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ABOUT ME

Doctor of Veterinary Sciences

WORK EXPERIENCE

24/02/2025 – CURRENT Sumy, Ukraine

PROFESSOR SUMY NATIONAL AGRARIAN UNIVERSITY, DEPARTMENT OF OBSTETRICS AND SURGERY

EDUCATION AND TRAINING

01/09/2019 –15/05/2024, SUMY Ukraine

DOCTORAL STUDENT SUMY NATIONAL AGRARIAN UNIVERSITY

01/10/2001 – 27/05/2004 SUMY, Ukraine

PHD IN VETERINARY LVIV STATE ACADEMY OF VETERINARY MEDICINE NAMED AFTER S.G. GZHYTSKY

01/09/1998 – 30/08/2001

MASTER OF VETERINARY Sumy National Agrarian University

Sumy, Ukraine

01/09/1994 – 30/06/1998

BACHELOR OF VETERINARY Colledg of Sumy National Agrarian University

- **LANGUAGE SKILLS**

Mother tongue(s): **UKRAINIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
RUSSIAN	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

- **DIGITAL SKILLS**

Microsoft Office | Microsoft Excel | Social Media | Zoom | Microsoft Powerpoint | Microsoft Word | Google Docs |Skype |Internet user Power Point

- **ADDITIONAL INFORMATION**

PUBLICATIONS

Effectiveness of diagnostic methods for endometrial hyperplasia and pyometra in bitches. – 2024

The aim of the study was to assess the effectiveness of the use of contrast-enhanced imaging technology for the diagnosis and prediction of vascularization in microvessels due to endometrial angiogenic effect in pyometra in bitches. The study was conducted on 15 infertile bitches of different breeds on the 15th–45th day after the end of estrus. Examination of the reproductive system of bitches was performed using ultrasound diagnostics in B mode (hyperplastic changes of the endometrium were diagnosed), Dopplerography (condition of vessels and their number) and contrast-enhanced imaging technology. The reproductive system organs of each animal were examined in 3 areas, taking into account the depth of the endometrium examination (1–2 cm), the number, location and size of endometrial cysts. Ultrasound examination revealed dilatation of the uterine horns, atypical growth and thickening of the endometrium and the formation of cysts up to 0.45 cm in diameter. Doppler examination revealed the growth of a large number of small vessels in the endometrium of the female uterus, but no changes in blood flow were detected. Contrastenhanced imaging technology

revealed hyperplastic processes of the endometrium, which were characterized by more intense staining on the contrast image, which disappeared within the cystic lesion of the uterine mucosa of the female. The presence of large vascularized cysts and filling of the uterine lumen with exudate (in pyometra) were detected. Asymmetry of the uterine horns and their increase in volume (during ovariohysterectomy) were detected. Histological examination revealed increased endometrial thickness and signs of inflammatory reaction (presence of neutrophils, macrophages and plasma cells). Contrast-enhanced imaging technology can be successfully used to detect morphological changes in the tissues of the female reproductive system for the purpose of diagnosing destructive and inflammatory processes.

Bulletin of Sumy National Agrarian University. The series: Veterinary Medicine No. 4(67) (2024)

Determining the force parameters of the working process to clean the udder nipples of cows. –2024

The object of this study is the force parameters of the working process when cleaning the udder nipples of cows from contamination. Failure to provide adequate care for a cow, especially concerning its udder, could lead to significant health and productivity problems. On the other hand, utilizing modern tools, devices, and materials could improve the sanitary and hygienic conditions for milking cows and udder care, thus leading to better overall outcomes. As part of the research, mathematical expressions were derived theoretically, allowing the determination of the force parameters of the working process for cleaning cows' udders from contamination by expanding the range of the device's functional characteristics. Distinctive features of the results regarding the solution to this problem is evaluation of the elasticity force exerted by the lint bundles on the nipple during the rotation of the brush device's drum and the circular force generated by the brush lint. The developed algorithm of the work process aimed at cleaning the nipples and udders of cows made it possible to combine a set of clearly defined and sequentially performed operations into a single whole.

