

РЕЗИЮМЕТА
на научните публикации

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РЕЗИЮМЕТА НА НАУЧНИ ТРУДОВЕ ПО ТОЧКА „В”

1. Станков, И., Д. Панайотов, М. Петев, Д. Памукова, 2002. Характеристика на основните селекционни признаци на полутънкорунни овце от породите Севернокавказка и Южнобългарски коридел, Животновъдни науки, 4-5, pp 21-26, ISSN 0514 – 7441.

SUMMARY

As a whole 415 2.5-year-old ewes were included in the study, 188 of which North Caucasian (NC) and 227 South Bulgarian Corriedale (SBC). The traits live weight (at weaning, at 9 and 18 months and at 2.5 years of age), wool, wool yield, clean wool, fines and staple length (at 18 months and at 2.5 years of age) and prolificacy were analyzed.

For all the studied traits ewes of the two breeds were with very similar average values, even for the separate years of farming. It was due to their close genealogy and the similar conditions of rearing. Prolificacy of ewes among different years of birth was within a wide range. That showed the animals were with a very high genetic potential for higher prolificacy, which was a preposition for successful selection on that trait. The results obtained suggest we could recommend joining the two breeds in one breeding herd with common genealogical structure, where uniform breeding criteria for the basic selection traits should be accepted.

2. Панайотов, Д., Д. Памукова, М. Илиев, 2003. Фенотипна характеристика на овце от местните аборигенни породи - Медночервена шуменска, Местна карнобатска и Каракачанска, Животновъдни науки, 5, pp 21-24, ISSN 0514 – 7441.

SUMMARY

The study was carried out with sheep born in the period of 1997-2001, i.e. 171 ones from the Mednochervena Shumenska, 163 ones from the Karakachanska and 362 ones from the local Karnobatska breeds. The animals from the first two breeds were reared in the base „Kabiuk" Ltd. in Shoumen and those from the local Karnobatska breed - in the Institute of Barley - Karnobat.

The phenotypic characteristics of the breeds was made on the basis of information, obtained from the recording of the following selection traits: live weight at weaning, at 18 months, at 2.5 years, wool production at 18 months and staple length at 18 months.

The study showed that the sheep from the three most popular local (aboriginal) breeds, when exposed to better conditions of nutrition and rearing, realized very good productivity which makes them close to a number of contemporary breeds bred in the country.

The lambs from these breeds were with very good growth intensity in the first months of their post-embryonic development and at weaning their weight amounted 22.2-24.8 kg.

The animals from the local Karnobat breed were with the highest live weight at 18 months - 44.1 kg in average, followed by the Mednochervena Shumenska breed (35.8 kg) and the Karakachanska breed (32.6 kg). At that age the animals from the Karnobat breed reached 95% of the live weight at 2.5 years, which showed that it is recognized with its very good growth intensity.

At 2.5-years of age the sheep from the Mednochervena Shumenska breed left behind their age equals from the Karnobat breed, while those from the Karakachanska breed were equal to them.

Yearlings from the Karnobat breed were with the highest wool production - 4.2 kg, while with the lowest one were those from the Karakachanska breed - 3.7 kg.

Longest was the wool of the animals from the Karakachanska breed - 21.9 cm. For the Mednochervena Shumenska and the local Karnobatska breeds the staple length was in average 13.9 and 13.3 cm.

3. Славов, Р., И. Станков, Д. Памукова, 2006. Сравнително проучване на технологични признаци на българска и вносна полутънка вълна, Животновъдни науки, 1, pp 58-64, ISSN 0514 – 7441.

SUMMARY

Under industrial conditions and according to the Bulgarian State Standard, industrial sorting, washing, carding and card sliver production from commercial batches of merino wool originating from Bulgaria, Serbia, Greece, Romania, Macedonia, France and Holland were investigated in two wool textile manufacturing enterprises: Katex – Kazanlak and Kolhida Ltd – Sliven.

The batches of unwashed wool were submitted to following technological studies: sorting, control washing, amount of washed wool and technological yield. The washed wool was further studied for: water content (%), residual grease content (%), dirt content (%), vegetable matter (%), fineness (μm), average fibre length (mm) and short fibre content (%). The tested laboratory parameters of card sliver were: fineness (μm), fibre length as hauteur and barbe (lgH and lgB , mm), short fibre percentage (%), residual grease (%), vegetable matter (%), nep percentage (%), weight per unit (conditional weight, g), irregularity by the Uster tester (%) and grade.

The study results showed that the quality of Bulgarian merino wool was considerably better compared to Macedonian, Romanian and Greek wool, imported in particularly large amounts and a similar price.

There was a broad range of variations of Bulgarian batches of unwashed and washed wool, due to the various breeds of sheep. The French and Dutch batches of wool exhibited the highest quality and excellent technological parameters. The significantly higher prices are probably determining the smaller imported quantities and these wools could be used as correctors in wool textile manufacturing.

4. Райчев, Св., Д. Памукова, И. Станков, Р. Славов, 2007. Аминокиселинен състав на тънка, полутънка и груба вълна, Животновъдни науки, 6, pp 123-129, ISSN 0514 – 7441.

SUMMARY

A total of 54 samples of sheep wool, divided as followed: 19 fine wool samples (5 from the Ascanian breed, 5 -from the Caucasian breed, 5 from the Northeast Bulgarian Finewool breed and 4 from the Merinofleisch breed); 22 samples of semifine wool (5 from the Ile-de-France breed, 5 from the Tsigay breed, 5 from the Dorset Horn breed, 4 from the North-Caucasian

breed and 3 from the Suffolk breed) as well as 13 samples of rough wool (5 from the Karnobat breed, 5 from the Pleven Blackhead breed and 3 from the Karakachan breed).

The content of 17 amino acids (lysine, histidine, arginine, aspartic acid, threonine, serine, glutamic acid, proline, alanine, cysteine, valine, methionine, isoleucine, leucine, tyrosine and phenylalanine) in 100 g washed wool was assayed.

The studies showed that in fine, semifine and rough wool, the highest amino acid content was that of cysteine, glutamic acid, proline and arginine, whereas the lowest-that of methionine and histidine.

The fine wool exhibited the highest levels of the sulfur-containing amino acids cysteine and methionine.

There were no statistically significant differences between the content of studied amino acids in the fine and semifine wools. There were however differences between the amino acid composition of rough and fine wools from one part, as well as between the rough and semifine wools, on the other.

