

Effects of Corn Gluten Feed and Dried Distillers Grains on Goat Growth and Performance at a Cost Efficient Level

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Introduction

- We evaluated the ability for corn gluten feed (CGF) and Dried Distillers Grains with Soluble (DDGS) to replace soybean meal (SBM) on a feed cost efficiency basis
- Seventy-five Boer-type goats were fed one of five dietary treatments for a 35-day period
- The goats had an average starting weight at 26.9 kg (±0.2 kg) and were approximately 70 days of age
- Three goats were randomly allotted pens with five pens per treatment in a completely randomized design
- The CGF was substituted for SBM in five isocaloric and isonitrogenous treatments

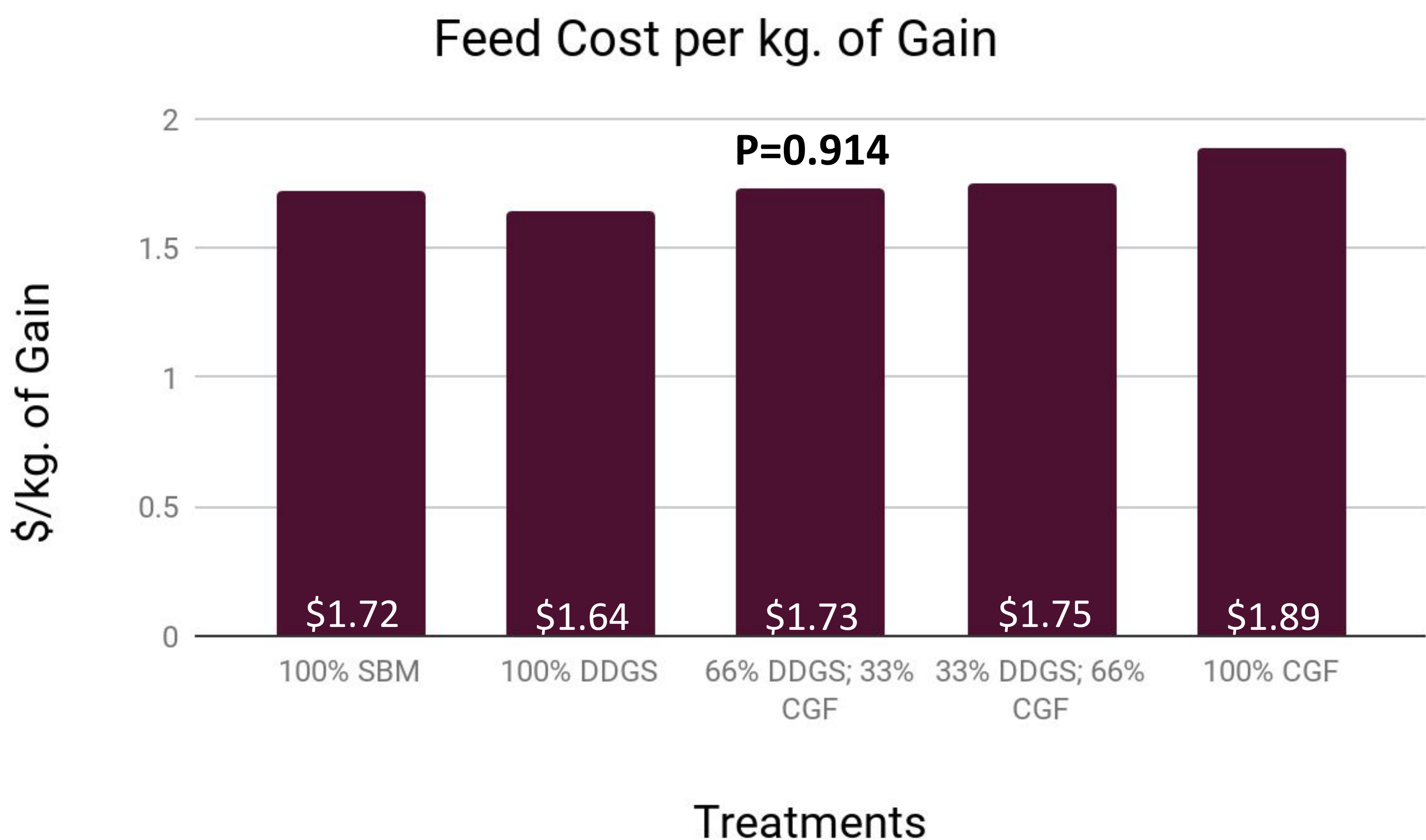
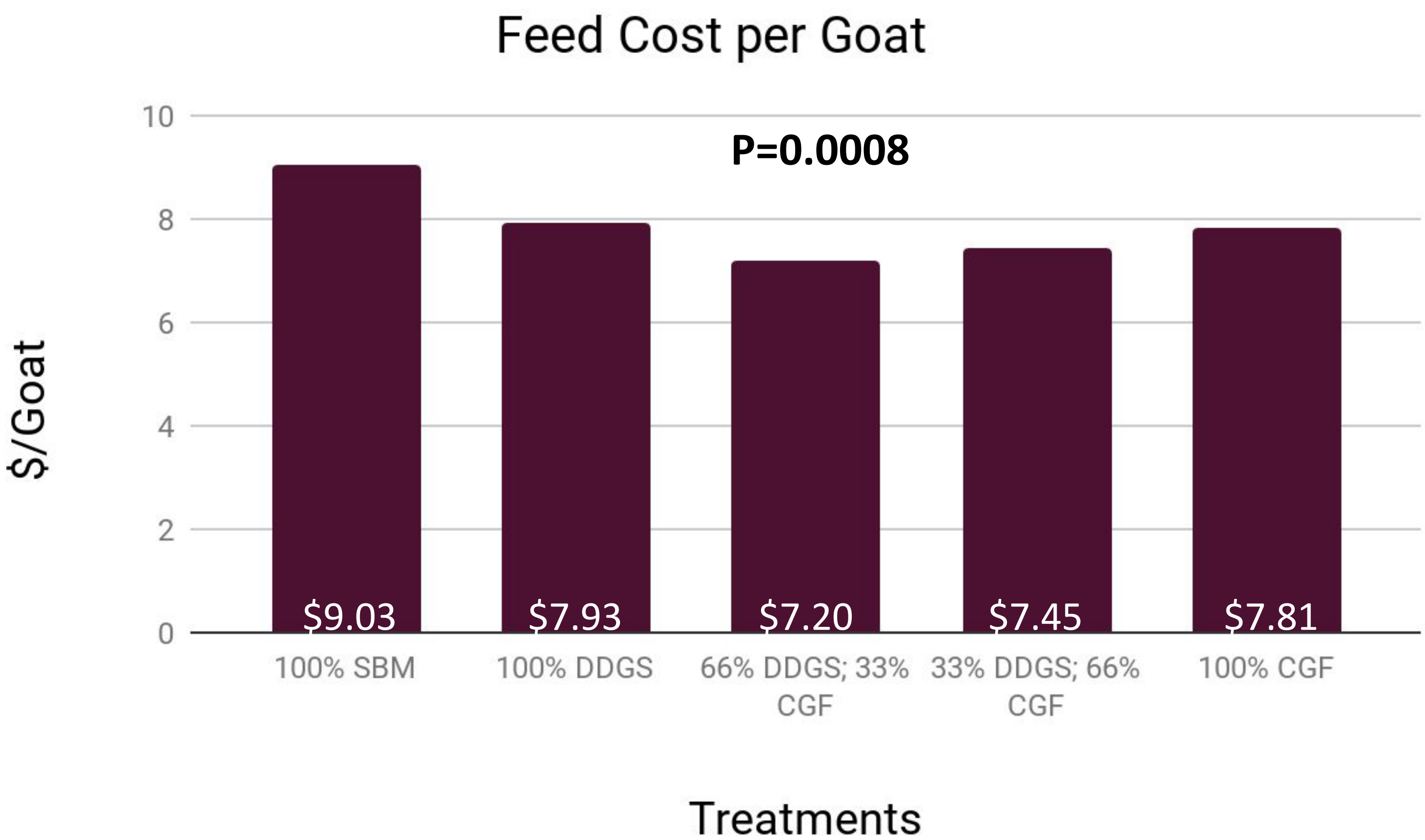
Objective

