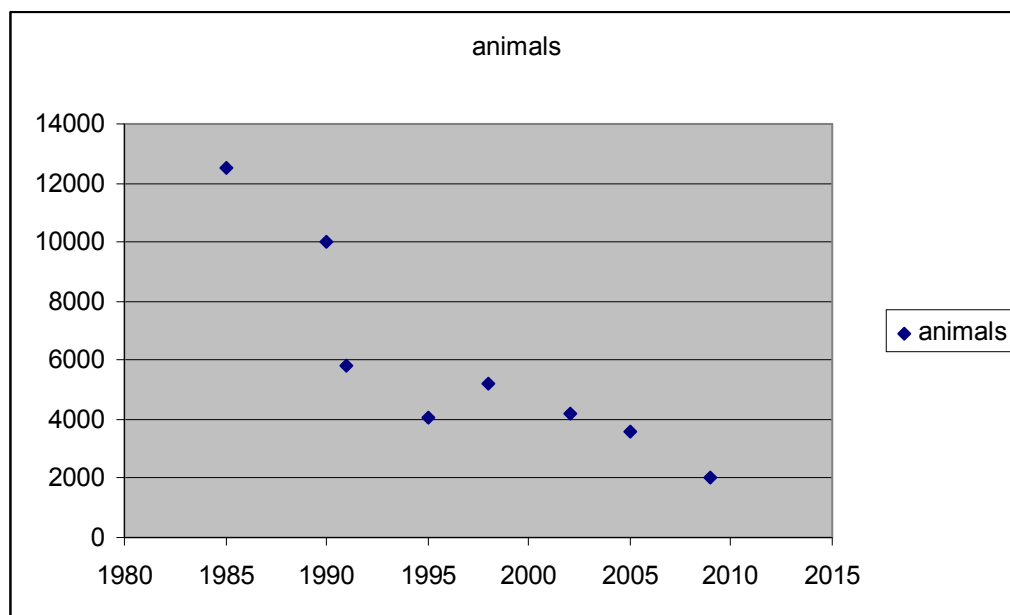
A comparison was made with the Forest wild sheep of Austria from the Raumberg-Gumpenstein centre for preserving gene reserves and with the Cickta breed from the park for protection of gene reserves of Hortobagy (Hungary). The name of Cickta is, in Hungarian, the same name for Waldshaf.

3. Results and discussion

Ratka

In the entire Romanian literature, Ratka is presented as a variety of the Tzurcana sheep (Valahian Sheep), though this ancient breed is a breed apart. Studies show that Ratka sheep breed used to predominate until the 18th century in Transylvania and Banat. According to data included in the Annals of the Banat Museum in Timisoara, in the 16th and 17th centuries there were in Banat sheep with long, thick wool and with big horns twisted as a cork-screw.

In 2009, the number of animals from Ratka breed in Romania decreased to about 1,800-2,000 animals, most of which in Southern Banat, in the communes Doclin, Homoriste, Forotic and Surduc. In 2008, a breeder purchased 80 Ratka sheep from the area which he took to Moldova. The breed is steadily decreasing in number risking to extinguish completely within the following 5 years.



graph 1. Evolution of the number of Ratka sheep in Banat

Outlook. Rams of white Ratka are 68.3-70.2 cm and ewes are 65.4 cm tall, compared to the Hungary Ratka who is 76.45 cm in rams and 68.20 cm in ewes (Nagy 2006). Body weight in the white Ratka is 55.3-65.2 kg in rams and 40.2-45.0 kg in ewes, compared to 63.9 kg in rams and 42.4 kg in ewes of Hungary Ratka. The colour of the coat is white with reddish short hair on the face and limbs. In 2009, there were 30 animals of black colour: they are generally removed because breeders say their skin is less resistant. Size and body weight in black animals are similar to those in white animals. We identified 63 animals whose short hair on the face and limbs was darker brown. According to some data, some animals of the Banat Ratka have genes from Karakachan sheep, brought in the area about 80 years ago from Southern Bulgaria. The grease is

mediocre from both quantitative and qualitative points of view.

Wool yield is 1.5-2.0 kg. Nobody purchases the wool; therefore, sheep breeders use it as insulating material. The coat has rarefied hairs on the abdomen. If an animal lies on snow, it melts.

Prolificacy is 115-120%. Upon farrowing, lambs weigh 2.5-3.5 kg, and upon weaning they weigh 22.0-23.0 kg. Milk yield. Official control of milk production in Ratka sheep from the area has not been done for the last 30 years or so. It is only the breeders who measure milk yield when they take the sheep to the pasture. As for milk quality assessment, it was done very approximately since there is a wide variation of the milk yield from one animal to another. One of the breeders estimated having milked in 2009 about 2,000 l of sheep milk from 30 sheep without counting lamb

feeding. To note the length of the lactation period – until October – compared to the Tzurcana sheep whose lactation lasts only until August. Milked milk is processed entirely and turned into cheese (salted cheese). Valorising cheese is done on urban markets with no wrapping or labelling to attest the origin or the fact that it is a traditional produce.

Breeders exploit females until the age of 8, and males until they are 4-5 years old. They estimate that Ratka is preferred to Tzurcana sheep. It is easy to breed since it is kept in the open all day long. In Southern Banat, it grows well because the climate is milder, with Mediterranean influences. They are more affected by temperature: this is why they are kept in shadowy places while taken to the pasture, in summer.

