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ЛЕСОТЕХНИЧЕСКИ УНИВЕРСИТЕТ
ФАКУЛТЕТ „ВЕТЕРИНАРНА МЕДИЦИНА“



STATEMENT

of a dissertation for the awarding the educational and scientific degree „Doctor“, field of higher education 6.0 Agricultural sciences and veterinary medicine, professional field 6.4 Veterinary medicine, in the scientific specialty „Obstetrics and gynecology of animals and diseases of newborn animals“

Author of the PhD thesis: Aleksandar Aleksandrov Stoimenov, PhD student at the department of „Surgery, radiology, obstetrics and gynecology“, Faculty of Veterinary Medicine, University of Forestry, Sofia.

Title of the PhD thesis: „Research on the prevalence, aetiology and natural defence mechanisms of the mammary gland in sheep with subclinical mastitis“.

Member of the scientific jury: Assoc. Prof. Roman Pepovich, DVM, PhD, University of Forestry, Faculty of Veterinary Medicine, scientific specialty „Epizootology, infectious diseases and prevention of infectious diseases in animals“, according to Order № 640 / 01.12.2022 of the Rector of University of Forestry, Sofia.

1. Relevance of the topic

Mastitis is one of the main health problems in sheep breeding nationally and worldwide, causing significant economic losses related to reduced milk production, impaired milk quality and treatment costs. Unlike clinical forms of inflammation of the mammary gland, subclinical mastitis can remain undiagnosed for a long period of time. This requires the search for modern diagnostic methods for early detection of changes in milk, the mammary gland and its protective mechanisms. Based on this, I consider the current topic to be relevant and useful for veterinary medical practice and science.

2. Literary awareness

The literature review contains a large volume of well-arranged literature information, based on a huge number of 254 literature sources, including well-known researchers who worked on this scientific problem. A complete characterization of the disease is made, which creates a good basis for the development of the seted aim. It is written in an academic and at the same time understandable language, which allows it to be used by both researchers and practicing veterinarians.

3. Aim, tasks and research methods

Until now, in our country, studies on the protective mechanisms of the mammary gland (humoral and cellular) in sheep with subclinical mastitis, as well as the introduction



of a non-invasive method for the diagnosis of inflammatory processes of the mammary gland have not been done, and many questions remain open. This gives me reason to conclude that the selected research objective is actual, contemporary and significant for our sheep farming. To realize the aim, five tasks have been formulated. Comprehensive research was conducted in five sheep farms from four regions of the country. Classic laboratory methods from bacteriology and immunology were used, and a sufficient number of milk and blood samples were examined. A physicochemical and cytological analysis of the milk samples was made. A pleasant impression is made by the detailed statistical processing of all results, using the SPSS 19.0 computer program.

4. Results

The section contains a sufficient volume of factual material, which is presented consistently and accurately, based on the individual tasks. The results of the studies are reflected in 27 tables and illustrated with 14 figures. Based on the obtained results, 6 conclusions were drawn, which precisely and clearly provide answers to the tasks set in the dissertation work.

5. Discussion

A complete and competent analysis of the obtained own results with the available data from the literature is made, which gives the section the necessary character of a scientific discussion and emphasizes the skills of the PhD student in handling scientific facts.

6. Contributions of the dissertation work

I accept the 7 contributions formulated by the PhD student, of which 3 are of an original nature and 4 are of a confirmatory nature. Based on the achieved results, 2 recommendations for practice were made, which are directly aimed at the diagnosis and treatment of subclinical mastitis in sheep.

7. Published articles and citations

There are 2 publications in English on the topic of the dissertation in refereed scientific publications, in which the PhD student is the first author, which is proof of his personal participation in the conducted research, which is part of the dissertation work being developed. There is no data that the presented articles have been cited in our country and worldwide.

8. Dissertation abstract

The submitted dissertation abstract is 38 pages, prepared according to the requirements and reflects the main results achieved in the dissertation.



9. Critical notes and questions

With the notes and recommendations made by me, as a member of the extended departmental council when discussing the dissertation project, the PhD student complied and corrected.

10. Conclusion

The presented dissertation on the topic: „Research on the prevalence, aetiology and natural defence mechanisms of the mammary gland in sheep with subclinical mastitis“ contains sufficient original and confirmatory scientific contributions to enrich our knowledge of ovine mammary inflammation. Taking into account the large volume of scientific research carried out, the obtained original results and their promotion in refereed scientific publications, meeting all the requirements of Law of development the academic staff of Republic of Bulgaria its Rules, as well as the relevant Rules of University of Forestry, give me reason to evaluate it **POSITIVE**.

I propose to the honorable Scientific Jury to also vote positively and award assistant prof. Aleksandar Aleksandrov Stoimenov the educational and scientific degree „Doctor“ in the scientific specialty „Obstetrics and gynecology of animals and diseases of newborn animals“.

03.01.2023

Statement prepared by:

(Assoc. Prof. Roman Pepovich, DVM, PhD)