

Inclusion of sainfoin in the fattening concentrate: performance and carcass traits of light lambs

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The aim of this study was to assess the effect of the inclusion of sainfoin (*Onobrychis viciifolia*) at different rates (0, 20 and 40%) in the concentrate on productive parameters and carcass characteristics of fattening lambs. After weaning (BW: 14 kg; age: 30 d), 26 male lambs of Rasa Aragonesa were distributed in 3 isoproteic and isoenergetic feeding treatments: one group was fed with a commercial concentrate with 0% of sainfoin (Control), a second group was fed with a concentrate with 20% of sainfoin (20 SF) and the third group was fed with 40% of sainfoin (40 SF). The lambs were allocated in individual pens and fed *ad libitum* during all the fattening period. The individual dry matter intake (DMI) was recorded daily. The lambs were weighed once a week and the average daily gain (ADG) was calculated. At day 40 of trial, all the lambs were slaughtered and the carcass characteristics were registered (hot and cold carcass weights, fatness, fat and *Rectus abdominis* colour). The DMI was similar among treatments until the 5th week when the inclusion of 40% of sainfoin increased DMI compared to the other treatments. Weight gains of the lambs were affected by the inclusion of sainfoin ($P < 0.05$), increasing with the inclusion of 40% sainfoin compared to their counterparts (290, 281 and 333 g/d for Control, 20 SF and 40 SF, respectively). The final BW tended to be greater for the lambs fed the 40% sainfoin concentrate than for the other lambs (24.5, 24.1 and 26.3 kg, for Control, 20 SF and 40 SF, respectively; $P = 0.10$). The carcass weights and dressing percentages were similar among treatments ($P > 0.05$), but the weight of the perirenal fat tended to increase with the inclusion of sainfoin (91, 115 and 139 g for Control, 20 SF and 40 SF, respectively; $P < 0.10$). The inclusion of sainfoin did not produce changes in the colour of *R. abdominis* and caudal fat deposits either ($P > 0.05$). An inclusion of 40% of sainfoin in the fattening concentrate would be advisable as it increased weight gains and had no negative effects on carcass characteristics.