

РЕЗЮМЕТА

НА НАУЧНИТЕ ТРУДОВЕ НА ДОЦ. Д-Р ПЕТЯ КОЛЕВА СЛОВОВА

1. Славова, П., Й.Ценкова, Ив.Ценков, М.Илчев. 2003. Проучване върху физико-механичните свойства на вълната при тънкорунни овце, отглеждани в Южна България, Научна конференция СУБ – Стара Загора с международно участие “Стара Загора 2003”, том 1, Аграрни науки – Растениевъдство и животновъдство, 2 част, 278-282

ABSTRACT

The aim of the present study was to make a wool characteristics of fine wool sheep, breed in South Bulgaria. The study encompassed 40 ewes at age 2,5 of years - 20 from Trakian Merino Breed from the flock of the Research Center NIGO - Stara Zagora and 20 from Karnobat Merino Breed from the flock of the Institute of Agricultural Science - Karnobat.

We determined the physical and mechanical characteristics of the wool - fiber diameter, number of curls per 1 cm, equality, natural length, strength and elasticity.

The wool from the both Fine Wool Breeds has a very good fiber diameter, curlity and natural length. The wool from the flock from Stara Zagora was more thick and the deviations in fiber diameter were not significant as well for the absolute strength (for all one staple and all long it) and elasticity, but less strength and natural length in comparison with Karnobat breed. Significant differences were not found between wool productivity and wool yield for the two breeds.

2. Джорбинева, М., И.Димитров, И.Иванов, П.Славова, Ст.Лалева. 2003. Проучване върху някои поведенчески реакции при уговяване на агнета от четири различни генотипа, Научна конференция СУБ – Стара Загора с международно участие “Стара Загора 2003”, том 1, Аграрни науки – Растениевъдство и животновъдство, 2 част, 269-272

ABSTRACT

The study was done in four different genotypes lambs – 8 in each group: Il de France; Trakian Merino; Trakian Merino and Australian Merino; Local Stara Zagora breed. The animals were of the same type of lambing /single/; sex /male/ and the same age /40-45 days, fattened intensively up to 30 kg, live weight, by means of a starter, containing 111,9 g. Intestinum Digestable Protein and 1,06 Growing Energy per 1 kg starter and alfalfa hay ad libitum. The lambs were reared in the same premises divided into four boxes, having 1 m per animal. Eight behavioural reactions were

followed: Feeding; Drinking; Attention to man; Attention to lambs; Standing Laying; Resting; Watching anxiously. The Behavioural results were analysed in terms of fattening results.

The statistical differences were established between the four genotypes on the following behavioural activities: Feeding; Laying; Resring; Attetion to lambs; Watching anxiously. The Il de France lambs showed higher resting time than those of Local Stara Zagora Breed / $p<0,5$ /. The latter showed higher resting time than crossbreeds – Tracian Merino / Australian Merino / $p<4,01$ /.

- 3. Slavov, R., P.Slavova, St.Laleva. 2004. Genetic structure of Ile de france sheep breed in Bulgaria according to the transferrin and hemoglobin polymorphous genetic systems, *Trakia Journal of Sciences*, Vol. 2, № 2, pp 38-40**

ABSTRACT

The study included 264 ILe de France sheep reared in the Research Institute of Cattle and Sheep Breeding in Stara Zagora. The blood samples taken from Vena Jugularis were examined using starch gel electrophoresis. Genotypes (%) that were observed and expected, as well as the criteria of correspondence (χ^2) and genetic frequency of the alleles corresponding to the transferrin and hemoglobin genotypes were explored. We observed 5 transferrin alleles TFA, TF , TF[^]TF0 and TFf controlling 11 genotypes. The lack of genetic equilibrium in the flock was due to the big disparity among the number of observed and expected genotypes. Two hemoglobin alleles – HBA and HBb - controlling three genotypes were determined. The lack of considerable difference between the number of observed and expected hemoglobin genotypes indicated the genetic equilibrium of the population. The big difference between the frequencies of the two alleles can be used as a source of genetic diversity.

- 4. Попова, Й., П.Славова, Ив.Иванов. 2004. Изследване икономическата ефективност на угояването на агнета от Тракийската тънкорунна порода и нейни кръстоски с Южнобългарски коридел, Сб. Научна конференция с международно участие на СУБ – Стара Загора, том 3, Животновъдство и Ветеринарна медицина, 181-184**

ABSTRACT

The purpose of this study was to evaluate the economical efficacy of lambs fattening from Tracian-Merino Breed (TMB) and the crossbreed with South Bulgarian Corridel (SBC) till different body weight. It was established that: the crossbreed lambs have higher intensity of grow compared t the pure race Tracian Merino Breed till 40 kg of body weight, use less of forage for 1 kg of growth and reach the two degree for

slaughter earlier; the profitability rate for lambs 50% SBC is higher than the pure breed one; if the body weight increases from 30 to 40 kg the profitability rate increases too for the crossbreed lambs from 8,67 % till 31,33 %; we established that for the pure breed it is not effective to reach 40 kg of body weight.

- 5. Бонев, Г., Ст.Лалева, П.Славова, Е.Желязков, Ив.Иванов. 2004.**
Зависимости между възрастта на майките, дозата на PMSG и родените агнета при овце от Тракийска тънкорунна порода, Сб. Научна конференция с международно участие на СУБ – Стара Загора, том 3, Животновъдство и Ветеринарна медицина, 80-84

ABSTRACT

An experiment was conducted with 55 Tracian fine wool ewes, during the out of breeding season, to evaluate the effectiveness of intra vaginal sponges for estrus synchronization and the effect of different doses (300iu, 500iu and 700iu) of pregnant mare serum gonadotropin (PMSG) on lambing rate, lambing birth weight in connection with age of ewes. Statistical analysis showed that dose 700iu and ewes age more than 48 months had correlation with increasing the lambing rate (1,9 lambs). The lamb birth weight at parturition showed tendency for decreasing according to the high levels of PMSG (from 300iu to 700iu).

The results suggested that over stimulation of Merino ewes with 700iu PMSG was suitable for aged animals (more than 48 months of age) and it responded with increasing of lambing rate.

- 6. Бонев, Г., Е.Желязков, Ст.Лалева, П.Славова. 2004. Лапароскопски метод за in vivo получаване на овоцити от дзвизки, Сб. Научна конференция с международно участие на СУБ – Стара Загора, том 3, Животновъдство и Ветеринарна медицина, 316-319**

ABSTRACT

The development of in vitro embryo production and laparoscopic methods has led to significant advances in management of fertility to enhance animal production. The harvest of oocytes from immature animals has the potential, through reducing generation interval, to improve rates of genetic gain.

In this study were used Pleven- black head ewe lambs (n=7), 8-9 months old and live weight 42-45 kg during the normal breeding season (October). For induction of superovulation, the ewe lambs were given (i.m.) injections of FSH-p twice daily (6-5-3-2) on days 10 and 11 of the inserting of Chronogest sponges. All visible follicles were aspirated. The number of follicles was Mean=22.2, aspirated were 20.14 and the recovery rate was 49.6 %.

In summary, the present experiment demonstrates that laparoscopy is a feasible method of obtaining oocytes from ewe lambs after FSH administration.

7. Райчева, Е., Ив.Иванов, П.Славова, Ст.Лалева. 2004. Сравнително проучване върху качеството на трупа при агнета от породите Тракийска тънкорунна и Ил дьо франс, Сб. Научна конференция с международно участие на СУБ – Стара Загора, том 3, Животновъдство и Ветеринарна медицина, 197-203

ABSTRACT

The aim of the study was the comparison between carcass quality of lambs from Trace fine wool and lie de France breeds. The objects of the investigation were lambs carcasses from the two breeds. The carcasses were estimated on the base of the (S)EUROP classification system. The carcasses were estimation according to conformation, degree of fatness and meat colour. At the heavy carcasses of IDF breed the leg was significant shorter and thicker, and the rump and the shoulder significant thicker with compare to those from Trace fine wool breed. The carcasses from IDF breed were only in the category heavy. The carcasses from Trace fine wool breed were in the two categories - heavy and light. The carcass quality at IDF breed was characterized with very good, good and fair conformation and slight or average degree of fatness (R2, R3, U3, 02). The carcass quality at Trace fine wool breed was characterized with fair conformation and slight or average degree of fatness (02, 03). The light carcasses from Trace fine wool breed were from category C and with predominated first quality.

8. Иванов, Ив. Ст., Е.Райчева, П.Славова, Ст.Лалева, Ив.Янчев. 2004. Угоителни и кланични показатели на агнета, угоявани с добавка на нерафинирано слънчогледово масло, Сб. Научна конференция с международно участие на СУБ – Стара Загора, том 3, Животновъдство и Ветеринарна медицина, 58-63

ABSTRACT

The aim of the study was the comparison between meat quality of two groups of 28 lambs in group - from Tracian Merino breed and lie de France breed. The lambs were separated into two subgroups, 14 animal in each one. The first subgroup was fed with addition of sunflower oil. The fattening and slaughtering traits were evaluated. The addition of sunflower oil doesn't influence the intensity of growth and slaughter indexes of iambs from Tracian Merino and lie de France races. The average daily gain was more important for the lambs of the lie de France breed. The slaughter indexes of lie de France lambs are better than the same for the Tracian Merino ones.

but it is statistical improved only for the life weight before slaughtering and the weight of leg for the animals of the first subgroup.

9. Лалева, Ст., Ив. Ст.Иванов, Й.Ценкова, П.Славова. 2004. Проучване вълнодайността при овце от породите Тракийска тънкорунна и Шароле, Сб. Научна конференция с международно участие на СУБ – Стара Загора, том 3, Животновъдство и ветеринарна медицина, 64-66

ABSTRACT

In aim to evaluate the wool productivity of sheeps Tracian Merino and Charolet breads we took the results of 37 female young sheep and 38 from the Charolet bread imported from France. We studied the following traits: life weight, woolproduction, yield wool, output and some physic-chemical properties of the wool (natural length, thickness, curlycity of the fibre). Finally we conclude that: 1. For the main traits (curlycity, length, thickness, equality and output) the wool of merino typed animals in study is common for the merino race. 2. The wool from the Charolet bread is shorter and not enough equalized for thickness and length.3. The young sheep from the Charolet bread have higher rate of life weight - 18,39 %. The animals from this bread can be used like father's side to improve on the life weight for the merino typed breads in young age.

