

Effects of protein and chloride source on goat growth and the economic influences

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Introduction

- There is very little information available about goat nutrition and needed rumen bypass protein
- The U.S. goat population continues to increase, this last year it increase 7.4% in Kansas
- SoyPlus, a soybean product, has a higher crude protein content and bypass protein percentage than DDGS and SBM
- SoyChlor has replaced Ammonium Chloride in several of our diets
- SoyChlor is more palatable than Ammonium Chloride and includes protein

Objective

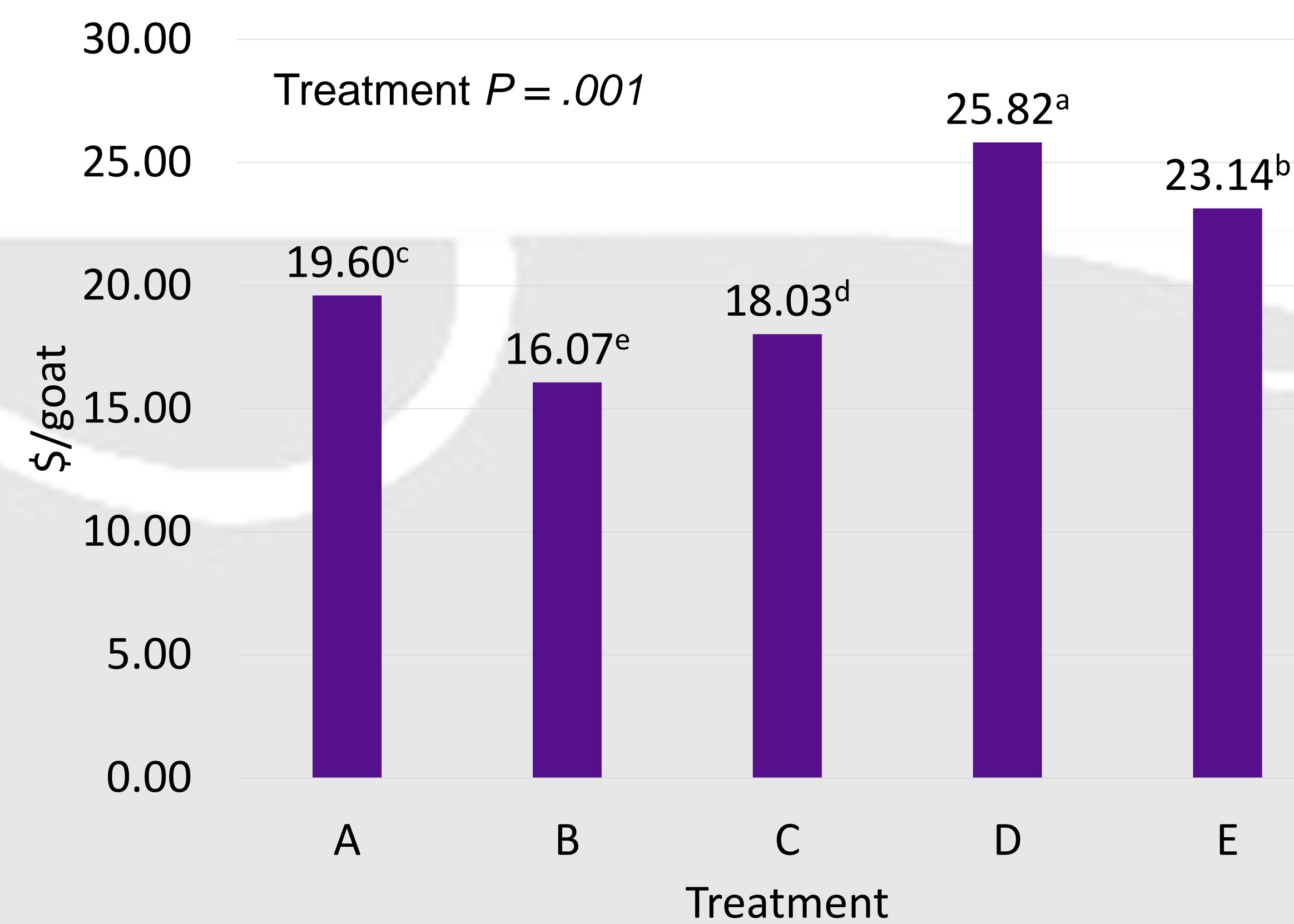
To evaluate the impact of different protein and acid sources on feedlot goat growth and the its economic influences.

