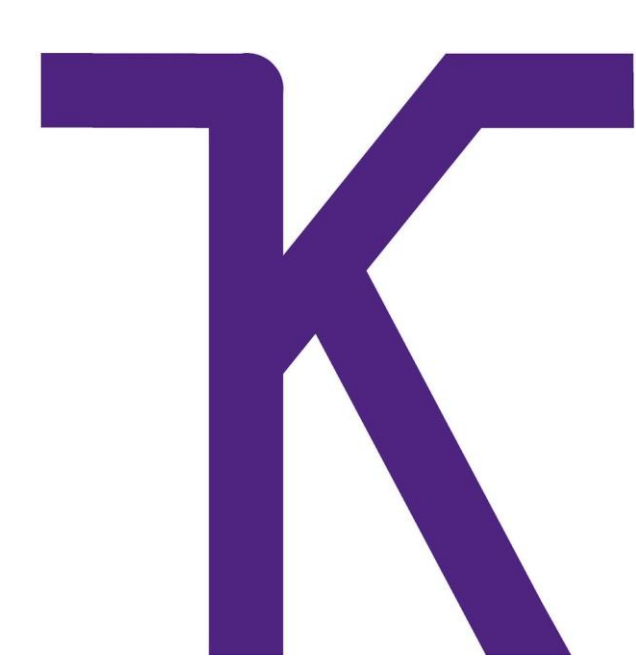




Effects of Corn Dried Distillers Grains with Solubles or Corn Gluten Feed on Boer-type Growing Goat Diets

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Introduction

- Goat population in the U.S. has significantly grown in the past 15 years from 1.3 to 2.6 million head (NASS, 2002 and 2017).
- A producers biggest expense comes from feed cost, however little research has been done on varying protein sources effect on goat growth performance
- A typical goat diet is usually formulated with SBM as the protein source, if we can feed DDGS or CGF without jeopardizing growth performance producers would be able to significantly cut down their feed costs.
- Not only would this result in reduced feed cost, but it would also be another use for those corn co-products.