10. Djorbineva, M., I. Dimitrov, L. Sotirov, P. Slavova, S. Tanchev. 2005. Linkages between Lysozyme and Complement Levels and Some Productive Traits in Sheep, **Bulgarian Journal of Agricultural Science**, 11, 175-181

ABSTRACT

The presents tudy aimed to elucidate the relationship between the characteristic production traits in the different types sheep breeds and the concentrations of lysozyme and complement as principal humoral factors of innate immunity. For this experiment the sheep from 3 productive types were included: A. Milk type crossings: 118 sheep – Stara Zagora x East-Friesian and (Stara Zagora x East-Friesian) x Blakhead Pleven breed included; B. Merino type: 80 sheep from the Trakia merino breed; C. Meat type: 107 sheep from the Ile-de-France breed and 107 sheep from the Charollais breed. In the milk type sheep, we investigated what was the correlation between lysozyme and complement concentrations and the quantity of milk obtained during the whole or milking lactation. The calculations showed that the correlation between lysozyme concentrations, and the yields of both lactations was negative and feeble($r =$ from -0.15 to -0.17). The correlation between APCA and both lactation yields was feeble as well, but positive ($r =$ from 0.12 to 0.14). The relationship between

lysozyme and APCA was characterized with a negative and low correlation coefficient ($r = -0.22$; $P < 0.05$). Those data show, that the studied parameters were determined and expressed independently one from another and thus, an individual control and selection is needed.

11. **Dimitrov, I., L. Sotirov, M. Djorbineva, P. Slavova, I. Ivanov, S. Tanchev. 2005.** *Influence of Genotype Affiliation upon the Live Weight, Fleece Weight, Fibre Length and Fertility in Trakia Merino Sheep and Milk Type Crossings*, **Bulgarian Journal of Agricultural Science**, 11, 249-254

ABSTRACT

The objective of this study was to characterize the effect of C3 genotypes on the live weight, fleece weight, fibre length and fertility in Trakia merino sheep and milk type crossings. For this aim the sheep from 2 productive types were tested: A. Merino type: 80 sheep from the Trakia merino breed; B. Milk-type crossings: 118 sheep- Stara Zagora Ч East-Friesian and (Stara Zagora Ч East-Friesian) Ч Blackhead Pleven breed and 133 lambs (dairy crossings). The highest live weight values were observed for the F7S genotype and the lowest- those of the FF genotype. Those results were identical to data obtained in milk crossings. For fleece weight, the highest values were determined in the SS genotype and lowest- in the heterozygous FS genotype. The second in rank was the F7S genotype. A similar tendency was observed about the parameter fibre length. The longest fibre was that in the FF genotype, followed by F7S sheep and the shortest fibre was established in the FS genotype. The study on fertility showed that the FS genotype had the up most fertility, being statistically significantly higher than the other genotypes ($P < 0.05$).

12. **Славова, П., Й. Попова, Ст. Лалева, Ив. Иванов. 2005.** *Икономическа ефективност на угоявани агнета от Тракийската тънкорунна порода и нейни кръстоски с Австралийски меринос, Научна конференция с международно участие "Стара Загора 2005" на СУ-Стара Загора, том 3, Животновъдство. Ветеринарна медицина, 99-103*

ABSTRACT

The purpose of this study was to evaluate the economical efficacy of lambs fattening from Tracian Merino Breed (TMB) and the crossbreed with Australian merino breed (AM) till different body weight. It was established that: the crossbreed lambs have higher intensity of grow compared to the pure race Tracian Merino Breed,

use less of forage for 1 kg of growth and reach the two degree for slaughter earlier; the profitability rate for lambs 50 % AM is higher than the pure bread one.

- 13. Binev, R., A. Russenov, B. Bivolarski, St. Laleva, P. Slavova. 2005.**
Electrocardiographic and haematological studies in different sheep breeds,
Trakia Journal of Sciences, V.3, S. 2, 64-66

ABSTRACT

Electrocardiographic and haematological studies were performed in 14 clinically healthy sheep from the Trakia merino and Stara Zagora breeds. The sheep were divided into two experimental groups (n=7). The ECG records were done in the three bipolar (I, II, III) and the three unipolar leads (aVR, aVL, aVF), prior to the morning feeding. After ECG monitoring, blood was sampled from v. jugularis for haematological determinations of red blood cell counts, total white blood cell counts, haemoglobin content, haematocrit and mean corpuscular volume. The experiments were performed twice, at a 2-week interval.

The data evidenced some breed-related differences in the P peak and the QRS complex. The haematological indices (red blood cell counts, haemoglobin and haematocrit) were higher in the Trakia merino sheep. The total white blood cell counts and the mean corpuscular volume were lower than those in the Stara Zagora breed.

- 14. Славова, П., Й. Попова, Ст. Лалева, Ж. Кръстанов, И. Иванов. 2006.**
Икономическа ефективност на отглеждане на агнета от породите Тракийска тънкорунна и Ил дьо франс, угодявани с добавка на нерафинирано слънчогледово масло, Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 259-263

ABSTRACT

We studied the economical effectiveness of fattening the lambs from the Ile de France and Trakian Merino Breed with the addition of nonrefined sun oil.

They were separated in four groups, 14 lambs in each one from the Ile de France race, the I- st and II- nd from the Trakian Thinlined race -the III- rd and IV- th group. All the animals had same age, sex, and type of birth. The groups II and IV received nonrefined sun oil like addition to the concentrate forages. The fattening was intensive and lasts until the animals reached 110 days of age.

The results permit us to conclude that:

- the costs and the costs for forages in the two races are lower when a sunflower oil is added to the races - Ile de France and Trakian Merino Breed

- the profit end rate of profitability are higher when a sunflower oil is added to the races - Ile de France and Trakian Merino Breed
- the animal from Ile de France had high effectiveness rate in fattenings

15. Лалева, Ст., П. Славова, Й. Попова, Г. Бойковска, Ж. Кръстанов. 2006. Проучване живата маса при отбиване и на 9-месечна възраст при животни от Каракачанската порода, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 369-372

ABSTRACT

One of the most popular sheep race on the Balkans is the Karakacan. The people karakacan who breed this race are very conservative for crossing and ameliorating their animals. For this the race is conserved as it was long years before in primitive status.

The purpose of this investigation is to analyze the animals of the Karakacan breed at time of wean and than at age of 9 months.

We studied the sheep from the Agricultural Institute in Shumen. We analyzed 215 animals at time of wean and than at age of 9 months.

We can conclude that:

- The factors like year of birth and father's line influence statistically a lot on the body weight at wean.

- For the results - body weight at 9 months the, the variation is significant when it is due to the year of birth, the father and the interaction between this characters as well.

16. Лалева, Ст., П. Славова, Й. Попова, Г. Бойковска, Ж. Кръстанов. 2006. Проучване живата маса на различни възрасти при животни от Медночервената шуменска порода, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 377-379

ABSTRACT

The purpose of this study was to analyze the live body weight at the time of wean and at 9 months for animals from Medenocerven Shumen race. We studied the differences of live body weight for animals from Medenocerven Shumen race at the time of wean and at 9 months. The sheep were from the Agricultural Institute of Shumen We analyzed 180 animals at time of wean and than at age of 9 months.

We can conclude that:

The year of birth has a positive influence on the live body weight at wean and than of age of 9 months.

17. Лалева, Ст., Й. Попова, П. Славова, М. Джорбинева, Ж. Кръстанов. 2006. Проучване влиянието на генотипа върху живата маса на различни възрасти при животни-кръстоски с Аваси, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 380-383

ABSTRACT

The aim purpose of this investigation was to analyze the influence of the genotype on the live body weight of animals on different ages and different per cent of Avasi race in their progenies.

We studied the animals from the Humza Chakar, village of Sevar.

The crossbred animals were obtained from the laparoscopic method and the insemination was made with sperm from Hungary.

We analyzed the results by mixed linear model.

We can conclude that:

- The crossbred animals with Avasi have a very important body weight on the time of birth /what is the % of Avasi blood doesn't matter/.

- Different factors influence the body weight on different ages: time of birth - interaction between the effect of the year; time of wean - father's genotype; at 18 months -the body weight at time of wean and the interaction genotype - father.

18. Кръстанов, Ж., Й. Попова, В. Видев, Ст. Лалева, П. Славова, М. Михайлова. 2006. Установяване измененията на икономическите тегла на признаци, характеризиращи месодайната продуктивност при Кафявото говедо в България, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 373-376

ABSTRACT

The aim of the present study was to establish the economical weights of indicators, describing meat production of Brown cattle breed in Bulgaria under the pressure of market economy and milk quotas system implementation. Significant changes in economical weights under the impact of market demand, in years 1999 and 2005, were established. No effect of milk quotas system implementation on economical weights of the indicators describing growth in this breed, was found.

19. Бинев, Р., Ст. Лалева, П. Славова, А. Русенов, Б. Биволарски. 2006. Проучвания върху някои биохимични показатели при различни породи овце, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 264-268

ABSTRACT

Paraclinical studies were performed in 14 clinically healthy sheep from the Trakia merino breed (TMB) and Bulgarian synthetic dairy population (BSDP). The sheep were divided into two experimental groups (n=7).

Blood was sampled from v. jugularis for paraclinical determinations of calcium, inorganic phosphorus, magnesium, sodium, potassium, chloride, creatinine, urea, blood sugar, total serum protein, albumine, aspartataminotransferase and cholinesterase on an automated biochemical analyser Olympus AU 600, Japan. The paraclinical studies were performed twice, at a 14-day interval.

The paraclinical indices (inorganic phosphorus, sodium, potassium, cholinesterase, total serum protein and albumin) were higher in the Trakia merino sheep. The volume of the creatinine, blood sugar, urea, magnesium, aspartataminotransferase and calcium were lower than those in the Bulgarian synthetic dairy population. The volume of the chloride is not statistically differences between management breeds.

20. Бинев, Р., Ст. Лалева, П. Славова. 2006. Породни особености в параклиничните показатели при агнета, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 269-273

ABSTRACT

Paraclinical studies were performed in 42 clinically healthy lamb's from the Trakia merino breed (TMB), Bulgarian synthetic dairy population (BSDP) and lie de France (IF). The lambs were divided into three experimental groups (n=14).

Blood was sampled from v.jugularis for paraclinical determinations of red blood cell counts, total white blood cell counts and differential white cell counts on an automated analyzer (Cell dyn 4500, USA), blood glucose, total protein, globulin and albumin on an automated biochemical analyzer (Olympus AU 600, Japan). The paraclinical studies were performed twice, at a 14-day interval.

21. Лалева, Ст., П. Славова, Й. Попова, Г. Бойковска, Ж. Кръстанов. 2006. Проучване на плодовитостта и живата маса при агнета Мутон Шароле, Ил дьо франс, Тракийска тънкорунна порода и нейни кръстоски, Сб. Международна научна конференция на СУ-Стара

Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 384-387

ABSTRACT

The aim purpose of this study is to analyze some of the productive traits for two meat races- Mouton Charolais and lie de France and their crosses with Trakian Thin Lined race.

