Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development
Vol. 13, Issue 3, 2013
PRINT ISSN 2284-7995, E-ISSN 2285-3952

VALACHIAN CORKSCREW HORNS SHEEP BREED ("RATSCA")- A HISTORICAL DOCUMENT

Condrea DRAGANESCU

University of Agricultural Sciences and Veterinary Medicine Bucharest, 59 Marasti, District 1, Bucharest, Romania, Phone: +403182564, Mobile Phone:+40730546054/Fax: +403182888, E-mail: condrag2002@yahoo.com

Corresponding author: condrag2002@yahoo.com

Abstract

Corkscrew horns Valachian sheep is a breed from the Early Egyptian (Ovis paleoegiptica) phileic group, located in Serbia, Montenegro, Panonia, and Romanian border with Serbia. The tribe was named by Buffon (1780), Darwin (1865) Valachian, by Serbs Corkscrew Horns Valachian (Valaska vitorogta), by Hungarian Racka (=Serbian), by Linnaeus O.a.strpsiceros. The translation of strepsiceros into German=Zackel (Nathusius 1890), produced a confusion with the Valachian philetic group descending from the Thrakian philetic group. To avoid confusion, we proposed (1994) to use for this philetic group the Serbian name Valachian Corkscrew Horns. It is a sedentary sheep, not adapted to transhumance and large flocks, it does not support wintering in open field, even to stay in the rain. It has a smaller weight of fine fibbers in the mixed wool, it seems that its black colour is recessive, reverse than in Valachia (Tsurcana) breeds. It is economically not competitive with other local and improved breeds and it is in danger of extinction in Serbia and even Romania and well conserved in Hungary. It was considered as a historical document (Dunka 1984) and perhaps it is. It is a proof for the former existence of a Valachian tribe in this area, implicit for the Valachian contribution to the ethno genesis of nations in this region. As an interesting genetic resource, but also for the aesthetic aspect of its horns and for some cultural reasons, it deserves to have a good genetic conservation programme.

Key words**:** *ethno genesis, historical document, Valachian Corkscrew horns sheep, Montenegro, Panonia, Romania, Serbia*

INTRODUCTION

The Valachian Corkscrew Horns sheep breeds, was first presented by Buffon (1780), after a description of Colinson, under the name Valchian ***("Brebis valachienne")***. Colinson noticed it in the former Yugoslavian space, being perhaps the sheep of some Valachs (Romanians).

Photo 1.The Valachian Corkscrew Horns sheep

Interesting by their spectacular horns, similar to the former antiques Egyptian sheep, the breed looked like in the photo presented on the web site (http://nelucraciun.wordpress.com/2012/10/14/un-brand-pierdut/) (Photo 1) and named Valachian by many 19-th centuries scientists, including Ch. Darwin (1865). Linnaeus named this breed ***Ovis aries strepsiceros***.
The Serbs denominate this breed Valalachian Corkscrew Horns (***"Valaska vitoroga"***). To avoid a confusion with others breeds named also Valachian, we recommended (1994), (in spite of Taxonomically reglementation who do not allow the change of name), the utilisation of the Serb name. The Hungarian name of the breed was ***"Racka"***, not noticing that that mean "Serbian"(Raks=Serb). The Romanian scientists accepted the Hungarian name "Ratska"), some scientist (Maior-1899), understanding that this means "Serbian". Cornevin (1890) presented the Corkscrew breed as "from Montenegro". Nathusius (1880) translated the Linnaeus strepsiceros into German and denominated the breed ***Zackel***,

and this name was extended to all the Valachian sheep breeds even they were not related to Corkscrew Horns Valachian.

From this introductory notes, it is obviously that in the Corkscrew horns Valachian breed denomination, even in its classification, identification as in the whole farm animals taxonomy, many errors persist having a negative economical and historic-cultural effect; it is a whole comedy of errors (Draganescu 1998). By studying the breeds from this part of Europe, and the Zoological Taxonomy, we proposed some improvement in the Farm Animal Taxonomy especially accepting some reglementations of Zoological Taxonomy.