5. Райчев, Св., **Д. Памукова**, И. Станков, Р. Славов, Д. Панайотов, 2008. Проучване съдържанието на макро- и микро елементи във вълната на овце от различни породи, Животновъдни науки, 5, pp 184-187, ISSN 0514 – 7441.

SUMMARY

The content of Ca, P, Zn, Cu, Fe and Mn was assayed in wool samples obtained from 81 sheep from 13 breeds. Macro- and trace element concentrations were determined by atomic absorption spectrophotometry (Perkin Elmer–380).

In merino type and local breeds there were no statistically significant differences in Ca content, whereas the half-merino breeds exhibited a low content for Tsigai sheep and Suffolk sheep.

The content of P showed larger variations in the three groups as well as between the breeds.

With regard to the trace element contents, there were significant differences between the different breeds within one production type.

No substantial differences in macro- and trace element concentrations depending on the wool type were observed.

6. Panayotov, D., T. Iliev, N. Naydenova, **D. Pamukova**, M. Simeonov, 2011. Study of milk composition in sheep of Pleven Blackhead breed, Agricultural science and Technology, 1, pp 47- 49, ISSN 1313 – 8820. http://agriscitech.eu/wp-content/uploads/2014/05/3_3.pdf

ABSTRACT

The aim of the study was to investigate somatic cell count and milk composition from Pleven Black head breed of sheep. A total of 96 ewes on first lactation were used belonging to the flock of the village of Komarevo, Pleven district. The studied animals - daughters of six rams from 2 lines, were fed yearround in a barn (November-March) and pasture period (April-October). A total of 384 individual milk samples were taken at four selection controls. The milk composition – fat, protein, casein, lactose, solids-non-fat and dry matter was established by Milko-Skan 104 (A/S Foss Elektric, Denmark). The total number of the somatic cells was established by an Ekoscope SCC automated system (Bulteh 2000, Stara Zagora, Bulgaria). The results of this investigation showed that the studied animals had very good milk quality indices. The milk of line 522 animals had significantly higher dry matter, solids-non-fat, fat, protein, casein and lactose content in comparison to those of line 32. For all studied milk

indicators the daughters of ram No.33 in line 32 showed the highest average values whereas those of ram No.321 belonging to the same line had the lowest. The average somatic cell count of the milk in the studied animals was very low – 66 254 cells/ml. Minimum variation was established in respect to average SCC values of the milk in both lines but very large between the individual rams.

7. Slavov, R., G. Mihailova, S. Ribarski, P. Slavova, **D. Pamukova**, 2015. Study of physicochemical parameters of lamb meat from North East Bulgarian fine fleece breed and its crossbreds from internal breeding, *Agricultural Science and Technology*, vol. 7, 3, pp 360-366, ISSN 1313 – 8820. <http://agriscitech.eu/wp-content/uploads/2015/09/015.pdf>

ABSTRACT

A comparative analysis of physicochemical parameters of meat from lambs of North East Bulgarian fine fleece breed and its 25% crossbreds 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 within 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 thretested 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.

8. Slavov, R., G. Mihaylova, St. Ribarski, D. Panayotov, **D. Pamukova**, D. Dragnev, 2016. Amino acid composition of lamb meat from the North East Bulgarian fine fleece breed and its crossbreds with Australian merino and Ile de France from internal breeding, *Agricultural Science and Thechnology*, vol. 8, 3, pp 256-261, ISSN 1313 – 8820. <http://agriscitech.eu/wp-content/uploads/2016/09/018.pdf>

ABSTRACT

A comparative analysis of amino acid composition of lamb meat from the North East Bulgarian fine fleece breed (I gr.) and its crossbreds from internal breeding with 25% heredity from the Australian merino (II gr.) and Ile de France (III gr.) breeds was conducted. Upon starting the experiment lambs were equal and during the experiment they were placed under similar conditions of feeding and rearing. To establish the amino acid composition of meat slaughter analyses were performed at 100 and 130 days of age. From the carcass of each slaughtered animal individual mean samples were taken. Studies were carried out in the Research Laboratory of the Faculty of Agriculture at Trakia University. As a result of the studies the following conclusions were made: ¼ Ile de France crossbreds in a sophisticated crossing have the highest total amino acid content, including essential amino acids in the meat

of 100- and 130-day-old lambs, 6.87% and 7.36%, respectively. The lysine/arginine ratio, relating to protein atherogenicity, varies within narrow ranges among groups and marks slight increase with age – from 1.31-1.37 at 100 days to 1.41-1.46 at 130 days. With the increase of age in crossbreds from internal breeding total protein amino acid content grows, that being most prominent in lambs from the III group – from 41.92 to 43.49%. The values of total protein indices increase compared to the reference protein (from 117.97% to 118.22% for II group and from 116.44% to 120.80% for III group) and the whole egg protein (from 89.39% to 91.92% for II group and from 90.53% to 93.93 for III group). It has been found that internal breeding of crossbreds with 25% heredity from the Ile de France breed has positive effect concerning the total amino acid content of lamb meat at 100 and 130 days of age, essential amino acid content in it and the levels of total amino acid indices. Internal breeding of crossbreds with 25% heredity from the Australian merino breed does not have an adverse effect on the levels of the studied traits.

9. Pamukova, D., G. Staykova, N. Stancheva, D. Panayotov, 2017. Evaluation of some technological properties of Caucasian ram wool, Agricultural Science and Technology, vol. 9, 4, pp 311-314, ISSN 1313 - 8820 (print), ISSN 1314 - 412X (online).
<http://agriscitech.eu/wp-content/uploads/2017/12/011.pdf>

ABSTRACT

The aim of the study was to establish the levels of the main selection traits which determine the technological wool production in the rams from the breed of Caucasian merino sheep. The study included a total of 126 rams at 18 months of age from Caucasian merino breed. To determine the fibre diameter, a total of 252 wool samples from two parts of the body (side and leg) were analyzed. For laboratory examination of staple length and crimp of wool, a total 36 wool samples (from the side and the leg) were studied. The rams from Caucasian breed had a very good topographic equality of fiber thickness and staple length. The average fiber diameter of the side was 21.98 μ m (with variation from 21.71 μ m to 22.30 μ m) and the leg was 23.05 μ m (with variation from 22.76 μ m to 23.34 μ m). The wool's fineness in the fleece was 64's quality in 76.98% of the samples, which characterized it as a fine merino wool. The number of crimps per 1 cm in the rams was an average of 5.07 nrs. on the side and 4.46 nrs. on the leg and in the rams at 18 months of age - 5.26 nrs. and 4.82 nrs., respectively.