The study was made in the term of the Agricultural Institute of Stara Zagora. We investigated the females who have their first lambs, from the races of Mouton Charolais and He de France and their crosses with Trakian Thin Lined race, during 2003 - 2005 year.

We conclude that:

- The animals that were bom in 2005 have the highest body weight /for different ages and for different races/.*
- The Mouton Charolais lambs have higher body weight at time of birth, 30 and 70 days of age.*
- The highest body weight at time of birth and 30-th day was found for the Trakian Thin Lined race.*

22. Джорбинева, М., И. Димитров, П. Славова, Ст. Лалева, Ж. Пеева. 2006. Тип емоционална чувствителност и влиянието ѝ върху живата маса и вълнодайността при овце от различни направления, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2006", том II, Ветеринарна медицина. Животновъдство, 322-326

ABSTRACT

The assessment of type of emotional sensitivity was done by means of a system of tests in female lambs subsequently weaned lambs, selected for the use of breeding replacement of different breeding purpose - merino, meat and dairy flocks at the Institute of Agricultural Science - Stara Zagora. Two types of emotional reactivity were established - calm and nervous. A comparative analysis of the live weight and wool production in the two types was done, as well.

It was fixed that the live weight in the animals of the three breeds of the Calm types is higher, in the three ages -3,9 and 18 months. It was established a significant difference / $P < 0,05$ / in the animals of Bulgarian Synthetic Dairy Population /BSDP / at the age of weaning.

The wool production was higher in the animals of Calm type / $P < 0,05$ / in BSDP, as the differences in the Tracian merino and Ile de France were not significant.

23. Binev, R., P. Slavova, St. Laleva. 2006. *Effects of fasting on blood cells from lambs of various breeds*, **Trakia Journal of Sciences**, v.4, № 3, 37-43

ABSTRACT

Studies on the effects of fasting (48 h of food deprivation) were performed on lambs of different productive types. The animals were divided into four groups: I group - Stara Zagora breed (SZ) (n=14), II group - Ile de France" (ILF) (n=14), III group - Trakia Merino breed (TM) (n=14), and IV group - Trakia Merino crosses with 1/4 blood of Australian Merino (TM x 50 % AM) (n=14). The changes of specific blood cell parameters were observed (red blood cell counts, total and differential white blood cell counts, blood sugar, total protein, albumin and globulin). It was determined that 48 hours of fasting caused changes in the observed indicators, by increase in erythrocyte counts, white blood cell counts, basophils, eosinophils, metamyelocytes, blood sugar, total protein and albumin, while also causing a decrease in the values of band leucocytes and monocytes. These changes were most evident in the animals of the Trakia Merino breed, and the least affected being lambs of the Stara Zagora breed.

24. Попова, Й., Ст. Лалева, П. Славова, Ж. Кръстанов, С. Станев. 2007. *Икономическа ефективност на млечни и месодайни овцевъдни ферми в интензивните райони на страната, Научна конференция с международно участие „Овцевъдството у нас и в Европа”, Сборник от научни доклади, Плевен, 245-249*

РЕЗЮМЕ

Целта на настоящото проучване е да се изследва влиянието на породното направление /млечно и месодайно/ върху икономическата ефективност на производството в овцевъдството. Обект са овцевъдни ферми за 100 овце-майки със съотните категории агнета, шилета и кочове. Установено е, че: фермите с млечно направление се характеризират с по-високи приходи /с 6,97%/ и производствени разходи /с 23,37%/, в сравнение с тези от месодайно направление; с по-висока норма на рентабилност се характеризира отглеждането на овцете от месодайно направление - 36,53%.

25. Попова, Й., П. Славова, Ст. Лалева, Ж. Кръстанов, С. Станев. 2007. *Икономическа ефективност на угодяване на агнета от породите Ил дьо франс, Тракийска тънкорунна и Старозагорска, Научна конференция с международно участие „Овцевъдството у нас и в Европа”, Сборник от научни доклади, Плевен, 250-255*

РЕЗЮМЕ

Целта на настоящото проучване е да се изследва икономическата ефективност на опит за угодяване на агнета от породите Ил дьо Франс, Тракийската тънкорунна и Старозагорска. Обект на проучването са 3 групи по 14 агнета от породите Ил дьо Франс, Тракийска тънкорунна и Старозагорска, изравнени по възраст, пол и тип на раждане. Угодяването беше интензивно до достигане на 30 kg живо тегло.

Установено е, че за условията на опита:

1. С най-ниски производствени разходи, в т.ч. разходи за фураж се характеризира угодяването на агнета от породата Ил дьо Франс, следвани от Тракийската тънкорунна порода, а с най- високи - от Старозагорската порода.

2. Най-висока печалба и ефективност на производството се реализира при угодяването на животните от породите Ил дьо Франс, следвани от Тракийската тънкорунна порода, а най-ниска - при Старозагорската.

26. Лалева, Ст., Й. Попова, П. Славова. 2007. Продуктивни признаци при овце от породата Мутон Шароле, внос от Франция, Научни трудове на АУ гр. Пловдив от Осма научнопрактическа конференция с международно участие „Екологични проблеми на българското земеделие в Европейския съюз” АГРОЕКО 2007, Пловдив, 277-280

ABSTRACT

The aim of this study was to follow the process of adaptation of the breed Mouton Charolais in Bulgaria, with a view to utilise it for obtaining good quality lambs meat and for the purpose of pure and crossbreeding.

The experimental animals were from the farm of the Institute of Agricultural Science - St Zagora. They have been imported from France for the period 2003-2006 (4 imports) with conception at 7-10 months of age in France. Animals born in Bulgaria were, also, included in the analysis. The fertility and average daily gain up to 30-th day were studied.

It was established that the fertility, live weight and average daily gain up to 30-th day were similar to those of the breed in France, which is an indicator of good adaptation under the conditions of our country

27. Лалева, Ст., П. Славова, Р. Славов, Ст. Рибарски. 2007. Проучване на угодителните и кланичните качества на агнета от Тракийската тънкорунна порода и кръстоски с породата Шароле, Сб. Международна научна конференция на СУ-Стара Загора “Стара

Загора 2007", т. II, Животновъдство. Ветеринарна медицина, 171-176

ABSTRACT

The aim of the study was the comparison between meat quality of two groups of 10 lambs in group - from Trakian Merino Breed and their crossbreed with 50 % blood of Charolais races. All the animals had the same age, sex and type of birth. The fattening was intensive and lasted until the animals reached 115 days of age. The fattening and slaughtering traits were evaluated.

The results permit us to conclude that:

- the crossbred lambs had higher average daily gain and better food conversion. They were characterised by better slaughtery traits.

- the utilisation of Charolais rams for crossing Trakia Merino sheep would led to crossbreds with better fattening and slaughtery characteristics in comparison with the maternal breed.

28. Димитров, Ив., Р. Бинев, М. Джорбинева, Ст. Лалева, П. Славова, Ж. Пеева. 2007. Влияние на темперамента върху някои параклинични показатели на кръвта при агнета от различни породи, Сб. Международна научна конференция на СУ-Стара Загора, "Стара Загора 2007", т. II, Животновъдство. Ветеринарна медицина, 210-216

ABSTRACT

The aim of this study was to establish the effect of temperament on some paraclinical blood indicators in lambs of different breeds- Bulgarian synthetic dairy breed, Ile de France and Tacia merino breed. The assessment of temperament (nervous and calm) was carried out by means of a system of tests: Lankin test, 1998 and additional modifications. Temperaments were established in all young replacement animals of the three breeds at the age of three months. Then, blood samples were taken in 12 typical for the temperament animals of each breed (Six Calm and six Nervous). It was concluded that the effect of temperament was well expressed in the paraclinical characteristics - Glucosis, Calcium, Inorganic Phosphorus and Magnesium in the blood of the three breeds.

29. Бинев, Р., А. Русенов, Б. Биволарски, П. Славова, Ст. Лалева, Е. Вачкова. 2007. Електрокардиографски проучвания при различни породи агнета, сб. Доклади от Научна конференция 2007 за студенти, докторанти и млади научни работници, Федерация "Образование и наука" при Вншните учебни заведения, Пловдив, т. I, Медико-биологични науки, 106-112

РЕЗИОМЕ

Проведени са сравнителни проучвания на следните плазмени показатели: урея, креатинин, ALT, GGT, холестерол, триглицериди, калций, фосфор, магнезий и желязо при зайци, отбити на 21-ви (група А) и на 35-ти (група В) ден. Кръв за изследване се вземаше от v. jugularis по следната схема: в деня на отбиването, на 7-ми, 14-ти и 21-ви ден от отбиването.

Анализът на получените резултати показва специфични за групите промени. в група А се отбелязва повишаване на стойностите на калция и желязото с висока степен на достоверност на 7-ми ден, като тези разлики се запазват до 21-ви ден след отбиването. Стойностите на холестерола в група А се понижават на 7-ми ден ($p < 0.001$) и се запазват в сравнително постоянни граници до края на наблюдавания период. Покачване на плазмените нива на магнезия се наблюдава на 3-тата седмица след отбиването.

30. Popova, Y., St. Laleva, M. Tateva, J. Krastanov, P. Slavova. 2007. *Effectiveness of the breeding of race Mouton Charolais in Bulgaria*, III Symposium of Livestock Production with International Participation, Ohrid, Македония, 115-117

ABSTRACT

The main purpose of this investigation is to study the economical effectiveness of breeding the Mouton Charolais race in Bulgaria.

The object of investigation is the purebred farm with 200 sheep adult. The fertility was provided to be 190 % and the female lambs have to be selling at 25 kg of body weight for 10 leva/kg, and the males -body weight 22 kg for 4.50 leva/kg. The feeding must be according to the age of the animals and their physiological status. All the prices are actual in 2007.

We found that:

- The most important part of the gains comes from the selling of lambs for reproduction and fattening.*
- The profit of breeding reproductive animals from Mouton Charolais race is 28 112 leva and the rate of profitability - 87, 91%.*
- For the conditions in Bulgaria it is very advisable to have pure breed Mouton Charolais flocks.*

31. Binev, R., A. Russenov, P. Slavova, St. Laleva. 2007. *Studies on some paraclinical indices in lambs of various breeds*, Trakia Journal of Sciences, v.5, № 2, 79-83

ABSTRACT

Haematological studies were performed in 48 clinically healthy lambs From different lambs breeds - Bulgarian synthetic dairy population (BSDP), Trakia merino (TM), Ile de France (IIF) and Mouton Charollais (MS). The lambs were divided into four experimental groups (n=12). Blood was sampled from v. jugularis for haematological determinations of red blood cell counts (RBC), total white blood cell counts (WBC), haemoglobin content (HGB), haematocrit (HCT), mean corpuscular volume (MCV), blood glucose (Glu), total protein (TP), aspartataminotransaminase (ASAT), alaninaminotransaminase (ALAT), triglycerides (TG), calcium (Ca), inorganic phoshorus (P) and magnesium (Mg). The experiments were performed twice, at a 2-week interval. The haematological indices (red blood cell counts, haematocrit, blood glucose, alaninaminotransaminase, total protein and triglycerides were highest in the lambs of Ile de France breed. The haemoglobin content, mean corpuscular volume, aspartataminotransaminase, inorganic phoshorus and magnesium were highest in the lambs of Mouton Charollais breed. The total white blood cell counts and calcium were highest in the lambs of Bulgarian synthetic dairy population.

