

Impact of varying protein source and ammonium chloride inclusion on Boer goat growth and carcass traits



E.A. Ewing, R.J Sorensen, A.R. Crane, J.L. Lattimer, and C.K. Jones

Department of Animal Sciences and Industry, Kansas State University, Manhattan

Introduction

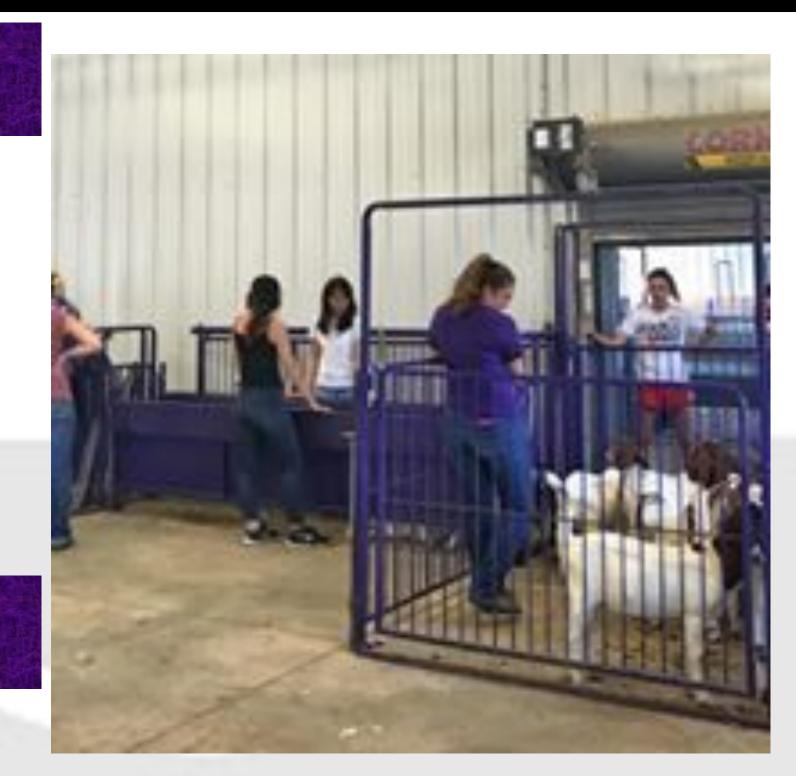
- There are 1.01 Billion goats worldwide.
- The world goat population continues to increase and last year the Kansas goat population alone increased by 7.4%
- SoyPlus: bypass proteins deliver the amino acids needed to achieve a higher performance.
- SoyChlor: a palatable dietary chloride source, is designed for use in balancing dietary cation-anion differences.

