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STUDY REGARDING MORPHO-PRODUCTIVE TRAITS IN TELEORMAN'S BLACK HEAD SHEEP IN THE SOUTH EASTERN REGION OF ROMANIA

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Abstract

Current trends for sheep breeders are in a close relation with the european or national financial support. In this case,this species deserve all this support on the characteristic market. In this study we try to put in a better light the performances of an autohtone sheep breed, Teleorman's Black Head sheep, analyzing the body mesurements. We analized all this performances as an average, because only in this way we can have a correct view of population. Ram's body weight was 87.8 ±1.98 kg with an CV%=9.57. Females body weight, in average, was 69.15 ± 0.19 kg with an CV%=5.62. The average performances for wither's height was 72.66±0.59 cm. Croup's height was 74.13±0.47 cm, and average performance for body length was recorded at 82.66±0.62cm. Thoracic perimether was 104.76±0.64 cm, and cannon bone perimeter 8.34±0.06 cm. Chest width had an average performance at 25.24±0.18 cm, and the croup's width at hips was 25.78±0.31 cm The head length was 28.7±0.19 cm, and the head width 17.32±0.10 cm. All this calculated values reveal us an hypermetric conformation with tendencies for brevimorphism.

Key words*: Teleorman's Black Head sheep, milk production, quality, body dimensions.*

INTRODUCTION

The world's sheep population is obviously held by the largest states such as China with over 162 million heads, India with over 75 million head, Australia 67 million head, Sudan 53 million head (Chifres cles ovins 2016, 2017). There is a worldwide trend to increase the sheep population in comparation with the European downward trend recorded after the 1990s with different trends across states.

These trends are based on global and regional market requirements, with some particularities, depending on some general factors such as environmental pollution but also regional restrictive specifics such as sanitation, type of product and its commercial role and type of exploitation, aspects that can make an extensive subject of analysis in the sheep trade but also sheep production.

World sheep meat production has an upward of approx. 1% per annum, especially in Europe and America. In 2016 it exceeded 316 thousand cwe., being bigger in the major producing states such as China and Australia (holding the current world top), as a global vision for 2026 (Perspectives OCDE et FAO, 2017 – 2026).

According to Eurostat (Figure 1) the European sheep flock is owned by; Great Britain (27%), Spain (19%), Romania (12%), followed by Greece (10%), Italy (9%), France (8%), Ireland (4%), Bulgaria (2%), Portugal (2%) and the rest of the countries (4%).

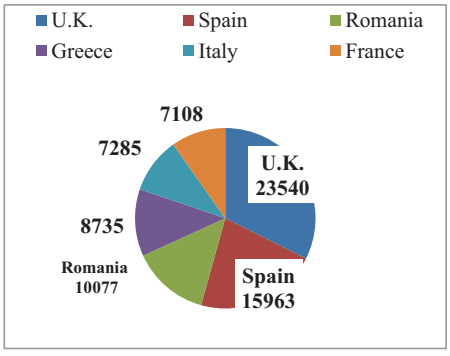

Figure 1. Top six country of sheeps number in EU 28

Considering the competition for milk production between dairy species, meat as a product has become the most important sheep product. In this context, the economic value of sheep meat production is somewhat different; Great Britain with 1,813.46 ths. €, Spain 1099 thousand. €, France 855 thousand €, Greece 642 thousand €, Norway, Ireland and Romania with 215 thousand € (with an annual increasing trend of 0.6% - Eurostat, 2016).
It is considered to be a reinvigoration in sheep breeding, and also a cause for increasing the stock, mainly due to the common and local agricultural policies (Figure 2).

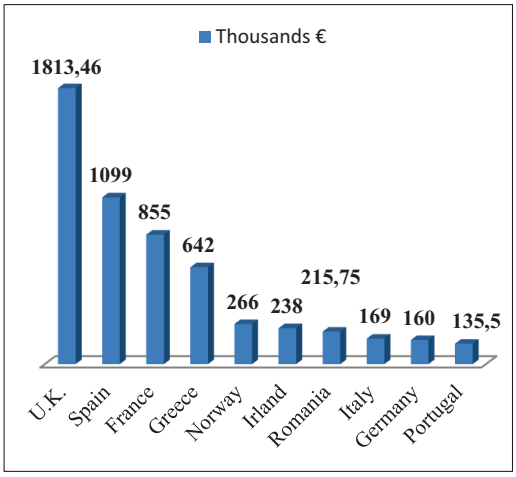

Figure 2. The economic value of sheep and goat meat production in the top 10 EU

In this new condition it seems to be a good opportunity for rustic and mixed breeds, exploited under extensive conditions, such as Teleorman's Black Head Sheep (Draganescu, 1999).