- 32. Славов, Р., Ж. Кръстанов, П. Славова, Т. Ангелова. 2008. Анализ на генетичния вариант при чистопородно развъждане на Североизточно-българската тънкорунна порода и при кръстосването ѝ с Австралийски меринос, Ил дьо Франс и Бурула, Животновъдни науки, 3, 168-172**

ABSTRACT

The aim of this study was to determine the changes in the heritability for the basic productive traits of the sheep of the North-East Bulgarian merino breed of sheep - Dobrudja type in the process of their improvement.

Data for 4393 records of the traits live weight at weaning, at 1.5 and 2.5 years, wool production at 1.5, 2.5 and 3.5 years, wool yield at 1.5 and 2.5 years, clean wool at 1.5 and 2.5 years, staple length at 1.5 and 2.5 years and prolificacy at 1-st and 2-nd lambing of the North-East Bulgarian merino breed of sheep – Dobrudja type and their crosses with the breeds Australian merino, Ile de France and Booroola, reared in the State Agricultural Institute in the town of General Toshevo were analyzed.

The analysis was based on the hypothesis that in the improvement of the breed there existed two main periods: the first period 1990-1995 was characterized with the pure breeding and the second one 1996-2004, with the crossing with Australian merino, Ile de France and Booroola breeds.

An Animal model was used for obtaining unbiased estimates of additive and environmental variance components and for assessment of the heritabilities of the productive traits.

For the majority of traits which were object of selection the heritabilities were low to middle. As a basic reason for this the directed selection, the strict fulfillment of the selection limits and the application of selection pressure could be pointed out.

An increase of the genetic variance with the age and with inclusion of the genetic component of the Australian merino, Ile de France and Booroola breeds was found. It was more obvious for the live weight at 2.5 years ($h^2=0.48$), wool production at 2.5 years ($h^2=0.44$), wool yield at 1.5 and 2.5 years ($h^2=0.30$ and 0.28) and clean wool at 2.5 years ($h^2=0.27$).

- 33. Славов, Р., Ж. Кръстанов, П. Славова, Т. Ангелова. 2008.**
Генетични, фенотипни и средови корелации между продуктивните признаци при овце от Североизточно-българската тънкорунна порода - Добруджански тип, в процеса на тяхното усъвършенстване, Животновъдни науки, 4, 119-125

ABSTRACT

The genetic, non-genetic and median correlations among the primary traits subject to selection were analyzed in 4394 sheep from the North-East Bulgarian Merino sheep breed- Dobrudja type, and its crosses with Australian Merino, Ile de France and Booroola, reared in the Dobrudja Institute of Agriculture – General Toshevo.

For unbiased evaluations of the additive and median variance components and calculation of the heritability of productive traits of sheep, an animal model was used.

The low-value, negative and positive genetic correlations (from -0.143 to $+0.268$) allowed to conclude that the selection performed mainly by phenotype as well as the introduction of blood from the breeds Australian Merino, Ile de France and Booroola resulted in accumulation of genetic influences with a total effect which had an impact on the correlation coefficients.

By expanding the genetic background of the herd, there is a risk for "dissipation" of some economically important traits. This implies that the future selection should be targeted towards creation of two selection types: a wool-meat type and a meat-wool type, as well as towards the formation and utilization of two aggregated (concentrated) complexes of traits which, according to their economical importance, would create complex indices of selection of animals according to their affiliation to the respective types and specialized lines.

The considerable diversity in the range of phenotypic correlations (from -0.248 to +0.610) did not allow to rely upon a successful indirect selection on all traits and elimination of controls. Only the selection on wool yield at the age of 1.5 and 2.5 years would result in positive results with regard to pure wool at these ages ($r_p=0.531-0.564$ and $r_p=0.593-0.573$) as well as with regard to wool length at the age of 2.5 years ($r_p=0.610-0.616$).

The significantly lower values of most genetic-phenotypic correlations on the background of paratype correlations emphasized the important effect of median factors on the variability of the selection traits.

- 34. Славова, П., Р. Бишев, Ст. Лалева. 2008. Проучване върху някои параклинични показатели при овце с различна продуктивност от Тракийската тънкорунна порода, Животновъдни науки, 4, 139-143**

ABSTRACT

The study was carried out in the experimental base of the Agricultural Institute in Stara Zagora. The objective of this study was to analyze the paraclinical indices in the blood of 23 healthy animals of the Thracian merino breed divided into two groups depending on the level of their productivity. The selection traits live weight, wool productivity, staple length and fertility were studied.

At the end of the study blood samples were taken from v.jugularis for analyses of the paraclinical indices - Ca, P, creatinin, blood glucose, total protein, triglycerides, alkaline phosphates, cholesterol, albumin, red blood cells counts, haematocrit, mean corpuscular volume, white blood cells counts, hemoglobin, and hormones - TSH, FT4.

It was obtained that the higher productivity of the Thracian merino sheep was closely related with the higher content of calcium, albumin, cholesterol, and the higher values of the hematologic parameters and thyroxin in the blood. The results suggested that the general metabolism correlated with higher productivity

- 35. Славова, П., Ж. Кръстанов, Ст. Лалева, Т. Ангелова. 2008. Влияние на генетични, биологични и средови фактори върху изменението на живото тегло при овце от Тракийската тънкорунна порода, Животновъдни науки, 4, 114-119**

ABSTRACT

The goal of the present study was to analyse the influence of the genetic /line, father, mother/, biological /type of birth/ and environmental /year/ components on the live weight at different ages of Thracian merino sheep.

The study was carried out in the experimental base of the Agricultural Institute in Stara Zagora. The 722 sheep from the Thracian merino breed herd which were born in

the period 1995-2005 were included. The productive indices were analyzed: live weight at birth, at weaning, at 9 months of age, at 18 months of age, at 2.5 years of age and at 3.5 years of age. The effect of the line, father, and mother, type of birth and year birth on the live weight was assayed.

We used mixed linear model to describe the influence of the studied factors. The major part on the variance at the different ages was described by the factor year of birth ($P < 0.001$).

- 36. Славова, П., Ж. Кръстанов, Ст. Лалева, Т. Ангелова, Й. Попова. 2008. Проучване тенденциите на изменение на живото тегло на различна възраст при Тракийската тънкорунна порода, Сб. Международна научна конференция на СУ – Стара Загора „Стара Загора 2008”, том Аграрни науки, диск**

ABSTRACT

The purpose of this study was to establish changes of live weight in sheep from the Thracian merino breed.

The survey was conducted in the experimental base of Agricultural Institute Stara Zagora. Subject of study were 722 animals of Thracian merino breed born during 1995-2005 year. Analysis was on the trait live weight at birth, 9 months, 18 months, 2.5 and 3.5 - age, as by year of birth but also for the entire period indicated.

Assessment variance components of the trait were applied mixed linear equations.

A trend of reduction of live weight at birth, 9 and 18 months of age were established.

Live weight at 2.5 and 3.5 years marks a trend of incensement.

- 37. Славова, П., Ст. Лалева, Р. Славов, Г. Михайлова. 2008. Проучване върху някои качествени признаци на месото при агнета от Тракийската тънкорунна порода и нейни кръстоски с Мутон Шароле, Животновъдни науки, 5, 177-183**

ABSTRACT

The study was carried out in the Institute of Agriculture, Stara Zagora with two groups of lambs - 10 purebred Thracian Merino lambs and 10 crosses of Thracian Merino with 1/2 blood of Mouton Charollais. The groups were allotted and the lambs were fattened up to the age of 115 days. At this age, 4 lambs of each group with an average weight were slaughtered. A complete slaughter analysis was carried out. The chemical, mineral, amino acid and fatty acid compositions of representative meat samples were determined. The analyses were performed at the Scientific Research

Laboratory of the Faculty of Agriculture at the Thracian University - Stara Zagora. Both classic and modern methods of analysis and statistical processing of results were used.

There were no statistically significant differences in the chemical and mineral composition or in the content of saturated and non-saturated fatty acids in the lamb meat from both groups. A balanced ratio between the different categories of fatty acids in the meat fat was observed. The amino acid content in the meat of purebred Thracian Merino lambs was similar to that of crosses with 1/2 blood of Mouton Charollais. Differences were found only with regard to the content of the non-essential amino acids proline and alanine.

The oxidative capacity of meat was higher in crosses of the Thracian Merin with 1/2 Mouton Charollais blood.

- 38. Иванова, И., Н. Димова, П. Славова, Ст. Лалева. 2008. Влияние на физиологичния статус върху оценките на телесното състояние и живата маса при овце от Тракийската тънкорунна порода, Сб. Доклади от Юбилейна Научна конференция с международно участие, Смолян, 86-90**

ABSTRACT

The purpose of this study is to monitor the volatility of estimates of body condition score and body weight in ewes of Tracian Merino Breed in different physiological status.

The investigation was carried out with 78-192 ewes of Tracian Merino Breed from the herd of Agricultural Institute - Stara Zagora in 2007-2008 year.

The main conclusion is: estimates of body condition score and body weight significantly influenced by physiological status of the ewes. Changes of body condition score corresponds with changes body weight.

- 39. Кръстанов, Ж., П. Славова, Т. Ангелова, Ст. Лалева. 2008. Генетични и фенотипни изменения на вълнодайността при *in situ* съхранение на овце от Тракийската тънкорунна порода, Сб. Доклади от Юбилейна Научна конференция с международно участие, Смолян, 72-79**

ABSTRACT

The purpose of this study was to establish phenotypic and genetic modifications of wool traits in a preserved herd in connection with the evaluation of the effectiveness of the schemes applicable to store genetic resources of Thracian merino sheep.

Were analyzed data from the controls wool traits at 722 number of sheep Thracian merino breed in the experimental base of the Agricultural Institute - Stara Zagora for the period 1995 - 2004 years. Analyzed were productive traits: wool production, staple length of 18 months, 2.5 and 3.5 years age and wool yield and pure wool at 18 months and 2.5 years age. It was be analyzed the influence of certain genetic and non genetic factors affecting of traits in animals, as follows: mother, father, genealogical line type of birth and year of birth. Linear mixed models was applied for assessment of variance components of the traits.

