



## OPINION

**Concerning:** Dissertation award of educational and scientific degree " PhD" in the field of higher education. 6. "Agrarian Sciences and Veterinary Medicine", professional direction. 6.3 "Animal Husbandry" scientific specialty "Breeding of agricultural animals, biology and biotechnology of reproduction".

**Author of the dissertation:** Zornitsa Boykova Petkova, doctoral student at the Department of Animal Sciences at the Agricultural University, Plovdiv

**Topic of the dissertation:** "Modern trends in creating a high-milk sheep population in Bulgaria and opportunities for using the Pleven Black-headed sheep in the selection process"

**Reviewer:** Prof. Tsonka Atanasova Odzhakova, PhD, Scientific Center for Stockbreeding and Agriculture - Smolyan, professional field 6.3 "Animal Husbandry" with scientific specialty: "Breeding of farm animals, biology and biotechnology of reproduction", determined by Order RD-16-612/14.05.2025 by the Rector of the Agricultural University Plovdiv.

### 1. Relevance of the problem.

The relevance of the study is undeniable. The dissertation presented by the doctoral student examines the problems regarding the state of the dairy sector of sheep breeding in Bulgaria. Studies on the possibility of using the Pleven Black-headed sheep as a basis for creating a highly productive dairy population in our country are a contribution to science and practice.

The dissertation summarizes the results of the study and determines the direction of breeding activities to improve the productivity of the part of the breed controlled by the breeding organization, which shows knowledge of the problems of dairy sheep breeding.

## **2. Purpose, tasks and research methods.**

The title fully corresponds to the content of the dissertation. The purpose of the study, through phenological and population-genetic analysis of a selectively isolated part of the dairy population in Bulgaria, is to study the modern trends in the development of dairy sheep breeding and the possibilities for using the Pleven Black-headed sheep in the breed-forming process. The goal was achieved by completing 5 main tasks. Tasks formulated in this way are sufficient, they reveal in an appropriate way the objectives of the study, as well as the results of the implementation. The presented literature review proves the broad awareness of the doctoral student on the problem, the ability to handle scientific sources and draw the necessary conclusions, directing the literature review to the thematic issues of the dissertation. Modern methods of analysis were used, which led to scientific and applied results.

## **3. Visualization and presentation of the obtained results.**

The dissertation is written on 165 pages, and in terms of structure the requirements have been met, literature review - 26 pages, goal and objectives - 2 pages, Material and methods - 10 pages, "results and discussion" - 101 pages, "summary" - 5 pages, conclusions" - 2 pages, recommendations" - 1 page and literature" - 26 pages, of which 57 are in Cyrillic and 245 in Latin. The presented material is well illustrated by including 53 tables, 30 figures and 12 photos in the text.

## **4. Discussion of the results and used literature.**

The dissertation work was developed using literary sources from publications of 57 Bulgarian and 245 foreign authors. A challenge for the author to make the right choice among a huge amount of sources and literature to argue his thesis. The data obtained are presented with a thorough and competent analysis and confirm the formulated research goal and tasks. The current state of the Bulgarian dairy population controlled by ARMPO, dynamics and trends in development, milk yield and factors influencing it were studied. An analysis of milk yield was carried out in crosses of Pleven Blackhead with East Frisian and Asaf. The physicochemical and fatty acid composition of milk and hematological indicators of blood were studied.

## **5. Contributions of the dissertation work.**

I accept the proposals for contributions made by the doctoral student Zornitsa Petkova, which are original with a scientific and applied nature. I believe that the presented results determine the trends in the development of dairy sheep breeding and can be of use to researchers and specialists.

## **6. Critical notes and questions.**

None

## **7. Published articles and citations.**

The doctoral student has participated in 4 scientific publications, of which three is the first author. The publications are indexed in a global database (VoS, Scopus)

The presented abstract objectively reflects the structure and content of the dissertation work.

## **CONCLUSION:**

Based on the various research methods learned and applied by the doctoral student, the correctly conducted experiments, the generalizations and conclusions made, I believe that the presented dissertation meets the requirements of the Law on Agricultural Research and Development of the Republic of Bulgaria and the Regulations of the Agrarian University for its application, which gives me reason to evaluate it POSITIVELY.

I would like to propose that the esteemed Scientific Jury also vote positively and award Zornitsa Boykova Petkova the educational and scientific degree of "PhD" in the scientific specialty " Breeding of agricultural animals, biology and biotechnology of reproduction".

**Date:** 09.06.2025  
Plovdiv

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във връзка с чл.4, т.1 от Регламент (ЕС) 2016/679

(Общ Регламент относно защитата на данни).