10. Gencheva D., P. Veleva, N. Naydenova, D. Pamukova, 2020. Genetic polymorphism of alpha S1-casein in Bulgarian sheep breeds and its effect on milk composition, Turkish Journal of Veterinary and Animal Sciences, 44: pp 860-870, © TÜBİTAK, doi:10.3906/vet-2001-102.
<https://journals.tubitak.gov.tr/veterinary/issues/vet-20-44-4/vet-44-4-14-2001-102.pdf>

ABSTRACT

The genetic polymorphism of the alpha S1-casein (CSN1S1) was investigated in five sheep breeds reared in Bulgaria: Sofia (Elin-Pelin, SEPL), Copper-Red Shumen (CRSH), Local Karnobat (LKNB), Pleven Blackhead (PLBH), and Stara Zagora (STZG) sheep with an aim to establish the possible effect of a particular genotype on ovine milk composition. Based on nucleotide variation in exon III of the CSN1S1 gene, two genetic variants (A and C) and three genotypes (AA, AC, and CC) have been identified using PCR-RFLP analysis on a total of 217 unrelated ewes. The allele frequencies determined a prevalence of the allele C (0.886) over the allele A (0.114) across the studied sheep populations. The homozygous CC genotype was observed in nearly 80% of the studied ewes. The calculated values for observed ($H_o = 0.548$) and expected ($H_e = 0.468$) heterozygosity at CSN1S1 locus indicated a relatively high

degree of genetic variability in the Sofia sheep population. The greatest Nei's genetic distance (DA = 0.080) was found between the populations STZG and SEPL, while the closest relationship was established (DA = 0.000) between PLBH and CRSH, also between STZG and CRSH. The results of the association analysis indicated that CSN1S1 AC genotype was significantly associated ($P < 0.05$) with the highest percentages of the fat, protein, casein, solids-nonfat and total solids in Sofia sheep ewes. The genotype CSN1S1 CC was associated with the highest noncasein protein percentage, while the genotype AA was linked with the highest lactose percentage. The CSN1S1 genotype did not show a significant effect ($P > 0.05$) in the Sofia sheep population in relation to the renneting time. In conclusion, the established single nucleotide polymorphism in the CSN1S1 locus could be used as a potential genetic marker for ovine milk composition traits, as well as for developing an effective conservation strategy towards traditional sheep breeds in the country.

РЕЗИЮМЕТА НА НАУЧНИ ТРУДОВЕ ПО ТОЧКА „Г”

1. Панайотов, Д., Д. Памукова, 1997. Проучване на основните съставки на серея, при тънка, кросбредна и цигайска вълна, Животновъдни науки, XXXIV, Приложение, pp 38-41, ISSN 0514 – 7441.

SUMMARY

The study comprises a total of 208 ewes at the age of 2.5 years, which included 49 thin-fleeced (Thracian thin-fleeced breed), 70 crossbred (South Bulgarian Koridel breed) and 89 tsigai (Rhodopean tsigai breed).

The content of fat, sweat and mechanical admixtures varied considerably in the three types.

The merino wool had the highest fat content (15.82% in comparison with greasy wool), the lowest sweat content (17.70%) and was the dirtiest of all.

The tsigai wool had a fat content (5.89%) and mechanical admixtures content (8.69%) three times lower than the merino wool but it also had the highest sweat content (18.85%).

The crossbreed wool had a medial position as regards these parameters.

The merino wool had a slightly acidic sweat reaction ($\text{pH}=5.86$), the crossbreed and the tsigai wool had alkaline reactions – $\text{pH}=9.33$ and $\text{pH}=9.83$ respectively.

The fat/sweat ratio in the three types of wool was in the favour of the sweat -- 0,910:1 in the merino wool, 0,470:1 in the crossbreed wool and 0.308:1 in the tsigai wool.

The correlations fat/wool yield ($-0.270 \div 0.380$), sweat/wool yield ($-0.566 \div 0.691$) and mechanical admixtures/wool yield ($-0.507 \div 0.691$) are negative and highly statistically significant.

2. Панайотов, Д., Р. Славов, Д. Памукова, 2001. Топографска характеристика на руна при дзвизки с тънка, кросбредна и цигайска вълна, Животновъдни науки, 6, pp 69-73, ISSN 0514 – 7441.

SUMMARY

The study encompassed 35 animals with fine, crossbred and Tsigai wool - 10 Caucasian fine wool, 15 crossbreds of South Bulgarian Corrideale and 15 from Tsigai breed, respectfully.

A topographic characteristics of wool was made on basic qualitative wool traits - finess, equality of fibers, staple and real length, curlity, greasiness, on the basis of laboratory tests on wool samples from 6 parts of the body - neck, shoulder, side, back, abdomen and leg.

The three studied types of wool have characterized with very good topographic and staple equalation on traits finess, staple length and real length.

Variation in average fiber diameter along the staple length at fine wool and crossbred animals was considerably higher than variation in the fleece. Tsigai wool was the least influenced by external factors (season, feeding, rearing) and was characterized by a very good eggality.

Fine wool was geographically the most equilised in curliness, and variation on that trait was the highest for Tsigai.

Heavy greasiness was found for fine and crossbred wool on all topographic locations and relatively lower for Tsigai wool. It was probably due to unsatisfactory technological conditions for rearing animals as well as on some traits and characteristics (density, quantity and wax color), on which the accent should be stressed in the future breeding work.

3. Славов, Р., И. Станков, Д. Памукова, 2005. Проучване на технологичните признаци на българска и вносна мериносова вълна, Животновъдни науки, 6, pp 63-68, ISSN 0514 – 7441.

SUMMARY

Industrial sorting, washing, carding and formation of carding tape for industrial batches of wool from Australia, Russia, Romania and Bulgaria was performed according the BSS in two wool textile factories - "Katex" in Kazanlak and "Colhida" in Sliven.

The following technological studies were performed on the industrial batches of greasy wool: sorting, control wash, quantity of clean wool and yield. The clean wool was studied for water content (%), content of residual grease (fat,%), dust (%), plant alloys (%), finess (мш), fiber length (mm), short fibers (%).

