OC14

Effect of Lupinus albus supplementation on fertility and prolificacy of ewes in different body condition


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Fertility (F) and prolificacy (P) of Merino Branco ewes in stabilized (sBC) and increasing body condition (BC) supplemented with Lupinus albus (L) were studied. Oestrus was synchronized with vaginal sponges (D0-D6) and PGF2α (D5). Diets with 2 levels of protein (CP) and energy (ME) (sBC: CP=233 g; ME=137 MJ/day; BC: CP=215 g; ME=111 MJ/day), were given (D1-D6) to 4 groups of 10 ewes: C1 (sBC, control), T1 (sBC, L + barley), C2 (sBC, control), T2 (sBC, L). Ewes were mated on D7 and BC was evaluated on D1, 6 and 28. live weight (LW) on D1, 14 and 28, plasma progesterone (P4) concentrations on D6, 7, 8, 14 and 25. Daily feed intake was not different, except for group T2 on D2 (P<0.05), probably caused by the bitter taste of L due to its high level of alkaloids (0.8 % MS), which in group T1 was apparently attenuated by the barley grain. In group T1, the BC increased from D1 to D6 (P<0.05). LW increased from D6 to D28 in group C1. Non-improvement of BC and LW in group T2, after a short period of L supplementation, has already been referred. Interval sponge removal to oestrus, P4 concentrations, F (T1, C1, C2: 100%; T2: 90%) and P (C1, C2: 10; T1, T2: 1.4; T1: 1.3) were not different between groups. This lack of differences between groups receiving isoprotein - isonenergetic diets with or without L, suggests that the increase in F and P referred by others after L supplementation may be due to the ME and/or CP increment and not to any particular effect of L.