

1. International Research Journal of Engineering and Technology (IRJET)

Volume: 04 Issue: 06 | June -2017

www.irjet.net

ASSESSMENT OF THE FIXATION PRINCIPLE OF GOAT MILKING INSTALLATIONS BY THE HYPOTHESIS TEST FOR MEAN

Hristo Sabkov₁, Todor Todorov₂, Svetoslava Stoycheva₃

Assoc. Professor, PhD, Dept. of Agricultural Engineering, "Nikola Pushkarov" Institute of Soil Science, Agrotechnologies and Plant Protection, 3 Shosse Bankia Street, Sofia, Bulgaria

Assoc. Professor, PhD, Dept. of Applied Mathematics and Statistics, "Angel Kanchev" University of Ruse, 8 Studentska Street, Ruse, Bulgaria

Chief Assist. Professor, PhD, Dept. of Mountain Livestock Breeding and Biotechnologies, Institute of Mountain Stockbreeding and Agriculture, 281 Vasil Levski Street, Troyan, Bulgaria

Abstract: The effect of the fixation principle was investigated in its application in the arrangements of goats on the platform of the side-by-side linear milking installations. The following fixation principles were applied: "Random fixation principle" and "Arranged fixation principle". The working hypothesis is that the fixation principle has a significant influence on the quality of the operational process of the milking installation. The following qualitative assessment indicators are formulated to evaluate the influence of the fixation principle: "Working conditions of the operators-milkmen", "Welfare of goats" and "Productivity level of goats". The effect of the arranged fixation principle on the selected rating indicators was assessed by the random fixation principle used as a comparative base. The equation hypothesis for the average value of a normally distributed random variable is applied. At the significance level $\alpha = 0.05$ was checked the validity of the null hypothesis "The principle of arranged fixation does not change the quality of the operational process of the milking installation". The results of the study show that the null hypothesis is rejected for the three assessment indicators and justify the claim that the principle of arranged fixation has a significant positive impact and helps to improve the quality of the operational process of the milking installation. The influence over the indicator "Working conditions of the operators" had the most prominent impact – guarantee probability $P = 3.71E-8$. Similar was the result for the indicator "Welfare of goats": $P = 2.38E-7$. There was the lowest impact on the indicator "Productivity Level": $P = 3.90E-4$.

Key words: goats, goat milking, milking installation, fixation, fixation principles, statistical hypothesis.

2. ISSN: 2320-5407

Int. J. Adv. Res. 6(4), 709-712

RESEARCH ARTICLE

ASSESSMENT OF BIOLOGICALY ACTIVE, TRANS FATTY ACIDS AND QUALITATIVE ASSESMENT ON THE BUTTER FROM COAT'S MILK.

S. Ivanova₁, S. Eneva- Stoicheva₂ and C. Dimitrova- Hristova₃

1. Assistant Professor, PhD, Department of Food of Animal, Institute of Cryobiology and Food Technology,

Agricultural Academy, Sofia, Bulgaria.

2. Assistant Professor, PhD, Department of mountain stockbreeding and biotechnologies, Research Institute of Mountain Stockbreeding and Agriculture- Troyan, Bulgaria.

3. Assistant Professor, Department of mountain stockbreeding and biotechnologies, Research Institute of Mountain Stockbreeding and Agriculture- Troyan, Bulgaria.

Abstract

Keywords:-

Goat's milk, butter, trans fatty acids, indices.

The study was conducted with butter produced by goat's milk from three breeds– White Bulgarian Dairy (WBD) and her crosses with AngloNubian (WBDxAN) and Toggenburg goats (WBDxTG) during the lactation to establish the content of natural trans fatty acids (TFA) and to assess the quality of the fatty acid composition of the product as a healthy source in human nutrition. The insurance of livestock with nutritional resource rich of linoleic and alpha linolenic acid on pasture grass rearing goats leads to an increase the quality in the fat fraction of milk in terms of biologically active fatty acids - omega-3, omega-6, CLA, trans and cis-fatty acids and decreases the amount of saturated fatty acids. The assessment of the lipid preventive score, atherogenic and thrombogenic index in the butter produced by it give us an idea of the usefulness of the given product- high lipid preventive score and atherogenic index (over 1.0) and low cholesterolemic index (less than 1.0). The results obtained of butter are characterized by product as high content of trans fatty acids (from 1.04 to 2.21 g/ 100g butter) and high amount of saturated fatty acids content (from 59,68 to 66,66 g/ 100g butter).