There have been significant genetic and phenotypic changes during the survey for all traits. Received new genetic and phenotypic variability not had a lasting impact in the development of productive signs of herd Thracian merino breed.

40. Славова, П., Ст. Лалева, Й. Попова. 2009. Влияние на живото тегло на овцете върху продуктивността им и растежа на агнетата, Сб. Доклади от Международната научна конференция на СУ – Стара Загора, т. 1, Животновъдство и ветеринарна медицина, 189-194, диск

ABSTRACT

Examined the impact of the live weight of sheeps in the middle of pregnancy on productivity and growth of their lambs after birth.

The survey was conducted with the sheeps of the Thracian merino breed in the Agricultural Institute - Stara Zagora. Analyze the characteristics of live weight /before insemination and in the middle of pregnancy/, wool productivity and fertility of ewes. Reported is the number of received and dropped dead born lambs and their live weight at birth.

Found that:

Flock of sheeps Thracian merino breed has biological fertility 128.80% and small share of dropped and still-born lambs to weaning – 2.95% and 3.80% respectively.

Live weight of sheeps increased with age and a significant increase in the middle of pregnancy - from 4.785 to 6.896 kg.

Of ewes with a higher live weight in mid-pregnancy mo receive heavier lambs. Wool productivity in sheeps, born ones higher than those born twins.

From animals with a higher live weight in the middle of pregnancy receiving more wool.

41. Димова, Н., И. Иванова, П. Славова, Ж. Пеева, Ст. Лалева. 2009. Влияние на възрастта върху оценките на телесното състояние и

живата маса при овце от Тракийската тънкорунна порода,
Животновъдни науки, 6, 11-17

ABSTRACT

The aim was to study the influence of age on the assessment of the body condition score and the live weight of sheep from the Thracian Fine- Fleece breed.

The study was carried out in the period June 2008 - May 2009 in the Thracian Fine-Fleece herd in the Agricultural Institute - Stara Zagora. It included all the 175 sheep in the herd (from 1.5 to 5.5 years of age) for which complete data about body condition score and productivity were available. The animals were reared and fed under equal conditions.

Five body condition scores (BCS) were used and the live weight of the animals was measured.

For variation and statistical analysis of the obtained data STATISTIC A for Windows software was used

The results from this study showed that:

- the dynamics of BCS and the live weight in different periods depended on the physiological status of the sheep;

- the different age groups differed statistically significantly in terms of BCS and live weight for the whole experimental period. The highest BCS and live weight were measured for the sheep between 2.5 and 4.5 years of age. The oldest animals showed good live weight, but lowest BCS.

42. Славова, П., Н. Димова, И. Иванова, Ж. Пеева, Ст. Лалева. В. Василев. 2010. Връзка на плодовитостта с оценките на телесното състояние и живото тегло при овце от Тракийската тънкорунна порода, Животновъдни науки, 4, 20-27

ABSTRACT

Study was performed in the Agricultural Institute - Stara Zagora in the period June 2008 - May 2009. The object of study were ewes the Thracian Fine-Fleece Breed herd, placed under the equal conditions of rearing and feeding.

Five evaluations of body condition score (BCS) are conducted. Along with the assessment of body condition is determined and live weight.

In processing the animals were divided into three groups according to type of lambing: I-st - lambing single, II -nd- lambing twins and III-s - barren ewes.

Average reproduction performance was defined according to individual body condition score and live weight in separate classes.

For variation and statistical analysis of the obtained data was used STATISTICA for Windows software.

Results of the study shows that:

- Physiological status has a substantial influence on the dynamics of change of BCS and live weight of sheep during the year. It is a significant reduction in live weight and BCS during period after lambing, ewes lambing twins when they lost part of the fat reserves for breeding offspring;

- Higher reproduction performance have animals with 3.0-3.5 BCS and 51.00-60.0 kg live weight in the period before insemination.

Lambing ewes were recovered after the period of lambing and reached body condition that allows next insemination.

43. Оджакова, Ц., Й. Попова, Ст. Лалева, П. Славова, В. Димова. 2010.
Икономическа ефективност на отглеждането на Каракачанската порода овце, Животновъдни науки, 3, 24-27

ABSTRACT

The rate of profitability of rearing the Karakachan breed of sheep was analysed. The objective of the study was the Karakachan flock at the Experimental Station of Agriculture and Animal Husbandry (ESAАH) - Smolian, which consists of 150 ewes and 80 lambs and yearlings. The animals were reared in the barn and on the pasture. The feeding was according to the productivity, physiological stage and the age of the animals. The animals were served by two shepherds. The income and expenses were estimated based on the 2007 ruling prices.

It was found that:

- The rearing of animals from the Karakachan sheep breed is economically profitable under the conditions of the study.

- Care should be taken to protect the lambs born and to increase the number of the realized lambs per ewe per year.

- For maintaining of the number of the Karakachan breed it is necessary to utilize the means from Measure 214 "Agroecological payment" of the Programme for development of the rural regions for the period 2007-2013.

44. Попова, Й., Ц. Оджакова, Ст. Лалева, П. Славова, В. Гайдарска. 2010.
Ефективност на отглеждането на Българското родопско говедо, Животновъдни науки, 3, 9-11

ABSTRACT

The rate of profitability of rearing of the Bulgarian Rhodopes cattle in the Experimental Station of Agriculture and Animal Husbandry (ES ААH) - Smolian was analysed.

The object of this study was the cattle form at the ESAAH where 103 cows and 97 calves and heifers of the Bulgarian Rhodopes cattle are reared.

The animals were reared in the barn and on the pasture. The necessary forages for feeding the animals were purchased. The feeding was according to the productivity, physiological stage and the age of the animals. Replacement was with own production heifers.

Milking was carried out with a central milk line, cleaning - with a chain-plate transporter, and supplying of the forages - with a forage trailer. The income and expenses were estimated on the basis of the ruling prices.

It was found that the rearing of animals of the Bulgarian Rhodopes cattle is economically advisable under the operating conditions and financing of the cattle farm at the ESAAH, Smolian.

- 45. Славова, П., Н. Димова, И. Иванова, Ж. Пеева, С. Лалева, Й. Попова, В. Василев. 2010. Връзка на плодовитостта с оценките на телесното състояние и вълнодайността при овце от Тракийската тънкорунна порода, 20 th Anniversary International Scientific Conference 3-4 june, Stara Zagora, Bulgaria, "Science & Technologies", on line journal, Volume I, Agricultural science. Animal studies&Veterinary medicine, 68-75**

ABSTRACT

The aim of this study was to determine the relationship of reproduction performance with body condition score and wool production in ewes of Thracian Fine-Fleece Breed. Study was carried out in the period June 2008 - May 2004 in the Thracian Fine-Fleece Breed herd in the Agricultural Institute - Stara Zagora. The animals were reared and fed under equal conditions.

To establish the relationship between reproduction performance and wool production of ewes were recorded the results of BCS in the period after lambing and before insemination.

Analyzed parameters were live weight, reproduction performance, wool production and staple Length.

The animals were divided into three groups according to type of lambing - I-st - lambing single, II -nd- lambing twins and III s - barren ewes.

The assessment of body condition of ewes was carried out in accordance with the five point system. For variation and statistical analysis of the obtained data STATISTICA for Windows software was used. It was found that: Reproduction performance definitely affect on other selection traits in Fine fleece ewes. Established trend is opposite variable of wool production and staple length of reproduction

performance and assessment of BCS after lambing. The highest wool production has barren ewes. and the lowest are those lambing twins. The reported difference in the amount of 0.490 kg is mathematically proven. This trend is less pronounced during the period before the next insemination, because recovery occurred lambing ewes and achieve a good physiological status.

46. **Попова, Й., Ц. Оджаклова, Ст. Лалева, П. Славова, В. Димова, В. Гайдарска. 2011.** *Икономическа ефективност на преработката на краве и овче мляко, произведено във фермите на ОСЖЗ – Смолян, Животновъдни науки, 3, 16-19*

ABSTRACT

The economic efficiency of the processing cow and sheep milk produced in their own cattle and sheep farm in OSZJ - Smolyan was analyzed.

Object of the survey is manufacturing of dairy products in the workshop for processing milk in OSZJ- Smolyan. It produces fresh cow's milk, cow and sheep's yogurt and cow's butter. Raw material production - sheep and cow's milk, is harvested at their cattle and sheep farm.

It was found that under the conditions of functioning and financing of cattle and sheep farms, also workshops for processing milk OSZJ-Smolyan is cost-effective production of fresh cow's milk, sheep and cow's yogurt and cow's butter through the processing milk obtained from cows of the Bulgarian Rhodopy cattle and sheep from Karakachan breeds livestock in their farms.

47. **Славова, П., Н. Димова, Ж. Пеева, С. Лалева, Й. Попова. 2011.** *Проучване връзката между някои екстериорни измерения, телесното състояние и продуктивността при млади разплодни животни от Тракийската тънкорунна порода, International scientific on-line journal "Science & Technologies", "Union of Scientists - Stara Zagora", Bulgaria, Volume I, № 5 Animal studies & Veterinary medicine, 64-71*

ABSTRACT

The purpose of this study was to establish a link between some body measurements, body condition score and production performance in young sheep of Tracian fine-fleece breed. Study was performed in the period 2009-2010, with young sheep of Tracian fine-fleece breed from herd of the Agricultural Institute - Stara Zagora. The trial included 31 animals aged 6 to 18 months.

Four evaluations of body condition (BCS) and measured live weight, wool production and staple length were conducted. At the same time were made body measurements of animals. Body size was calculated.

As a result of the study is found: In young sheep of Tracian fine-fleece breed most intense is increase the length and height of the body during the period from 6 to 9 months, and the chest width and hip width after 15 months. The most amusing is their growth between 9 and 15 months (autumn-winter season), which is associated with climatic and physiological reasons.

The body condition score was highest at 18 months before mating. It is not significantly influenced by body measurements of animals as phenotypic correlations are negligible, low or moderate value (BCS live weight - 0.366, with a hip width - 0.327 and body size - 0.430). However, because existing moderate correlation between BCS and live weight, they affect it, but can not serve as the main criterion in determining her. The values of phenotypic correlation between live weight and body length with wither height and heart girth were significant (respectively, 0.690, 0.523 and 0.774), ie larger animals have a higher live weight.

There is no established a substantial relationship between the body measurements, body condition score and wool production.