We note that naturalists, such ***Buffon and Linnaeus,*** *established valid systems of identification, classification and nomenclature for the extraordinary diversity of plant and animal species, a common language for all biologists. Linnaeus tried also to put in order the kingdom of domestic animals. He utilized for the sheep breeds a binary denomination (O. aries: rustica, hispanica, anglica, policerata, africana, laticauda guinesis, strepsiceros).* ***The great diversity of domestic animals, the lack of clear and satisfactory criteria for classification*** *did not give Linnaeus and the 19th century scientists the possibility to solve the problem. Mason (1951, 1969, 1988, 1999) noticed the possibility of "the confusions which can arise by* ***some breeds having entirely different name in different parts of the world****". He considered the necessity of classification, but because "comparable information about all breeds was hard to be obtained", his "work has remained at the stage of dictionary". The breed inventory made by EAAP and FAO tried to clarify some problems but many taxonomic confusions persists.*

The objective of this paper was at first sight to illustrate and correct some taxonomical deficiencies connected with this breed (nomenclature, description classification). During the researches, also some interesting cultural aspects have appeared. Our research work considered the breed from all the four European locations and the valuable and good description made by Bodo for the Corkscrew horns breed from Hungary, and added just some modest remarks on this breed in Romania.

MATERIALS AND METHODS

The research started in years 1994 reading the Dunka Bela brochure, the Nathusius book and visiting the Hungarian Racka Sheep Hortobagyi Nemzeti Park reservation. Then continuing the documentation and paying visits and making studies on Corkscrew horn peasants' micro-farms in Romania (Banat -some 5 villages in Dogneci Mountainous area, near the Roman-Serb border), the author tried to see the breed in Serbia. At the Romanian Caransebes Experimental Station, it was established a small nucleus of this breed and there were presented the observations in some papers, most of them not published.

RESULTS AND DISCUSSIONS

I.Origin and classification

(1)**For the origin** of Valachian Corkscrew Horns sheep there are two suppositions.

(a).**The first supposition** resulted from the first name, given by Buffon and maintained practically by all scientists of the 18-th, 19-th even the 20-th century, starting with Colinson-Buffon, Darwin. This name pointed out that this sheep has been the sheep of some Valachian tribes. It is about the Romanians, the term of Valachs being the nickname given to Romanians after the change of the power and the language in Constantinople from Latin to Greek (in the year 641). The name given by the Serbs (Valaska vitoroga), by the Hungarians, German Romanians from Romania (Racka, Serbian) and by Cornevin (1890) pointed out that the breed owners, called Valachians, have been from the Serbo- Montenegro, the Panonian space. Most of the breed was brought there before the migration period, during the Romans era, from the Middle East. The Thrako-Geto-Dacs, the main ancestors of the Valachians had not such sheep.

The supposition is attested by Ryder and Stephenson (1968), quoted also by Vicovan (2006), who investigated the old origin of Corkscrew horns Valachian sheep and found

that there were two old sheep with such horns: (1).About 5000 years ago, the sheep lived in Mesopotamia (present Iran), of which just the rams had corkscrew horns;
(2).In the same period of time, in Egypt, there were corkscrew horned sheep in case of the both sexes. Ryder noted that the Valachian Corkscrew Horns sheep reminded of the Egyptian sheep, although there were some differences between them. The Egyptian sheep had loped ears, short wool and long feet.
(b).**The second supposition** was made and accepted by some Hungarian scientists. In Dunka's opinion (1984), the breed *"found its way into the Carpathian basin during the great migrations, arriving either with the conquering Hungarians or other people and tribes".* As an evidence for his supposition, he discussed about a similar Moldavian or Russian Racka, but such sheep did not exist there. Bela Dunka (1984) also indicated that "the breed is primarily indigenous to the Hungarian Plain." He was right, because Cavalli-Sforza (2001) suggested an old "local Romance-speaking population in that area" before the conquest and language imposition by the Magyar monarchy." And it was possible, but less probable, that the Romance speaking population had the Corkscrew Horns sheep.
Kukovics (2005) sustained Dunka's opinions, affirming that the Whit Racka had an "Asian origin, and arrived in Europe with the Hungarian people in the 9th century, according to most of the opinions " (p.210). For the Black Racka, he accepted however that just "several opinions arrived in Europe with the Hungarian people in the 9th century"(p 208). Perhaps the last affirmation was true. The thesis was used to re vindicate some territories. Not taking into consideration the scientific true, underlined by Sforza-2001, that Hungarians were genetically just 10 % Magyars, imposing their language to the former inhabitants of the Panonian Roman province, one could suppose that the Valachs, who came in Transilvania just in the 13th century, replaced the Magyar Racka with their Tsurcana and Tsigai sheep brought from the Balkan area. The last opinion, belonging to Kukovics and attested by the fact that at an exhibition in Utrech (in 1996), the breed was denominated by the Hungarians who exposed "Racka or Valache"(Photo 1), and noticed that it was of Romanian origin. We have to mention an additional aspect of this problem. Baltay (1994) stated that the breed was the most important breed in Hungary till the 17-th century, but Bokony mentioned that archaeologically, it appeared just in the 17-th century. As a curiosity, we note also that in 2000 edition of FAO WWL III the Valachian Corkscrew Horn (Serbian) was denominated "Zackel vitoroga".
Perhaps it will be useful from a taxonomical point of view, if in Romania and Hungary it will be adapted the Valachian Corkscrew Horns denomination and clarified the denomination in Montenegro-Kosovo and the NE Africa.
(2**)Classification.** Deduced from the presented considerations, the suggested phylogenetic classifications of the breeds from this phyletic group are presented in Fig.1.

