

## AVRA, BIODIVERSITY UNDER THE METEORA

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[GADDINI Andrea, KARETSOS Sotiris (2020) Avra, biodiversità sotto le Meteore. *Eurocarni*, 2: 90-95]

<http://www.pubblicitaitalia.com/eurocarni/2020/2/18227.html>

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By the town of Avra, near Trikala, in the Greek region of Thessaly, a farm has been established for over thirty years with the main purpose of safeguarding the local livestock breeds at risk of extinction.

The farm is that of Dimitrios Dimos, a native of Avra, who initially chose to devote himself to the Katerini cattle breed, saving in extremis the last specimens that were going to the slaughter in 1985, and then extended his work to other native Greek breeds of sheep, goats, pigs, horses and buffaloes.

The farm is near Meteora, the suggestive rocky sandstone peaks that host Orthodox monastic communities for centuries. In 1988 the Meteora were recognized by UNESCO as a World Heritage Site.

Avra farm is constantly visited by teachers and students from Greek universities and schools and foreign research institutes and by enthusiasts interested in learning about local breeds and their many-thousand-year-old history. Dimos frequently delivers passionate lectures on the history of Greek breeds around Greece and also abroad, quoting the references of ancient authors and the archaeological finds exhibited in several museums of the world, which testify to the very ancient origin of these breeds.

The meat of Dimos livestock, produced according to the rules of organic farming, is sold by him personally to butchers and restaurants, especially in Athens, which is about 350 km from Avra, at prices significantly higher than those of more commercial breeds, which is a proof of consumers' preference for these products. The market success of Dimos products is also able to guarantee the economic viability of the farm.

The belonging of Dimos to the organic farming network is clear from the visit of the farm, which has large grazing areas and shows a marked lack of aggressiveness among the animals both inside the species and between different species, that appear to share all spaces without apparent angst. The good level of animal well-being is also witnessed by the very limited presence of injuries, mutilations and scars on bred animals.

### Cattle

The **Katerini** beef cattle breed is the one from which Dimos breeder's career began. It originates from the town of the same name in Central Macedonia (Pieria regional unit), where currently it is no longer reared. It can be found in three farms in Thessaly, of which Dimos farm is the most important. (see *Gaddini A., Le Grigie greche della steppa, in Eurocarni n. 11/2018, pag. 136*)

The animals bred in Avra have a grey coat, which appears lighter than in other populations, and are very similar phenotypically to those of Podolian of Sila (Calabria, Italy), as well as those of the Bulgarian Grey breed (*Gaddini A., La Grigia bulgara, in Eurocarni n. 3/2019, pag. 120*).

Likewise in all grey Podolian or Steppe breeds, calves at birth have a fawn coat, which in this population also show black streaks on the face, and turn into grey around the weaning period.

Dimos currently (October 2019) breeds 236 total heads, including 217 females and 19 males, of which 9 bulls, which are subject to rotation every 2 years.

The Katerini heads of Dimos are considered very adherent to the breed standard. The bullocks are slaughtered at the age of 10-14 months, with a live weight of 120-130 kg, which does not vary much between males and females of the same age.

These cattle have a long life, as often happens in the Grey steppe or Podolian breeds, and the can calve without assistance even beyond 20 years of age. In the farm a 25-year-old cow, named Mega, is reared, no longer assigned to calving, but left to rest at the end of her productive lifespan, being in excellent health.

The cows also have a strong maternal attitude, with a marked protection instinct towards their calf, even against wolves and foxes, which live on the mountains of the area. As in other rustic cattle breeds, in case of danger the adults arrange themselves in a circle protecting the calves, which by instinct take place in the center.

Katerini breed has a small size, with average withers height of 123 cm for males and 113 for females, while the average live weight is 375 kg for bulls and 280 kg for cows. Other evident traits of Katerini are lyre-shaped horns and wide dewlap.

### **Sheep**

In the farm 27 sheep of **Sarakatsaniko** breed are reared, 25 ewes and 2 rams, with a prevailing dairy purpose, with an open black fleece. The breed is considered at risk of extinction, with a census in Greece of about 1,500 animals. The breed takes its name from the Sarakatsani, a historical population of shepherds in perennial transhumance in the Balkan peninsula, but mainly present in Greece, which also gave its name to the Bulgarian shepherd dog Karakachan.

