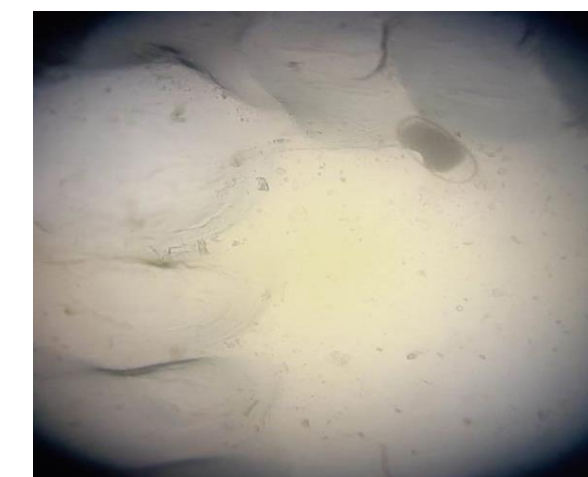




UNIVERSITY OF LIFE SCIENCES "KING MIHAI I" FROM
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THERAPEUTIC INVESTIGATIONS IN EQUINE STRONGYLIDOSIS IN CORNEREVA, CARAȘ-SEVERIN COUNTY

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Abstract: The present study was undertaken to elucidate the problem of strongylid helminth infections in horses, since no such investigation has been carried out in the last three decades. The investigated animals originated from private owners (household horses) in the locality of Cornereva, Caraș-Severin County, Romania. The animals were examined coprologically and subsequently treated with Fenbendazole (Panacur) to determine the efficacy of the treatment in naturally occurring strongylid infestations.

• Introduction

The pathology of helminth infections in horses has long been a subject that has attracted various groups of researchers, who have sought to elucidate this issue. The topic addressed in this study is of current relevance, with a priority focus on evaluating the efficacy of the product Panacur® (Fenbendazole) in horses from the locality of Cornereva, Caraș-Severin County, Romania.

• Material and method

➤ Sample Collection and Processing

All fecal samples were subjected to a quantitative coproscopic examination using the McMaster method, a technique recognized by European and international parasitology associations for monitoring the egg per gram (EPG) load in feces. Once the McMaster chambers were filled, the slide was left undisturbed for 5 minutes to allow the eggs to float, and then examined under a microscope at 10x objective magnification. All strongyle eggs were counted, including those located on the gridlines of the two chambers, and the counts were summed. The eggs per gram of feces (EPG or OPG) were calculated.

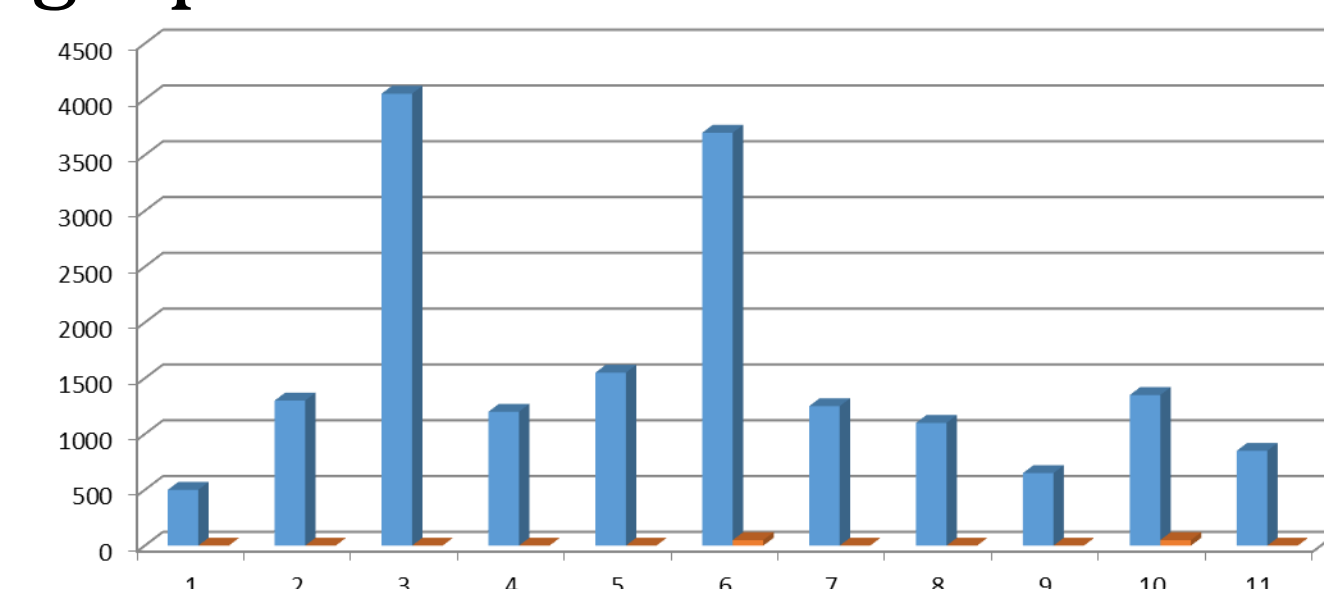
➤ Description of the antihelmintic product used in the experiment