MATERIALS AND METHODS

The biological material was represented by a flock of Teleorman's Black Head Sheep exploited in a farm from Braila County.
The first determination was focused on prolificacy, weight of sheep and rams, average daily gain in lamb and lactation control, respectively the chemical composition of the milk.
Body measurements were performed with the help of specific instrumentation and it was calculated the body indexes.

RESULTS AND DISCUSSIONS

Recorded values, of somatometric measurements, allowed the determination of corporal indexes, in order to confirm the orientation of the population for a particular production. The average body weight was: rams – 87.8 ± 1.98 kg, with a CV% = 9.57%, (min = 72 kg., max = 103 kg), sheeps - 69.15 ± 0.19 kg with a CV% = 5.62% (min = 41 kg, max = 94 kg). The wither's height average performances was 72.66 cm ± 0.59 cm, and for croup's height 74.13 ± 0.47 cm.
The average performance for body length was 82.66 ± 0.62 cm. Thoracic perimeter average performances was 104.76 ± 0.64 cm, and for cannon bone perimeter 8.34 ± 0.06 cm. Average performance for chest width was 25.24 ± 0.18 cm. Crous width at hips was 25.78 ± 0.31 cm. At the head level, head length was 28.7 ± 0.19 cm, and head width 17.32 ± 0.10 cm. By the body indexes point of view we can say that the Teleorman's Black Head Sheep is a population with a strong bone structure, with an antero-posterior ascendant superior line, with and a hypermetric conformation with brevimorfe tendencies. The lateral body format index had a value at 114%. All this characteristics recommend this breed to be used in production of commercial hybrid for meat. Prolificacy is at only 112% (Draganescu et al., 2005). Analyzing Table 1 it is easy to observe the differences between flocks. For measured characters variability was 6 – 8.2%.
Determination for milk production, using Fleischmann method, had reveal a modest average production with 120 kg for 165 lactation days. Lactation curve has a good beggining, starting from the second month, followed by a continous decreasing, with an average daily performance at 0.745 kg (Figure 3). The milk chemical composition has reveal 7.1% fat and 5.54% protein. This values indicate a good efficiency in manufacture of dairy products (Figure 4).
A great variability has recorded also for lactation period. Our oppinion is that all this is due to a weak selection or to the fact that individuals was buyed from different flocks with a small productivity. In this case it is imperious necessary to be applied a continous selection (Figure 5).

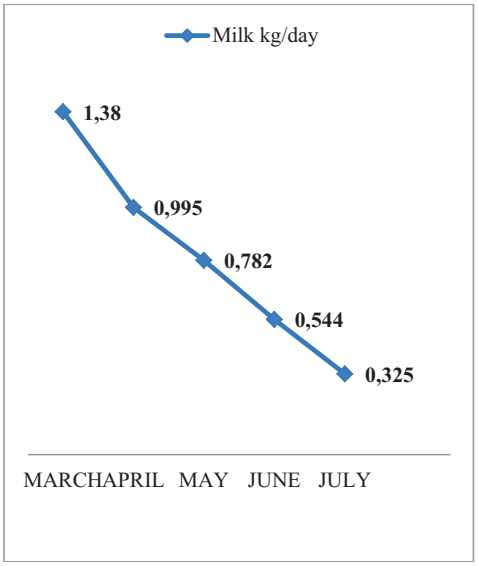

Figure 3. Average dairy production

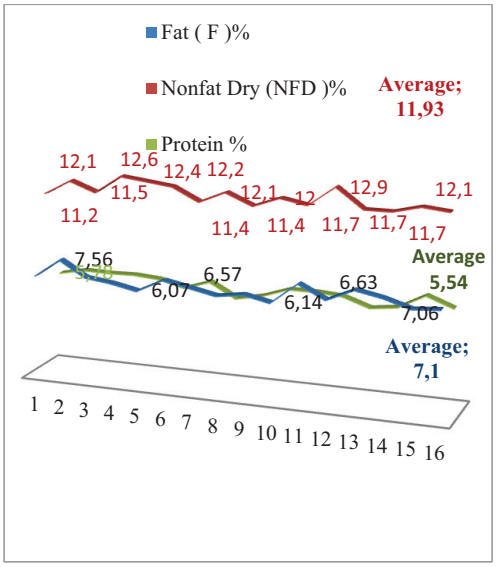

Figure 4. Average milk chemical composition

Table 1. Body development differences between three flocks of Teleorman's Black Head Sheep

Flock	Wither's height	Croup's height	Body length	Thoracic perimeter	Weight
	cm	cm	cm	cm	kg
Braila	**72.60**	**74.13**	**82.60**	**104.76**	**69.15**
Călineşti (Drăgănescu et al.. 2005)	75.74	76.70	88.39	98.08	79.28
Măldăeni 2 (Drăgănescu et al.. 2005)	74.31	76.81	86.81	109.6	76.31
Average value (Drăgănescu et al.. 2005)	75.02	76.75	87.6	103.84	77.8
Differences (%)	*96.77*	*96.59*	*94.29*	*100.9*	*88.88*