In Avra farm also 12 sheep (10 ewes and 2 rams) of **Kalarrytiko** breed are reared, with a white open fleece, and red head with white blaze, very similar, and probably related to Sicilian Comisana sheep.

Even this breed takes its name from a population, the Kalarrytes, originating from the Epirus village of the same name, at the foot of Pindus mountain range, which runs Greece from north to south. The Kalarrytes were known for their skill as goldsmiths, as well as tailors, traders and livestock breeders. In Kalarrytes Sotiris Voulgaris was born in 1857 who, emigrated to Rome and founded in 1884 the famous Bulgari jewelery house.

Dimitrios Dimos also breeds **Karagouniko** breed, typical of Thessaly, not in danger of extinction.

### **Goats**

In Avra 22 heads, 20 females and 2 males, of **Oulokeratika** (literally "curled horns") are reared. This Greek goat breed is in danger of extinction; it shows a white and black speckled coat, with black upper parts and peculiar compressed spiral-shaped or corkscrew-shaped horns.

**Skopelos** breed can also be found, from the island of the same name of northern Sporades archipelago, with a red coat and a white band around the middle, whose total population is around 10,000 head.

The **Agios Nikanora** goat breed, with entirely red coat, whose total census is under a thousand heads, takes its name from the monastery of Western Macedonia, near Kozani, and is present with 11 heads, of which 10 females and 1 male. In Avra farm also a group of 25 females and 2 males of **Karystos** goats is reared, originating from the town of the same name in the south of Evia island, where some thousands heads can be found.

### **Horses**

Several heads of the two main horse breeds of Greece are reared, the **Pindus**, a mountain horse originating from the mountain range of the same name, present in Greece with 5,629 heads

registered in the herd book, increasing thanks to funding from native breeds protection program. In addition, thirty heads of **Thessalian** horse are reared, which is traditionally considered the breed chosen by Alexander the Great for his army, and to which Bucephalus, his favorite horse, belonged.

The Thessalian horse has a census of 1,048 animals registered in the herd book, bred only in Thessaly, which is the only region to pay contributions for the specimens of this breed. In addition, thirty **Skiros** horses, a breed of ponies native to the island of the northern Sporades archipelago, are bred in the farm. Just 207 animals of this breed are registered in the herd book, half of them on the island of origin.

## **Pigs**

In the farm several heads of **Greek pig** can be found, a native black breed reared in a few areas of the country and put at risk by the practice of crossing animals with breeders of more productive foreign black breeds. The coat is bluish-black even in piglets. The pigs are raised on pasture in a large oak forest, and have separate areas with huts for giving birth and feeding for the sows.

This type of breeding is definitely respectful of animal welfare, but it exposes the animals to possible contact with wild boars living in the surrounding mountains, with consequent possible unwanted crossbreeding and risk of infection from even serious diseases, such as African swine fever (ASF).

To avoid infection, a triple row of fencing nets was installed. However the current population of 150 sows and 15 boars is healthy and genetically well defined, thanks to the effective selection action on a phenotypic basis practiced in the farm.

## **Water buffaloes**

Dimos also raises some heads of Greek buffalo, derived from Murrah, bred for milk production, as in a few other areas of northern Greece.

## **Contacts**

For information and possible visits you can contact (in English) dr. Efthimios Avgeris at the e-mail address: avgerisefthimios@gmail.com.

## **Acknowledgments:**

*Thanks to Dr. Dimitrios Dimos for his friendly hospitality and to Dr. Efthimios Avgeris of the Az. Ark Dimos of Avra for the precious collaboration.*

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## **The man who saved the Katerini. Interview to Dimitrios Dimos**

*by Andrea Gaddini*

Dimitrios Dimos' fame has crossed national borders for his work to save the Greek livestock breeds at risk of extinction, which began in 1985 and is still ongoing, aimed not only at the breeds of his region, Thessaly, but at those throughout Greece, and extended to many other mammalian zootechnical species.

I met Dimos in Avra, while he was leaving for a national animal husbandry congress.