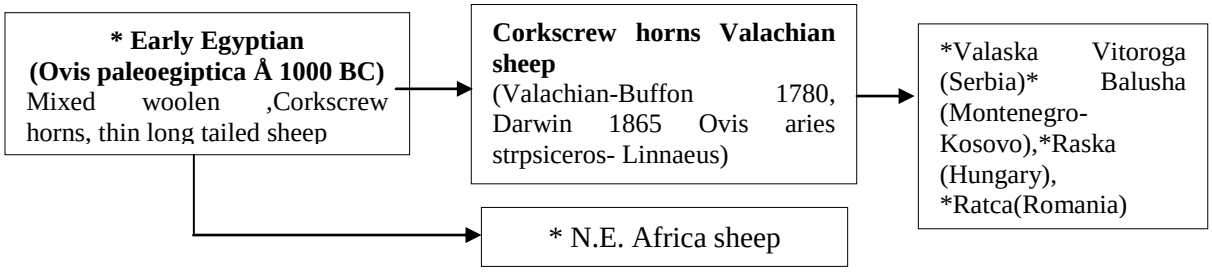

Fig.1.Suggested cladogram of Corkscrew horn Valachian sheep (Drăgănescu1998, Reader 1968)

(3)Classification error. Erroneously the breed was and still is included in the Zackel phyletic group, even the name Zackel is not used in any country for any breed. The explain of this situation is the following one: Nathusius (1880) made a history of identification and breed denomination. He translated the breed Linnaeus name-O. a.

strepticeros -into German, and named it "Zackel" referring to its straight horns (strepsiceros="prong"-Eng.="zackel"-Germ. as Mason deduced). Nathusius's innovation (1880) created the error: the denomination of all breeds named, even at present, Valachian (Valakhskaia, Valassky, Zoslachtena Valaska, Walachenschaf, Vlahikos, etc.) Zakel. It was possible that the error was determined by the fact that the term of "Zackel" used by the Germans from Romania, referred to the "mountain peasants", and the mountain peasants were the Valachians. As a result, all the Valachians' breeds were named "Zackel" by the German scientists, even though these breeds had their origin in the Thracko-Geto-Dacic sheep, introduced about 1000 years B.C. from Mesopotamia, not related with the corkscrew horns sheep. This error can be justified by the fact that the both groups of sheep had a greasy wool, confusion could be possible. Scientifically, the confusion can produce some elementary errors. The typical Valachian breed ("Tsurcana of Ghimes") is denominated "Gymes Racka", even though it has nothing in common with the corkscrew sheep which is not adapted to live in such an area (Gymes area).

II. Location and nombet of breed in Romania

In 1997, we noted the location of the breed in the **Romanian** Caras-Severin (Banat region) department, the Dognecea mountain area ("Carasana area"), about 20-50 km of the Romano-Serbian border, in 4 villages (Binis, Comorâşte, Forotic, and Doclin). There were 209 females and 18 males with clear known pure breed origin in 22 subsistence farms. Also, there were indicated 671 females and 28 rams with not clear origin in other 35 farms.

In 1999, in Romania, it was statistically confirmed a number of 2,058 sheep in all the areas. Vicovan (2006) estimated an effective size (Ne) of 160,1 animals, a critical situation of for breed in danger. From this area, the breed sample was exported in the 1960s' in Hungary.

In **Hungary**, the breed was well preserved, selected and presented (Bodo 1996).

In the period 2002-2003, the production live stock was represented by 1,300 black sheep and 10,000 white sheep. In 2005, the registered live stock was 2,400 white Racka sheep in 30 farms and 1,450 black Racka in 35 farms. The production system was a traditional extensive one (Kukovics).

The main production characteristics of the breed were the following ones: prolificacy 1.1-1.2; weight gain 220-240 g/day/ewe and 250-300 g/day/ ram; body weight at the age of 1 year: 30-34 kg for ewes and 42-46 kg for rams; body weight developed by adults: 40-44 kg for ewes, and 50-55 kg for rams (in the traditional extensive production system in ecofarms); greasy wool weight 2,0-3,0 kg/ewe, 24-32 microns fineness, 14-27 cm length.