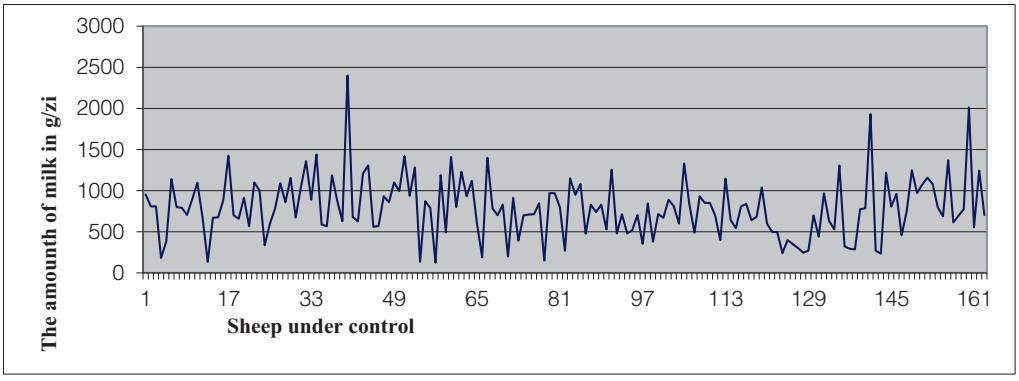

Figure 5. Variation in milk production at first control (g/day)

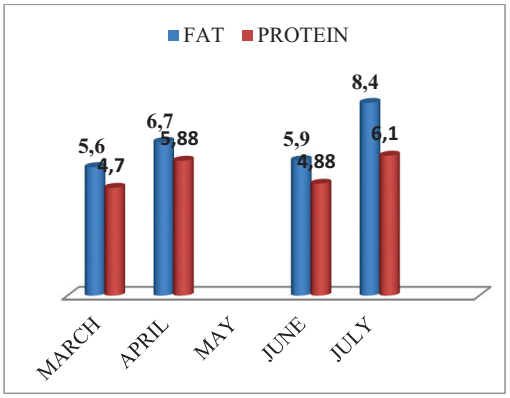

Figure 6. Milk chemical composition in estival period

Fat content had a value at 5.6% in March and 8.4 at the end of lactation. Recorded values, for protein was 4.7% at the beggining of lactation and 6.1 in the last month of lactation (Figure 6). All this are justified by dual feeding. Just in the second part of lactation the feeding is based only on pasture

Analyzing the stages of growth in lambs it was observed different rates. These are due to physiological phenomenon strictly conditioned by dairy consumption in the first period.

We analyse weight at birth, at one week, at 30 days and, for the youth selectionated for reproduction, at 60 days. In these 3 stages we record an average daily gain at 0.275 g for the first week, 0.229 g for the first month and 0.341 g for the next 4 weeks (Figure 7). Modern technologies use weaning at 15 days or maximum one month. in breeds specialized for milk productions (Kukovics, 1998). For mixt and autochthones breeds is not justified such a weaning, without a specific technology for an early feeding (based on enzymatic stimulation and specifical preparation for lambs), especially in the first month.

CONCLUSIONS

Body measurements and body indexes, in Teleorman's Black Head Sheep, highlighted a hypermetric conformation, compared with other autochthones breeds, with a compact bones structure. The body format is rectangular, with brevimorfe tendencies. Regarding the productive parameters, like milk production and milk quality, we must say that the recordered values are weak, being imperious necessary to have a selection for milk production and for udder conformation. The average daily gain in lambs and youth have better values compared with other autohtones breeds. Also for meat production it is necessary to apply an intense selection, especially in that farms who stimulate youth by nutritive point of view. Also it will be a good choice to use the Teleorman's Black Head Sheep in production of commercial hybrids for meat production.

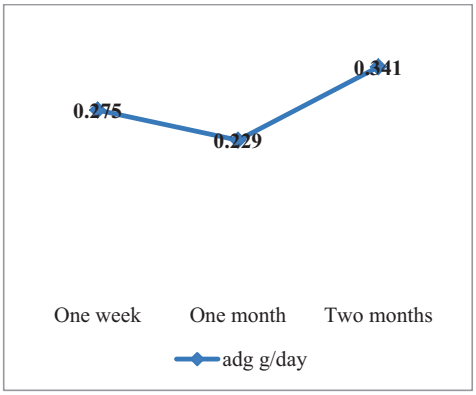

Figure 7. The growth in lambs

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