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

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There is an interest to include field pea *(Pisum sativum)* in the concentrates of ruminants at the expense of soybean to increase the protein self-sufficiency in the European Union

The aim of the study was to analyse the effects of the **inclusion of field pea** in the concentrate during the fattening period on the **performance and carcass weight** of: **i) light lambs and ii) young bulls**

Materials and Methods

i) Light lambs

Concentrate
ME: 11.8 MJ/kg
CP: 175 g/kg

inclusion of field pea: **0%** **10%** **20%** **30%**

Fattening from: 13.4 to 23 kg LW
(31 d of age)

ii) Young bulls

Concentrate
ME: 11.6 MJ/kg
CP: 130 g/kg

inclusion of field pea: **0%** **15%** **30%** **45%**

Fattening from: 239 to 508 kg LW
(150 d of age)

Measurements

- LW ➡ ADG
- Concentrate intake ➡ DMI & Feed conversion ratio (FCR)
- Hot carcass weight (HCW) ➡ Dressing percentage (DP)

The linear (L), quadratic (Q) and cubic (C) effects of the inclusion of field pea in the concentrate were tested

Results

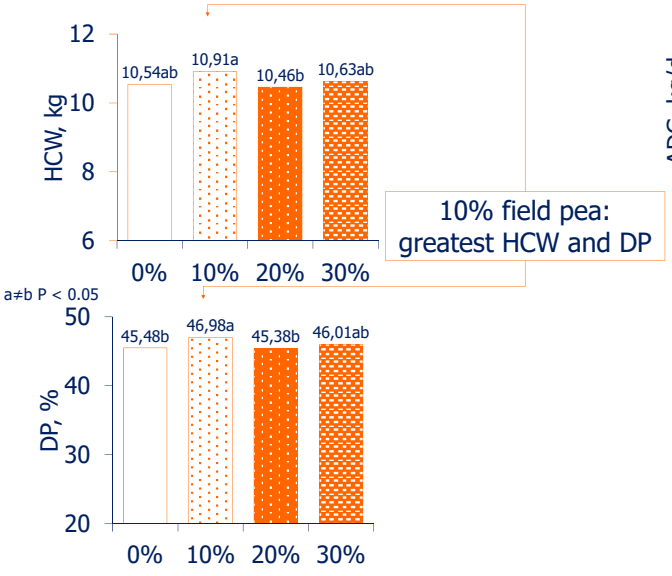
i) Light lambs

- **No** effects on the performance

	0%	10%	20%	30%
Slaughter LW, kg	23.2	23.2	23.0	23.1
ADG, kg/d	240	252	247	248
Total DMI, kg	24.4	23.4	23.5	25.7
FCR, kg/kg	2.49	2.34	2.47	2.44
Fattening period length, d	43	40	42	42

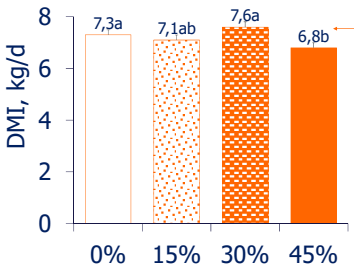
No L, Q and C effects

- Effect on: HCW and DP

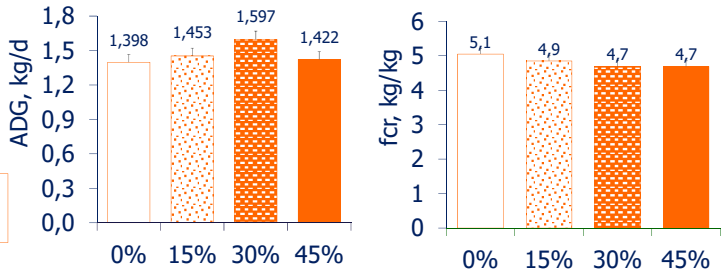


ii) Young bulls

- Effect on: DMI



- **No** effects on: ADG and FCR



- **No** effects on:

	0%	15%	30%	45%
Slaughter LW, kg	508	507	507	508
Fattening period length, d	193	184	163	189
HCW, kg	293	293	294	291
DP, %	57.77	57.90	57.87	57.26

No L, Q and C effects

Field pea can replace soybean in the fattening concentrates of light lambs and young bulls because it only had minor (but positive) effects on performance.

The effects on carcass and meat quality should be evaluated.

The inclusion of pea will depend on the prices of each feedstuff.

ACKNOWLEDGMENTS: The authors gratefully acknowledge the staff of the CITA Research Centre for technical support. This study was funded by the INIA of Spain and the EU Regional Development funds: INIA-RTA2014-00038-C02-01 and RZP2013-00001-00-00 and M. Blanco contract is financed by INIA and ESF