As a result of the study it was found that the imported in Bulgaria Australian fine merino wool considerably exceeded in quality and technological characteristics the same type wool from Russia. On the background of the assessed differences in quality of the Russian merino wool it was considerably superior to the Bulgarian and Rumanian. The low quality and values of the technological traits of the Romanian merino wool and the price it was purchased (1.77 lvs/kg) were indicative for the non-adequate low and non-stimulating price of the Bulgarian merino wool, which did not stimulate the qualitative production.

4. Памукова, Д., Н. Такучев, 2008. Сравнително проучване на цветността на българска и вносна тънка вълна, Животновъдни науки, 5, pp 188-191, ISSN 0514 – 7441.

SUMMARY

The aim of this study was to compare the colours of Bulgarian and imported merino wool.

Samples from merino wool batches originating from Bulgaria, Russia and Australia were used. The percentage

of contaminated areas was detennined after the measurement of the natural wool length and its contamination in depth. The colour of the grease wool was evaluated by sight. The samples of the side were divided into two groups: whole wool staples and separated contaminated wool areas. After washing and homogenization, the samples of both groups were colourimetrically evaluated. The reflection spectra were obtained by means of a spectrophotometer SPEKOL 11 with a reflection device type Rd/0 and the colour indices of the clean wool were determined.

In both groups, the colour index of the Australian wool was the lowest (it had the highest whiteness) - 20.63 and 19.93, and the highest index was exhibited by the Russian wool (27.87 and 23.25). The Bulgarian merino wool showed intermediate values of 24.77 and 21.01. The effect of contaminated area on the clean wool colour was more noticeable in the Russian and Bulgarian merino wools than in the Australian one.

5. Pamukova, D., 2009. Clean wool colour and fatty acid content of semi fine wool, *Agricultural Science and Technology*, vol. 1, No 4, pp 162-166, ISSN 1313 – 8820.

ABSTRACT

The purpose of the present investigation was to compare the clean wool colour and the fatty acid composition of semi fine wool. The investigation was performed on 93 individual samples (from the shoulder, the back and the thigh) of 31 fleeces obtained from industrial batches of semi fine wool originating from Bulgaria, The Republic of Macedonia and The Netherlands. For shoulder, back and leg samples, the greasy wool colour, the staple length and the dirt percentage were determined. For shoulder samples, the clean wool colour, the total lipids in wool grease and its fatty acid composition were additionally determined. The lowest colour index, measured on full-length staple, was that of Dutch wool (34.86). Similar colour index was obtained for Bulgarian (50.43) and Macedonian (51.57) wool batches. After removal of the dirty area, Dutch wool exhibited the lowest colour index again (29.86), followed by Macedonian (38.54) and Bulgarian (42.51) samples. The greasy wool colour (except for yellow-coloured wool) could not be used as a reliable criterion for prediction of clean wool colour.

6. Pamukova, D., 2015. Investigation of technological traits of Bulgarian and imported merino no wool batches, *Agricultural Science and Technology*, vol. 7, No 2, pp 273-276, ISSN 1313 – 8820.

<http://agrisitech.eu/wp-content/uploads/2015/06/022.pdf>

ABSTRACT

The investigation was performed with industrial batches of merino wool originating from Bulgaria (1), Russia (2), Romania (2), Spain (1) and the Czech Republic (1). A total of 16 batches including 7 greasy wool batches, 5 clean wool batches and 4 wool sliver batches. The primary processing of wool batches (classification, washing and carding) was performed using the standard technologies applied at the textile enterprise. After the classification, the relative proportions of types vs the total amount of greasy wool were determined. Washing yields of classified greasy wool batches were established. Clean merino wool batches were submitted to the following laboratory tests: fibre diameter (μm), mean weighted length (mm), short fibre percentage (%), fatness (%), mineral matter content (%), vegetable matter content (%) and moisture (%). The parameters determined on ready wool slivers were as followed: yield (%), fibre diameter (measured with a lanameter, μm), mean weighted length (mm), length B (mm), short fibre percentage (%) and moisture (%). The two Russian wool batches were superior to all other tested batches with respect to high-grade wool content – 96.88% and 96.03%. They consisted exclusively of a single industrial class – grade 64s merino worsted wool (95.94% and 93.95% of batches, respectively). With regard to the relative share of merino worsted wool, the Bulgarian batch (40.98%) came after the Russian (96.88% and 96.03%), Romanian (batch 1) (90.23%) and Spanish wool (57.85%). Russian wool was superior to other batches with respect to washing yield (55.51%), mean weighted length (55.35 mm) and fibre cleanness (it had the lowest mineral (0.99%) and vegetable matter content (1.2%). There were no considerable differences with respect to yield, mean weighted length and short fibre percentage between Spanish and batch 1 Romanian wool, although the mineral and vegetable matter percentages were significantly higher in Spanish clean wool. The batch from Czech and Bulgarian wool had higher fibre length, lower dustiness and less vegetable matter content than the Spanish batch, but its washing yield was lower. Compared to both Romanian batches, it occupied an intermediate position. The highest yield was established for slivers produced by Russian and Spanish wool – 80.63% and 80.12%. The yields of the other two batches were substantially lower (72.06% for Romanian and 70.54%

for the mixed Bulgarian and Czech batch). The highest mean weighted fibre length was determined for slivers made from Russian wool (67.77 mm) whereas the lowest – for slivers produced from mixed Bulgarian and Czech batch (50.83 mm). The studied Russian wool batches were of greatest interest as their technological properties were concerned. Mixed with Bulgarian wool batches, they could be largely used to correct and improve the yield, short fibre length and proportion in clean wool and wool sliver.

7. Simeonov, M., **D. Pamukova**, 2017. Growth Performance of Blackhead Pleven Lambs during the Suckling Period, Iranian Journal of Applied Animal Science, 7(2), pp 277-281.
http://ijas.iaurasht.ac.ir/article_531140.html

ABSTRACT

The aim of the present study was to analyze the live weight, body length, and chest perimeter in Blackhead Pleven lambs at an early age with a view to their future use as prognostic indicators of growth performance. The study was conducted with 46 lambs. It found out that at birth and weaning the singletons had higher live weight and higher average daily weight gain in comparison with the twins ($P < 0.01$). Body length and chest perimeter at birth were higher in the singletons lambs ($P < 0.01$). The type of birth influenced significantly ($P < 0.01$) on the live weight ($\eta^2 = 26.85\%$), live weight ($\eta^2 = 21.39\%$) and the chest perimeter ($\eta^2 = 27.08\%$) of the lambs at birth. At 26 days of age i.e. at weaning, only the live weight was influenced by the birth type ($\eta^2 = 27.53\%$, $P < 0.01$). The chest perimeter of lambs at weaning was not influenced by the body length at birth and at weaning. There was a moderate to strong phenotypic correlation among the other studied parameters.