3. Biotechnology in Animal Husbandry 27 (4), p 1845-1850 , 2011

ISSN 1450-9156

Publisher: Institute for Animal Husbandry, Belgrade-Zemun

UDC 636.082.4

DOI: 10.2298/BAH1104845H

THE INFLUENCE OF THE TIME OF IMPLEMENTATION OF PMSG ON SOME OF THE REPRODUCTIVE PARAMETERS IN SHEEP WITH SYNCHRONIZED OESTRUS

Ts. Hristova¹, S. Stoycheva¹, Ts. Maslev¹, I. Ralchev²

Institute of Mountain Stockbreeding and Agriculture, 5600 Troyan, Bulgaria

University of Forestry, Faculty of Veterinary Medicine, Sofia, Bulgaria

Corresponding author: cvet_16@abv

Communication

Abstract: Different schemes of PMSG treatment on some reproductive parameters in sheep were studied. Two groups of 6 sheep each at the end of the nonbreeding season were treated with vaginal sponges Chrono-gest (Intervet, Holland) containing 30 mg fluorogeston acetate (FGA). The sponges were removed 12 days after insertion. Sheep of the experimental group were injected with 500UI Folligon (Intervet, Holland) 48 hours before sponge removal whilst the corresponding control sheep were treated with the same dose Folligon at the day of sponge withdrawal. The clinical signs of oestrus, plasma progesterone concentrations and changes in the ovarian morphology during the observation period were registered. The conception rate, fertility and twinning rate were also recorded. The results show that the earlier application of the gonadotropin influence positively the reproductive traits in ewes.

Key words: sheep, estrous synchronization, treatment

STUDY ON THE PERFORMANCE OF GONADOTROPIN-RELEASING HORMONE (GnRH) IN THE PUERPERAL PERIOD OF BEEF COWS

Ts. Maslev, Ts. Hristova*, S. Stoycheva

Institute of Mountain Stockbreeding and Agriculture, 281 Vasil Levski Str., Troyan, Bulgaria

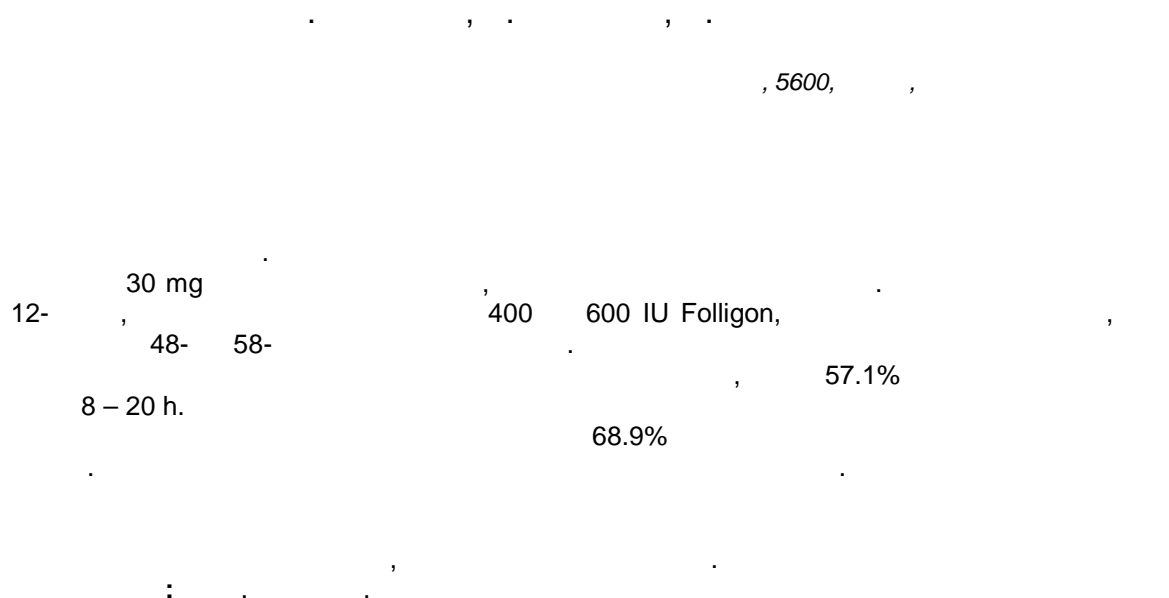
*Corresponding author: cvetomira_16@abv.bg