### **How did your passion for native breeds arise?**

Actually I studied economics, but my grandfather lived in Thessaly free from the Ottoman occupation, he reared livestock and became the biggest breeder in the Kalambaka area, and I inherited the passion from him.

### **How did you start your activity as a breeder of these breeds?**

Thirty-four years ago I realized that these animals had good breeding traits in our area, compared to those that came from abroad, and I thought it was a good thing to exploit these qualities. Katerini breed was endangered of extinction, only two small herds remained, and they were on the point to be sent to the slaughterhouse. I bought one and advised the breeder Nikolaos Tsantouris on the Goura plateau to buy the other, and from there my activity as a breeder of native breeds started.

### **So can you say that you can take credit for saving the Katerini race from extinction?**

Slow Food in 2002 awarded me with the Prize dedicated to the protection of Biodiversity with this motivation, and in 2003 "Slowark", the Slow Food bulletin described my work in an article.

### **How do native Greek breeds react to climate change?**

I give just one example, the great drought we had in Greece in summer 2019, which lasted until the beginning of October, gave much less problems to our animals than to Holstein or Limousine cattle of other farmers in the region. Moreover, our animals receive only minimal additions to cereals, with a lower production cost, and they return quickly after a weight loss, thanks to their excellent compensatory growth. They live outdoors even in winter, with only shelters for the night, and require very little use of medicines and pesticides, since they are more resistant to diseases and parasites. Finally, the Katerini cows are capable of defending themselves and their calves from wolves and foxes living in the area.

### **Has your work aroused interest in scientific research?**

I have been attending all Greek zootechnical congresses for thirty-six years and I am a member of the scientific associations of the sector. I also provided the meat from my farm for scientific research in Greece, but also for that of the University of Bari, of Despina Karatosidi and other authors, which compared the quality of the Katerini breed meat with that of the Italian Podolica breed of a farm of Rignano Garganico, in the province of Foggia.

### **The products of your farm are highly sought after by Greek consumers, who are disposed to pay them much more than ordinary ones. What are their motivations?**

At the moment Greek consumers are interested above all in the taste of the meat of native breeds, which is undoubtedly more intense and likable than that of standard meat from intensive farming, andgad@tiscali.it

Unfortunately, there is still no knowledge and interest in the historical value of these animals, and therefore on the need to save them, nor a full awareness of the low impact of their breeding on the environment.

### **So is the trend contrary to the one you practiced?**

Despite everything it is important to increase our breeds. Today, Greece produces only 8% of the beef it consumes, and 23% of the pork. Yet since the 1950s, many efforts have been made to improve the livestock population, importing animals from abroad, and to have large productions, but in the end we have come to a low domestic production and a high import. The only way to reduce the deficit is to exploit animals adapted to our environment.

### **What is the historical importance of the Greek native breeds?**

These animals date back 4,000 years, they are mentioned by Homer in the Odyssey, by Herodotus, by Hesiod, and are part of the history of our country. In Iraklion museum, in Crete a bull's head vase from Knossos is exhibited, with characteristic lyre-shaped horns, with a black coat and white edge around the muzzle, dating back to the sixteenth century BC, which recalls the appearance of today's bulls of Katerini breed. Furthermore Alexander the Great chose horses for his army from those of Thessaly, our region, the same horses I rear.

### **Do the European Union and the Greek state do enough for native breeds?**

I have been dealing with endangered breeds for 15 years before the European Union began to do so. In reality, European and national authorities are moving in the opposite direction to what they should take and do the opposite of what should be done.

I myself collaborated as a partner of the group of university professors who drew up the list of Greek native breeds, to be considered for protection interventions. I went around at my own expense throughout Greece to identify local races, but the institutions were not so careful.

### **What is your main concern today?**

The greatest risk of extinction is for the Greek black pig, a very frugal and resistant breed, which however cannot compete with the productivity of commercial hybrids. I rear several animals, 150 sows and 19 boars, but we breeders are few, and I am also worried about the presence of wild boar in the area, both for accidental crossbreeding and to their possible role in the contagion of African swine fever.

**Thanks Dimitrios Dimos and have a nice journey.**

### **Acknowledgments**

Thanks to Efthimios Avgeris and Sotiris Karetzos for their collaboration in the translation of answers and replies.