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An attempt for standardising Greek goat breeds

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General information

In Greece today more than 5.000.000 goats are bred. The majority of this assembly are bred for the production of milk and meat. A small percentage of goats mostly those which live in the islands are not milked or they are milked only for few days for the making of the cheese only for the family needs. These goats are only bred for the production of their meats. Another small percentage of goats, which lives in the islands and mainly in the rocky area of the islands, live in semi-wild condition. Those animals are caught by the primitive method only when they are to be taken for slaughtering.

Another very small percentage which consists of high production goats is bred by intensive system of feeding in well established stalls, providing fodder, condensed food and silages. The rest of the goats are bred by the traditional methods. According to the traditional methods, the goats graze mostly in the bushy pasturelands that are numerous in our country. Beside, the goats receive small amount of seeds and fodder that is given to them during the period of winter as well as the dry period of summer which happens to be the same period of the matings. Their stalls in their majority are made of simple materials.

The produced milk in its total is processed to become cheese of various types. The various type of cheese that differ from place to place are made in some cases of goats milk or of mixed milk (goats and sheep milk mixed together in different proportions)

The known Greek goat breeds

Vlahiki

According to the previous old bibliography in our country only one goats type is bred which is known as "local" or "Vlahiki". This type is bred in the most mountain areas of the mainland and the islands. It is considered to be the offspring of the wild goats named "Capra Prisca" and as it seems it has not changed for hundred of years.

It is a rather small goat with various hair colours. Its hair is of medium size and in the old times, the shepherds used it to make special blankets (tragotsiola) that were used as bed covers. Its horn are sword shaped and parallel to each other. They turn slightly backwards and come down to the neck of the animal. Its ears are of medium size horizontal and sometimes hanged down. Most of these animals do not have a goatee. All of them have small legs obviously to help them in their climbing. Their udder in most of animals is tightly attached to the abdominal muscles.

The body measurements have shown the following data:

Body weight	46,8 kilos
Height of the shoulder	62,5 cm
Body length	61,1 cm
Perimeter of the chest	83,6 cm
Horn Length	30,3 cm

The average productions of this family are considered to be rather low. It produces 90-100 liters of milk per period and 1.1-1.2 kids per delivery. In those flocks individual goats of higher production can also be found. In the flocks that are fed properly the production is higher.

It is believed that 2,000,000 goats of that race are bred today in unmixed flocks in our country. A high number of goats of that race has been mixed with other foreign races such as Maltas, Zaannen, Toggenburgs, Alpine, Damascus and so on.

Skopelos

In the beginning of 1980s' the center of genetically developments of animals (K.G.B.Z) Karditsas in co-operation with the Administration of Agriculture of Magnesia has come to the conclusion that in the islands of North Sporades (Skopelos and Alonisos) there is a race called "Skopelou". This race differs from the "Vlahiki" race in many ways. It is without any doubt the most important goat race in our country.

Although it has got the biggest body weight when compared to the other Greek races it is considered to be goat of medium size when compared to the known foreign races that have come to the Greece. It is an offspring of C.Prisca like all the Greek races. Its hair is of very small length, it is smooth and shiny and it is of red-brown colour. Many of these goats have got big white dots on their sides and in other parts of the body too. The colour of whole flock gives a pleasant picture. Its horns are carved slightly, they are spiral and almost upright. Its ears are of medium size lateral or standing. Most of the animals have no goatee. Their udders are well made and well attached to the abdominal muscles.

