54ª. Reunião Anual da Sociedade Brasileira de Zootecnia
24 a 28 de Julho de 2017
Hotel Bourbon Cataratas – Foz do Iguaçu – Brasil
ISSN 1983-4357

Theme 9 | Ruminant nutrition and production

Herbage intake and productivity in lamb production systems on pastures of Southern Brazil

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Herbage intake is the main determinant of grazing animals productivity, being influenced by factors related to animal, pasture and their interactions with the environment. The objective was to know the productivity and forage intake of lambs in pasture production systems between September and November 2012, in the district of Reserva-PR, Brazil. Ile de France breed animals with 55 days of age and initial body weight of 20 kg (BW) were evaluated. The predominant forage species were ryegrass (*Lolium multiflorum*) and Tifton - 85 (*Cynodon spp*). The treatments consisted in two production systems: (1) early weaned lambs receiving a concentrated supplementation of 2% of BW per day and (2) lambs without weaning and without supplementation, both raised on pastures with herbage allowance above 12% DM per day. The animals were evaluated until slaughter, with (1) 37.26 kg and (2) 34.07 kg (P> 0.05). Herbage intake was measured using the n-alkanes technique and C_{32} (dontriacontane) was the extern marker , which was offered twice daily for ten consecutive days at each evaluation; feces were collected from the sixth day, twice a day. The C_{32} dosage was 40.09 mg in the first experimental stage and 36.31 mg in the second stage, and the internal marker chosen was C_{31} due to it`s better fecal recovery. N-alkanes were extracted by saponification and filtration in columns of micro silica, for later analysis in gas chromatography. The statistical analyses were done by t-student test. Herbage intake was 3.78% BW for lambs without weaning and without supplementation, higher than weaned and supplemented lambs, 2.46% BW (P <0.01). For weaned and supplemented lambs, substitutive effect of pasture by concentrate was noted, represented by constant DM intake with herbage intake reduction, in proportion to the increase in supplement intake. Weaned and supplemented lambs presented higher average daily gain than those without weaning and supplementation (P <0.01, 235 g.day-1 x 172 g.day-1, respectively). No weaned and supplemented lambs showed high herbage intake capacity, and both systems presented favorable productivity.

Keywords: grazing, n-alkanes, pasture, sheep, supplementation, weaning

Acknowledgments: To CNPq financial support n.559182 / 2010-4.