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**IMPROVING THE EFFICIENCY OF VETERINARY
AND SANITARY MEASURES ON LIVESTOCK FARMS
LLP «BAYSERKE-AGRO»**

Abstract. The article presents the results of air analysis on sanitary and bacteriological indicators of newborn calves and improving the efficiency of veterinary and sanitary measures on livestock farms. Currently, a lot of work is being done to create optimal conditions for the maintenance and cultivation of newborn calves and the search for new solutions aimed at improving the efficiency of veterinary and sanitary measures in livestock farms of «Bayerke-Agro» LLP, as well as maintaining health through the implementation of veterinary and sanitary rules for the cultivation of newborn calves. Quantitative indicators of deterioration of air quality in individual houses for keeping newborn calves in this livestock farms are given. In order to describe in more detail the effectiveness of veterinary and sanitary measures on livestock farms were determined before disinfection and after disinfection from the following objects: buckets with a valve and a nipple for watering calves; plastic bucket for watering calves; fixing buckets; the inner wall of the individual house; plastic fence. The correct selection and competent use of this disinfectant «GAN» which affects all known pathogens, a wide range of bactericidal, virulicidal and fungicidal actions, is low-risk for personnel and animals, is active in the conditions of organic pollution, does not destroy metals, plastic, rubber and other materials.

Key words: quantitative and qualitative composition of microorganisms, individual houses, newborn calves, before and after disinfection.

Introduction. The head of state pays special attention to the development of the drivers of the economy - the agricultural sector, namely livestock. In the next five years, the production and processing of agricultural products should become the main source of diversification and a driver of economic growth, and also instructed to increase the efficiency of animal husbandry by 40 % [1].

The most important task of modern animal husbandry is the cultivation of strong viable calves. Active adaptation to adverse environmental factors, their growth, development and safety depends on the health of calves. Of particular importance in the prevention of diseases of calves at early age have a veterinary-sanitary and sanitary measures, therefore, the conditions of detention, care, feeding, veterinary-sanitary and sanitary requirements must interacted with unified technology of rearing calves of early age [2-4].

Diseases of newborn young cattle reduce the efficiency of the livestock industry, as they are the cause of waste, and animals that have been ill at an early age, can not further fully realize their genetic potential, as a result of the economy suffers significant losses [5-7].

The microclimate in individual houses depends on the climatic conditions, the type and quality of construction materials used for their construction and the way of keeping animals. The formation of the microclimate is influenced by the amount of water vapor formed during the life of the organism, the products of metabolism and decomposition of organic substances [8-10].

The main diseases that reduce the productivity of young animals are violations of sanitary and hygienic regimes of newborn calves lead to the accumulation in individual houses of conditionally-pathogenic and pathogenic microorganisms, when only the emerging qualitative and quantitative composition of lactic microflora is not able to prevent the colonization of the intestine by pathogenic and conditionally-pathogenic microorganisms that secrete in the process of life a large number of toxins unsafe for the life of the newborn [11-13].

According to J. B. Myrzabekov, V. I. Gershun, S. B. Myrzabekova, (2001, 2009) on the state of non-specific resistance of newborn calves, greatly influenced not only the mode and frequency of feeding, but also the conditions of detention, as well as environmental factors [14, 15].

According to V. I. Gershun, the value of preventive disinfection of premises for cattle (2001, 2005, 2009). The effect of these measures was taken into account by bacteriological examination. (V. I. Gershun, J. B. Myrzabekov, S. B. Myrzabekova 2001, 2007, 2009) found that total microbial count of the air is reduced by 95,57 % with manure, and then disinfected with 3 % - solution of sodium hydroxide - 98,73 %, the number of staphylococci is reduced by 78.5%, and hemolytic streptococci - 68.7 %. Disinfection ensures the destruction of both types of microbes. Different methods are used for air purification and neutralization of livestock premises [16, 17].

The rearing of newborn calves is organized according to a certain method, based on the specific purpose of breeding and the conditions that can be provided by the research and production center «Baiserke-Agro». The content of calves in each method involves its own characteristics, advantages and disadvantages [18-20].

The purpose and objectives of research. The main purpose of the research was the scientific and theoretical substantiation of microclimate indicators for keeping newborn calves in individual houses in the conditions of livestock farms of «Bayserke-Agro» LLP and to obtain cost - effective and competitive livestock products.