The body measurements are:

Body weight	74 kilos
Height of the shoulder	71,5 cm
Body length	74,6 cm
Perimeter of the chest	94,6 cm
Horn Length	31,8 cm

The average milk production is considered to be high for the Greek standards. From previous data it can be seen that 2,500 controlled goats whom food intake was not very good, gave an average milk production of 241 liters in 174 days that they were milked. The milk contained fat in a percentage that reached as high as 5% which is considered to be high for this type of animals. They also gave 1,37 kids per delivery. The best flock produced 470 liters of milk and the best goat of this flock gave 946 liters of milk in its fourth period of milk production. Today approximately 8000 goats of that race are bred, 4000 of which are bred in the islands of N. Sporades and the rest of the mountain areas of the mainland of Magnesia especially in the Northern part of the Pilio mountain. Bucks are widely used in many flocks of the country in order to be updated

Karystos

In the end of the 1990s a research was conducted by the laboratory of the University of Agriculture of Athens by E.U. subsidies. According to this, it was found that, in S. Evia, particularly in the area of Karistos, a special goat is bred by 120-150 breeders. This race which reaches up to 35000 animals has different features from the 'Vlahiki' race. This race, which is known as the "goat of Karistos" is relatively small in size and appears to have the same colours. Almost all the animals of this race have smooth hair of short length and black colour on most parts of their bodies. The colour of the hair is red-brown in the chest or the abdominal area. The horns are spiral, while the left one turns to the right, viewing it from the body side of the animal and it is relatively big in size. The horns are situated in that way so that they make an angle of 45 degrees. The ears are of medium size, horizontal or almost upright. The udder is small and tightly attached to the abdominal muscles. It is a strong animal and does not get sick easily.

The body measurements are:

Body weight	41 kilos
Height of the shoulder	63,4 cm
Body length	58,2 cm
Perimeter of the chest	79,9 cm
Horn Length	31,8 cm

It is an animal of small production. It produces 60-80 liters of milk per period and 1,3-1,4 kids per delivery. Its products are of high quality. With the right education of the breeders these animals can easily become biological.

The results of the research

The fact that, during the last 20 years, only two races of goats bred in our country were found to be indigenous (Skopelos and Karistos) shows that the genetic material of the goats was not studied enough. This was the motive for further research which covers all the goat races, so that more indigenous races to be found. The starting point was the Treaty of 19 August 04 "Monitoring Institute" and the Dimos and Pappas team so that 3+3 trips were made in Greece for the studying of the goat races.

The trips that were made together with Mr Dimos in all parts of Greece, years before, showed that in some parts of Greece there were goat races whom the features were different from the already known races. The present study has given us the chance to organize visits in those areas and to research on the possibilities of whether there are still unknown indigenous races. We have made 3 trips:

- 1) In the areas of Sterea Ellada and particularly in South Fthiotida, Fokida and Viotia in order to study two goat races which are mentioned shortly as the type of the "Vlahiki" race in the old bibliography.

When we were studying the sheep races we had doubts whether the goats were of the “Vlahiki” race or not so we decided to study them further.

2) In the Ionian islands (Kefallinia, Lefkada and Ithaki). During the same period (when we were studying the sheep of Kefallinia) we realized again that the goats of Kefallinia had different features from those of the “Vlahiki” race. We decided that we had to study them further.

3) In the islands of the Aegean Sea (Ikaria, Fourni and Thimena). In Ikaria, during our research of the sheep of Efdilo we spotted a flock of goats which was of small size and had small ears. The goat breeders of the area informed us that these type of animals existed in the nearby islands as well (Fourni and Thimena). In that case we had to see them again.

“Barbatsiki”

In the first of the three trips we had the chance to visit goat units in the areas of Distomo Viotias, Antikira, Monastiri Ioannou Prodromou, Itea, Chrisi, Delfi, Arahova, Martino and so on.

After we discussed with Agriculture Engineers of the Administration of the Agriculture Development in Livadia we concluded the followings:

a) In the mountain areas of South Fthiotida, Fokida and Viotia a race of more than 50 000 animals is bred by 150 goat breeders. This race has got special external features. The breeders named this goat ‘Barbatsiki’. The word is of Italian origin and can be translated into Greek as “bearded”. It took its name from the big goatee most of the animals have. Some of the breeders call it Orthokerati or Orthokrouta. These names came from the standing horns all the animals have.