It has been demonstrated that the efforts required to retain different types of contamination on the skin vary significantly. To objectively determine it, a new device has been designed. Its distinctive features are the precision of measurement and simplicity of operation. Following laboratory testing, it was established that the highest contaminant retention forces were exhibited by solid manure

(Fret=40±3.21 N), while the lowest values were observed for sawdust (Fret=19±2.17 N) ($p \leq 0.001$).

Engineering technological systems Vol. 5 No. 1 (131) (2024)

The course of the postpartum period in cows in the presence of concomitant pathology. – 2023

The decrease in productivity in cows is directly related to the pathologies of the organs of the reproductive system that occur at the end of the transit period, therefore it is important to improve the methods of diagnosis and preventive therapy of cows in this period. The purpose of the work was to establish the forms of pathologies that occur in the transit period in cows, their interrelationship and the causes that cause them in terms of seasonal dynamics. When conducting research, morphological, clinical (examination, palpation), laboratory (bacteriological studies of the uterus), and statistical (statistical reliability) methods were used. The research was conducted in the limited liability company "Milk of the Fatherland" in 2 departments where unattached housing is used. The occurrence of subinvolution of the uterus against the background of litter retention and persistent corpus luteum was established by 9.5% more in the 1st department. A 43.5% correlation of the prevalence of delayed involution with endometritis was revealed. An increase, 12.8% in January and up to 14.1 in February, of cases of subinvolution of the uterus was established, while in May the similar indicator was 5.0%. The prevalence of persistent corpus luteum was established up to 16.8%, luteal cyst – up to 1.7%, ovarian follicular cyst – 2.1%. The presence of microflora in the uterine cavity (E. coli, Ps. aeruginosa and S. aureus – 49.8% S. aureus and E. coli – 33.5%, Pr. vulgaris and E. coli – 16.7%) provoked the occurrence inflammatory processes: chronic endometritis – 10.4%, vulvovaginitis – 18.1%, cervicitis – 21.4%. Research results can be used to develop new and improve existing methods of treatment of cows with pathology of genital organs in the transit period in farms of different forms of ownership

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Scientific Horizons, 26(11), 19-28.

Indicators of reproduction when using complex use of drugs for spontaneous manifestation of heat in cows for mycotoxicosis. –2023

Alimentary infertility is becoming increasingly important due to the toxic effects of mycotoxins, especially zearalenone and deoxynivalenol, which leads to a decrease in the efficiency of the cattle breeding industry, so it is necessary to examine this

problem. The purpose of the study was to identify the effect of the complex use of sorbents, acidifiers, and aromatase inhibitors on the reproductive capacity of cows in mycotoxicosis. During the study, clinical methods (general examination) and biochemical methods (serum content of calcium, magnesium, urea, total and direct bilirubin, malonic dialaldehyde, aminotransferase activity) were used. Cows were divided into two groups: the first group was a control group, where no treatment was used, and cows of the second group received a comprehensive treatment method. A decrease in the level of calcium to 1.68±0.53 mmol/L, phosphorus – 0.98±0.16, selenium – 0.64±0.1 mmol/L, an increase in the level of magnesium to 1.15±0.17 mmol/L, an increase in aspartate aminotransferase to 121.33±3.91 units, alataminotransferase to 79.31±6.53 units, and total bilirubin to 10.21±0.55 mmol/l, malone aldehyde up to 8.27±0.41 mmol/L, and ceruloplasmin up to mmol/L 2.14±0.39 in chronic mycotoxicosis caused by zearalenone and deoxynivalenol. When using a complex treatment regimen for animals, a substantial change and approximation to the reference levels of selenium, creatinine, AST, ALT, malonic aldehyde, and ceruloplasmin were established. The use of the proposed treatment regimen increases the fertilising capacity of cows after the 1st calving by 18.15%, cows aged 3-4 years – 30.12%, and cows of the older age group – by 40.47%. A complex method of treatment of cows for mycotoxicosis caused by zearalenone is proposed using an acidifier based on organic acids, a sorbent based on celeolite and an aromatase inhibitor, which can be used in livestock farms for the production of milk and meat of various forms of ownership to restore and normalise the reproductive ability of cows

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Scientific Horizons, 26(10), 51-58.