8. **Pamukova, D.**, H. Momchilov, 2017. Analysis of revenues and production costs of dairy sheep farm, Trakia Journal of Sciences, vol. 15, Suppl. 1, pp 277-281, ISSN 1313-7069 (print) ISSN 1313-3551 (online), http://tru.uni-sz.bg/tsj/TJS_Suppl.1_Vol.15_2017/50.pdf

ABSTRACT

The aim of this study was to determine the quality and quantity of the wool yolk of the rams from Caucasian merino breed in order to improve their technological features. The analyses included seven rams at 2.5 years of age and eleven male lambs at the age of 18 months. Thirty-six individual wool samples from two parts of the body (side and thigh) were studied. The following wool parameters were investigated: percentage of the dirty areas of the wool (on the side and the thigh), fat amount, sweat amount, pH of sweat, laboratory wool yield, and color of greasy wool on the side. Percentage of the dirty areas of the wool by categories and topographic ranges varied from 30.79% to 41.52%, indicating that the wool yolk of Caucasian rams was of sufficient quantity and good quality. The percentage of the fats in wool yolk to the greasy wool was relatively high (23.25% in the male lambs at the age of 18 months and 25% in the rams) and had a negative impact on the wool yield. The ratio of fat/sweat was 1.91:1 in rams at 2.5 years of age and 1.44:1 in male lambs at the age of 18 months). The higher relative part of the fat compared to the sweat was an indicator of good protective properties of the wool yolk. That allowed to protect the technological properties of the wool.

9. **Pamukova, D.**, G. Staykova, N. Stancheva, 2018. Quantity and quality of wool yolk in Caucasian Merino rams, Agricultural Science and Technology, vol. 10, No 4, pp 370 – 373, ISSN 1313 - 8820 (print), ISSN 1314 - 412X (online),
<http://agriscitech.eu/wp-content/uploads/2018/12/16.pdf>

ABSTRACT

The aim of this study was to determine the quality and quantity of the wool yolk of the rams from Caucasian merino breed in order to improve their technological features. The analyses included seven rams at 2.5 years of age and eleven male lambs at the age of 18 months. Thirty-six individual wool samples from two parts of the body (side and thigh) were studied. The following wool parameters were investigated: percentage of the dirty areas of the wool (on the side and the thigh), fat amount, sweat amount, pH of sweat, laboratory wool yield, and color of greasy wool on the side. Percentage of the dirty areas of the wool by categories and topographic ranges varied from 30.79% to 41.52%, indicating that the wool yolk of Caucasian rams was of sufficient quantity and good quality. The percentage of the fats in wool yolk to the greasy wool was relatively high (23.25% in the male lambs at the age of 18 months and 25% in the rams) and had a negative impact on the wool yield. The ratio of fat/sweat was 1.91:1 in rams at 2.5 years of age and 1.44:1 in male lambs at the age of 18 months). The higher relative part of the fat compared to the sweat was an indicator of good protective properties of the wool yolk. That allowed to protect the technological properties of the wool.

10. Pamukova, D., N. Naydenova, G. Mihaylova, 2018. Fatty acid profile and healthy lipid indices of bulgarian goat milk from breeds, pasture-raised in a mountain region, Trakia Journal of Sciences, No 4, Series Biomedical Sciences, pp 313-319, ISSN 1313-7050 (print), ISSN 1313-3551 (online), doi:10.15547/tjs.2018.04.008.

<http://tru.uni-sz.bg/tsj/>

[Volume%2016,%202018,%20Number%204,%20Series%20Biomedical%20Sciences/8.pdf](http://tru.uni-sz.bg/tsj/Volume%2016,%202018,%20Number%204,%20Series%20Biomedical%20Sciences/8.pdf)

ABSTRACT

The aim of the present study was to characterize the fatty acids profile and the related health lipid indices of goat`s milk from different Bulgarian breeds in order to add information on its nutritional quality. The study was performed with goat milk from a private farm in the Stara Planina Mountain. Milk samples were collected from three breeds – Bulgarian White Dairy Goat, Toggenburg and local goats. The content of saturated fatty acids was the highest in the milk of the local breed – 83.6% compared to for Bulgarian White Dairy Goat - 75.4% and Toggenburg - 75.2%. The atherogenic index was calculated on the obtained values for lauric (C12:0), myristic (C14:0) and palmitic (C16:0) acids and the unsaturated fatty acids. The data for the Bulgarian White Dairy Goat was – 3.12; Toggenburg – 3.14 and for local breed – 5.54. The values of the atherogenic index showed that it is the lowest for the Toggenburg, following Bulgarian White Dairy Goat and local breed. Omega 6/Omega 3 ratio varies from 1.58 for local breed to 2.44 for Toggenburg which is within the range of the optimal values for healthy nutrition.

11. Momchilov, H., D. Pamukova, 2019. Influence of subsidies on the efficiency of production in sheep breeding (on the example of sheep farms from South-west Bulgaria), Trakia Journal of Sciences, vol. 17, Suppl. 1, pp 421-425, ISSN 1313-7069 (print) ISSN 1313-3551 (online),

[http://tru.uni-sz.bg/tsj/Volume%](http://tru.uni-sz.bg/tsj/Volume%2017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/68.pdf)

[2017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/68.pdf](http://tru.uni-sz.bg/tsj/Volume%2017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/68.pdf)

ABSTRACT

The purpose of this study is to clarify the influence of subsidies on the efficiency of production in sheep breeding by analyzing the mechanism of functioning based on different types of farms in the southwest region of Bulgaria. Options have been identified that could lead to a positive economic result. Most attention is paid to the profitability of production

when farms do not receive or receive subsidies from the state. Small farms (with up to 50 ewes) were strongly dependent on the subsidies for pastures. With subsidy, the profitability of costs and revenues was higher. In farms with 50 to 99 ewes subsidies also played an important role for increasing the profitability of operations. In farms with more than 100 ewes, which also received the highest subsidies could not survive only from sales of produce, as in most of these farms, the profit was negative, e.g. they were at a loss, hence the negative profitability results.

