

Effects of two tropical forage types and different levels of concentrate on commercial cuts of lamb

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The amount of concentrate and the type of forage are factors that may affect the outcome of lamb production systems. In this study, the goal was to evaluate yield and carcass weights of lambs fed with three levels of concentrate and two tropical forage types (*Panicum maximum* cv. Aruana and *Brachiaria brizantha* cv. Marandu). Concentrate was added as a treatment at a level of 1.5% and 3% of live weight used alongside a control where concentrate was absent (0%). The experiment was developed in the experimental division of Embrapa Agropecuária Oeste, in the county of Ponta Porã, MS, Brazil. We used 36 male, intact Suffolk lambs, already weaned, with an average age of 90 days (22.54±2.72 kg). Concentrate consisted of milled whole grain soybean, corn and oats. All lambs had ad libitum access to water and mineral supplement during the experiment. Slaughtering occurred in the Meat and Carcass Lab based in the Universidade Federal da Grande Dourados. Lambs were slaughtered after presenting a body score between 2.5 and 3.0. After skinning and evisceration, carcass was stored in a cool room (4°C) during 24 hours. The left side of the carcass was separated into four commercial cuts: leg, shoulder, loin and neck. The weights (kg) of the commercial cuts were measured individually and yield (%) of each cut was calculated based on the weight of the left side of the carcass. A completely randomized design (3x2) was established using 6 animals per treatment. There was no evidence of interaction between forage and the level of concentrate (P>0.05). Commercial cuts of the neck, shoulder, rib and loin presented similar yield (P>0.05), regardless of the type of forage and the level of concentrate. Only leg yield was effected by the level of concentrate (P<0.05). More precisely, lambs treated with no supplementation presented greater leg yield (P<0.05) compared to lambs treated with 1.5% of concentrate. Lambs fed with no concentrate took more time to achieve a suitable body score ratio established for slaughter. Still, even after delaying slaughter, cold carcasses of these lambs presented smaller weights (10.82±2.68 kg) (P<0.05) compared to lambs treated with 1.5% (16.08±2.19 kg) and 3% (14.96±2.41kg) of concentrate. These results demonstrate that concentrate may optimize precociousness of lambs and generate heavier carcass, but the effect of concentrate on yield of commercial cuts is discrete.

Key-words: Aruana grass, Carcass yield, Marandu grass.