Correlation between Famacha and Packed Cell volume in Crossbred Goats with Different Levels of Resistance

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The aim of this study was to correlate the Famacha scores and packed cell volume (PCV) values of crossbred goats with different levels of resistance. For this purpose, 92 F2 crossbred goats (½ x ½ Saanen Anglo-Nubian) were used. Every week, blood samples were collected and the Famacha method of worm control was performed. The estimated sensitivity, specificity, predictive positive and negative values were evaluated by chi square test, using the EPI-INFO version 6.0 software. Positive results were considered as in grades 3, 4 and 5 Famancha and PCV values ≤ 19% as indicative of anemia. The results indicated a moderate sensitivity of the test, both for the animals in the resistant group (45.5%) as for the animals in susceptible group (50%), demonstrating that, in this study, the method was able to correctly identify 45.5% of the resistant and 50% of the susceptible animals that require anthelmintic treatment. The animals of the resistant group showed higher means of true negative and specificity values, showing that the method was effective in identifying non anemic animals. Comparing the values of PCV and Famacha, it appears that the obtained results, i.e., 97.6% of the resistant and 91.3% of the susceptible animals were truly negative (grade 1 or 2 and PCV > 19%), which represents a negative Famacha score and no degree of anemia, while 83.3% of the resistant and 64.9% of the susceptible animals were false positives (grades 3, 4 or 5 and PCV > 19%), meaning positive Famacha and absence of anemia. More research is demanded in using the method Famacha in an attempt to reach a common denominator in applying this method in goats. Study funded by FUNCAP, CNPq and Embrapa Caprinos e Ovinos.