It seems that, in **Serbia,** the breed disappeared or it is critical endangered (about 6 sheep in 1999 ?)

III.Some morpho-physiological features of the Valachian Corkscrew horns sheep

As now the breed is erroneously and frequently included in the Valachian sheep philetic group (" Zackel "), it is important to study the similarities and differences with it.

At a superficial observation, it seems that the only or the major difference between the Corkscrew horns Walachian sheep and the classical Walachian sheep ("Tsurcana"), erroneously named Zackel sheep, are the horns.

The differences are much more complicated indeed. The Corkscrew sheep is a sedentary sheep (not adapted to transhumance, and big flocks, requiring shelters (because it is not able to support wintering in the open field, even in the rain). One explanation of these differences between these philes is the smaller weight of fine fibres in the Corkscrew horns sheep, and as a consequence, less resistance to cold and even rains (Table 1)

The breed is used for milk, lamb meet and wool production. There are not too many research works on its production trait. A comparative study on Tsurcana breed (Saurer 1999) mentioned that the live weight of the Romanian Corkscrew horn sheep is 50.15 kg (Caransebes Tsurcana 46.43 kg–the difference is not significant), wool production 1.44 kg (Tsurcana 2.45 kg), washed wool proportion 75% (Tsurcana 68.2%), milk fat 6.4%

(Tsurcana 7.2%), milk protein 6.15% (Tsurcana 5.75%), wool length 28.2 cm (Tsurcana 26.4 cm), finesse 38.11 microns (Tsurcana 40.5 microns). This data are confirmed by some earlier research results(Table 2, Stefănescu 1956).

Breed	Fiber type		
	Fine (18-30 microns)	Medium (30-45 microns)	Coarse (45 microns)
Corkscrew horns	34.95	40.68	24.37
Tsurcana	55.02	24.36	16.62

Table 1.Percent of different wool fiber in Corksrew horns andTsurcana (Stefănescu *et al*.,1958)

Table 2. Wool and milk production of Corkscrew horns Valachian andTsurcana (Stefănescu *et al*., 1958)

Breed	Wool production			Milk production (kg)				Lactation (days)	
	No.ind.	Average (kg)	Limits (kg)	No.ind.	Average	Limits	% fat	Average	limits
Corkscrew Horns	20	1.8	1.5-3.9	22	134.13	23.84-269.29	7.05 (5.9-8.2)	161.12	138-177
Tsurcana	216	2.06	1.2-4	-	-	-	-	-	-

Photo 2. A ram, the Shepard and the researchers in the Romanian Dogneciu area

In Romania, there are not enough scientific research works on the morphological aspects of the breed. It is not yet clear, but it seems that in Corkscrew Valachian sheep the black color is recessive, reverse as Tsurcana breed (Valachian, Zackel). It seems that its conformation and development is not too different compared to the Hungarian Corkscrew sheep, frequently presented in literature (Bodo 1996), although the last one is bettered selected and more uniform in development and conformation. There are also differences regarding the position of the horns (just uniform straight V twisted horns in the Hungarian sheep, the Romanian one has also lateral straight horns) and the Hungarian is more uniformly coloured (white wool, reddish face and legs, or black wool, face and legs). More detailes connected to the morpho-productive characters of the breeds are presented in the questionnaires for the European Regional Focal Point for Animal Genetic Resources (Draganescu. Kukovics 2005)V.

IV.Production system, genetic management

Most of sheep from the Romanian breeding area belong to the subsistence farms, raising 1-20 ewes each. The sheep are pastured around the village, the owners being associated and organizing flocks of about 100 sheep; in the morning and in the evening, each owner uses to milk his sheep at home.

Generally, each owner uses to keep rams and in Romania, a classic community breeding system is applied meaning that flocks are the object of exchange between owners conveniently. However, there are some elite flocks, where the breeder produces rams, practicing some inbreeding.

Conservation. After the forced introduction of Tsurcana sheep in the co-operative farms (1950-1970), from the Corkscrew horns Valachian area, the owners noticed that the Tsurcana-the Romanian Valachian has some advantages. As a result, although the breed is still used for milk, lamb meet and wool production, it is in a critical danger of extinction like in Serbia. By tradition, some peasants still conserve it for a short period, but this is not a solution. Besides the

necessary scientific approach in the breed diagnosis and in the establishment of its genetic and cultural importance, a program of official preservation should be introduced. The Hungarian example and practice could be very useful.

