

**Field pea can partially replace soybean in the fattening diets of ruminants**

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There is an interest to replace the use of soybean by local legumes in Southern Europe to increase the protein self-sufficiency. The aim of the study was to analyse the effect of the inclusion of field pea (*Pisum sativum*) in the concentrate on the performance and carcass weight of: (1) light lambs and (2) young bulls. In both trials, the concentrates were iso-energetic and iso-proteic and pea replaced gradually soybean. Concentrates and straw were fed on *ad libitum* basis. The fattening concentrate offered to lambs had 0, 10, 20 and 30% pea (11.8 MJ ME/kg, 175 g/kg crude protein). Weaned male lambs (n=54; 13.4 kg LW; 31 d of age) received concentrates until 23 kg LW, when they were slaughtered. The concentrate fed to young bulls had 0, 15, 30 and 45% pea (11.6 MJ ME/kg and 130 g/kg crude protein). Weaned male calves (n=31; 239 kg LW; 150 d of age) received concentrates until 508 kg LW. Hot carcass weight was registered just after slaughter. In the light lambs, the inclusion of pea did not affect the weight gains (average 245 g/d), the total concentrate intake (24.3 kg DM), the feed conversion ratio (2.44 g/g) or the duration (42 days) of the fattening period. However, the inclusion of 10% of pea increased hot carcass weight when compared to the inclusion of 20% pea (10.54, 10.93, 10.45 and 10.63 kg for 0, 10, 20 and 30% pea, respectively) and the dressing percentage compared with 0 and 20% pea (47.0, 45.5, 45.4%, respectively;  $P < 0.05$ ). The inclusion of pea in the concentrate of young bulls did not affect weight gains (1.46 kg/d), the feed conversion ratio (4.82 kg/kg) or the duration of the fattening period (183 d) ( $P > 0.05$ ). Nevertheless, the inclusion of pea had a cubic effect on the concentrate intake (7.34, 7.07, 7.63, 6.75 kg FM/d for 0, 15, 30 and 45% pea, respectively;  $P < 0.05$ ). The inclusion of pea did not affect carcass weight (293 kg) or dressing percentage (57.7%) of young bulls ( $P > 0.05$ ). Consequently, soybean can be replaced by pea in the fattening concentrates of both light lambs and young bulls, however, the effect on carcass and meat quality should be evaluated. The percentage of inclusion of pea should be decided depending on the prices of each feedstuff as there were no relevant effects on the performance during the fattening period.

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