Original scientific paper

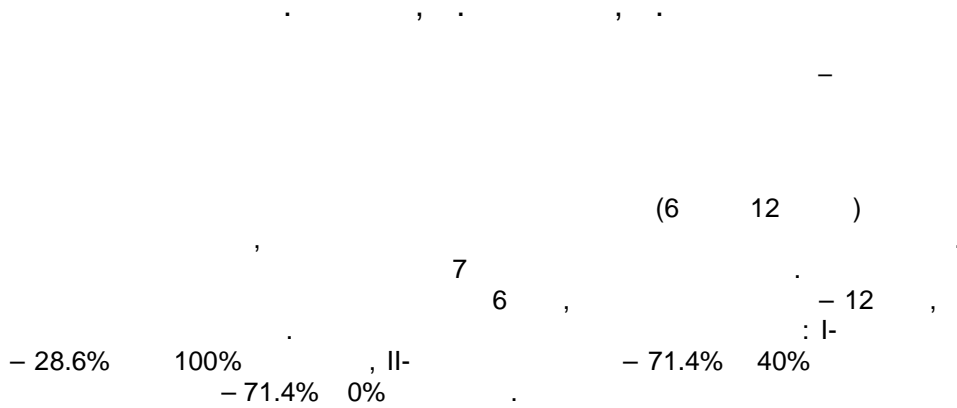
Abstract:

The effect of the intravenous injection of 100 mcg (2 ml) gonadotropin-releasing hormone (Ovarelin, Ceva) from the 1st to the 20th day after calving of beef cows was monitored in the article, in regard to the occurrence of the first oestrus and the possibilities for its controlling. It was established that in the first minutes of intravenous application of Ovarelin the concentration of luteinizing hormone (LH) increased. By increasing the number of days increased the amount of secreted LH. Maximum effect of the injection of 100 mcg GnRH occurred between the 10th and 15th day. The physiological dose (100 mcg) GnRH injected intravenously on the 1st day after birth of cows led to increased content of LH in blood circulation.

