



Effects of thermally processed linseed on meat quality traits of fattening Holstein calves



Vasiliki Papanikolopoulou¹, Stergios Priskas¹, Stella Dokou¹, Vasileia Fotiadou¹, Paraskevi Chantzi¹, Ioanna Dalla²

¹School of Veterinary Medicine, Faculty of Health Sciences, Aristotle University of Thessaloniki, Greece
²Qlab P.C., K. Karamanli 122, Delta, 57008, Greece

Introduction & objective

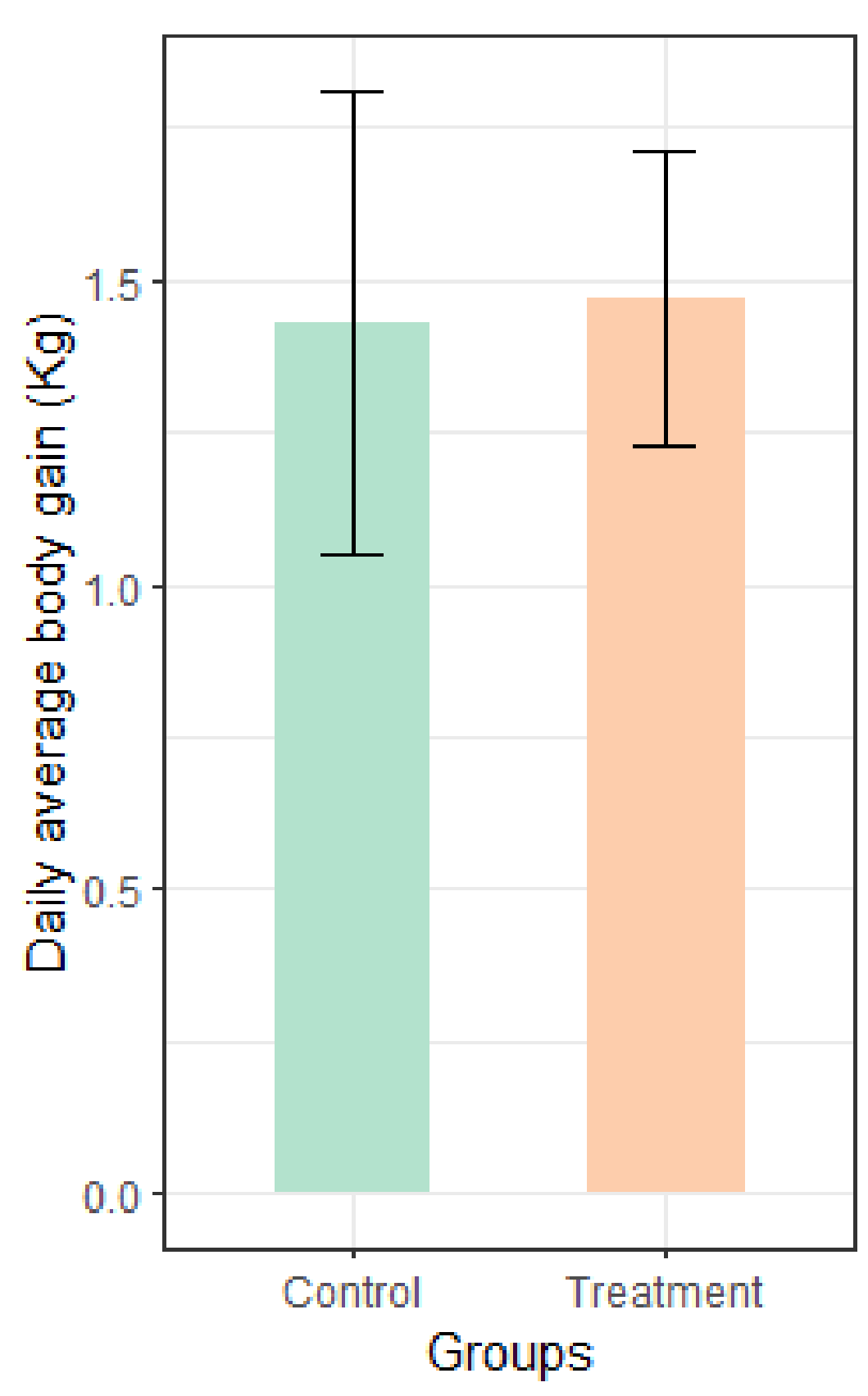
- Self-sufficiency of beef production in Greece accounts for about 25%, and domestic demands are covered mainly by imports
- Increasing domestic production is challenging
- The objective was to implement designated feeding of male Holstein calves to produce carcasses with high-quality characteristics

