

Lamb Fleece Quality as an Indicator of Endoparasitism

Authors : Maria Christine Rizzon Cintra, Tâmara Duarte Borges, Cristina Santos Sotomaio

Abstract : Lamb's fleece quality can be influenced by many factors, including welfare, stress, nutritional imbalance and presence of ectoparasites. The association of fleece quality and endoparasitism, until now, was not well solved. The present study was undertaken to evaluate if a fleece visual score could predict lamb parasitosis with the focus on gastrointestinal parasites. Fleece quality was scored based on a combination of cleanliness and wool cover, using a three-point scale (1-3). Score 1: fleece shows no sign of dirt or contamination, and had sufficient fleece for the breed and time of year with whole body coverage; Score 2: fleece was little damp or wet, with coat contaminated by small patches of mud or dung and some areas of fleece loose, but no shed or bald patches of no more than 10cm in diameter; Score 3: fleece filthy, very wet with coated in mud or dug, and loose fleece with shed areas of pulls with bald patches greater than 10cm, some areas may be trailing. All fleece quality scores (FQS) were assessed with lamb restrained to ensure close inspection and were done along lamb back and considered just one side of the body. To confirm the gastrointestinal parasites and animal's anemia, faecal egg counts (FEC) and hematocrit were done for each animal. Lambs were also weighed. All these measurements were done every 15-days, beginning at 60-days until 150-days of life, using 48 animals crossed Texel x Ile de France. For statistics analysis, it was used Stratigraphic Program (4.1. version), and all significant differences between FQS, weight gain, age, hematocrit, and FEC were assessed using analysis of variance following by Duncan test, and the correlation was done by Pearson test at $P < 0.05$. Results showed that animals scored as '3' in FQS had a lower hematocrit and a higher FEC ($p < 0.05$) than animals scored as '1' (hematocrit: 26, 24, 23 and FEC 2107, 2962, 4626 respectively for 1, 2 and 3 FQS). There were correlations between FQS and FEC ($r = 0.16$), FQS and hematocrit ($r = -0.33$) and FQS and weight gain ($r = -0.20$) indicating that worst FQS animals (score 3) had greater gastrointestinal parasites' infection, were more anemic and had lower weight gain than animals scored as '1' or '2' for FQS. Concerning the lamb's age, animals that received score '3' in FQS, maintained gastrointestinal parasites' infection over the time ($P < 0.05$). It was concluded that FQS could be an important indicator to be included in the selective treatment for control verminosis in lambs.

Keywords : fleece, gastrointestinal parasites, sheep, welfare

Conference Title : ICAWCPR 2017 : International Conference on Animal Welfare, Care, Procedures and Regulations

Conference Location : Vancouver, Canada

Conference Dates : August 07-08, 2017