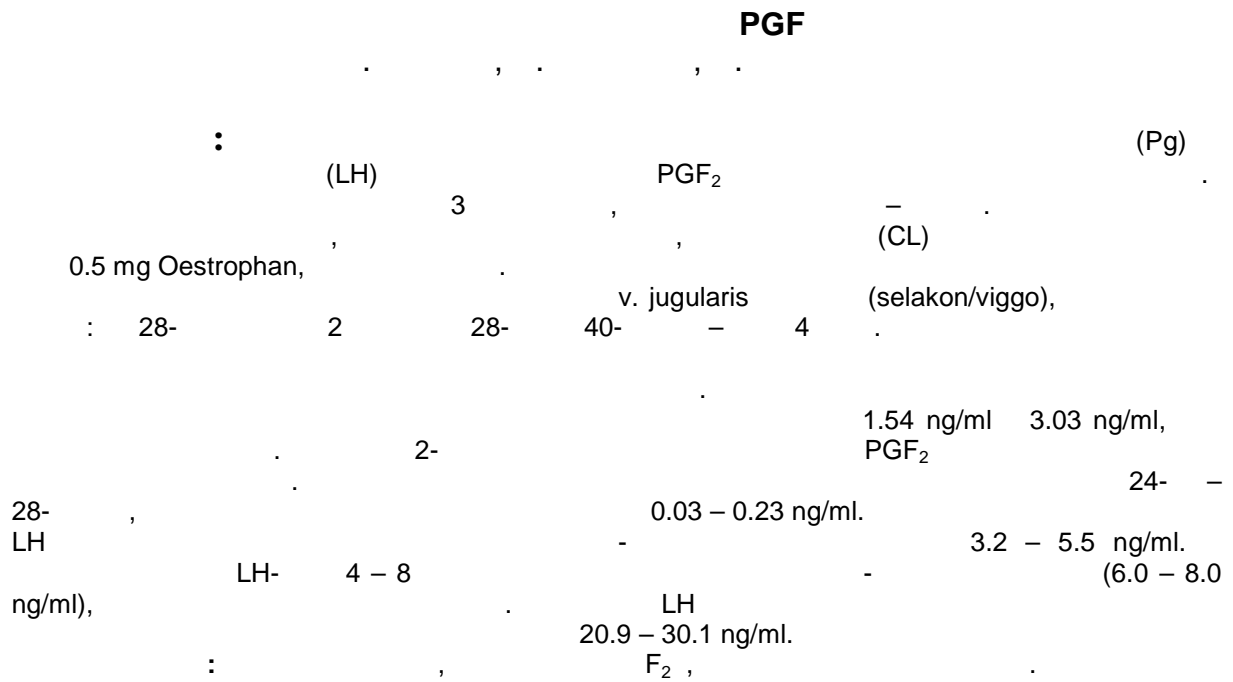
5. *Journal of Mountain Agriculture on the Balkans*, vol. 13, 4, 2010, (871-879)
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6. *Journal of Mountain Agriculture on the Balkans, vol. 13, 4, 2010, (864-870)*
Research Institute of Mountain Stockbreeding and Agriculture, Troyan



7. *Journal of Mountain Agriculture on the Balkans, vol. 14, 3, 2011, (366-375)*
Research Institute of Mountain Stockbreeding and Agriculture, Troyan



8. *Journal of Mountain Agriculture on the Balkans*, vol. 15, 1, 2012,
Research Institute of Mountain Stockbreeding and Agriculture, Troyan

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9. *Journal of Mountain Agriculture on the Balkans*, vol. 16, 4, 2013,
Research Institute of Mountain Stockbreeding and Agriculture, Troyan

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10. *Journal of Mountain Agriculture on the Balkans, vol. 16, 4, 2013, (825-838)*
Research Institute of Mountain Stockbreeding and Agriculture, Troyan

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11. *Journal of Mountain Agriculture on the Balkans, vol. 17, 1, 2014,(10-19)*
Research Institute of Mountain Stockbreeding and Agriculture, Troyan

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12. *Journal of Mountain Agriculture on the Balkans*, vol. 19, 2, 2016, (37-45)
Research Institute of Mountain Stockbreeding and Agriculture, Troyan

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13. *Journal of Mountain Agriculture on the Balkans*, 2017, 20 (2), 58-64
Research Institute of Mountain Stockbreeding and Agriculture, Troyan

ISSN 1311-0489 (Print)
ISSN 2367-8364 (Online)

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(1930), Spirov (1936), Savov Totev (1954), Balevska et al. (1970), Tsochev Petrov Bonchevska (2015).
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18. *Journal of Mountain Agriculture on the Balkans*, 2017, 20 (5), 1-17
 Research Institute of Mountain Stockbreeding and Agriculture, Troyan

ISSN 1311-0489 (Print)
 ISSN 2367-8364 (Online)

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23. *Journal of Mountain Agriculture on the Balkans*, 2017, 20 (6), 51-57
 Research Institute of Mountain Stockbreeding and Agriculture, Troyan