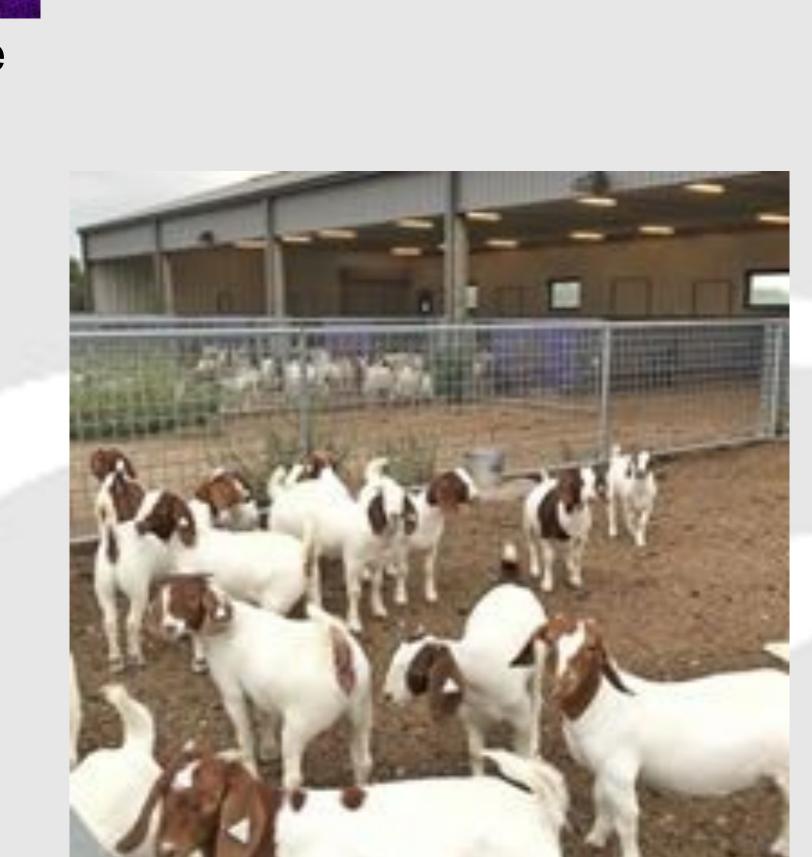
Objective

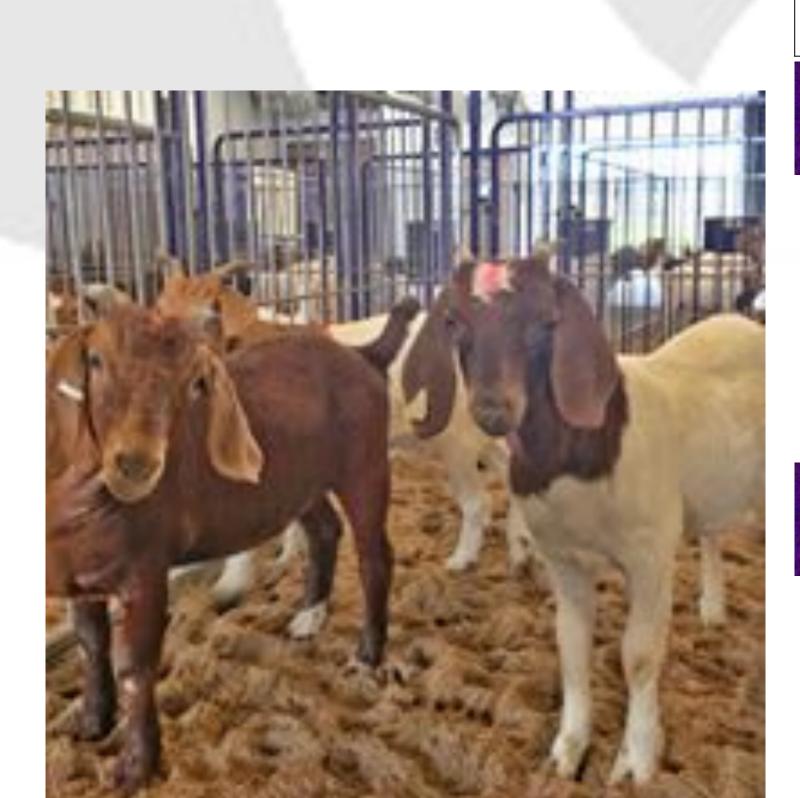
To evaluating the impact of varying protein source and ammonium chloride inclusion on feedlot goat growth and carcass traits.