Fenbendazole is a broad-spectrum benzimidazole anthelmintic; 1 mL of suspension contains 100 mg of fenbendazole. In horses, it is indicated for the treatment of gastrointestinal nematodes, including migratory and non-migratory strongyles, ascarids, pinworms, and other strongyle species. No contraindications or adverse reactions have been reported. The product is intended for oral administration only and should be given at a dose of 1 mL per 13 kg body weight.

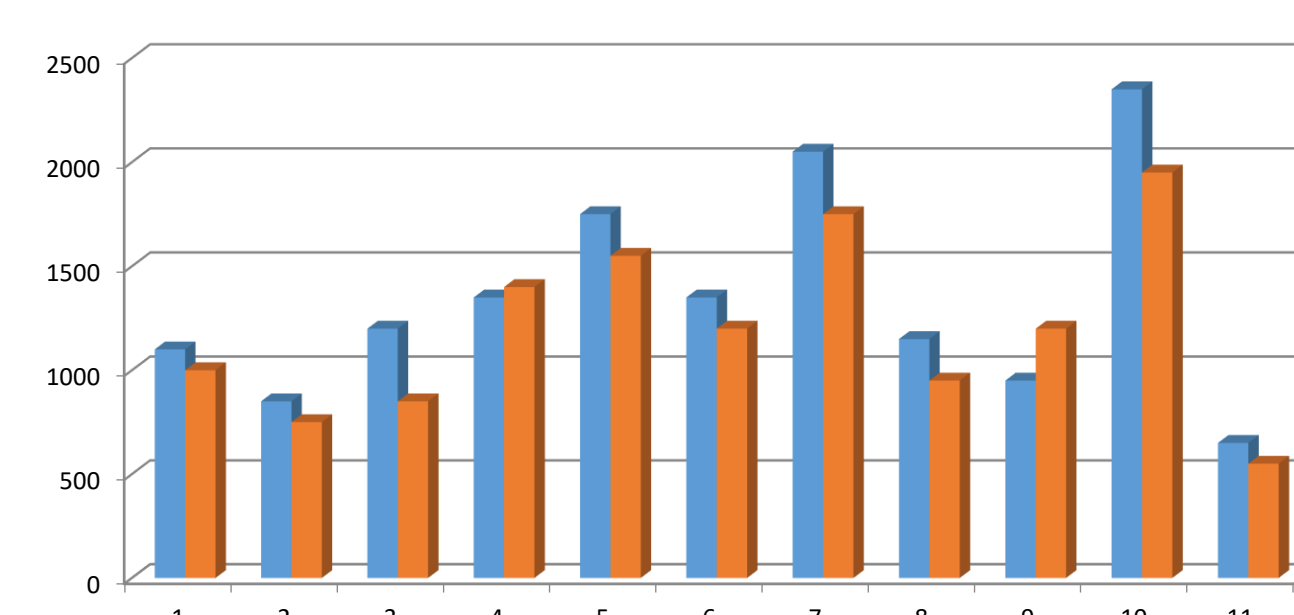
• Results and discussions

The anthelmintic study of strongylid infrapopulations in horses was conducted during the period from October to December 2023. Initial coproscopic examination of the samples was performed using the McMaster method, and as a result of these investigations, digestive strongylid eggs were identified in all analyzed samples.