48. Bivolarski, B., E. Vachkova, S. Laleva, P. Slavova, I. Ivanov. 2011. Comparative studies on some parameters of innate resistance and metabolic profile of sheep and their offspring depending on the ration, **Agricultural Science and Technology**, vol. 3, No 2, pp 103 – 106

ABSTRACT

Comparative studies were earned out to evaluate the non-specific resistance and some metabolic profile parameters in Mouton Charolais sheep (n-16) and their offspring (n-10) depending on diet type. It was found out that the compound feed type had various effects on studied parameters. Blood lipids and T, increased statistically significantly ($p < 0.05$) in sheep. In offspring, considerable changes were observed in blood urea, APCA ($p < 0.05$), body weight and daily weight gain ($p < 0.01$) There were no significant changes in the other parameters tested lysozyme, total protein, γ -G T and T.

49. Sotirov, L., Ts. Koynarski. V. Semerdjiev, D. Dimov, S. Laleva, P. Slavova, M. Iliev, D. Yarkov, 2011. Effect of breed upon blood lysozyme and complement activity in different sheep breeds, **Agricultural Science and Technology**, vol. 3, No 4, pp 302 – 305

ABSTRACT

To determine the effect of sheep breed upon blood serum lysozyme and complement activities, 432 blood samples were collected from the following sheep breeds. Mouton Charollais, Ile de France, Trakia Merino, milk crosses, White Maritsa, Patch-faced Maritsa, Karnobat local, Pleven Blackhead and Stara Zagora (48 sheep from each breed). The animals were reared at the Agricultural Institute-Stara Zagora, the Agricultural Institute-Karnobat and private farms. The highest alternative pathway of complement activation (APCA) activity was observed in Ile de France sheep ($p < 0.01$), and the lowest in milk crosses reared at the Agricultural Institute-Stara Zagora. Blood lysozyme concentrations exhibited the opposite trend: highest values in milk crosses ($p < 0.01$) and lowest in White Maritsa and Ile de France sheep.

50. Славова, П., Н. Димова, Ж. Пеева, С. Лалева, Й. Попова, 2012.
Проучване връзката между някои екстериорни измерения, телесното състояние и продуктивността при овце от Тракийската тънкорунна порода, Животновъдни науки, 2, 3-11

ABSTRACT

The body condition score is express and easily applicable method for determining the physiological condition of the sheep and its application is relevant to management of sheep herd.

The purpose of this study was to establish a link between some body measurements, body condition score and production performance sheep of Tracian fine-fleece breed. The trial included 68 animals aged 3.5, 4.5 and 5.5 years from the herd of Tracian fine-fleece breed from Agricultural Institute - Stara Zagora. Body condition score and body measurements were made and productivity was reported.

As a result of this study was found:

Animals from the herd of Thracian tankorunna breed are aligned by type, exterior and productivity. There is no established a significant difference in the BCS - from 3.000 to 3.312 and its level is an indicator of good physiological condition of animals. It is not influenced by the body measurements of the sheep, because they can not serve as a criterion for its determination. There was significant correlation between body size with hip width ($r_p = 0.72$), chest depth ($r_p = 0.66$) and body length ($r_p = 0.55$).

51. Славова, П., Н. Димова, Ж. Пеева, Ст. Лалева, Й. Попова, 2012.
Проучване на връзката между ОТС и продуктивните признаци на овцете при стандартно заплождаване и след прилагане на хормонална схема за индуциране на еструс и стимулиране на овулацията,

International scientific on-line journal "Science & Technologies",
"Union of Scientists - Stara Zagora", Bulgaria, Volume II, № 5
Animal studies & Veterinary medicine, 40-46

ABSTRACT

The induction of oestrus in anoestral season is possible through various hormonal schemes enabling to manage genital-activity in sheep. The use of intravaginal tampons provides synchronization of oestrus and superovulation in sheep. Identifying the relationships between BCS and productive traits is essential to increase the production from sheep and achieve higher profitability. The purpose of this study was to establish a link between BCS and productive traits of sheep at a standard mating, and after application of hormone schemes to induce oestrus and ovulation induction in sheep of Tracian fine-fleece breed. Experiment was conducted in Agricultural Institute - Stara Zagora with two groups ewes of Tracian fine-fleece breed. The first group of animals was treated with hormonal preparations / according to the adopted scheme / anestrus season - May. The second group was inseminated at the normal mating - July-August. The groups were formed based on the range of previous lambing and weaning of lambs, ie first group of sheep were lambing in November-December and the second - in January and February. Hormone used was the following scheme: intra vaginal sponge

Sincro-part 30mg/, removing sponge after 12 days and injection of PMSG at a dose of 500 UI, artificial insemination 50-55 th hour. Sheep of Tracian fine-fleece breed, which is attached hormone schemes using vaginal sponges and PMSG are characterized by significantly higher body condition score, higher live weight and biological fertility in comparison with those used in conventional technology.

52. Miteva, Ch., G. Kostadinova, St. Laleva, P. Slavova, Y. Staykov, V. Katsarov, V. Dimova, K. Uzunova, 2012. Protoform of the modern extension service in the field of animal husbandry and veterinary medicine. III. The period after the liberation of Bulgaria (period of national progress in agriculture), International scientific on-line journal "Science & Technologies", "Union of Scientists - Stara Zagora", Bulgaria, Volume II, № 5 Animal studies & Veterinary medicine, 59-67

ABSTRACT

The present research analyses the activities of state, public and private structures assisting the work of agriculture producers after the Liberation of Bulgaria (aka period of national progress in agriculture), and throws light on their role as a protoform of the modern extension service in the field of animal husbandry and veterinary medicine from historical point of view. For this purpose, a number of

governmental documents (orders, laws, ordinances etc.), rules for organisation of agricultural schools, programmes of public organisations and unions, museum and library funds expositions relevant to the study's goal were investigated. The period of national progress in agriculture in Bulgaria is associated with the foundation of different types of agricultural schools and training courses. The organisation of agricultural experimental stations and the implementation of professional training have improved the practical skills of people engaged in farm animal rearing. The foundation of livestock husbandry unions and social movements, the educational activities related to improving the knowledge and skills of livestock producers became more pragmatic and species-specific. During that period, due to the direct transition of Bulgaria to bourgeois capitalist development, agricultural educational and administrative structures organised and institutionalised in the country were similar to those of West Europe. This way, agricultural teachers, practicing agronomists, veterinarians and zootechnicians, specialists and administrative staff hired by livestock husbandry unions became the founders and distributors of scientific and applied knowledge in the field of animal and veterinary medical sciences. The training of livestock producers in the country performed by them at that time is a kind of a protoform of the modern extension service.

- 53. Dimova, N., M. Baltadjieva, V. Karabashev, S. Laleva, Y. Popova, P. Slavova, J. Krastanov, G. Kalaydjiev, 2013. *Effect of supplementation of probiotic Zoovit in diets of calves of milk breed, Bilgarian Journal of Agricultural Science*, v.19, Supplement, 94-97**

SUMMARY

The study was conducted to determine effect of probiotic on performance, health status and hematological parameters of female calves of Bulgarian Brown Breed and Black and White Breed. Calves were assigned to four experimental groups of 10 days age. All calves were weaned on the 90th day. Calves of probiotic groups received 12g probiotic daily with the morning milk. Feed intake, body weight gain and general health condition of all calves were observed per 10 days. The results showed that there were no differences in feed intake, and blood parameters. Calves fed with probiotic were healthier than the control calves. It was found that addition of probiotic had positive effect on average daily gain in calves of Black and White Breed.

- 54. Dimova, N., M. Baltadjieva, V. Karabashev, S. Laleva, Y. Popova, P. Slavova, J. Krastanov and G. Kalaydjiev, 2013. *Effect of Adding of Probiotic „Zoovit“ at Feeding of Lambs from Breed Synthetic Population***

ABSTRACT

In recent years, different probiotic products are exploring to replace prohibited nutrition antibiotics. Adding of probiotics „Zoovit“ in the diet of lambs from SPBVI stimulates metabolism and increases the intensity of growth as its maximum values are between 36th and 46th day of the birth of lambs. Differences in average daily gain between the two groups are statistically significant.*

- 55. Slavova, P., S. Laleva, Y. Popova, 2013, Comparative study of fertility in a standard mating procedure and after hormonal treatment to induce oestrus and ovulation, 10th International Symposium “Modern Trends in Livestock Produktion, Zemun - Belgrade, Serbia, 2-4 Oktober, 952-958**

ABSTRACT

The aim of this study was to analyze the fertility level during the season as standard and fertility after application of hormones to induce oestrus and ovulation. The experiment was carried out with two groups of sheep of Trakian merino breed in the sheep farm of Agricultural Institute - Stara Zagora. The first group counted 96 animals treated with hormones /according to the adopted scheme/ out-of-season - in May. The second group - 112 animals were inseminated in July- August as regular. In our study we used the following scheme of hormonal treatment: putting vaginal sponges for sheep type Sincro-part /30mg/, removing them in 12 days and giving sheep an injection of PMSG at a dose of 500 UI and applying artificial insemination at the 50-55th hour after injection. When the lambing season came to its end the final results were summarized, analyzed and calculated. It was found that: the difference in the proportion of aborted sheep and lambed sheep as well as the proportion of live births and stillborn lambs from both groups was insignificant. The received off-springs are doing well; biological and economic fertility is significantly higher in sheep treated with hormones - the difference is respectively 42.97% and 12.55%.; applying the testing hormonal scheme results in a greater number of lambs, higher economic effect and is relevant to the good management system of sheep production in our country.

- 56. Попова, Й., С. Лалева, П. Славова, В. Димова. 2013. Икономическа ефективност на отглеждането на специализирани породи говеда за мляко в планинските и полупланинските региони на България, International scientific on-line journal “Science & Technologies”, “Union of Scientists - Stara Zagora”, Bulgaria, Volume III, № 5 Animal studies & Veterinary medicine, 82-85**

ABSTRACT

The purpose of the following study is to analyze the economic efficiency of breeding cattle breeds for milk in the mountains and hilly regions of Bulgaria.

The study was conducted in a farm with 30 black-and-white cows and the relevant categories calves and heifers. There is an average annual milk yield of 5000 kg with 3.6% Fat, 90% fertility and 20% repair of the herd. Semi-production system has been applied - the animals have been raised in a stall-pasture conditions in a closed building with adjoining small yards and mechanized operations - feeding, milking, cleaning and watering. Part of the female and all male calves were sold until they became 90 days old. The income and expenses are estimated at current prices in 2012.

It was establish that: as a result of the study held we can make the following conclusion - breeding of cattle breeds for milk in the mountains and hilly regions does not have the expected economic effect — the profit and rate of return are low.