Experimental Procedures

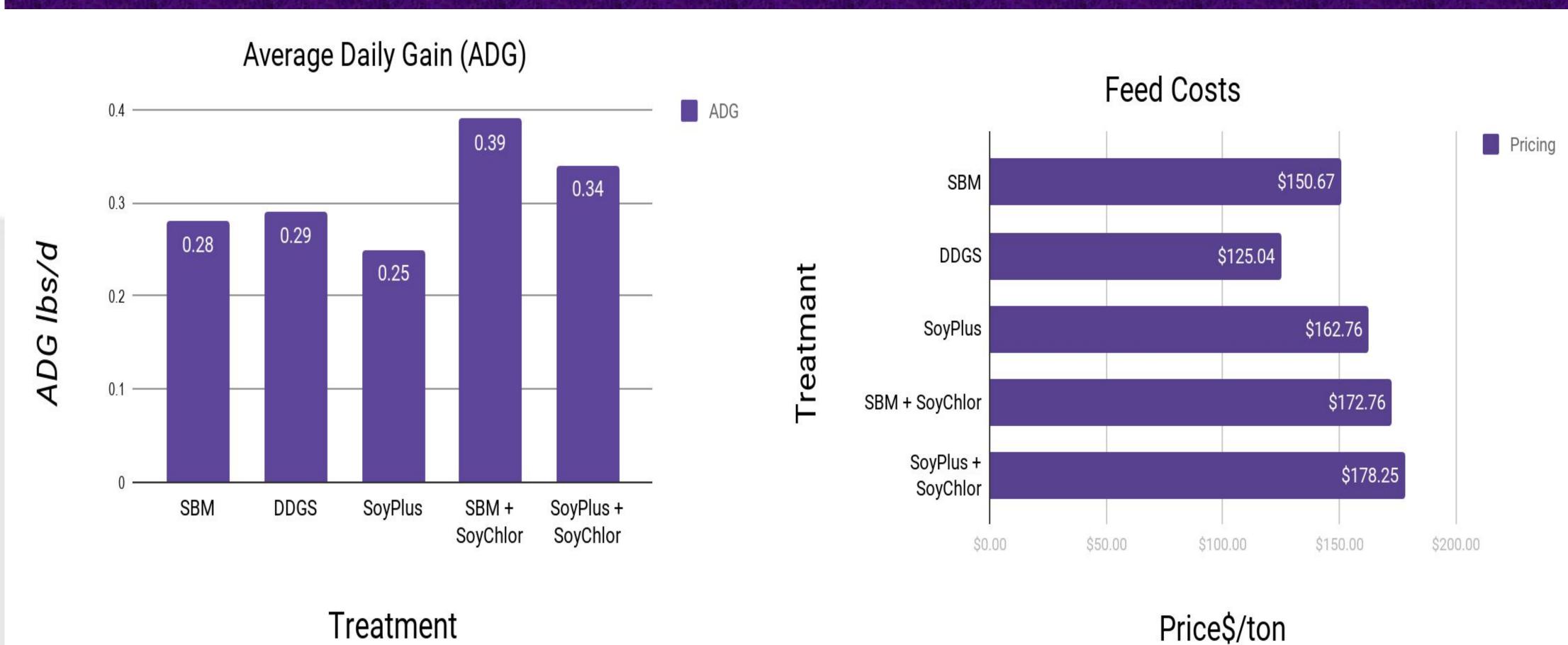
- Seventy-five meat goat kids (approximately 70 d of age) were divided randomly into pens of 3 with 5 pens per treatment.
- Treatments consisted of:
 - 1) Soybean Meal (SBM)
 - 2) Dried Distillers Grain (DDGS)
 - 3) Soyplus
 - 4) SBM plus SoyChlor
 - 5) Soyplus plus SoyChlor
- Two kids from each pen (heaviest/lightest) were taken for slaughter.
 - 1) Hot carcass weight
 - 2) Yield
 - 3) Loin eye area
 - 4) Loin eye depth
 - 5) Backfat depth
 - 6) Body wall thickness
- Urine and fecile samples were collected to determine urine acidity.
- Carcass traits were calculated at the end of the experiment.
- The goats were fed daily and the amount fed was weighed and recorded.
- Diets were fed for 42 days
- For 14d prior to experiment start goats were fed step-up rations.
- Goats and feeders were weighed weekly
- Every week we calculated average daily gain, average daily feed intake, and feed efficiency







Results



100	20	Trai	

	SBM	DDGS	SoyPlus	SBM + SoyPlus	SoyPlus + SoyChlor
Hot Carcass Weight, kg	15.6	14.5	13.1	16.4	14.7
Yield, %	50.7	49.4	48.3	50.7	49.6
Loin eye area, cm2	10.8	9.4	9.5	11.4	8.8
Loin Eye Depth, cm	2.6	2.4	2.4	2.6	2.3
Backfat Dept, mm	0.9	1.2	1.0	1.1	1.2
Body Wall Thickness, cm	1.5	1.6	1.5	1.7	1.5

Conclusion

- Overall there was no significant change (P>0.05) in DDGS compared to Soyplus, or in that of when replacing ammonium chloride with Soychlor
- In addition, there was no significant change in body weight when comparing treatments
- Only real major difference was costs of rations per/ton

Acknowledgements



This project received funding from Dairy Nutrition Plus. We also gratefully acknowledge Joseph Hubbard and the employees at the KSU Sheep and Goat Center for their assistance.