Nutrition. They are easy to grow on the pastures in the area. These pastures are, in general, of mediocre

quality, because for years they have not been maintained, cleaned, fertilised, or seeded, and they are not divided into smaller plots. Until December, they are fed concentrated feeds to put some weight on before farrowing, when the udder prepares for the new lactation.

During summer, they are kept in enclosures on grazing areas, and during winter each breeder keeps them in sheds near their farmsteads in the village.

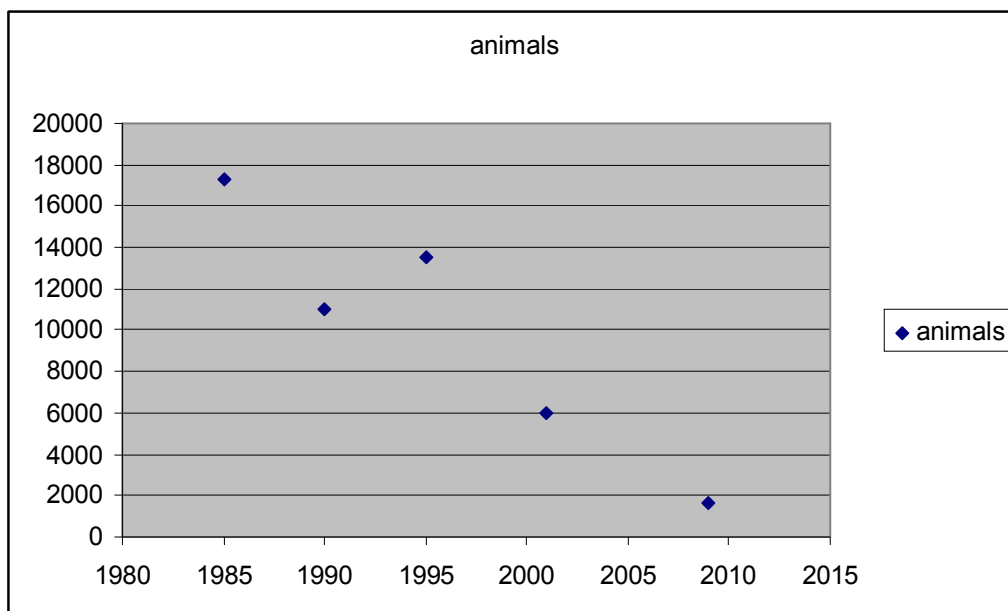
A feature of these sheep is the fact that the length of their fangs is higher than in the Tzurcana sheep. This is why they are damaged quicker and break more often.

The animals in the Tirnova and Hatzeg areas are larger and weigh more.

Curly haired sheep of Banat

These researches represent a way to identify an endangered population of sheep of Banat, similar to the Waldshaf breed. The evolution of the Curly haired sheep population has been registering a dramatic drop in numbers in the past years. A problem in identifying

this population is represented by the fact that some people confuse it with the metizos resulted from the cross breeding of the Tzurcana with the Ratka. The exterior of the Curly haired sheep population is, still, different from the one of the Tzurcana breed. The evolution of the Curly haired sheep of Banat is presented in Graph 2.



Graph 2. Evolution of the Curly haired sheep of Banat breed (1985 – 2009)

These sheep are encountered only in the Banat mountain area, the most obvious individuals being in the area of Cornereva-Bucosnita. The exterior is harmonious, with fine bones. The body is emaciated,

with elongated ears worn laterally. Only the males have snail-shaped horns. The legs are emaciated with strong hooves. The coat is with weak extension and is white or black in color. The amber is white or dark brown. The

temperament is lively. They are resistant to environmental conditions, being able to bear the variations of temperature, they are not picky concerning food and they also are resistant to diseases. Aside from rusticity, they are characterized by a good prolificacy of 134% and maternal instincts. They are usually exploited for milk, out of which various very good traditional products are made. This is also due to

the pastures with a very good floristic component. The obtained products from this population, which would have had all the qualities of being called a breed, are the same as those obtained from the Waldshaf of Austria and Cickta of Hungary breeds, as can be observed from Table 1.

Table 1. The Product of Different Sheep.

Specification	The Curly haired sheep of Banat	Waldshaf	Cickta
Wool production (kg)	1.5-2.3	1.4-2-7	1.5-2.5
Length of the lock (cm)	18-20.2	17-19	17-20
Wool finesse (microns)	38-43	39-46	37-45
Milk production after weaning of lambs (kg)	60-70	65-80	62-73

4. Conclusions

Research carried out on the two traditional sheep breeds in Banat - Ratka and Curly haired sheep of Banat – show that in the following 5 years they will disappear completely if we do not take measures. Thus, an irrecoverable genetic fund will be lost for ever. The small numbers of animals prevent breeders from selecting and diminishing consanguinity. To revigorate the two breeds from Banat, we should import biological material from similar breeds from other countries.

We need to take measures urgently to preserve them in vivo and not only through cryoconservation. Nobody is interested in a breed that only exists under frozen seminal material.

It is compulsory to harvest biological material to identify through DNA testing the origin of the breeds. To identify possible diseases or to determine kinship among sheep populations of the two breeds, we should use the Tipy-fix method

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