- 57. Славова, П., С. Лалева, Й. Попова. 2013. Фенотипни изменения на селекционни признаци при In situ съхранение на овце от Тракийската тънкорунна порода, International scientific on-line journal “Science & Technologies”, “Union of Scientists - Stara Zagora”, Bulgaria, Volume III, № 5 Animal studies & Veterinary medicine, 57-64**

ABSTRACT

The object of this study is to analyze the phenotypic changes of the main breeding traits for in-situ conservation of the sheep of Thracian merino breed.

Object of the study are the merino sheep reared in Agricultural institute - Stara Zagora and born in the period 2006-2010. Information was collected and summarized for the basic productive traits from birth to 5.5 years old - live weight, wool productivity, staple length, wool yield, pure wool and fertility on the basis of the inspections held.

Conclusions:

1. The merino sheep of the flock in Agricultural institute - Stara Zagora characterize with very good physiological status allowing them to achieve optimum productivity level, meeting the requirements for breeding animals for the respective range. The results from the targeted selection during the years is the following:

- Live weight of animals from 6 months to 2.5 years was the highest for those born in 2010;*
- The sheep born in 2010 have the highest wool productivity rate at 18 months and 2.5 years;*
- The proportion of twin lambs left for breeding is increasing;*

- Fertility increases from first to third lambing and reaches a maximum level of over 140%.

- Wool yield and pure wool rates are high, with variation from year to year, which illustrates the positive impact of the crossing with rams of the Australian merino breed resulting in improved physical and mechanical qualities of the wool.

58. Славова, П., Н. Димова, С. Лалева, Ж. Пеева, М. Михайлова. 2013. Проучване връзката между оценката на телесното състояние, живото тегло и плодовитостта при млечни овце, *International scientific on-line journal "Science & Technologies", "Union of Scientists - Stara Zagora", Bulgaria, Volume III, № 5 Animal studies & Veterinary medicine, 65-70*

ABSTRACT

The object of the study is to examine the relationship between the assessment of body condition score - BCS, live weight and fertility in dairy sheep.

The study was conducted in dairy sheep flock of Agricultural institute - Stara Zagora. The study includes 150 mating and lambing ewes in 2012 to 2013. Body condition score and live weight have been measured in two periods - before mating and during mid-gestation. Sheep have been separated into two groups - ones and twins, fed and kept under the same conditions in the flock. Lambs were reported for their live weight at birth.

For the BCS measurements was applied the adopted five-pointed system labeled by numbers from 1 (very poor) to 5 (obese) (Todorov, N., 2008, Todorov, N. et al., 1994; Thompson, J. and H. Meyer, 1994).

CONCLUSIONS:

In the dairy sheep flock of the Agricultural institute in Stara Zagora have been established significant differences in the assessment of body condition and live weight before mating and during mid-gestation in relation to the type of birth which is in favor of ewes that have given birth to twins.

Sheep with assessment 3.00 take the highest percentage in the flock in both groups – with ones and twins - respectively 47.96% and 42.31%. Sheep that have given birth to twins have a higher rate and higher live weight.

To obtain a larger number of lambs it is necessary to make adequate preparation of ewes to reach over 2.75 BCS.

59. Понова, Й., С. Лалева, С. Кирилова, П. Славова, Г. Калайджиев, В. Карабашев. 2013. Ефективност на отглеждането на овце, кръстоски с месодайни породи в планинските и полупланински

региони на България, International scientific on-line journal "Science & Technologies", "Union of Scientists - Stara Zagora", Bulgaria, Volume III, № 5 Animal studies & Veterinary medicine, 78-81

ABSTRACT

The object of the study is to analyze the opportunity for sheep-breeding of meat-type crossbreeds in the mountain and hilly regions of Bulgaria. Study took place in a farm with 100 ewes and the respective categories of lambs and rams. For the mating procedure were used rams from the Ile De France and Mouton Sharolais breeds. During the winter period sheep have been hand-fed as follows – 0,600 kg concentrate mixture, 2 kg roughage and 1 kg hay per ewe daily. Before and during the mating period /about 45 days/ ewes are given 0,300 kg wholegrain per day. Whole grain and roughage necessary for the feeding of ewes the farmer should buy but hay is self-provided. There is an average fertility per ewe 130%, average yield of wool 2,2 kg and 20% repair of the flock. There is only one person in the farm to serve the sheep. The income and costs in the farm are estimated at current prices in 2012.

It has been established that:

- 1. Under the condition of the study sheep-breeding of meat-type crossbreeds does have the expected economic effect*
- 2. With a view to increasing the income of sheep-breeding farmer should pay attention to increasing the fertility of ewes and saving the new-born lambs.*

60. Laleva, St., P. Slavova, N. Pacinovski, G. Bonev, G. Cilev, Y. Popova, 2014. Comparison of the ovulation rate, fertility and birth weight in sheep of Trakian merino breed and their crosses with Booroola, Macedonian Journal of Animal Science, Vol. 4, No. 2, pp. 49–53

ABSTRACT

Meat is a main product from the sheep breeding, having a relatively stable price and market in Bulgaria. With this respect the number of the lambs born and weaned has always been an important factor. Crossing with high fertility breeds like Booroola Merino and Finnsheep is often used to increase the total productivity, especially the quantity of the lambs born.

There are two types prolific ewes - Fertility is either controlled by numerous genes (Romanov, Finnsheep) or in the Booroola and Cambridge breeds is controlled by one gene with a large effect on ovulation rate.

The F-gen identification is based on the ovulation rate (number of the corpus luteum per ewe) and number of lambs born. The ovulation rate in heterozygotic ewes by this gene is increased with 0.5 -1.5 and in homozygotic ones - with 3.3 (Piper et al., 1984). The Booroola crossbreed have 5% lower live weight, produced 6% less wool,

but have about 20% more weaned lambs per ewe in lambs born - dominantly and this is a characteristic feature of this gene.

The aim of this study is to compare the Trakian Merino sheep and their crossbreed with Booroola in terms of their ovulation rate, fertility and birth weight.

61. Славова, П., С. Лалева, Й. Попова, 2015. Проучване върху тенденцията на изменение на продуктивните признаци живо тегло и вълнодобив при млечни овце, отглеждани в Земеделски институт – Стара Загора, *Животновъдни науки*, 2, 10-14

ABSTRACT

The aim of the study is to identify and analyze the phenotypic variations of productive traits as bodyweight and wool yield in sheep from Bulgarian milk synthetic population raised in Agricultural Institute - Stara Zagora.

Breeding traits - live weight and wool yield at different age /from birth to 5.5 years/ were studied and the trend of their variability during the period of economic use 2006-2012 and by year of birth has been observed.

As a result of this study the following conclusions can be drawn: Sheep from the flock of SPBM have good physiological status, allowing the realization of their genetic traits for optimum productivity. Live weight increases, but wool yield variation is insignificant with age. The level of both productive traits corresponds to the selection limits of tribal dairy sheep. Specificity of nongenetic factors in individual years has some impact on their productivity.

62. Slavova, P., S. Laleva, Y. Popova, 2015. Effect of body condition score and live weight of fertility of Merino sheep after induction of oestrus in the out-of-breeding season, *Biotechnology in Animal Husbandry*, Белград, 31 (2), p 235-243

ABSTRACT

Object of the study were merino sheep raised in the farm of the Agricultural institute - Stara Zagora. The experiment was conducted with a group of 68 animals of different ages, lambing after treated with hormonal preparation according to adopted scheme during the out-of-breeding season - in May. In the experimental group were included ewes which lambed earlier without making a selection in respect to their productivity.

Animals were kept under the same conditions (stall-pasture) and fed the same rations with the concentrate mixture, rough, succulent feed and grazing in quantity and composition according to their physiological status and season from the fertilization until lambing.

Hormonal pattern: setting pads for sheep type Sincro-part (30mg), removing pads after 12 days and giving ewes a PMSG injection at a dose of 500 UI, applying artificial insemination at the 50-55th hour. Body condition score and live weight of the animals were determined in 4 separate periods: 1-st period (after mating), 2-nd period (during pregnancy), 3-rd period (after lambing), 4-th period (before next mating service).

Improving fertility in merino sheep is significantly influenced by the preparation of ewes for the mating by reaching the respective physiological status which is expressed by score over 2.5 according to the Body condition score method and live weight over 60 kg. Animals scored 2.75-3.50 before mating have a share of 91.18% from all the sheep in the flock and have the biggest number of lambs.

63. Славова, П., С. Лалева, Й. Попова, 2015. Проучване изменението на продуктивните признаци млечност и плодовитост при овце от Синтетична популация българска млечна в резултат на провежданата селекция, Животновъдни науки, 3, 20-25

ABSTRACT

Analyzing the level of productivity in individual herds and the entire dairy crossbred population significantly affect the right direction of breeding process, aimed at improving its valuable productive and quality traits.

The aim of the study is to observe the changing trends - milk yield and fertility of Synthetic population Bulgarian dairy sheep (SPBM) for the period 2006-2012.

Object of the study are dairy sheep from Bulgarian Synthetic population in the farm of Agricultural Institute - Stara Zagora. The selection traits we examined and analyzed are milk yield and fertility at animals of different ages during the period of their economic use 2006-2012 year and on year of birth. Variation of milk yield is observed from I-st to IV-th lactation and fertility - from I-st to IV-th lambing, i.e. up to 5.5 years of age. Part of the animals born in 2008 and 2010 have one more lambing and lactation as they have mated and lambing as (weaned) lambs.

CONCLUSIONS

Sheep from flock SPBM are characterized with milk yield and fertility, responding to the selection limits for dairy tribal sheep. Fertility increased from first to third lambing - from 126.2% to 140.2% /for 100 ewes / and average daily milk yield increases with the sequence of lactation - from 0.843 l. to 0.997 l. Improvement and consolidation of the main productive traits at breeding activities in the flocks of population should continue through establishing of optimal conditions for the realization of own genetic potentialities of the animals.

64. Славова, П., 2015. Проучване възможността за оптимизиране на плодовитостта и оценката на телесното състояние при тънкорунни овце, *International scientific on-line journal "Science & Technologies", "Union of Scientists - Stara Zagora", Bulgaria, Volume V, № 5 Animal studies & Veterinary medicine*, 28-35

ABSTRACT

The aim of this study is to analyze the possibility of determining the optimal BCS for achieving higher fertility in merino sheep.

The object of research were sheep from the Thracian merino breed, reared in Agricultural institute - Stara Zagora, inseminated in the standard fertilization period - from July to August. They were separated by type of lambing as follows: I-st group - with one lamb, II-nd group – with two lambs and III-rd group – not yeaned.

Body condition score and live weight of animals were identified and reported in four periods - after insemination, in the mid gestation, after lambing, before next service.