Materials & Methods

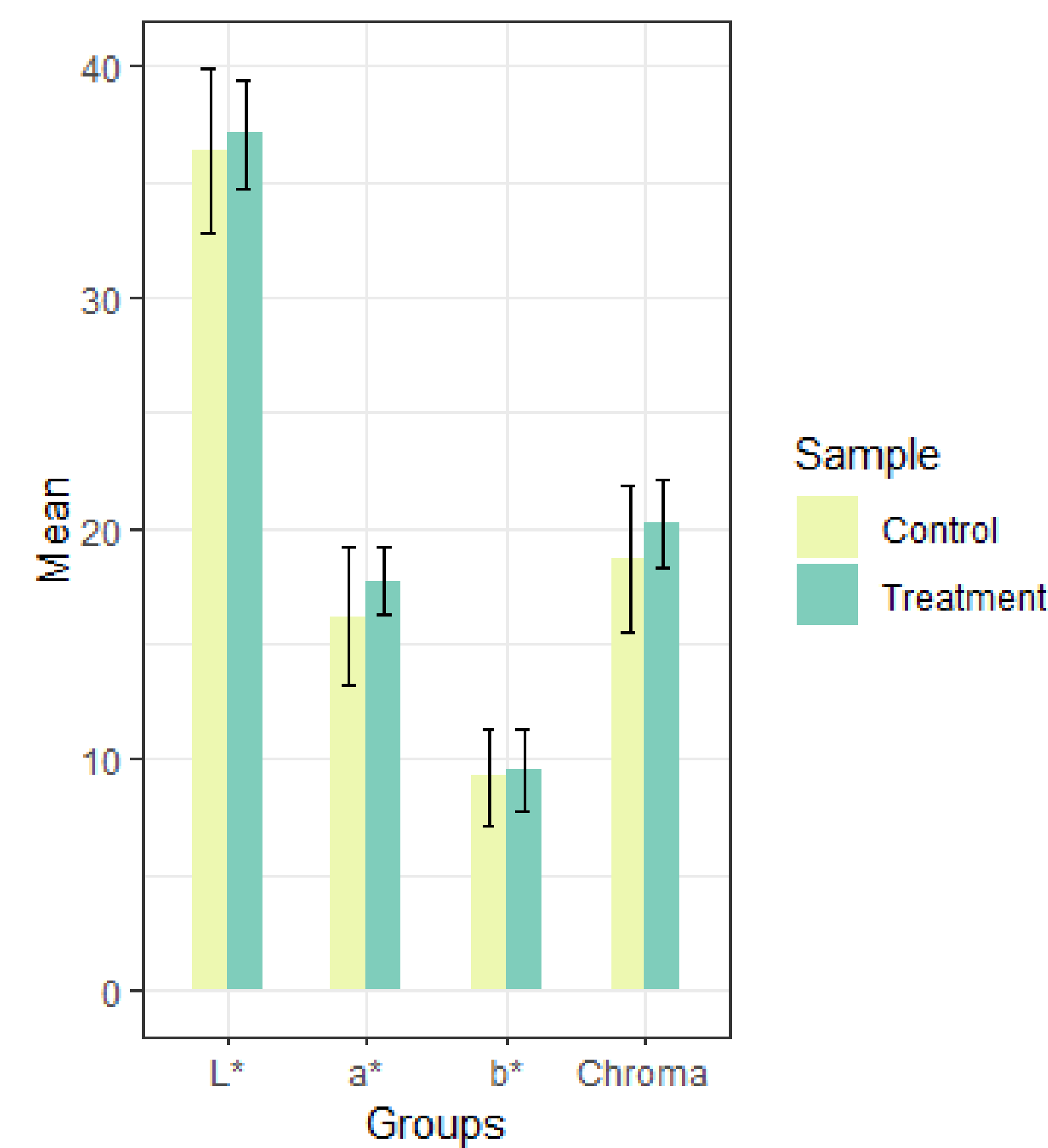
- 40 Holstein calves from one farm
- Two groups (Control C, n=20 and Treatment T, n=20)
- Feeding in both groups; TMR composed of maize silage, straw, ground corn and soybean meal
- Experimental diet → 4% extruded linseed, replacing the equivalent amount of ground corn
- 40 meat samples (13th rib) → quality assessment and physicochemical analyses
- Monthly body weight measurements
- Independent samples t-tests

Results

- Daily average body gain



- Meat colour parameters



- Descriptives statistics of meat quality traits

Trait	Group	N	Mean	SD
pH	C	20	5.7	0.10
	T	20	5.6	0.08
Hardness1 (g)	C	19	1441.9	1314.79
	T	20	1625.3	1098.37
Hardness2 (g)	C	19	1106.9	1028.89
	T	20	1321.9	889.14
Springiness	C	19	0.7	0.14
	T	20	0.7	0.10
Cohensivess	C	19	0.5	0.11
	T	20	0.5	0.09
Chewiness (g)	C	19	649.2	860.32
	T	20	630.7	443.70

Conclusions

- No significant ($p < 0.05$) differences between the two groups and studied traits were observed
- Preliminary results suggest that extruded linseed in the ration of Holstein calves had no significant effects on meat quality traits
- Findings will be validated by further analysis included in the project



Acknowledgments

This work is funded by "BlackWhite" project "Measure 16 'Cooperation" (Project code M16SYN2-00024).