ISSN 1311-0489 (Print)
 ISSN 2367-8364 (Online)

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24. *Journal of Mountain Agriculture on the Balkans*, 2018, 21 (1), 32 - 40
 Research Institute of Mountain Stockbreeding and Agriculture, Troyan

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25. *Journal of Mountain Agriculture on the Balkans*, 2018, 21 (1), 41-48
 Research Institute of Mountain Stockbreeding and Agriculture, Troyan

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A STUDY ON THE POSSIBILITY FOR OBTAINING A TWO-FOETUS PREGNANCY BY EMBRYOTRANSFER

*Ts. Maslev, Ts. Hristova, S. Stoycheva
Institute of Mountainous Stockbreeding and Agriculture - Troyan*

SUMMARY

It is well known that twinning in cattle as a biological phenomenon is rarely observed. Twinning could be increased by transfer of two embryos or after transplantation of an embryo to a preliminary inseminated cow. The experiment was carried out with 10 Polled Hereford cows. They were artificially inseminated with semen of the same breed at natural oestrus. On the 6th day after that two defrosted Aberdeen Angus embryos were placed in one of the uterus horns. The following results were obtained after the calving:

Three of the cows delivered two calves (30%), four cows - one calf (40%), and three cows remained non-pregnant (30%). The study showed that placing a defrosted embryo in one of the uterus horns of preliminary inseminated cows could increase the prolificacy up to 30.3%.

Key words: cows, embryotransfer, twinning

30.

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КОЗЕВЪДСТВО

ПРОУЧВАНЕ НА МАЙЧИНОТО ПОВЕДЕНИЕ НА КОЗИ ОТ ПОРОДАТА БЪЛГАРСКА БЯЛА МЛЕЧНА

**Светослава Стойчева, Цветомира Христова, Пенко Зунев, Йордан Алексиев,
Цветелина Димитрова**

Институт по планинско животновъдство и земеделие – Троян

РЕЗЮМЕ

Изследвано е развитието на майчиното поведение при 35 кози от породата Българска бяла млечна, отглеждани оборно и хранени със сено и концентриран фураж по време на оказването през месеците февруари и март. Майчинските качества на козите са оценени въз основа скоростта на реализиране на поведенческите реакции в течение на първия час след раждането. Установено е, че по време на контролирания период козите подушват и облизват женските ярета и яретата единаци по-рано, в сравнение с настъпването на тези реакции по отношение на мъжките ярета и близнаците. Общото време, прекарано в грижа за новородените през първия час след раждането, също е по-продължително при женските ярета и яретата единаци.

Ключови думи: кози, новородени ярета, майчино поведение

STUDY ON EFFICIENCY OF DIFFERENT SCHEMES OF ESTRUS SYNCHRONIZATION IN SHEEP

Hristova T., S. Stoycheva, T. Maslev

Institute of Mountain Stockbreeding and Agriculture, Troyan, Bulgaria; e-mail: cvet_16@abv.bg;

ABSTRACT

In order to increase the efficiency of sheep raising, it is necessary to have possibility to control their sexual cyclic activity and to manage their reproduction process. This can be achieved through estrus synchronization on the basis of different hormonal preparations and schemes. We carried out the study with a number of 12 sheep. To synchronize the estrus we used vaginal sponges Chrono-gest (Intervet, Holland), containing 30 mg fluorogestone acetate. We injected the animals of 1st (experimental) group with 500UI Folligon (Intervet, Holland) each 48 hours before removing the sponges and those of 2nd group also with 500UI Folligon each, but on the day of their removal.

The clinically manifested estrus of sheep in 1st group was at the 24th hour – 100%, at the 36th hour – 100%, at the 48th hour – 66.7% and at the 60th hour – 16.7%. It was for sheep of 2nd group at the 24th and 36th hour – 0 %, at the 48th hour – 100% and at the 60th hour – 83.3%.

