

РЕЗЮМЕ

Использование передвижных пунктов искусственного осеменения маток, применение ОЦС и молочных разбавителей спермы, лазерная биоактивация обеспечивает возможность получения экономии финансовых средств и повышению рентабельности овцеводства на 26-42% по сравнению с традиционным способом ведения отрасли

Развитие овцеводства, увеличение объемов и качества продукции должно опираться на интенсивные и рациональные технологии ведения отрасли в условиях фермерских хозяйств и использование генетического потенциала как отечественных, так и зарубежных пород овец, на основе создания оптимальных условий выращивания.

Научные исследования проводились на овцах казахской тонкорунной породы разводимых в Алматинской области, прежде всего в племхозе имени Р-Курты.

Для изучения продуктивных и биологических особенностей овец казахской тонкорунной породы при выполнении предусмотренных методикой целей были выполнены согласно схеме специальных научно-производственных опытов.

Изучение биотехнологических метод эффективности замороженных семян баранов импортных пород рамбулье, полипэй, суффолк, авасси и ост-фриз и их использование на овцематок казахской тонкорунной породы и биотехнологический роль в получение высокопродуктивных пород овец в зависимости от пола.

Промышленное скрещивание маток с помесными баранчикам и баранами, способствовало получению помесных ягнят мясного типа.

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ULTRASOUND SONOGRAPHY OF FETAL DEVELOPMENT DURING FETOGENESIS OF EDILBAY EWES IN DIFFERENT MULTIPLICITY GESTATION

Abstract

The article deals with results of ultrasound study fetogenic growth in embryonic ontogenesis uterine young animals belonging to edilbay sheep breed, i.e. by ultrasound scanner is considered in Aimeken farm West Kazakhstan region. By recognizing the interior of living organisms at various stages ontogenesis, it is possible to study the development of organs, tissues, and morpho-physiological structures, biochemical composition and determine the factors that affect them. Currently, ultrasound sonography is a very popular and efficient method. It allows at its stage not only to identify the development of embryo, but also identify other pathological conditions offspring. Therefore, during the experiment, animal pregnancy shows positive result. According to the data obtained, their pregnancy passes normally, at each stage, obstetric parameters increased, such as diameter of fetal shell, biparietal head size and diameter transverse size fetus. As the diameter of head and body fetus increases, respectively, length coccyx also observes growth dynamics.

Keywords: fetal shell diameter, labor-coccyx length, biparietal head diameter, head diameter, transverse size diameter, body diameter, growth charts, heart rate.

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Introduction. Various instrumental diagnostic methods in all areas of medicine are constantly being improved in accordance with modern requirements. Scanning the body using ultrasound is the leading non-invasive *in vivo* diagnostics. Using sonography allows to define volume processes. Using ultrasound devices, not only detect pathological changes in the internal organs of the body and its

external structure, but also correctly analyzes the most diseases, diagnoses acute and chronic diseases. Over the past 15 years, this method has been widely used to identify the above-mentioned organs, including thyroid, saliva, and mammary glands, and over the past 10 years, it has been used to analyze lymph nodes, blood vessels, and soft tissues.

Ultrasound scanners use the principle of echolocation to study any area of the body. Ultrasonic waves penetrate the tissues and focus on the beam. In accordance with the legislation of acoustics, waves are displayed at the interface of the medium of different densities from obstacles. The reflected waves interact with the piezocrystal and cause the generation of electrical signals. These signals are amplified and their number and amplitude are displayed on the monitor screen. The brightness of individual signal allows to determine the acoustic density of certain structures. Since the location of the echo signals on the monitor screen corresponds to the location of individual elements in the tissue, we observe the skin incision located under the sensor or in the area of interest.

Ultrasound research is a study of body structure, its location, interaction with the surrounding tissues and organs of individual tissue elements. Currently for tumors, the characteristic features of the acoustic behavior of infiltrative and extensive plant tissues, features of the contents in the controlled object, changes in the internal structure of organs in metabolic disorders, the nature of vascular picture of organs in circulatory disorders are described [1-3].

The most important advantages of ultrasound are its invasiveness, painlessness, and the possibility of multiple use with dynamic patient admission. Therefore, ultrasound is ideal for monitoring the course of chronic diseases and evaluating the effectiveness of surgical and therapeutic methods of treatment.

