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401. *Haemonchus contortus* infection affects feed intake and diet digestibility in Creole goats

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A study was conducted to evaluate effects of infection with *Haemonchus contortus* infective larvae (L₃; HC) on feed intake, digestibility, faecal egg count (FEC), circulating eosinophils (EOS) and pack cell volume (PCV) in Creole goats. The experiment was developed during six weeks although measurements of intake and digestibility corresponded to 0, 2 and 4 weeks post-infection (WPI) with a single dose of 10,000 L₃. Twenty-two parasite-free kids (23.4 ± 0.65 kg BW) were housed and fed once a day (0730 h) in individual boxes. Total faeces collection (with faecal trays placed behind) and *ad libitum* forage supply method was used. Dry matter intake (DMI) was daily calculated. Pooled samples from a 75 d-old *Dichantium* spp. hay, a supplemental concentrate (100g d⁻¹) and faeces were collected for chemical analyses. Total-tract DM (DMD), OM (OMD), CP (CPD), NDF (NDFD) and ADF (ADFD) digestibilities were determined. Faecal samples were weekly collected for FEC and were analyzed with a modified McMaster method. Blood samples were collected once a week by jugular venipuncture to measure circulating EOS and PCV. Data were analyzed with PROC GLM of SAS (v. 8.1) considering WPI and animal as fixed and random effects, respectively. Digestibility of CP was not different and was dramatically low (47.1±1.1%), probably because kids were draining nitrogen (N) through faeces (larvae, endogenous N) which abnormally could increase N concentration therefore affecting CP digestibilities values. DMI (537, 639, 599 g d⁻¹), DMD (62.8, 60.4, 62.5%), OMD (64.5, 62.2, 64.0%), NDFD (59.7, 56.2, 62.0%) and ADFD (60.5, 53.0, 59.8%) showed significant differences ($P<0.05$) among the 0, 2 and 4 WPI, respectively. The DMI was higher and digestibilities lower at the second WPI when animals showed the highest level of EOS (84.10⁶ vs. 46.10⁶ and 60.10⁶ cells/ mL of blood, for 2 vs. 0 and 4 WPI, respectively) and were linearly decreasing PCV. These data suggest that the impact of parasitism occur between the second and the third WPI, period during which the immune response is more pronounced probably due to parasite maturation. Further researches are needed to monitor longer term effects on animals that could immune themselves.