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Apparent digestibility of diets containing different sources of roughage in ponies

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The use of different sources of roughage in horse breeding is a reality in Brazil, however, little is known about the effects of these varieties on the performance of horses. The study aims to evaluate the digestibility of nutrients from diets formulated with roughage in the feeding of ponies. The experiment was carried out at the Laboratory of Digestive Health and Performance of Horses (LabEqui) FMVZ / USP. The experimental design used was the double Latin square 3 x 3, in a factorial arrangement 3 x 2 (three roughage with and without the presence of adsorbent), with the experimental unit being the animal within each period, submitted to the Tukey test at 0.05 probability, in the PROC MIXED of the SAS. The experiment consisted of three phases, 15 days of adaptation to the diet provided, five days of total stool collection, with a wash-out period of 15 days between them. Six Mini Horse ponies were used, gelding, healthy, with an age of approximately nine years and average weight of 150 ± 30 kg. The horses were housed in individual stalls and divided into three groups, concentrate + corn silage, concentrate + tifton 85 hay, concentrate + haylage tifton 85, with and without the presence of mycotoxin adsorbent (M.O.S.), added on top in the inclusion of two grams animal day^{-1}. The diet was calculated according to the daily nutritional requirement for horses in maintenance with a daily intake of 1.75% of body weight in dry matter, being 1.05% roughage and 0.70% coming from the concentrate, characterizing a 60:40 diet roughage:concentrate, water and mineral salt *ad libitum*. The apparent digestibility coefficients of dry matter (DMD), crude protein (CPD), ether extract (EED), neutral detergent fiber (NDFD), acid detergent fiber (ADFD) and organic matter (MOD) were evaluated and mineral matter (MMD), calculated by difference from the total ingested by the total excreted. The apparent digestibility coefficients showed a difference ($P<0.05$) for the variables ADFD and CPD with hay (61.99, 57.88 respectively) without adsorbent showing the highest average and for the variables of NDFD and MMD the treatment with corn silage (72.79; 62.52 respectively) with changed adsorbent as the highest mean, the tifton 85 haylage presented intermediate results without interaction with mycotoxin adsorbent, the other variables were not observed difference ($P>0.05$). The source of roughage and the inclusion of mycotoxin adsorbent may interfere with the apparent digestibility of nutrients in the pony diet.

Keywords: Conserved forage, Horse nutrition, Performance

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