High-speed ultrasound scanners in microelectronics are currently available for medicine. In addition, we have not only two-dimensional color picture today, but also the ability to analyze it. Computer support for measurements (sociometry) the structure of the area of interest (RO) on the screen can be determined more accurately and painlessly for the researcher. Measuring the signal amplitude allows to determine the echogenicity of given zone (densitometry). The integrated system of software provides many features for recording, storing, and processing digital images, color contrast, and exporting images to other programs [4, 5].

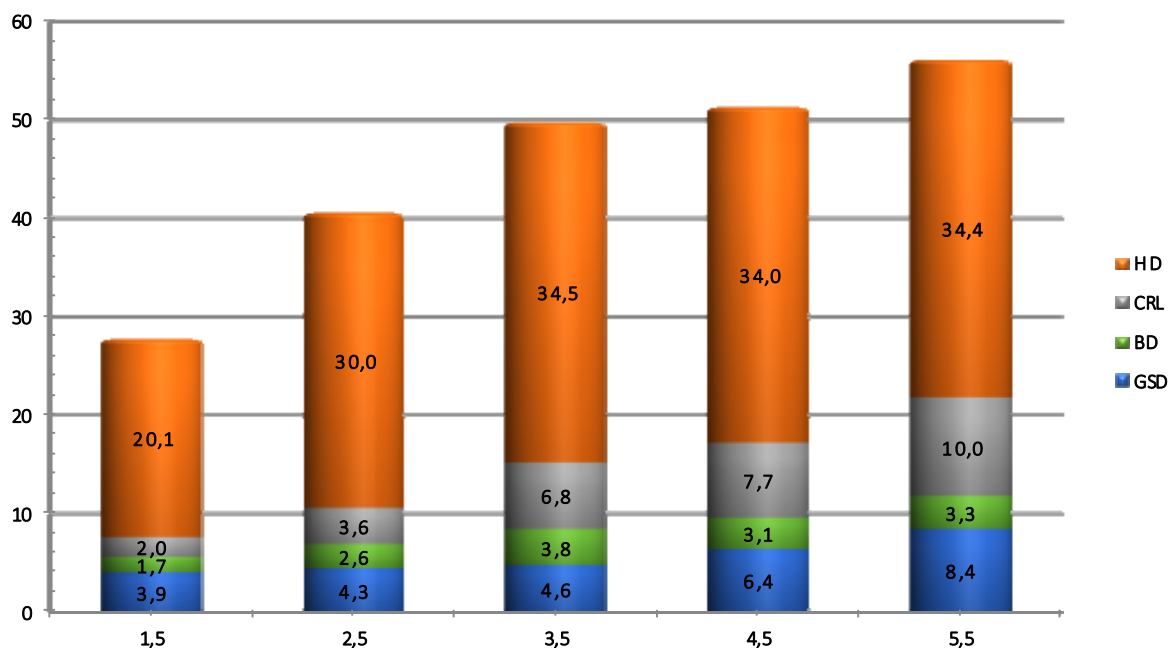
Form and methods of research. In this direction, the research was conducted in the Aimeken farm on the coarse fat tail sheep of edilbay breed. Rams and sheep were taken as the object of research. At the beginning, the insemination centers were prepared on the farm, and 2 sheep were brought. Checked the quality of the rams' seed. When checking the quality of the fetus, the activity of the fetus of rams of all groups exceeds 8 points. At the same time, the number of fetuses increased significantly, the movement of living cells in one milliliter ranged from 2.88 to 3.59 billion. Sheep with high quality sperm were inseminated. In the embryonic phase, the maturation of fetogenic young animals at various stages of pregnancy was checked by ultrasound. Special ultrasound sonography equipment was used to check it.

Three types of sensors from sonography devices were used: linear, visual, and sound. In our studies using the method of the description has been studied patogeneze development of the fetus in the II-nd pregnancy of ewes. 50 sheep aged were selected. 1.5; 2.5; 3.5; 4.5; 5.5 aged with different pregnancy of meat-fat direction were selected as the object of study. Using the special ultrasound machine was caused to gel on the liver of animal, at what level of development of the fetus in the young (GSD), labor capacity length (CRL), head diameter (HD), body diameter (BD).