Objective

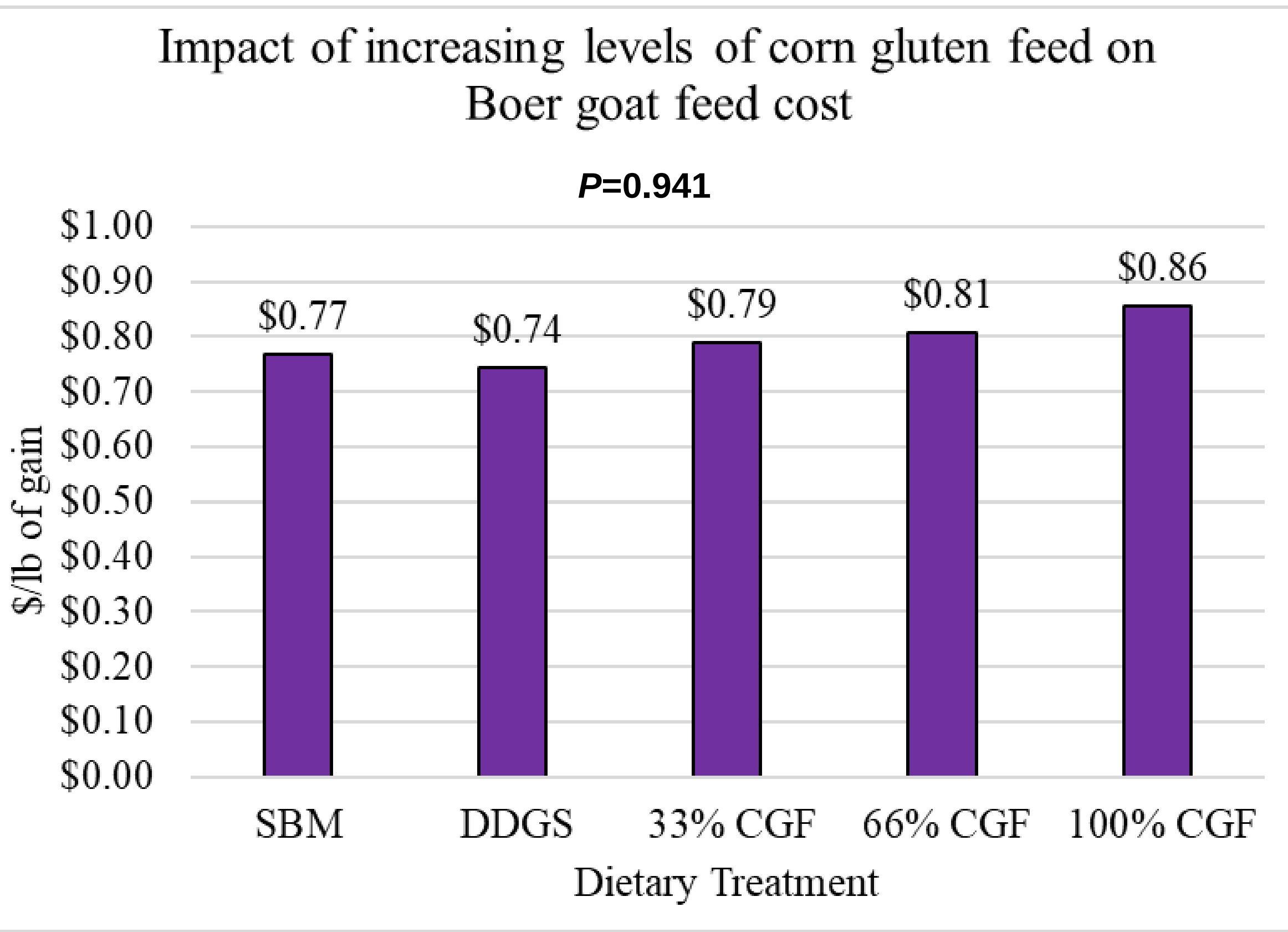
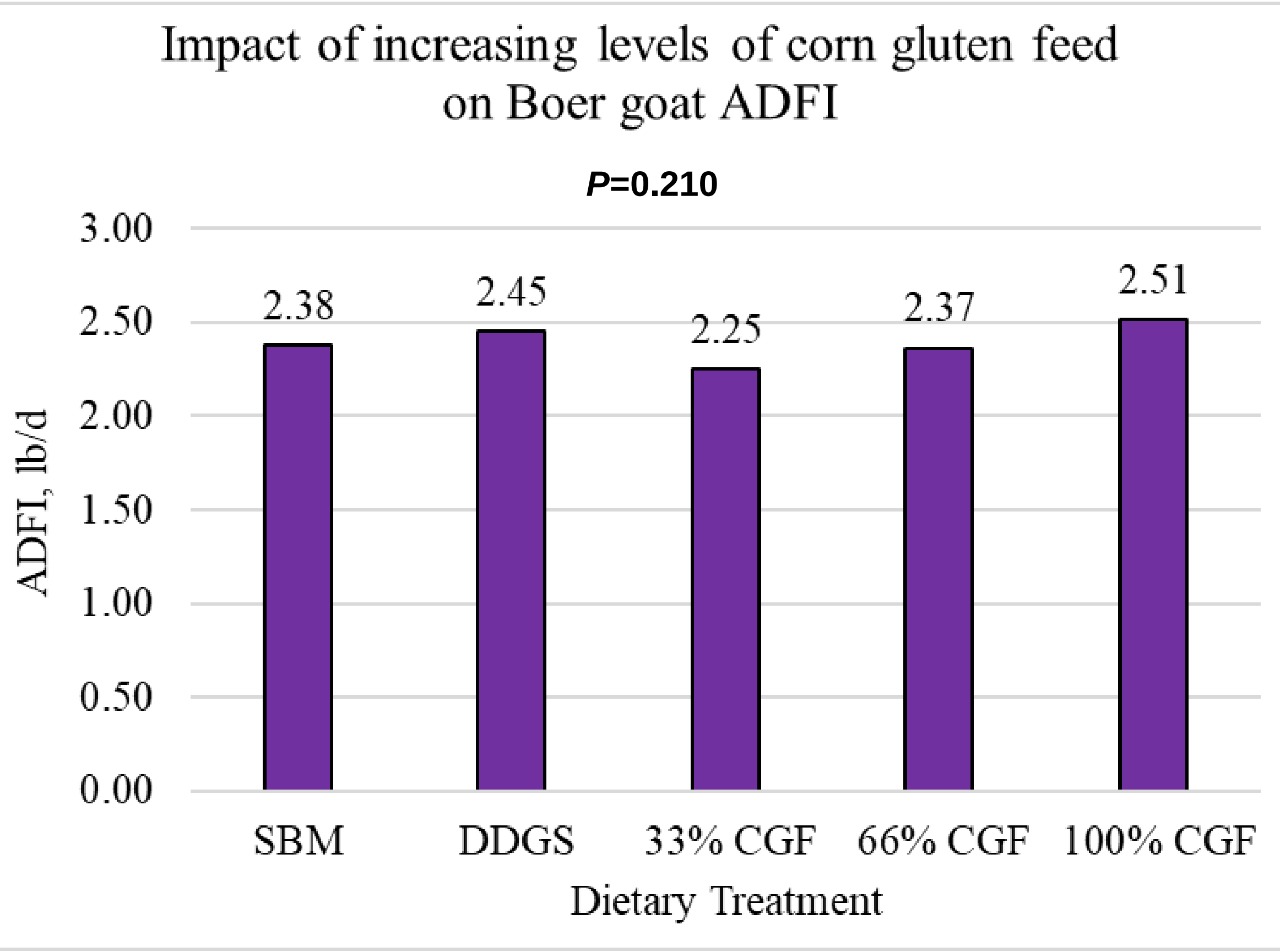
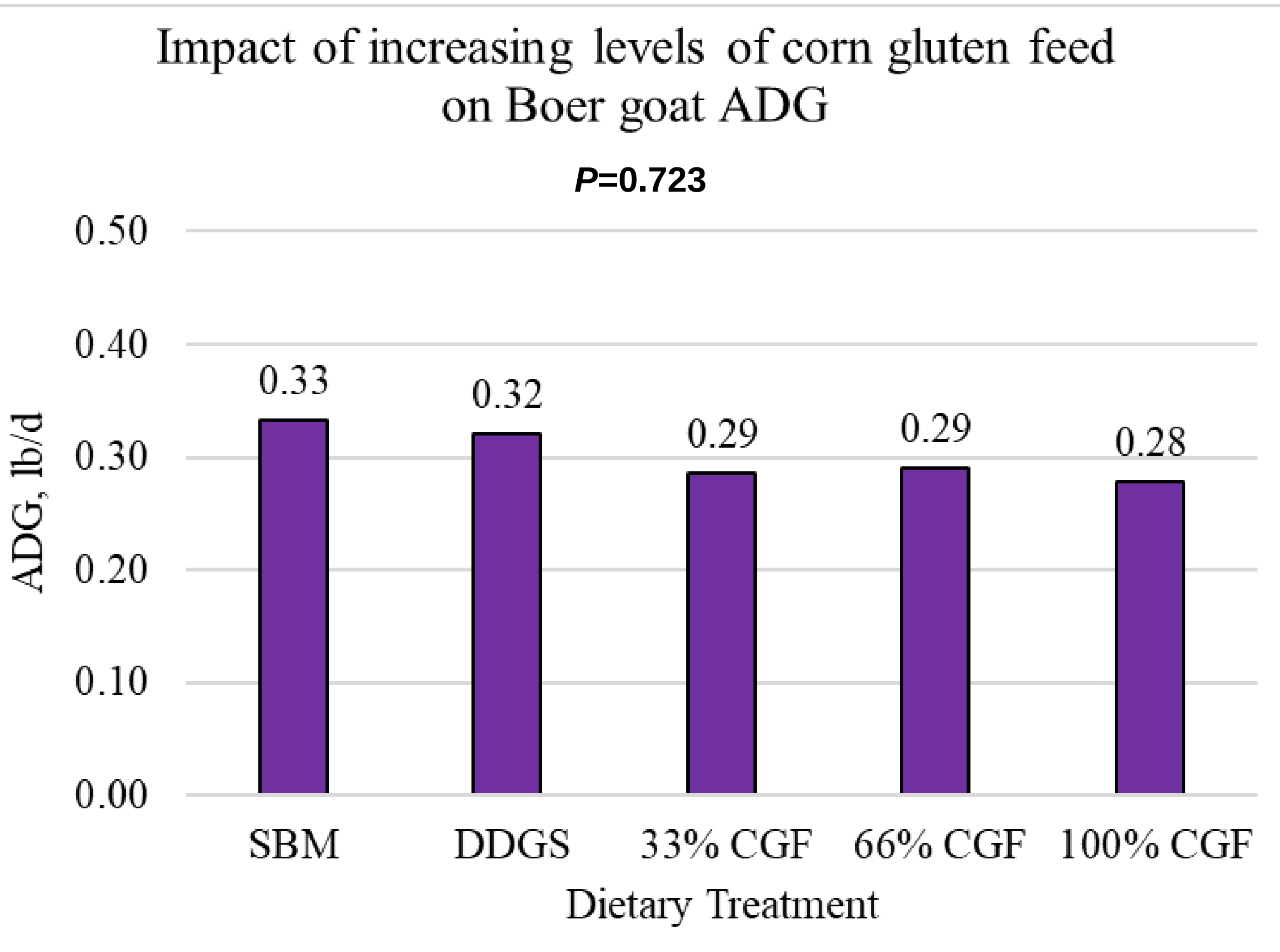
Evaluate the efficiency of corn dried distillers grains with solubles (DDGS) or corn gluten feed (CGF) as a replacement for soybean meal (SBM) in Boer-type goat diets.