At the 72th hour after treatment with progestagens, all sheep of the two groups were subjected to macroscopic observations of ovaries through the method of laparoscopy. It was found that the number of well formed yellow bodies was greater in sheep of 1st group.

The results showed that the animals of 1st group should be inseminated artificially twice, between the 24th and 36th hour and those of second group between the 48th and 60th hour.

Key words: sheep, estrus, synchronization, PMSG

32. New Perspectives and Challenges of Sustainable Livestock Production October 7 – 9, 2015

EVALUATION OF ADAPTIVE CAPACITY OF KIDS ON THE BASIS OF REALIZATION SPEED OF BEHAVIOURAL REACTIONS DURING THE FIRST HOUR AFTER BIRTH

S. Stoycheva, Ts. Hristova, P. Zunev, Y. Alexiev, Ts. Dimitrova
Research Institute of Mountain Stockbreeding and Agriculture, Troyan 5600,
Bulgaria

Corresponding author: s_vetla@abv.bg

Original scientific paper

Abstract:

The development in the behaviour of the kid, within the first hours after its birth, provides information for its adaptive capacity and the necessity to optimize and adapt the breeding technologies in order to speed the formation of the relationship between goat-mother and kid, the protection of new-borns and the increase in reproductive efficiency. The behaviour of 32 kids were observed from Bulgarian White Milk (BWM) breed, 13 kids from BWM x Anglo-Nubian (AN) and 15 kids from BWM x Togenburg (TG) of different sex and type of delivery. The single kids made their first attempt to rise to their feet averagely on 6.0±1.2 min, and they Successfully rose stood on their feet on 24.9±2.9 min., which was shorter than the time till their first attempt for rising and the successful standing for the twins – respectively 7.9±1.3

min. and 28.3 ± 2 min. The single kids spent almost two minutes more on their feet ($P > 0.05$) than twin kids (22.6 ± 2.9 min. against 20.9 ± 2.3 min.). Male and female kids made their first attempt to rise almost at one and the same time (female 6.8 ± 1.2 min and male 6.6 ± 1.1 min.) after their birth. The time till the first successful attempt to rise up was influenced reliably by the sex of the new-born – female kids rose up earlier than male averagely with 6 min (on 29.8 ± 2.5 min for male and on 23.8 ± 1.6 min for female). The female kids stood longer time on their feet within the first hour after birth (22.7 ± 2.6 min), but the difference in comparison with the male ones (20.1 ± 2.4 min) was not proven. The single kids made their first attempt to suck on 25.7 ± 2.8 min and they sucked successfully averagely on 33.0 ± 4.2 min after their birth, as it was earlier in comparison with twins, respectively on 31.8 ± 2.5 and 40.3 ± 3.2 min. Among the kids that were observed, it was noticed that female kids made their first attempt to suck earlier (28.6 ± 2.9 min.), but they started sucking later (39.3 ± 3.4 min.) and they spent shorter time in sucking during the first hour after their birth (6.3 ± 1.8 min.) in comparison with the male kids (31.3 ± 2.5 min.; 34.4 ± 3.5 min. 7.6 ± 2.5 min.). The aim of the present study was to follow the expression of behaviour of kids during the early neonatal period.

33.

РЕГИОНАЛЕН ФЕРМЕРСКИ ПАЗАР ТРОЯН - ТЕНДЕНЦИИ И ПРЕДИЗВИКАТЕЛСТВА

*Гл. ас. д-р Николай Марков
Гл. ас. д-р Светослава Стойчева
Докт. Мариана Маркова*

Институт по планинско животновъдство и земеделие – Троян,
ncm64@mail.bg

Abstract: Разгледано е текущото състояние и проблеми на фермерски пазари и техните продукти по света и у нас. Направен е дескриптивен и ретроспективен анализ на фермерският пазар в Троян. Същият изгражда трайни връзки между фермери и производители и насърчава местното население към популярно автентично земеделие.

Keywords: фермери, пазар, продукти, земеделие.

JEL: Q11.