Research results. According to the research methodology, aforementioned obstetric parameters of fetal development were recorded in Grown Charts growth chart (figure 1).

As a result of ultrasound sonography of the offspring 50 young edilbay sheep at the average age of 1.5, it was found that the diameter of the fetal shell is 3.86 cm, 2.5-4.34 cm; 3.5-4.63 cm; 4.5-6.43 cm and 5.5 age-8.42 cm. Respectively the body diameter was 1.69; 2.63; 3.78; 3.14 and 3.34 cm,.

In addition, ultrasound measurements were obtained for the diameter of the head and the sacrum of labor length. With the average diameter of the head at the age of 1.5, 20.1 cm; 2.5-30.0 cm; 3.5-34.5 cm; 4.5-34.0 cm and 5.5 aged-34.4 cm, the length of working coccyx, respectively, 2.0; 3.6; 6.8; 7.7 and 10.0 cm.



GSD – Diameter of the sperm shell
 VD – Diameter of the body
 HD – Head diameter
 CRL – Length of the labor sacrum

Figure 1 – Indicators of uterus development

The period of pregnancy passes normally, depending on each period, the diameter of seminal membrane and the diameter of fetal body are increasing. As the diameter of the fetal head increases, the length of the working coccyx also shows that the growth dynamics are ahead (figure 2).

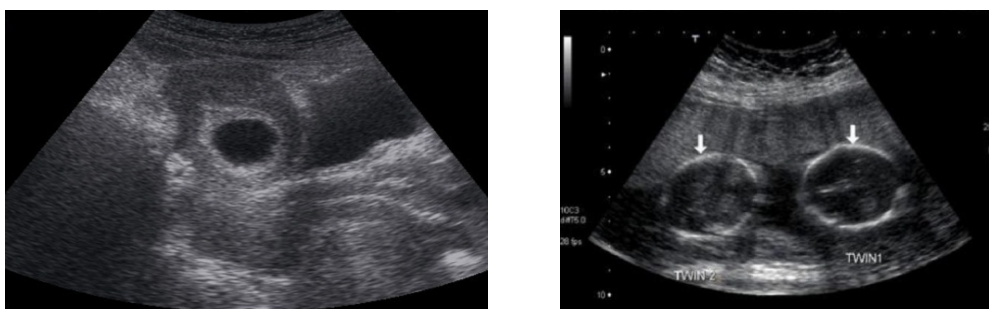


Figure 2-The twins were obtained as a result of ultrasound sonography

As you can see from the pictures, some sheep have not only females, but also twins. The level of development of young animals is evenly, there were no defects.

In the first months of embryonic development, the heart rate is on average, 90-100 times per minute, in subsequent periods evenly-80-90 times per minute. The breath reaches 40.5 years at the age of 1.5 to 2.5, from 3.5 to 5.5 years-38.5 years. This indicates that there were no defects or delays or unhealthy conditions in the normal prenatal state (table 1).

Table 1 – Heart rate in young animals of various stages

Practice groups	Heart rate lmin/time	Breathing lmin/time
I	90-100	41,5
II	95	40,5
III	90-100	39,0
IV	80-90	38,5
V	80-90	38,5

In order to generalize the data obtained from sonography during the sheep breeding, the following indicators were studied: the mass of lambs, height at the withers, coccyx, chest width, winding, and intervertebral grooves (table 2).

Table 2 – Results of sheep breeding in the farm «Aimeken»

Group	Mothers weight,kg	Lambs' weight,kg	Exterior dimensions of the body appearance, cm						
			Withers height	The height of the coccyx	Chest width	Tubes length	Chest packaging	Serbuk interval	Shins packaging
I	59,9	4,4	39,8	38,5	13,7	26,1	39,9	13,7	6,7
II	61,2	4,9	43,3	44,2	14,4	32,0	42,4	14,6	7,7
III	62,5	5,6	41,6	42,7	15,0	29,4	42,1	14,5	7,4
IV	65,1	5,9	42,0	43,6	13,8	30,0	40,6	15,2	7,0
V	52,2	5,9	42,1	41,2	14,6	32,4	42,2	17,2	7,8

Conclusion. The results of ultrasonic sonography of the fetogenic growth process in the embryonic ontogenesis of uterine young animals of different sequence of vapors in the meat-fat direction are presented. In this regard, ultrasound sonography is currently very popular and convenient method. It allows not only at its stage to identify the growth and development of the embryo, but also to identify other potological conditions of the offspring. During sonography, the positive result was shown in the study of fetogenesis in the embryonic ontogenesis of uterine young animals of various stages of pregnancy.