Evaluate the ability for corn gluten feed and Dried Distillers Grains with Solubles to replace soybean meal on a feed cost efficiency and growth performance basis.

Experimental Procedures

- Experimental Unit:
 - Pen
- Treatments:
 - 1) SBM
 - 2) 100% DDGS/0% CGF
 - 3) 66% DDGS/33% CGF
 - 4) 33% DDGS/66% CGF
 - 5) 0% DDGS/100% CGF
- ADG Assessment:
 - Each goat body weight was recorded every wk for 5 wks.
- ADFI Assessment:
 - Each feeder was weighed every wk for 5 wks
 - A weight was recorded for each bucket of feed that was fed to the goats through out each wk
- Data Analysis:
 - Data was analyzed using GLIMMIX SAS (v. 9.4, Cary, NC)

Results



- The cheapest option to get one kg of gain was 100% DDGS at \$1.64/kg
- The more costly option to get one kg of gain was 100% CGF at \$1.89/kg
- Corn gluten feed did not affect the final day BW ($P>0.05$) nor did it affect ADG
- The ADG for each treatment included 0.152 kg (SBM), 0.146 kg (100% DDGS), 0.128 kg (33% CGF), 0.132 kg (66% CGF), and 0.126 kg (100% CGF)

Analyzed Nutrients, % as-fed					
Crude protein	16.7	17.1	17.2	16.7	17.0
Crude fat	3.10	3.27	2.74	2.36	1.94
ADF	12.0	15.6	27.4	23.8	17.8
Digestible energy, Mcal/kg	3.13	3.16	3.14	3.14	3.15
Ca	1.08	1.07	1.05	1.06	1.06
P	0.55	0.57	0.58	0.55	0.53
S	0.19	0.18	0.24	0.24	0.25

1 Treatment diets were fed to 75 growing Boer-type goats (3 goats/pen, 5 pens/treatment) for 35 d.

Conclusions and Acknowledgements

- In conclusion, CGF and DDG can be used as an economic replacement in Boer-type goats to an alpha level of $P=0.008$.
- Thank you to the Kansas Corn Commission and Dr. Mark and Kim Young for the help and funding of our project.
- Photo credits: Taylor Belle Matheny