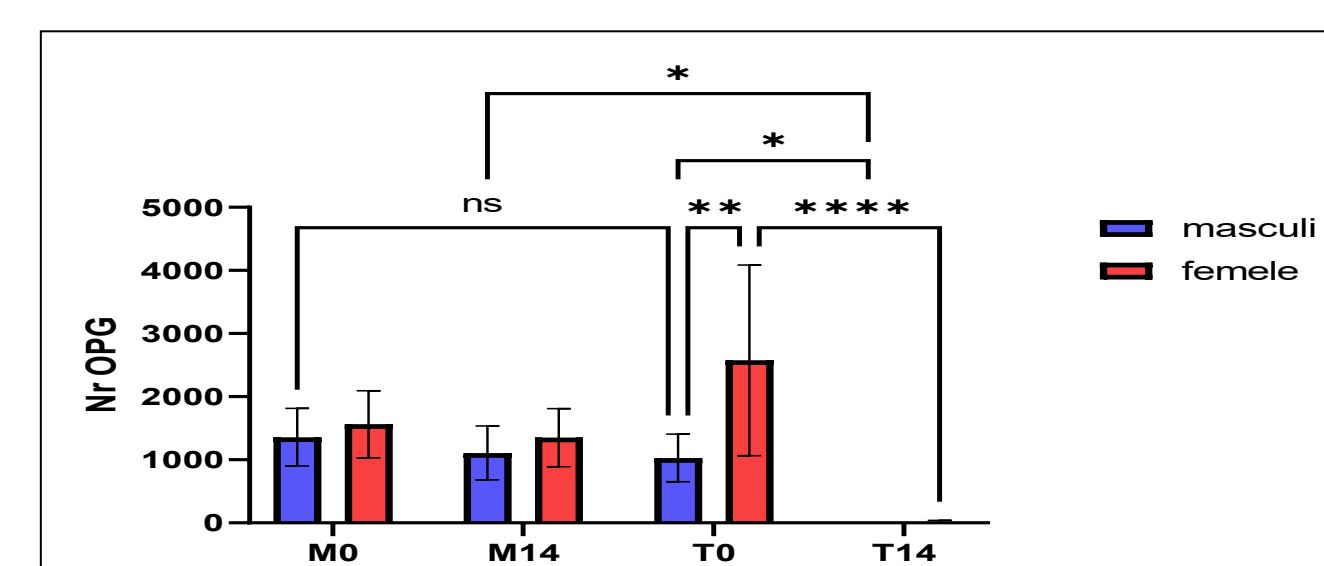
On day 0, the E.P.G. values were positive and random. In the treated group (T), the mean E.P.G. value was 1,750, with a minimum of 500 and a maximum of 4,050. By day 14, the mean E.P.G. in the treated group had dropped to 10, with two female animals still showing a positive E.P.G. of 50 each.



A brief analysis of the experimental data shows a difference between the means T0 and T1 in the treated group of 1,740, while in the control group the difference was 160.



The analysis of the ANOVA data and Sidak's multiple comparison test shows. Two highly significant values ($p < 0.0001$) were observed for the pairs Female T0 vs Female T14 and Female T0 vs Male T14.



• Conclusions

All animals included in the study had a positive O.P.G. (eggs per gram) at the beginning of the experiment, with values ranging from 500 to 4050. The efficacy of Fenbendazole in the studied horses was 99.36%, indicating a high level of effectiveness of the product and a low risk of chemoresistance occurrence in equine strongylidosis cases from Cornereva, Caraș-Severin.

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