12. Pamukova D., H. Momchilov, 2019. Analysis of the cost of production and profit maximization in sheep farms from South-west Bulgaria, *Trakia Journal of Sciences*, vol. 17, Suppl. 1, pp 426-430, ISSN 1313-7069 (print) ISSN 1313-3551 (online), <http://tru.uni-sz.bg/tsj/Volume%2017,%202019,%20Supplement%201,%20Series%20Social%20Sciences/3/za%20pe4at/69.pdf>

ABSTRACT

The purpose of this study is to compare the cost of production with purchase prices to analyze the farmers' situation in terms of the opportunities they have to sell their produce at market prices and not to lose them. The maximization of profit is based on a model of a milking sheep farm, to which all sheep farms in the same region in the analyzed region should aim. The production of forage (especially grain) in this region is limited, which is why the expenses for forage are the greatest in production for both products – milk and lamb growth. The cost analysis indicated that it was lower in some of the farms, yet close to the sale price, while in the larger portion of the farms (in all three groups), it was higher. The developed model for profit maximisation in the production of sheep's milk led us towards the following parameters: milk price of BGN 1.40 per litre and amount of produced milk between 42,000 and 45,000 litres, in which case the profit was maximal per both methods.

13. Pamukova D., N. Rusenova, T. Kolev, S. Chobanova, N. Naydenova. 2020. Physicochemical and microbiological characteristics of goat milk from animals grown in a mountainous area in Bulgaria, *Agricultural science and technology*, 12, 3, pp 277-282, ISSN 1313-8820 (print), DOI: 10.15547/ast.2020.03.044 https://agriscitech.eu/wp-content/uploads/2020/09/13_AST_3_September_2020.pdf

ABSTRACT

The aim of the study was to determine the goat milk quality from animals grown in a mountainous area in Bulgaria based on physicochemical and microbiological parameters. The study was carried out in a farm that breeds local goats and goats of the Bulgarian White Dairy Goat (BWD). Individual milk samples were taken on a monthly basis from morning milking. A total of 100 individual and 10 bulk milk samples were examined for fat, solids non fat, protein and density. A total of 62 samples were collected at a time to determine the microbiological characteristics of milk. For the period May-September 2017, the percentage of fat in the milk of local goats averaged 3.61% and of goats from BWD goat - 3.54%. The solids non fat were 8.27% and 8.19%, total protein - 3.13% and 3.10%, and the dry matter - 11.89% and 11.74%, respectively. For the period May-August 2017 the individual constituents of milk changed to varying degrees with the most variable being milk fat (decrease of 0.97% in local goats' milk and 1.09% in milk from BWD goat) followed by solids non fat (0.56% and 0.7%, respectively). The slightest change was in protein - 0.21% and 0.26%, respectively. Coagulase-negative staphylococci were the predominant bacterial species in the goats' milk samples.

14. Gencheva D., **D. Pamukova**, N. Naydenova, P. Veleva, M. Tzanova, 2022. Alpha S1-casein genetic variations in Bulgarian sheep breeds and significance on milk casein fractions, Bulgarian Journal of Agricultural Science, 28 (No 3), 526-533, ISSN 1310-0351 – print, ISSN 2534-983X - online

ABSTRACT

Single nucleotide polymorphism (SNP) of the exon III at CSN1S1 gene encoding alpha S1-casein (α S1-CN) was investigated by means of the PCR-RFLP analysis in two sheep breeds – Bulgarian Dairy Synthetic Population (BDSP, n = 89) and Pleven Blackhead sheep (PLBH, n = 38) with an aim to establish the possible effect of a particular genotype on the casein content and distribution of milk fractions. The homozygous CC genotype was observed in 63.2% of the studied ewes, while the homozygous AA genotype was established in 4.5 % of the individuals. The calculated mean values of observed ($H_o = 0.323$) and expected ($H_e = 0.321$) heterozygosity at CSN1S1 locus indicated a moderate degree of genetic variability in the examined sheep populations. The estimated negative values of the coefficient ($F_{is} = -0.001 \div -0.006$) showed a low level of inbreeding. The results of the associative analysis indicated that CSN1S1 genotypes were significantly associated with the milk α S1-CN in the BDSP 2 population ($P < 0.05$). The highest casein percentage in this population (35.24 ± 3.96) was associated with ewes carrying the heterozygous AC genotype. No significant differences ($P > 0.05$) were established for CSN1S1 genotypes in terms of casein content in the studied PLBH sheep population.

15. Панайотов, Д., Св. Тянков, Ил. Димитров, И. Станков, Р. Славов, **Д. Памукова**, 2002. Състояние и перспективи за развитие на овцевъдството и козевъдството в България, Научно-приложна конференция “Проблеми на животновъдното производство в Р. България”, част втора, сборник от доклади по направления, 56-77.

РЕЗЮМЕ

Целта на настоящия труд е да се направи преглед на развитието на овцевъдството и козевъдството до 2001 год., анализ на състоянието и перспективите за развитието им. От средата на 19 век до средата на 20^{-ти} овцевъдството у нас се е развивало екстензивно и е най-изостаналият клон на животновъдството. Развъждани са местни породи и отродия овце, с ниска продуктивност и с нееднородна полугруба и груба вълна. Първите опити за подобряването им са правени още преди Освобождението. През следващите десетилетия работата по подобряване качествата на вълната продължава, но всички опити да се подобрят местните овце не дали очакваните резултати. Новите обществено-икономически отношения в страната след 1944 год. и бурното развитие на вълнено-текстилната промишленост пред 50-те и 60-те години налагат коренен обрат в развитието на българското овцевъдство. През периода 1950-1990 год. са създадени 8 нови български породи овце (4 тънкорунни и 4 полутънкорунни - 2 кросбредни и 2 цигайски) и една порода кози. В доклада са разгледани още динамиката в изменението на броя на овцете и козите, на произведените количества непрана вълна, овче и козе мляко. Въз основа на направения анализ на състоянието на овцевъдството и козевъдството и дефинирането на някои от по-важните проблеми, са предложени мерки за по-нататъшното им развитие.

16. Тянков, Св., Ил. Димитров, И. Станков, Р. Славов, Д. Панайотов, **Д. Памукова**, 2003. Проблеми на българското овцевъдство, Шеста национална научна конференция с международно участие “Екологични проблеми на планинското земеделие”, 28 - 31.05.