Therefore, the development of agricultural biotechnology in Kazakhstan should become one of the priority areas that require improving the achieved levels of biotechnology, developing new approaches based on localization of the spread undesirable genetic complexes and accelerating the growth of farm animals.

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ТҮЙІН

Мақалада Батыс Қазақстан облысының Ақжайық ауданында орналасқан «Аймекен» шаруа қожалығында өсірілетін арнайы етті-майлы бағыттағы қылшық жүнді құйрықты еділбай қой тұқымына жататын буаздылық реттілігі әртүрлі саулықтар төлдерінің эмбрионалдық онтогенездегі фетогенездік өсіп-жетілу үрдісін ультрадыбыс арқылы, яғни УЗИ-сканермен зерттеу нәтижелері қарастырылған. Тірі ағзалардың интерьерін тану арқылы онтогенездің әр сатыларында ішкі құрылыстағы мүше, ұлпа және жүйелердің жетілуін, морфо-физиологиялық құрылымын, әрі биохимиялық құрамын зерттеп, оларға әсер ететін факторларды анықтауға мүмкіндік туады. Қазіргі таңда ультрадыбыстық сонографиялау қажетті, әрі ыңғайлы әдіс болып табылады. Ол өз кезегінде тек қана эмбрионның дамуын анықтап қана қоймай, төлдегі өзге де патологиялық жағдайларды анықтауға мүмкіндік береді. Сондықтан да тәжірибе қою барысында буаздылық күйдегі саулықтарды зерттеу жұмысы оң нәтиже көрсетіп отыр. Алынған мәліметтер бойынша олардың буаздылығы қалыпты өтуде, әр кезегіне сай құрсақтағы ұрық қабының диаметрі, басының бипариетальді өлшемі және көлденең өлшемінің диаметрі сияқты акушерлік параметрлері өсуде. Ұрық басы мен денесінің диаметрі өскен сайын, сәйкесінше еңбек құйымшағының ұзындығы да өсу динамикасының алда екендігін байқатады.

РЕЗЮМЕ

В статье приведены данные по изучению фетогенеза эмбрионального развития курдючных ягнят методом ультразвуковой сонографии. Для проведения опытов в качестве объектов исследования отобраны грубошерстные курдючные овцы специализированного мясо-сального направления продуктивности КХ «Аймекен» Акжаикского района Западно-Казахстанской области. Согласно методике подопытные овцематки были разделены на 5 групп в зависимости от разной кратности их суягности. В результате которого были определены параметры онтогенеза ягнят плодного периода развития. В настоящее время ультразвуковая сонография является очень популярным и эффективным методом. Это позволяет не только выявить развитие эмбриона, но и выявить другие патологические состояния потомства. Согласно полученным данным, их беременность проходит нормально, на каждой стадии акушерские параметры увеличивались, такие как диаметр оболочки плода, размер бипариетальной головки и диаметр поперечного размера плода. По мере увеличения диаметра головки и тела плода соответственно увеличивается и динамика роста.

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EXTERIOR FEATURES OF INTRA – BREED TYPES OF KUSHUM BREEDS IN THE «ADAI-BEKET» FARM, WKR

Abstract

The article deals with the exterior features of intrabreed types of kushum horses. There are some differences in the adaptation of kushum horses to the constitution, exterior, and herd pastures. As a result, the breed indicates three breed types: massive, basic, and riding.

The article deals with the exterior features of intra-breed types of kushum horses. There are some differences in the adaptation of kushum horses to the constitution, exterior, and herd pastures. As a result, the breed indicates three breed types: massive, basic, and riding.

Horses of the massive type have a high weight, have a strong constitution, large rump. This intra-breed type is often used when growing horses of the Kushum meat direction. Bust horses are heavy-190 cm, body length-158 cm, metacarpus-20 cm. The basic type is best for use in agricultural work, and these types are dairy. The chest circumference of the main types of horses is 187 cm, body