It is a relatively big animal for the Greek standards. The colours of the hair vary. The hair is short and smooth. The ears are of medium size and rather horizontal. The horns are very big, they have small width, and they are upright and slightly spiral. The left horn from the body side of the animal turns to the right. The position of the horns create an angle that can either be acute, right or obtuse. The udder is tightly attached to the abdominal muscles.

The body measurements have shown the followings:

Body weight	46,9 kilos
Height of the shoulder	68,8 cm
Body length	66,1 cm
Perimeter of the chest	82,5 cm
Horn Length	38,4 cm

It is an animal of low production it produces an average of 60-80 litres of milk per period and 1,3-1,4 kids per delivery. The milk is of high quality and contains a high amount of fat.

“Oulokeratiki”

b) In Martino, a village in South Fthiotida, goats are bred with different features of the known goat races. Two of those flocks which number 800 animals in total, are goats similar to each other but different from the known flocks. To our opinion these goats belong to a separate race. These goats can be founding mixed flocks of the neighbour villages of the nearby Martino areas.

This goat is close to extinction and is worth every attempt for its rescue, because it has got amazing features. Its appearance may even be of tourist interest. Because of its horns the breeders call it “Oulokeratiki”. This race seems to be related to “Barbatsiki”.

It is of medium height. Its hair which is short and smooth, vary in colour and it is mostly dark. Its ears are of medium size. Almost all the animals have got goatee. Its legs are short and strong and this animal can climb easily to the difficult mountain areas. Its body is rather fat and cylindrical. Its udder is symmetrical and tightly attached to the abdominal muscles. Its unique feature is its horns that are wide and in most animals form two circles in spiral form that cover the forehead of the animal. Animals with different shape of horns can be found as well. In general, it is a strong animal.

The body measurements have shown the followings:

Body weight	45,3 kilos
Height of the shoulder	65,6 cm
Body length	64,9 cm
Perimeter of the chest	86,2 cm

It is an animal of low production that produces an average of 60-70 litres of milk per period and 1,2-1,3 kids per delivery.

“Kefallonia”

In our second trip we had the chance to visit the islands of the Ionian sea, Lefkada and Kefallinia. Over there we walked in the mountain areas and we met several flocks of goats. All of them live in very simple constructions and are fed mostly with bushes. As far as the genetic material is concerned our conclusions on that are outlined below:

In Lefkada most of the flocks belong to the “Vlahiki” race although there are flocks that have received the blood of ducks of foreign races.

In Kefallonia, the situation is different. There, we met unmixed flocks of a unique to our understanding flock race. This could be named “Kefallonia” race. From information that we gathered from breeders, it seems that in Kefallonia more than 10000 goats of this race are bred. It is a goat of medium size and relatively short fur of various colours.

The dark colour is more prominent. The horns are almost upright slightly spiral and the two of them create a right angle. Its ears are of medium size and upright, positioned on the side and they are hanged. It does not have a goatee. Its legs are short and small. The udder is well attached to the abdominal muscles.

The body measurements have shown the followings:

Body weight	41,1 kilos
Height of the shoulder	69,1 cm
Body length	68,3 cm
Perimeter of the chest	78,4 cm
Length of horns	25,0 cm
Length of ears	12,1 cm

It is an animal with high capabilities. In 600 goats which live in traditional stall conditions, graze in bushy pasturelands and are given satisfied quantities of condensed food, the average milk production in each milk period was more than 150 liters of milk. It also gave 1,3-1,4 kids per delivery.

Many of the goats were not milked for a considerable period of time. They were milked only a month after their young ones stopped receiving milk from their mothers and that was during the Easter period. In this period the average milk produced was no more than 30 liters.