2003 г. – ИПЖЗ гр. Троян, Journal of Mountain Agriculture on the Balkans, 6, 2, 69-83, ISSN 1311- 0489.

РЕЗЮМЕ

Целта на научния труд е да се анализира състоянието и да се посочат проблемите на българското овцевъдство. Основното, с което се характеризира овцевъдството у нас през последните 5-6 години е, че 99% от овцете се отглеждат в частни земеделски стопанства. Получената от тях продукция задоволява нуждите на самите производители, като много малка част е ориентирана към пазара. Причина за това са ниските изкупни цени, особено на млякото и вълната.

В доклада са посочени и анализирани проблемите в българското овцевъдство – голямата му раздробеност (от близо 480 хил. стопани, отглеждащи овце, около 60% имат до 5 животни); нарушената вътрешнопородна структура, която е резултат от бързото намаляване броя на овцете по породи; проблемът за асоциациите, в които трябва да се съсредоточи селекционната работа със съответната порода, нейното генетично усъвършенстване; с кочопроизводството и изкуственото осеменяване (масовото естествено осеменяване на овцете с използване на непреценени безпородни кочове); с квалификацията и образованието на обслужващите селскостопанското производство.

17. Stankov, I., S. Tjankov, R. Slavov, **D. Pamukova**, 2004. Study of the histological structure of the Skin of Lambs from Aboriginal Breeds in Bulgaria, Trakia Journal of Sciences, vol. 2, No 2, Series Biomedical Sciences, pp 49-51, ISSN 1312-1723, http://tru.uni-sz.bg/tsj/Vol2No2_2.htm

ABSTRACT

Ten (10) lambs, aged four (4) months, were used for the study. They were taken from each of the following breeds: Native Karnobat, Karakachan and Rodopa Sheep. Biopsy samples of skins were taken from the flank of these animals. The total thickness of skin and its layers, depth and width of hair bulbs, width of primary and secondary fibre roots and sizes of skin glands were obtained. The lambs of Karakachan Breed had the biggest total skin thickness and layer thickness (3309,2 μm) while the lambs of Native Karnobat Breed had the smallest (2531 μm). Measurements from the Rhodopa Sheep were in the median position. Lambs of the Rhodopa sheep had skin structure in which the primary and secondary follicles were sequestered deeply in the dermis while these follicles were not so deep in skins from the Native Karnobat Breed lambs. Lambs of the Karakachan breed had the largest-sized fat and sweat glands.

18. Панайотов, Д., И. Станков, Р. Славов, **Д. Памукова**, 2005. Актуални проблеми на българското овцевъдство и козевъдство, Сборник доклади от Научен семинар „Българското животновъдство в навечерието на присъединяването към Европейския съюз”, 5 май, 2005 г., Тракийски университет, Аграрен факултет, 27-41.

РЕЗЮМЕ

Направен е преглед на състоянието на овцевъдството и козевъдството в България. Анализирани са данни за производството и преработката на овче и козе мляко и месо през 2003 год. Произведеното у нас овче мляко представлява 5.9% от общо произведеното мляко в страната и 5.5% от преработеното в предприятията. За козето мляко, тези проценти са съответно - 6.8 и 0,2. През същата година в страната са заклани общо 1 132600 бр. овце и 722300 бр. кози, в т.ч. 1047500 агнета и 693800 ярета.

Общо в кланично тегло са получени 19366.7 тона месо от ДРД, в т.ч. 17171.1 тона (88.7%) месо от агнета и ярета, предназначено предимно за износ за страните от ЕС (Италия, Гърция, Словения и др.). Месото от ДРД представлява 16.3% от общото производство на червени меса и само 6.9% от вътрешното потребление.

В доклада е разгледана породната структура в овцевъдството и козевъдството и основните проблеми, които пряко влияят върху тяхната икономическа ефективност и конкурентна способност: големият брой на стопанствата, в които се отглеждат овцете и козите и сравнително малкия брой на професионалните стопанства; голямото фенотипно разнообразие на отглежданите овце и кози (безпородността) и ниския процент на чистопородните животни; ниският процент на контролираните животни. Анализирани са броят и породната структура на овцете и козите от контролираните стада. При необходимост от годишно производство за страната над 6000 коча, през 2004 г. са произведени всичко 403 преценени кочове, или около 7% от необходимите. Всичко това показва, че контролираните стада не могат да влияят ефективно върху развъдно-подобрителната работа в овцевъдството, тъй като в по-голямата част от популацията се използват непреценени кочове. Броят на контролираните кози също е много нисък - 3078, което съставлява едва 0.5% от козите в страната. Сравнително най-висок относителен дял от общия брой на контролираните животни заемат кръстоските с Българската бяла млечна порода - 62.2%. Много малък е броят на контролираните кози от БМ порода и почти символичен на местните кози.

През последните 15 години неблагоприятните социално-икономически условия в страната са се отразили негативно върху развитието на българското овцевъдство и козевъдство, които понастоящем са най-изостаналите подотрасли на нашето животновъдство. В доклада се разглежда и въпроса за ролята на държавата в създаването на благоприятна макроикономическа среда за бъдещото развитие на овцевъдството и козевъдството като приоритетни отрасли за страната и разработването на дългогодишна стратегия за развитие на двата отрасъла с ясна визия за бъдещото развитие на тези отрасли в условията на общия европейски пазар.

19. Станков, И., Р. Славов, Д. Панайотов, Д. Памукова, 2007. Състояние и перспективи за развитие на овцевъдството в Р. България, Овцевъдство у нас и в Европа, Сборник доклади от научни конференции, проведени в Института по фуражни култури – Плевен, Издателство “Еньовче”, 23-34, стр. 255.

РЕЗЮМЕ

С настоящия научен труд си поставихме за цел да анализираме състоянието на овцевъдството в България и да посочим пътищата за по-нататъшното му успешно развитие. Посочен е броят на овцете, капацитета на фермите, количеството на получаваните продукти и пазарите на които те се реализират. Данните показват, че спрямо 1990 год. броят на овцете е намалял 5 пъти на овчето мляко 2,5 пъти, на месото 9,5 пъти и на вълната 4,5 пъти. Дребните ферми с капацитет до 50 овце-майки съставляват 70%. В страната се развъждат 37 породи овце, при нарушена породна структура. В доклада са посочени мерките за по-нататъшното развитие на овцевъдството. Те се изразяват преди всичко в модернизация и окрупняване на фермите, изграждане на породна структура, повишаване на професионалната подготовка на овцевъдите.