Experimental Procedures

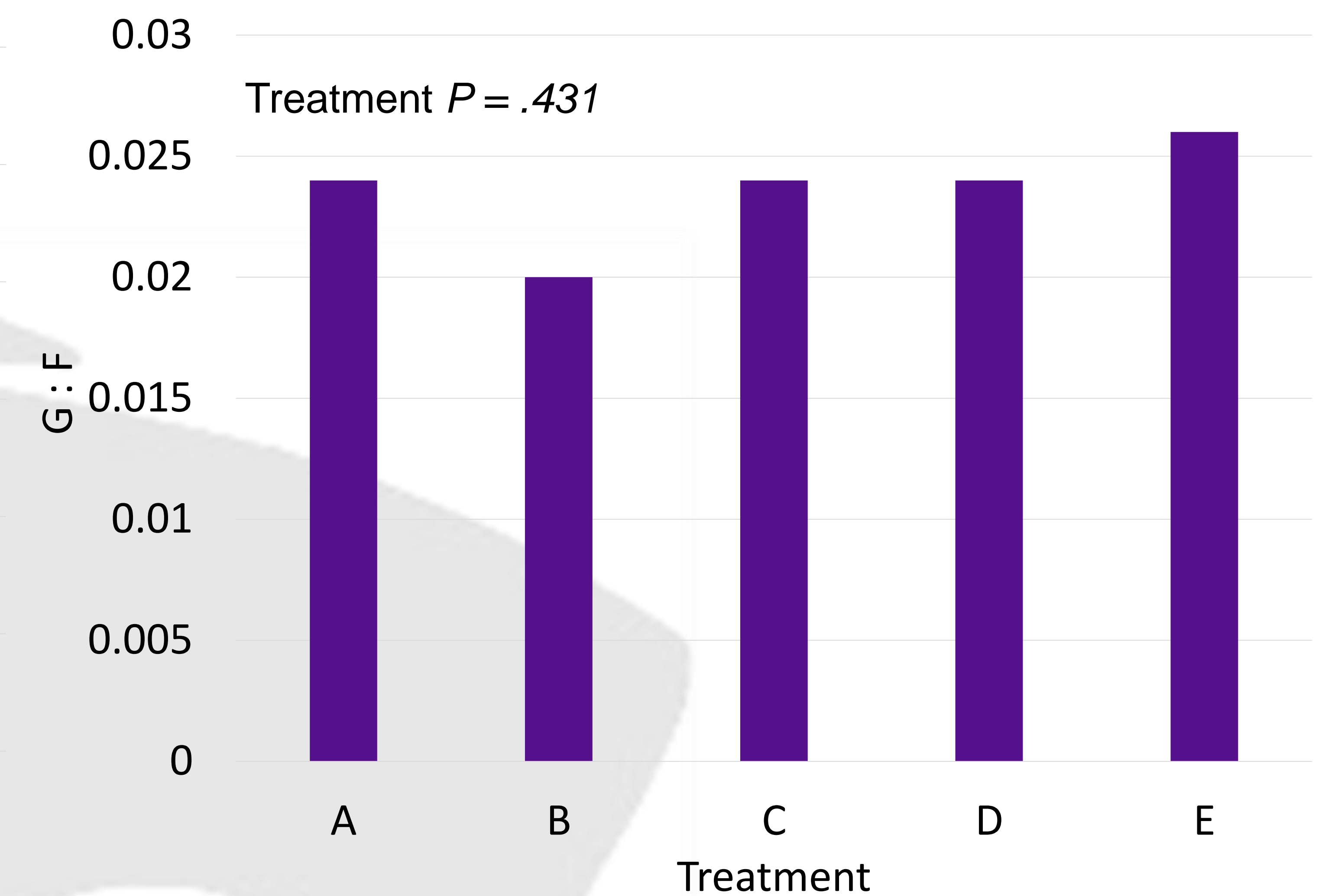
- 75 growing goats were randomly assigned to 1 of the 5 treatments, with 5 pens per treatment
 - A. Soybean Meal with AmCl
 - B. DDGS with AmCl
 - C. SoyPlus with AmCl
 - D. Soybean Meal with SoyChlor
 - E. SoyPlus with SoyChlor
- All treatments were isocaloric and isonitrogenic
- Goats were allowed to acclimate to Treatment A for 7 days before the trial began
- Goats were on treatment for 42 days
- Goat weights and feeder weights were recorded weekly
- ADG, ADFI, G:F was calculated
- Carcass traits were collected post-slaughter
- Data was analyzed using GLIMMIX

Experimental Results

Feed Costs, \$/goat



Gain: Feed



Impact of protein source or chloride source on Boer goat growth performance

	Treatments					SEM	Treatment	$P =$			
	A	B	C	D	E			SBM vs. DDGS	SBM vs. SoyPlus	DDGS vs. SoyPlus	AmCl vs. SoyChlor
ADG, g/d	128	134	114	176	156	16.3	0.099	0.378	0.309	0.961	0.013
Feed cost, \$/kg of feed	0.166	0.138	0.179	0.19	0.196	-	-	-	-	-	-
Feed cost, \$/kg of gain	3.88	2.83	3.97	3.52	3.62	0.277	0.066	0.019	0.736	0.01	0.96

Conclusions

- There is no significant difference ($P > .05$) in ADG, ADFI, G:F or carcass traits between any of the diets
- There is a significant difference in feed costs per goat between DDGS and SBM ($P = .001$) and DDGS and Soyplus ($P = .017$)
- Due to the diets similar growth performance there is advantage to feeding DDGS as a source of protein

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