“Ikaria”

During our third trip we had the chance to visit the islands of the Aegean Sea (Ikaria, Furni, Thimena). Over there we noticed that there were not any stalls at all, not even the traditional ones. All the goats graze freely in rich bushy pasturelands all year round and sleep in the countryside. The biggest percentage of goats is controlled and led by the flock owners. They feed the animals with extra food: with maize and fodder during the winter when the suckling also takes place. They milk their flocks after suckling stops for producing the family cheese. Some of the goats live, however, in a semi-wild condition in isolated places in nearby rocky islands and cannot be controlled by their owners. These goats are caught by the use of primitive methods in order to take them for slaughtering or to vaccinate them. This happens in all three islands we visited. In general the flocks are kept for re-production purposes because their meat is of very high quality.

The total number of the goats in the three islands together is approximately 25000. Their external features show that these goats belong to a unique race. However, it is obvious that bucks of the “Vlahiki” race entered from the nearby islands and influenced that genetic material. Nevertheless, we found goats in Ikaria and Thimena that did not receive strange blood.

The goats of that race that we can call “Ikaria” are very small in size. Their fur is of medium size and vary in colour. Their ears are in their majority very small in some cases do not exist at all and in some other they are medium. Their horns are sword like and

smaller in size as compared to the horns of other goat races. They are almost upright and spiral in the end. Some animals do not have horns at all. All the animals have got goatee. The udder is small and well attached to the abdominal muscles.

The body measurements have shown the followings

Body weight	29,5 kilos
Height of the shoulder	61,6 cm
Body length	64,7 cm
Perimeter of the chest	73,8 cm
Length of horns	24,6 cm
Length of ears	6,6 cm

Conclusions:

Few years ago the scientists of the University of Agriculture in Athens, examined the products of the genes in the blood of "Vlahiki", "Skopelou", and "Karistou" races and found important differences. The "Barbatsiki", "Oulokeratiki", "Kefallinias", and "Ikarias" races whose external features are obvious have to be examined genetically so that we can see if they are really separate races or they are clones of the "Vlahiki" or some other Greek or foreign race.

Our personal estimation from what we saw and understood during our travelling and research of the indigenous sheep races is that in different parts of our country particularly in the islands there are flocks which have external features different from the already known races. These flocks have to be studied so that their genetic material to be ascertained.

Trikala 20-04-2005

Pappas Vasilios G.
Agriculture Engineer
Zoo Technician

=> Remarks of the appointing party:

These interesting results of a first part of investigations for standardising Greek goat breeds will be discussed at the Workshop "Rare livestock breeds in Greece" in Athens at July 1-2, 2005. There will be decided if the investigations should go on and how.

St. Gallen, May 27, 2005
Hans-Peter Grunenfelder



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Legend of pictures:

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|--------------|----------------|--------------|
| 1 Skopelos | 4 Karystos | 7 Kefallonia |
| 2 Vlahiki | 5 Oulokeratiki | 8 Ikaria |
| 3 Barbatsiki | 6 Oulokeratiki | |

Greek goat breeds, overview

<i>Breed</i>	<i>Body Weight Kg</i>	<i>Shoul-der Height cm</i>	<i>Body Length cm</i>	<i>Perime-ter of chest cm</i>	<i>Length of horns cm</i>	<i>Milk per year lt</i>	<i>Goatee yes/no</i>	<i>Popula-tion approx.</i>	<i>Remarks</i>
Vlahiki	46,8	62,5	61,1	83,6	30,3	90-100	no	2'000'000	
Skopelos	74	71,5	74,6	94,6	31,8	241	no	8'000	
Karystos	41	63,4	58,2	79,7	31,8	60-80		35'000	from Markhor?
Barbatsiki	46,9	68,8	66,1	82,5	38,4	60-80	yes	50'000	
Oulokeratiki	45,3	65,6	64,9	86,2		60-70	yes	800	endan-gered
Kefallonia	41,1	69,1	68,3	78,4	25,0	150	no	10'000	
Ikaria	29,5	61,6	64,7	73,8	24,6		yes	25'000	