20. Славов, Р., И. Станков, Д. Панайотов, Д. Памукова, 2008. Възможности за устойчиво развитие на овцевъдството и козевъдството в България, Сборник от научна

сесия с международно участие на Аграрния факултет, „Устойчиво аграрно развитие на България в Европейския съюз”8 – 9 май 2008 год., Стара Загора.

РЕЗЮМЕ

В настоящия труд се разглеждат възможностите за устойчиво развитие на овцевъдството и козевъдството в България. На базата на данни за броя на овцете и козите, производството и преработката на овче и козе мляко и месо се прави анализ на състоянието на двата отрасъла. Посочени са най-важните предпоставки, които да се използват максимално при разработването на нова, научнообоснована стратегия за устойчиво развитие на българското овцевъдство и козевъдство с ясна визия за бъдещото развитие на тези отрасли в условията на общия европейски пазар: липсата на квоти за производство на продукти от овцете и козите; пазарите за износ на агнета и ярета (за трупчета и за живи животни); сравнително добрите цени на овчето мляко; много добър пазар за разплодни животни; традициите при отглеждането на тези животни; благоприятните климатични и фуражни условия; полупланинските и планинските пасища.

В заключение са посочени основните насоки за работа по осигуряване на устойчиво развитие на овцевъдството и козевъдството: създаване на условия и насърчаване на инициативите за създаване на модерни, удрени овцевъдни и козевъдни ферми; увеличаване броя и обема на чистопородните стада; увеличаване броя на контролираните и селектираните овце и кози; разширяване обхвата на изкуственото осеменяване при овцете и козите; организация на селекционната дейност; подпомагане дейността на развъдните асоциации и регионалните сдружения на фермерите; насърчаване експорта на овцевъдни продукти; финансиране разработването на регионални проекти за устойчиво развитие на овцевъдството и козевъдството в рамките на Програмите за развитие на селските райони; увеличаване на средствата от държавния бюджет за научни изследвания и въвеждане на конкурсното начало при разработването на научно-приложни проблеми в областта на овцевъдството и козевъдството.

21. Христова, Ц., Д. Памукова, Д. Георгиев, С. Стойчева, 2012. Влияние на стриждбата върху млечната продуктивност и състава на млякото при овце от Плевенската черноглава порода, *Journal of Mountain Agriculture on the Balkans*, vol. 15, 1, pp 22-29, ISSN 1311- 0489.

РЕЗЮМЕ

Изследван е ефектът на стриждбата върху млечната продуктивност и състава на млякото при овце от Плевенската черноглава порода, отглеждани пасищно и подхранвани с 500 g/глава дневно концентриран фураж. Стриждбата през месец юни не оказва ефект върху дневната млечност. Съдържанието на мазнини отбелязва повишение, но разликите са достоверни ($P < 0.05$) само през първия ден след стриждбата. Концентрацията на протеин в млякото нараства с 2.6 - 4.7% ($P > 0.05$). Стриждбата дори в условията на температурен комфорт, активира хомеостатичните механизми, променя хомеоретичния капацитет и състава на млякото.

22. Zhelyazkova, Ts.Zh., S.I. Chobanova, D.G. Pamukova, 2016. Energy and protein nutrition value of six grain legumes in the moderate climatic conditions of Bulgaria, *Международ. науч.-техн. конф. Научно-техническият прогрес в селското стопанство*. Аграрна наука – селското стопанство в Сибир,

Казахстана, Монголии, Беларусии и Българии, НПЦ НАН Беларусии по механизации сельского хозяйства (Минск, 19-21 октябрия 2016 г.), Том 1, pp 236-240, ISBN 978-985-90306-6-6 (т. 1).

РЕЗЮМЕ

Проблемът с протеиновото хранене на животните ще бъде решен основно чрез увеличаване на производството на растителни протеини. Зърнените бобови култури са една от алтернативите за производство на повече растителен протеин. Изследването на химичния състав и енергийната стойност на зърнените бобови култури и връзката им с продуктивността на животните е надеждно средство за идентифициране на най-добрата фуражна култура за специфичните агроклиматични условия. Целта на настоящото изследване е да се установи химичния състав и да се изчислят енергийната и протеинова хранителност на зърнените бобови -пролетен и зимуващ грах, пролетен фий, горчив фий, тревист грах и нахут при агроекологичните условия на Централна Южна България. От зърнените бобови култури, отглеждани при неполивни условия в Централна Южна България, с най-високо съдържание на протеини са пролетният фий и тревният грах. Тяхната протеинова хранителна стойност е най-висока за непреживните и преживните животни. Най-високата енергийна стойност за домашни птици (MEpoultry) е установена за горчив фий и пролетен фий – съответно 14,63 и 14,58 MJ/kg сухо вещество. Пролетният и зимуващият грах имат най-висока енергийна хранителност за прасета (MEpigs) – съответно 16,84 и 16,74 MJ/kg сухо вещество. Съдържанието на КЕМ и КЕР е най-високо в тревния грах, съответно 1,48 и 1,65.

23. Момчилов, Хр., Д. Памукова, 2017. Анализ на ефективността при производството на агнешко месо, чрез кръстосване на местни овце с месодайни кочове, сб. Доклади от научно-практическа конференция, „Агробизнесът и селските райони – икономика, иновации и растеж“, Икономически университет-Варна, съвместно с Асоциация на земеделските производители в България, 12-13 октомври, pp 117-124, ISBN 978-954-21-0944-0.

РЕЗЮМЕ

Целта на настоящото проучване е чрез анализ на приходите, разходите и печалбата да се установи ефективността на производството на агнешко месо чрез кръстосване на местни овце с месодайни кочове. Анализът е изготвен на база собствена земя и овцеферма. Основното стадо е от 500 броя овце-майки, кръстоски на местни овце с кочове от породата Ил дьо Франс. Годишният оборот на стадото е изчислен при следните показатели – плодовитост 160% и 25% ремонт на стадото. Частта разходи за фураж е разработена въз основа на предварително изчислен фуражен баланс. В структурата на приходите от собствено производство най-голям е делът на реализираните агнета за месо. В стойностно изражение най-голям е делът на съвкупните разходи при производство на агнешко месо.