Materials and Methods

- Seventy-five Boer-type goats (29.6±0.2 kg, approximately 70 d of age) were used for this experiment.
- Goats and treatments were randomly assigned to pens, with 3 goats per pen, 5 pens per treatment, and pen as the experimental unit.
- The were 5 treatments used, they were all formulated to meet the same requirements, the only difference being the protein source: 1) SBM; 2) 100% DDGS/0% CGF; 3) 66% DDGS/33% CGF; 4) 33% DDGS/66% CGF; 5) 0% DDGS/100% CGF.
- Goat health, feeders, and waters were checked twice daily.
- Goats and feeders were weighed weekly during the 35 d experiment.
- The GLIMMIX procedure of SAS was used to analyze the data, the accepted alpha was 0.05.

	SBM Control	100% DDGS/ 0% CGF	66% DDGS/ 33% CGF	33% DDGS/ 66% CGF	0% DDGS/ 100% CGF
Corn gluten feed	0.0	0.00	12.6	25.3	37.9
Corn dried distillers grains with solubles	0.0	20.2	13.5	6.8	0.0
Soybean meal 48% CP	15.0	0.0	0.0	0.0	0.0
Corn	42.7	11.5	13.7	15.8	18.0
Soybean hulls	35.7	62.2	54.2	46.2	38.1
Molasses	2.50	2.50	2.50	2.50	2.50
Ammonium chloride	1.00	1.00	1.00	1.00	1.00
Limestone	1.58	1.23	1.48	1.73	1.98
Salt	0.50	0.50	0.50	0.50	0.50
Se Selenite	0.001	0.0001	0.001	0.0001	0.009
Vit A 30,000	0.015	0.015	0.015	0.015	0.015
Vit D 30,000	0.004	0.004	0.004	0.004	0.004
Vit E 20,000	0.001	0.001	0.001	0.001	0.001
Copper sulfate	0.008	0.008	0.008	0.008	0.008
Zn Oxide	0.008	0.008	0.008	0.008	0.008
Monocalcium phosphate	0.96	0.83	0.55		0.00
Total	100.0	100.0	100.0	100.0	100.0

Results



•No treatment differences were detected for final BW, ADG, ADFI or G:F ($P>0.05$).

•Final BW of treatments 1,2,3,4,and 5 were 71, 71, 68.9, 69.1, and 69.4 each respectively.

•By including the corn products, DDGS or CGF, feed costs decreased by approximately \$0.04/kg of feed

•However, no evidence ($P>0.05$) that the diets affected the feed cost/kg of gain.

Conclusions

- The experiment supports that corn DDGS or CGF may be used as an economic replacement for SBM in Boer-type growing diets.
- If you just wanted to feed the cheapest feed then you should choose the 100% CGF diet.
- However, if you are looking at the \$/lb of gain then your best option would be the 100% DDGS.

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