CONCLUSIONS:

Within the study of Thracian merino sheep highest fertility realized animals with Body condition score from 2.75 to 3.00 and average live weight over 53 kg /68, 47%, reported in the post-insemination period. Animals with score from 2.50 to 3.00 have the highest share of yeaned sheep in the flock - 90.99%.

65. Славова, П., Ив. Димитров, С. Лалева, 2015. Проучване динамиката в изменението на живата маса и плодовитостта при овце от Тракийската тънкорунна порода, *International scientific on-line journal "Science & Technologies", "Union of Scientists - Stara Zagora", Bulgaria, Volume V, № 5 Animal studies & Veterinary medicine*, 21-27

ABSTRACT

The aim of this study is to examine dynamics of the change in live weight and fertility in sheep of the Thracian merino breed.

Object of the study are the sheep from the Thracian merino breed flock, born and raised in the Agricultural institute - Stara Zagora during the period from 2006 to 2014. The study included a total of 230 animals monitored for their performance according to the instructions adopted by the Association of merino sheep breeding in Bulgaria. Breeding traits as live weight from birth to 5.5 years and fertility from I-st to IV-th lambing were examined. The research was conducted by the year of birth.

Data were processed statistically by ANOVA.

As a result of this study and analysis of results obtained, we can make the following conclusions:

Year of birth influences the live weight of sheep from Thracian merino breed, which is more significant up to 30 days of age, after which manifests more clearly the effect of the marketing year. The most significant and with a high degree of authenticity are the differences between individual years of birth regarding live weight indicator from 70 days to 2.5 years.

Fertility is lowest at the first lambing and tends to increase and remain constant at the following ages. The amendment is not in one direction and the established differences by ages and years are not mathematically proven.

- 66. Попова, Й., П. Славова, С. Лалева, Д. Йорданова, Т. Ангелова, Ж. Кръстанов, В. Карабашев, 2015. Икономическа оценка на хормонална схема за индуциране на еструс и стимулиране на овулацията при овце от Тракийската тънкорунна порода, Животновъдни науки, 3, 26-30**

ABSTRACT

The purpose of this study was to analyze the economical effectiveness of the implementation of scheme hormonal induction of oestrus and ovulation stimulation in sheep of Trakian merino breed. For the purpose in experimental base of Agricultural Institute - Stara Zagora was an experiment with two groups of Trakian merino breed. The first group consisted of 96 animals treated with hormones according to the adopted scheme (May) and the second group of 112 animals inseminated in normal time for insemination - from July to August. In our study had used hormonal following scheme: placing the pads sheep Sincro-part (30 mg), removal pads 12 days and an injection of PMSG at a dose of 500 UI, artificial insemination of 50-55 th hour. The value of hormonal scheme is 7.15 BGN per animal. Incomes and costs are valued at current 2014 prices. It was found that the application of hormonal stimulation is appropriate, leads to increased economic efficiency of production and encourage its application in practice.

- 67. Славова, С., С. Лалева, Й. Попова, П. Славова, 2015. Икономическа ефективност на стадото овце от Синтетична популация българска млечна, отглеждани в Земеделски институт – Стара Загора, International scientific on-line journal “Science & Technologies”, “Union of Scientists - Stara Zagora”, Bulgaria, Volue V, № 5 Animal studies & Veterinary medicine, 60-69**

ABSTRACT

The aim of the study is to make an assessment of economic efficiency in the sheep flock of Bulgarian Synthetic population for milk, raised in the Agricultural institute – Stara Zagora within the period from 2010 to 2013.

The total costs for production, revenues from the sale of sheep products and production prime costs were calculated and presented in the current study. Economic indexes as profit, profit per ewe and per 100 lv of total revenues and profitability rate including and excluding subsidies were estimated.

As a result of our research, the following conclusions can be outlined:

- 1. The relative share of feed costs from the total varies within 45% to 52% during the analyzed period, and the share of labour costs – from 28% to 37%.*
- 2. The sale of lambs for slaughter has the biggest share in the total revenues – 34% - 45%, followed by the revenues from sheep milk – 30% - 40%.*
- 3. Within the whole period, we have losses in the flock (Rate of profitability is a negative value), even with the subsidies paid by the State fund Agriculture.*

68. Михайлова, М., Й. Фенерова, С. Лалева, Н. Димова, П. Славова.
2015. Млечна продуктивност и съдържание на урея при овце от Синтетичната популация българска млечна, International scientific on-line journal “Science & Technologies”, “Union of Scientists - Stara Zagora”, Bulgaria, Volume V, № 5 Animal studies & Veterinary medicine, 8-15

ABSTRACT

Monitoring of protein nutrition in sheep is easily achieved through the determination of urea in milk, as this rapid method to define the level of crude protein in the rations for sheep grazing and nutrient potential of protein supplement to feed ration (Cannas, 1998, 2002 ; Bendelja, 2009).

The study of the urea content in the milk would provide information on the metabolism and utilization of the protein, and to improve the reproductive performance (Molle et al., 2003).

Since sheep's milk is mainly used for the production of cheese, it is important to pay attention to fat content and protein, because the measurement of these parameters can accurately predict the yield of cheese (Pelegrini et al., 1997).

The aim of the study was to examine the relationship between milk production, urea content and ingredients of milk in sheep from Synthetic population Bulgarian milk. The study included 28-30 sheep of synthetic population Bulgarian milk from the herd of Agricultural Institute - Stara Zagora. The survey was conducted in April-May 2014.

Milk samples for analysis (50 ml) were taken in the morning milking sheep and immediately analyzed for dry matter content, non-fat solids, fat, total protein and lactose apparatus Ekomilk Total Ultrasonic milk analyzer in the laboratory of the Agricultural Institute. Urea content was determined using the Angelov Ibrishimov and Milashki, 1999.

The survey results were processed with statistical software package STATISTICA for Windows.

The obtained data we show that levels of urea in milk from 17.35 to 26.78 mg / dl the milk ingredients are also within the normal range for the breed and stage of lactation and it is suitable for processing into milk products. It is necessary to be thorough studies on the relationship of the components of milk and urea content and find ways to improve its quality.

69. Popova, Y., S.Slavova, S. Laleva, D. Yordanova, T. Angelova, P. Slavova, J. Ktastanov, 2015. Economic efficiency of breeding dairy sheep in the mountain and hilly regions of Bulgaria, **Biotechnology in Animal Husbandry**, Белград под печат Земун

ABSTRACT

Sheep breeding is an important means of livelihood for the population living in the mountain and hilly regions of the country. The object of the present study is to analyze the economic efficiency of breeding dairy sheep in the mountain and hilly regions of Bulgaria. Object of the study are 2 models of farms with 100 ewes from the dairy type and the relevant categories lambs and rams. We compare and analyze two levels of milk productivity - 70 l per lactation in the first farm and 100 l per lactation in the second farm. The whole grain and roughage necessary for feeding ewes are calculated while hay is self-provided. The average fertility per ewe is 115%, the average wool yield is 2.2 kg and the repair of the flock is 20%. Incomes and costs are estimated at current prices for the 2013 - 2014.

It was found that in the terms of the present study we may draw the conclusion that in case the farmer is not getting subsidy from the State Fund "Agriculture" will be efficiently to raise only ewes that have milk productivity 100 l per lactation; in support of the farm subsidies by the State Fund "Agriculture" and the two levels of milk production is appropriate breeding of dairy sheep in the mountainous and hilly regions of the country; in order to improve the economic efficiency farmers should pay attention to increasing the fertility of ewes and protection of the new-born lambs as well as increasing of milk productivity of ewes.

70. Славова, С., Н. Станчева, С. Лалева, Й. Попова, П. Славова, 2015.

Икономическа ефективност на стадото овце от Синтетична популация българска млечна, отглеждани в ЕБ-ДП към ЗИ-Шумен, с. Царев брод, Животновъдни науки, 5

ABSTRACT

The purpose of this paper is to assess the economic efficiency of sheep flock of Bulgarian synthetic population for milk, grown in the Experimental base – State enterprise to the Agricultural institute – Shumen for the period 2012 – 2014.

Object of our research are three flocks of ewes and the relevant categories of rams, ewe lambs and ram lambs, raised in the sheep farm of the EB - State enterprise to the Agricultural institute - Shumen. Animals are kept in stall-pasture in semi-intensive regimens. The flock is under control of the basic productive traits.

The feed for the animals is from own production and the prices are at cost. The number of permanent employees is six and one person is temporary engaged. Costs and revenues are evaluated at prices prevailing at the time. Profit and rate of profitability (%) are calculated in this paper. Costs, revenues and profit with and without subsidies are given per ewe. Data used for the analysis is provided by the accounting department of EB – SE to the Agricultural institute – Shumen.

As a result of the present study, we make the following conclusions:

- Labour costs have the biggest share in the cost structure during the analyzed period – 42% - 46%, followed by the feed costs – about 40%.

- The revenues received from the sale of animals are 55% - 61% and from milk – 36% - 42% of the total.

- Profitability rate is a negative value during the whole period of research and it is the lowest in 2014 (-14,98%) including subsidies.

71. Slavov, R., G. Mihaylova, St. Ribarski, P. Slavova, D. Pamukova, 2015.

Study of physicochemical parameters of lamb meat from North East Bulgarian fine fleece breed and its crossbreeds from internal breeding, Agriculture science and technology, on press

ABSTRACT

A comparative analysis of physicochemical parameters of meat from lambs of North East Bulgarian fine fleece breed and its 25 % crossbreeds from internal breeding with heredity from Australian merino breed and Ile de France breed. Upon starting the experiment lambs were equal and during the experiment they were placed under similar conditions of feeding and rearing. To establish the quantitative and qualitative parameters of heredity slaughter analysis were performed at 100 and 130 days of age. From the carcass of each slaughtered animal pooled samples and individual samples from m. Longissimus, m. Semitendinosus and m. Semimembranosus were taken. Studies

were carried out in the Research Laboratory of the Faculty of Agriculture at Trakia University. As a result of the study the following conclusions were made:

-The use of the Ile de France breed in a sophisticated crossing scheme with in the North East Bulgarian fine fleece breed and subsequent internal breeding relates primarily to the achievement of the highest content of protein and phospholipids in the meat of crossbred lambs from internal breeding with 25% heredity from Ile de France breed.

- The highest is the level of protein in all three tested muscles in the same type of crosses. Water retention and pH₂₄ of meat from m. Longissimus, m. Semitendinosus and m. Semimembranosus of 100- and 130- day-old lambs in all three groups of lambs vary within narrow ranges and values give a reason for the meat to be described as having good quality.

- Internal breeding of crossbreds with 25 % heredity from Australian merino breed does not affect adversely the physicochemical parameters of meat.

Изготвил:.....

/доц. д-р П. Славова/