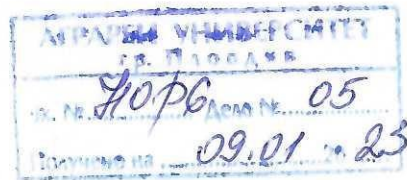


STANDPOINT



About the dissertation "Influence of the main microclimatic and technological parameters on some signs characterizing the comfort of free-ranged dairy cows", by the full-time PhD student at the Department of Animal Husbandry Sciences at the Agricultural University, Plovdiv - Smilyana Alexandrova Tasheva, for acquiring the Educational and Scientific Degree "PhD" in the field of higher education: 6. Agricultural sciences and Veterinary medicine, Professional direction: 6.3. Animal husbandry, and scientific specialty "Dnimal hygiene".

By Assoc. Prof. Atanas Spasov Vuchkov PhD – Agricultural University - Plovdiv, Department of Animal Science, in the field of higher education 6. Agricultural Sciences and Veterinary Medicine, Professional field 6.3 Animal Husbandry, Scientific specialty "Sheep and Goat breeding", determined according to Order № RD - 16-1233, from 21.11.2022, by the Rector of Agricultural University – Plovdiv.

1. Relevance of the problem.

Main problems in rearing of the cows for milk over time were the unsatisfactory hygienic conditions and microclimate of the production environment, violations in technological processes, low-quality execution of construction activities, and others, which are the cause of high mortality in calves, gynecological, hoof and muscle-joint problems in cows remain. The applied specific prevention often turns out to be insufficient to limit morbidity, to increase resistance and prolong the economic use of animals, on the other hand, dynamic climate changes accompanied by periods of extremely high temperatures in the summer are becoming a serious problem for the countries of Europe, therefore I find the current work extremely relevant.

2. Purpose, tasks, hypotheses and research methods.

The purpose is clearly formulated in the dissertation, as well as the tasks and the research methods adopted are correctly selected.

3. Presentation of the obtained results.

The results in the dissertation are well presented and excellently illustrated. The dissertation presents 22 author's photographs, 28 tables and 34 figures.

4. Discussion of the results and used literature.

In the "Results and discussion" section, the high scientific style of the author's reasoning is striking in the discussion of the obtained results and their comparison with those of other studies and authors. An analytical approach was applied in the interpretation of the obtained results. 258 literary sources were used, of which 30 in Cyrillic and 228 in Latin.

5. Contributions of the dissertation.

1. A complex methodology was applied to assess the comfort conditions for dairy cows, including a study of the influence of the natural-climatic conditions of the area, the

constructive and technological features of the buildings, their thermal technical capabilities, quality and efficiency of the ventilation system, physical, biological and mental condition of the animals and possibilities for prevention of basic diseases.

2. The evaluation of the manure environment has been expanded, and the data have been compared and supplemented with the temperature tolerance coefficients of Benezra and Dmitriev.

3. A relationship was established between the temperature-humidity index and the comfort indices in the dairy cows buildings.

4. Changes in biochemical parameters and metabolic processes associated with seasonal temperature fluctuations and the temperature-humidity index were found.

5. A correlation was established between the comfort indices and the percentage of cows suffering from technopathies. The IKK and IIB indices have the highest effect on all the diseases included in the study ($p \leq 0.01$ and 0.001), while the cow standing index strongly affects the percentage of metabolic diseases ($p \leq 0.01$ / and weakly affects on different forms of mastitis ($p \leq 0.1$).

6. Published articles and citations.

The author was presented a total of 5 printed scientific publications related to the dissertation work, forming a total of 34.90 points, with the 30 points required by the Regulations for the Development of the Academic Staff. A list of publications is attached:

1. Hristev H., Ivanova R., Tasheva Sm., (2018), „Hygiene evaluation of the ventilation and thermo-technical properties of buildings used for free-bred dairy cows”, Scientific Papers-Animal Science Series: Lucrări Științifice – Seria Zootehnie, vol. 70, p 45-49, Romania, ISSN 2067-2330

2. Ivanova R., Hristev H., Tasheva Sm., (2019), „The impact of summer temperatures on certain hematological indicators in dairy cows”, International Journal Knowledge, Scientific papers, Natural sciences, Vol. 30.3, pp. 649-653, ISSN 2545-4439

3. Sm Tasheva, Hr. Hristev, R. Ivanova, (2020), «Peculiarities in microclimate formation and comfort conditions in buildings for dairy cows in the summer», Scientific works of Aricultural University, ILXII, 1, 147-156, ISSN 1312-6318, (in Bulgarian).

4. H. Hristev, R. Ivanova, Sm. Tasheva, (2020), A Study of the farm factors in buildings used for farming dairy cows, Scientific Papers. Series D. Animal Science. Romania, Vol. LXIII, No. 1, pp279-286, Web of science ISSN 2285-5750; ISSN CD-ROM 2285-5769; ISSN Online 2393-2260; ISSN-L 2285-5750

5. Tasheva, Sm., & Ivanova, R. (2021). Studi on the environment in housing for dairy cattle. Agricultural Sciences/Agrarni Nauki, 13(28), 110-118, DOI: 10.22620/agrisci.2021.28.012, Web of science.

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

CONCLUSION:

Based on the various research methods learned and applied by the author, the correctly performed experiments, the generalizations and conclusions made, I believe that the presented dissertation meets the requirements of the Law for development of the academic staff in the Republic of Bulgaria, and the Regulations of the Agricultural University - Plovdiv for its application. All this gives me reason to **evaluate positive**, and to propose to the esteemed Scientific Jury also to vote **positively**, and to award to Smilyana Alexandrova Tasheva the educational and scientific degree "doctor" in the field of higher education: 6. Agricultural sciences and Veterinary medicine, Professional direction: 6.3. Animal husbandry, and scientific specialty of Zoohygiene.

Date: 15.12.2022

Plovdiv town

Подписите в този документ са заличени във връзка с чл.4, т.1

от Регламент (ЕС) 2016/679

(Общ Регламент относно защитата на данни).