Materials and methods. Sanitary-hygienic and bacteriological examination was carried out by conventional methods. The research was conducted in livestock farms of «Baiserke – Agro»LLP. Individual houses for keeping young cattle were investigated in the conditions of production. Flushes with sterile cotton swabs were taken before disinfection and after disinfection from the following objects: 1. Buckets with valve and nipple for calves. 2. Plastic bucket for calves. 3. Fixing for fixing buckets; 4. Inner wall. 5. Plastic fence. For flushes, each tube contained 5 ml of sterile saline. For sowing, 1.0 ml of the initial wash was taken, introduced into sterile Petri dishes and poured, slightly opening the lid by 15 ml MPA, the contents of the cups were gently mixed and placed at room temperature until solidification. Cups frozen agar were placed upside down in an incubator at 37 °C for 24 h. For crops used the following nutrient medium: MPA (meat infusion agar), Saburo, Endo, staphylococcal and streptococcal environment [16].

Cups with crops on the environment Saburo were incubated in a thermostat at a temperature of 25 °C in order to be able to form a mycelium within 7 days, and the rest were incubated at the temperature 37 °C and accounting was performed after 48 h on medium Saburo - molds and yeasts (also saw growth in this environment, some of the bacilli), on Wednesday Endo - took into account the growth of the intestinal microflora of enterobacteria, which gave colonies of different size and color from light pink to dark red. In the staphylococcal environment, in addition to different types of staphylococci, some types of bacilli give growth, not only streptococci also grow on a dense streptococcal environment.

For disinfection in limited areas used 20-liter veterinary hydrolic spray (figure 1). Veterinary hydrolic sprayfilled with a disinfectant solution of GAN (figure 2) with a wide range of antimicrobial activity against pathogens of infectious diseases of bacterial, viral and fungal etiology. Working solutions of the drug do not have a locally irritating and sensitizing effect, do not cause corrosion of metals, and do not destroy plastics, rubber and other materials.

Results and their discussion. During the assessment of air quality in individual houses, the concentration of microbial contamination is extremely important. You should pay attention to the fact that the average indicators of microbial contamination of air in individual houses 3-4 times exceeded the permissible limits on the average amounted to 7,0 thousand CFU /m².

Figures 3, 4 show Petri dishes growth of microorganisms before and after disinfection in individual houses on the livestock farm of LLP «Bayserke – Agro».



Figure 1 – Veterinary hydrobolt



Figure 2 – GAN Disinfectant



Figure 3 – Petri Dishes with grown microorganisms before disinfection

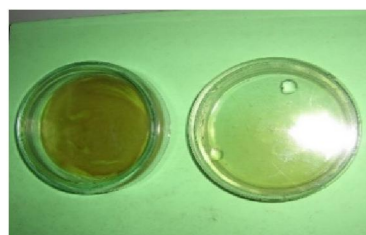
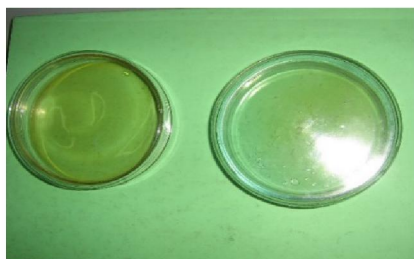
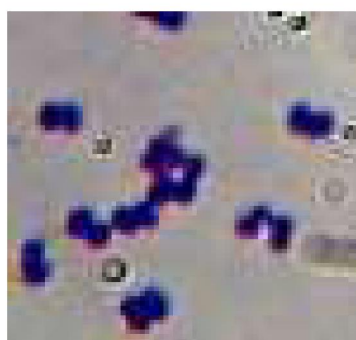
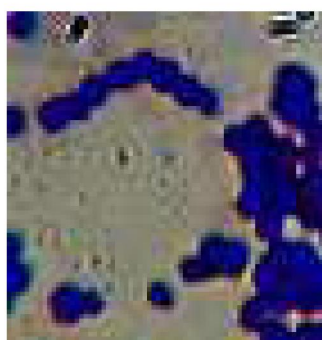


Figure 4 – Petri Dishes with grown microorganisms after disinfection

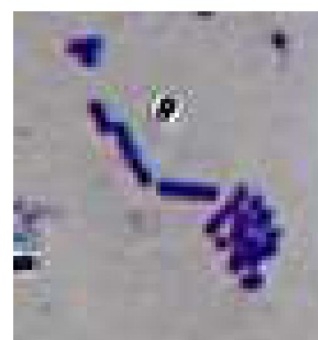
As can be seen from figure 3, after 2 hours after disinfection, a small amount of microflora remains in the washouts from the wall of the individual house. The same pattern is observed on the crops from the washouts of all other objects: a plastic bucket for watering calves and mounts for fixing buckets. The preparation of smears from grown colonies and viewing them with a microscope showed that on objects, although in small quantities, there is a significant variety of microorganisms. For clarity, they are shown in figure 5.



Staphylococcus



Streptococcus



Escherichia coli

Figure 5 – Morphological forms of bacteria growing from the washouts from the individual house taken before disinfection under the photos indicated nutrient media

From figure 5 it is clear that disinfection disinfectant washings detected staphylococci, sarcina and a non-sporulating Bacillus. After disinfection with disinfectant GaN remain single individual senterobacteria and streptococcus.