CONLUSIONS

Corkscrew horns Valachian sheep is an important old sheep breed located in Serbia, Montenegro, Panonia, and the Romanian border with Serbia. It is a sedentary sheep, not adapted to transhumance and to large flocks, it is not able to support wintering in open field, and even to stay in the rain. It has a smaller weight of fine fibbers in the mixed wool, and its black colour seems to be recessive, reverse than in case of the Valachian (Tsurcana) breeds.

Corkscrew horns Valachian sheep is not competitive from an economic point of view with other local and improved breeds, it has to be considered a genetical resource of genes and a proof of the existence of the old populations and creation of the nations in this region. Also, it is in danger of extinction in Serbia and even in Romania, but it is well preserved in Hungary.

Corkscrew horns Valachian sheep is considered to be a historical document regarding the former existence of a Valachian tribe in this area, and for the Valachian contribution to the ethno genesis of the nations in this region. As an interesting genetic resource, but also for the aesthetic aspect of its horns and for some cultural reasons, Corkscrew horns Valachian sheep deserves to have a good genetic conservation programme.

REFERENCES

[1]Baconyi, S, 1974, History of domestic mammals in the Central and Eastern Europe, Akad Klado, Budapest
[2]Bodo, I., 1944, The Hungarian Racka, AGRI 13: 83-91
[3]Darwin, C., 1865, The variation of animals and plants under Domestication
[4]Draganescu, C., 1994, An attempt to a Phyletic classification of the Valachian and Tsigai breeds, Stocarstvo, 48:9-19:395-401
[5]Draganescu, C., 1995, Origin and relationship between the Valachian and the Tsigai breeds from the Danubian area. Stocarstvo, 49:9-10:321-327
[6]Drăgănescu, C., 1997, Note on the Corkscrew Horns Sheep Name, Dagene, International Symposium, Naples.EAAP Publication, 85:101-106
[7]Draganescu, C., 1998, The Buffon Valachian sheep. Book of abstracts, EAAP, The 49th meeting.S2.33
[8]Drăgănescu C, 1997, Sheep breeds from the Central, Eastern and Southern Europe-Points of reference in the history of the Romanians. Romanian Academy. Studies of Economic History.III. Academy Publishing House.
[9]Draganescu, C., 2001, An attempt to a phyletic classification of the Balkan Native Breeds, Tekirdag, Turkey
[10]Draganescu, C., 2003, Romanian strategy for the management of AnGR, Bucharest 9
[11]Draganescu, C., 2005, Corkscrew Horns Valachian Breed in: Possible way of conservation, RFP EURPE (Questionnaire)
[12]Dunka, B, 1984, a Maghyar Racka (The Hungarian Racka), Hortobagyi Nemzet Park, Debrecen, Hungary
[13]Kukovics, S, 2005, Hortobagyi Racka Black variant (pp.208-2009) and white variant (pp.210-211) in: Possible way of conservation, RFP EURPE (Questionnaire)
[13]Mason, I.L., 1988, World Dictionary of Livestock Breeds, CAB Int.
[15]Nathusius, H.V., 1890, Vortrage uber Schafzuct p. 396-398, 201.Berlin Wiegendt
[16]Rider, M.L.,Stephenson, S.K., 1968, Wool Growth. Acad. Press London. New York
[17]Sauer, I. *et al.*, 1999, Study of the morpho-productive parameters for the Ratca Breed
[18]Ştefănescu, C., Angelescu, L.,Taftă, V., Trifu, G. 1958, Experimental results on G2 Merinos xTsurcana Crossbreds (White and Ratsca varieties), Annals of Institute for Zootehnical Research, XV:298-319
[19]Teodoreanu, N., Derlogea, V., Stefănescu, C. 1952, Research on wool characteristics of the G1 Merinos xTsurcana crossbreds, Ratsca variety, Com.Acad.II:7-8
[20]Vicovan, G., Vicovan, A., Radu, R. 2006, The Corkscrew Horns Valachian Breed, in: Evalution of risk status, Europolis Publishing House, Constanta, 99-104
[21]FAO WWL III Ed.,2000
[22]Draganescu, C., 2004, The Valachian Corkscrew Horns Sheep Breed (Ratsca), The 33rd Session of International Scientific Communications, University of Agricultural Sciences and Veterinary Medicine Bucharest, 25-26 November, 2004
[23] Draganescu, C., 2005, The Valachian Corkscrew Horns Sheep Breed (Ratsca)-a new approach, Scientific Papers Animal Science, Series D, vol. XLVIII:11-16/2005
[24]http://nelucraciun.wordpress.com/2012/10/14/un-brand-pierdut