FACTORS ASSOCIATED WITH HELMINTH INFECTIONS IN SMALL RUMINANTS FROM THE SEMI-ARID REGION OF BAHIA

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Gastrointestinal helminth infections are an important cause of losses in goat farming, especially in semi-arid regions. But are specific animal characteristics associated with a higher positivity for these infections? This study aimed to answer this question by identifying factors associated with helminth positivity in goats and sheep through multivariate analysis using a robust Poisson regression model. Data from 1,915 animals from 95 farms in the semi-arid region of Bahia, Brazil, were analyzed. The variables studied included species (goat or sheep), age (young, young adult, and adult), and body condition score (BCS). Fecal samples were analyzed at the Laboratório de Saúde Única of UFOB. The results indicate an association between animal characteristics and vulnerability to helminth infections. Goats showed a 16% higher prevalence compared to sheep (RP = 1.160; 95% CI: 1.094 – 1.231; $p < 0.001$), suggesting a possible difference in susceptibility between species, potentially related to management practices and greater exposure to contaminated areas. Young animals showed a higher prevalence compared to adults (RP = 1.093; 95% CI: 1.021 – 1.171; $p = 0.011$), which may be attributed to an immature immune system, emphasizing the need for more intensive control strategies for this group. Animals with a lower BCS showed a 35.5% higher prevalence (RP = 1.355; 95% CI: 1.062 – 1.760; $p = 0.018$) compared to those with a BCS between 3 and 4, increasing to 57% higher (RP = 1.570; 95% CI: 1.213 – 2.064; $p < 0.001$) in the most debilitated animals. These data reinforce that poor body condition reduces the animal's ability to combat infections, exacerbating the effects of parasitism. These findings highlight the need for preventive strategies for goats, young animals, and those with poor body condition, as well as studies integrating management and environmental factors to better understand their influence on helminth positivity.

Supported by: FAPESB, INCITE Call (2022)
Keywords: Veterinary Parasitology, Multivariate Analysis, Goat Farming