Conclusion. Our research allows us to make the following conclusion:

1. As a result of the conducted researches it is established that the General microbial pollution in individual lodges not corresponds to biological requirements of calves of early age and negatively influences growth and development of calves.

2. The use of a disinfectant solution of GAN contributed to the reduction of the total amount of microbial contamination in the air of individual houses and contributed to the increase of the natural resistance of the body of calves.

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«БАЙСЕРКЕ-АГРО» ЖШС МАЛ ШАРУАШЫЛЫҒЫ ФЕРМАЛАРЫНДА ВЕТЕРИНАРИЯЛЫҚ-САНИТАРИЯЛЫҚ ІС-ШАРАЛАРДЫҢ ТИІМДІЛІГІН АРТТЫРУ»

Аннотация. Бұл мақалада жаңа туған бұзауларды ұстаудың санитариялық-бактериологиялық көрсеткіштері бойынша ауаны талдау нәтижелері және мал шаруашылығы фермаларындағы ветеринариялық-санитариялық шаралардың тиімділігін арттыру келтіріледі. Қазіргі уақытта «Байсерке-Агро» ЖШС мал шаруашылығы фермаларында ветеринариялық-санитариялық іс-шаралардың тиімділігін арттыруға бағытталған жаңа шешімдерді іздеу және жаңа туған бұзауларды өсірудің ветеринариялық-санитариялық ережелерін орындау жолымен денсаулықты сақтау бойынша үлкен жұмыс жүргізілуде. Осы мал шаруашылығы фермаларында жаңа туған бұзауларды ұстау үшін жеке үйшіктерде ауаның сапалық құрамының нашарлауының сандық көрсеткіштері келтірілген. Мал шаруашылығы фермаларындағы ветеринариялық-санитариялық іс-шаралардың тиімділігін егжей-тегжейлі сипаттау үшін дезинфекцияланғанға дейін және дезинфекцияланғаннан кейін келесі объектілерден анықталды: бұзауларды суаруға арналған қақпақшасы және шырыны бар шелектер; бұзауларды суаруға арналған пластикалық шелектерді; шелектерді бекітуге арналған бекіткіш; жеке үйдің ішкі қабырғасы; пластикалық қоршау. Аталған «ГАН» дезинфекциялық құралын дұрыс таңдау және сауатты пайдалану ұсынылды, ол барлық белгілі патогендерге, бактерицидті, вирусты және фунгицидтік әсерлердің кең спектріне әсер етеді, персонал мен жануарлар үшін аз қауіпті, органикалық ластану жағдайында белсенді, металл, пластмасса, резеңке және т.б. материалдарды бұзбайды.

Түйін сөздер: дезинфекцияға дейін және одан кейін, жаңа туған бұзаулар, жеке үйлер, микроорганизмдердің сандық және сапалық құрамы.

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ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ВЕТЕРИНАРНО-САНИТАРНЫХ МЕРОПРИЯТИЙ НА ЖИВОТНОВОДЧЕСКИХ ФЕРМАХ ТОО «БАЙСЕРКЕ-АГРО»

Аннотация. В статье приводятся результаты анализа воздуха по санитарно-бактериологическим показателям содержания новорожденных телят и повышение эффективности ветеринарно-санитарных мероприятий на животноводческих фермах.

В настоящее время проводится большая работа по созданию оптимальных условий содержания и выращивания новорожденных телят и поиск новых решений, направленных на повышение эффективности ветеринарно-санитарных мероприятий в животноводческих фермах ТОО «Байсерке-Агро», а также сохранения

здоровья путем выполнения ветеринарно-санитарных правил выращивания новорожденных телят. Приведены количественные показатели ухудшения качественного состава воздуха в индивидуальныхдомиках для содержания новорожденных телят в данном животноводческом фермах. Для того чтобы более подробно охарактеризовать эффективность ветеринарно-санитарных мероприятий на животноводческих фермахбыли определены до дезинфекции и после дезинфекции со следующих объектов: ведра с клапаном и соской для поения телят; пластиковое ведро для поения телят; крепление для фиксации ведер; внутренняя стенка индивидуального домика; пластиковое ограждение. Предложена правильный подбор и грамотное использование данного дезинфицирующего средства «ГАН» который воздействует на все известные патогены, широкий спектр бактерицидного, вирулицидного и фунгицидного действия, малоопасен для персонала и животных, активен в условиях органических загрязнений, не разрушаетметаллы, пластмассу, резину и др. материалы.

Ключевые слова: количественный и качественный состав микроорганизмов, индивидуальный домик, новорожденный теленок, до и после дезинфекция.

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