Prevalence of subclinical abortions in cows due to mycotoxicosis. – 2023

The article presents data on the distribution and seasonal dynamics of subclinical abortions in cows with mycotoxin poisoning, particularly zearalenone. Subclinical abortion is a common phenomenon among cows in dairy farms and causes significant economic losses due to multiple unsuccessful inseminations, reduced animal productivity, and premature culling. The research aimed to study the seasonal fluctuations of hidden abortions in cows and the influence of the method of keeping in the conditions of feed contamination with microscopic fungi and their toxins. To diagnose hidden abortions, cows were diagnosed with the pregnancy on the 32nd day after insemination. When pregnancy was confirmed, the animals were examined for 92 days. At the same time, if the pregnancy was not confirmed,

it was considered that an abortion had occurred. Seasonal fluctuations of subclinical abortions were established - the most significant number (up to 13.6 %) was diagnosed at the end of spring, associated with many animals entering the hunt after the transit period. It is also important that at that time, the number of mycotoxins in feed reached record values, which led to abortions due to toxic effects on the organs of the reproductive system in particular and the body in general. A large number of abortions (11.2 %) in the summer season was also confirmed. At the same time, animals kept free all year received a similar diet containing mycotoxins. At the same time, a concomitant negative factor was temperature shock at this time of year. This whole complex of reasons led to subclinical abortions followed by the resorption of the fetus. Sonographically, areas of reduced echogenicity of the uterus in cows after abortions were detected, which is evidence of the development of subclinical endometritis, confirmed by the uterus's heterogeneous echogenicity. In infertile animals, the presence of follicles with cavities and small yellow bodies that did not extend beyond the surface of the ovary was established sonographically. This indicates a hypofunctional state and impaired folliculogenesis and luteogenesis.

Ukrainian Journal of Veterinary and Agricultural Sciences Vol. 6 No. 2 (2023)

Indicators of immunity in associated mycotoxicosis of cows. – 2022

The issue of cattle reproduction was and still is one of the main tasks in cattle breeding. Losses of farms from infertility of cows are quite significant and range within 3.19-5.41 per 1 day of infertility. Mycotoxins produced by fungi of the Fusarium family, namely deoxynivalenol (DON) and zearalenone (ZEN) adversely affect not only the functioning of all organs and systems of the cow's body, but also produce an immunosedative effect. The purpose of this study was to establish the effect of the DON and ZEN complex on the main indicators of the immune response of cows and its correction in a comparative aspect using a feed additive based on zeolite and organic acids and recombinant α-, g-interferons. The study material was the blood of cows (serum and stabilized) sick with mycotoxicosis caused by the association of DON and ZEN. Methods used: photonephelometric using E. coli test culture, spontaneous rosette formation with sheep red blood cells according to M. Jondal, modified method of rosette formation according to M. Wansbrough-Jones, R. Limatibul's method, simple radial immunodiffusion in gel according to G. Mancini, precipitation in a polyethylene glycol solution according to M. Digeon. Experimental studies were performed on black-spotted cows in farms of the Sumy

Oblast. The dynamics of the immune indicators of cows during the development of mycotoxicosis and upon treatment with products zeolite-based, organic acids, and an aqueous solution of recombinant α-, g-interferons were studied. It was found that the indicator of bactericidal, lysozyme, complementary, and phagocytic activity of cow blood serum under treatment increased to the indicator inherent in healthy animals. The dynamics of immunoglobulins in the treatment with zeolite and organic acids and recombinant α-, g-interferons was investigated, and an increase to the level of intact cows was established. It was proved that the indicators of the immune response of cows upon using a feed additive based on zeolite and organic acids at a dose of 2.5 kg per tonne of fodder and a preparation based on an aqueous solution of recombinant α-, g-interferons at a dose of 3 ml per animal were significantly higher

Scientific Horizons, 25(9), 30-40.