



Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE  
FACULTY OF VETERINARY MEDICINE - SKOPJE

# BOOK OF ABSTRACTS

**“Days Of Veterinary Medicine”  
10<sup>th</sup> International Scientific Meeting  
and  
2<sup>nd</sup> European Conference on  
Veterinary and Medical Education 2024**

22-25 September 2024,  
Republic of North Macedonia

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**O32****PREVALENCE OF NEOSPOROSIS IN DAIRY FARMS IN THE REPUBLIC OF NORTH MACEDONIA**

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Neosporosis is a worldwide important disease caused by *Neospora caninum* (*N. caninum*) that causes abortions, embryonic death, and economic losses in dairy cows. Until now, there has been no data on the prevalence of neosporosis in dairy farms in the Republic of North Macedonia (RNM). Therefore, this study aimed to determine the prevalence of this disease in the dairy farms in RNM. A total of 122 randomly selected dairy cows from five different regions (10 from the Western region, 25 from the Eastern region, 44 from the Southern region, 34 from the Southeast region, and 8 from the Northeastern region) in North Macedonia were included in the study. Blood samples were collected from the coccygeal vein and after centrifuging the sera were separated and placed in a refrigerator at +4<sup>0</sup>C until testing. The testing was done at the Faculty of veterinary medicine– Skopje using a commercial ELISA kit. In total, 25 cows (20,49%) from all regions were positive for *N. caninum* antibodies. There were 20 positive cows (58,82%) in the Southeast region and 5 positive cows (11,36%) in the Southern region. In the other regions, all tested cows were negative for *N. caninum* antibodies. Our findings revealed a notable prevalence of *N. caninum* infection among dairy cows, with the highest prevalence found in the Southeast region, underscoring the need for targeted surveillance and control measures. These results indicate that *N. caninum* may be a potential threat to dairy farming in North Macedonia and emphasize the importance of implementing preventive strategies to mitigate its impact on reproductive health and economic productivity in the dairy industry. Further research is needed to determine the exact risk factors associated with neosporosis transmission and to develop effective control strategies tailored to the specific needs of the local dairy sector.

**Keywords:** *Neospora caninum*, ELISA, reproductive health