

Effect of corn gluten feed or corn dried distiller grains with solubles as a substitute for soybean meal of Boer-type goat

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Introduction

- Goat populations have increased last year about 7% to 2.07 million, and exports gained 6% to 28.4 million ton.
- There is little research evaluating different ingredients on goat growth performance.
- The advantage, for corn co-products (CFG) or (DDGS), is that they are an inexpensive protein source that is highly available in the Midwest.

Objective

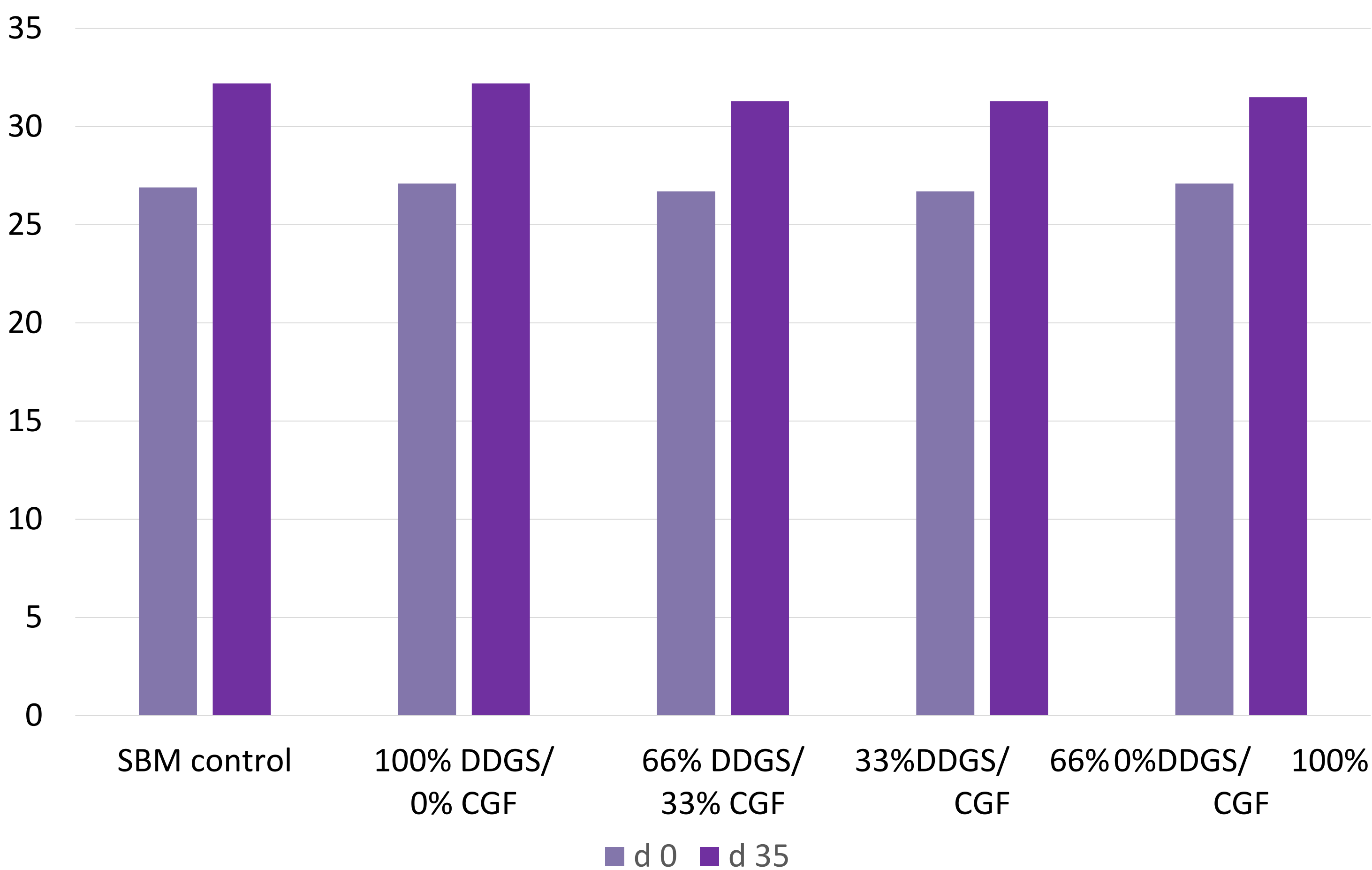
- To determine how corn gluten feed (CFG) or corn dried distillers' grains with solubles (DDGS) could impact goat growth performance and economics with soybean meal (SBM).

Experimental Procedures

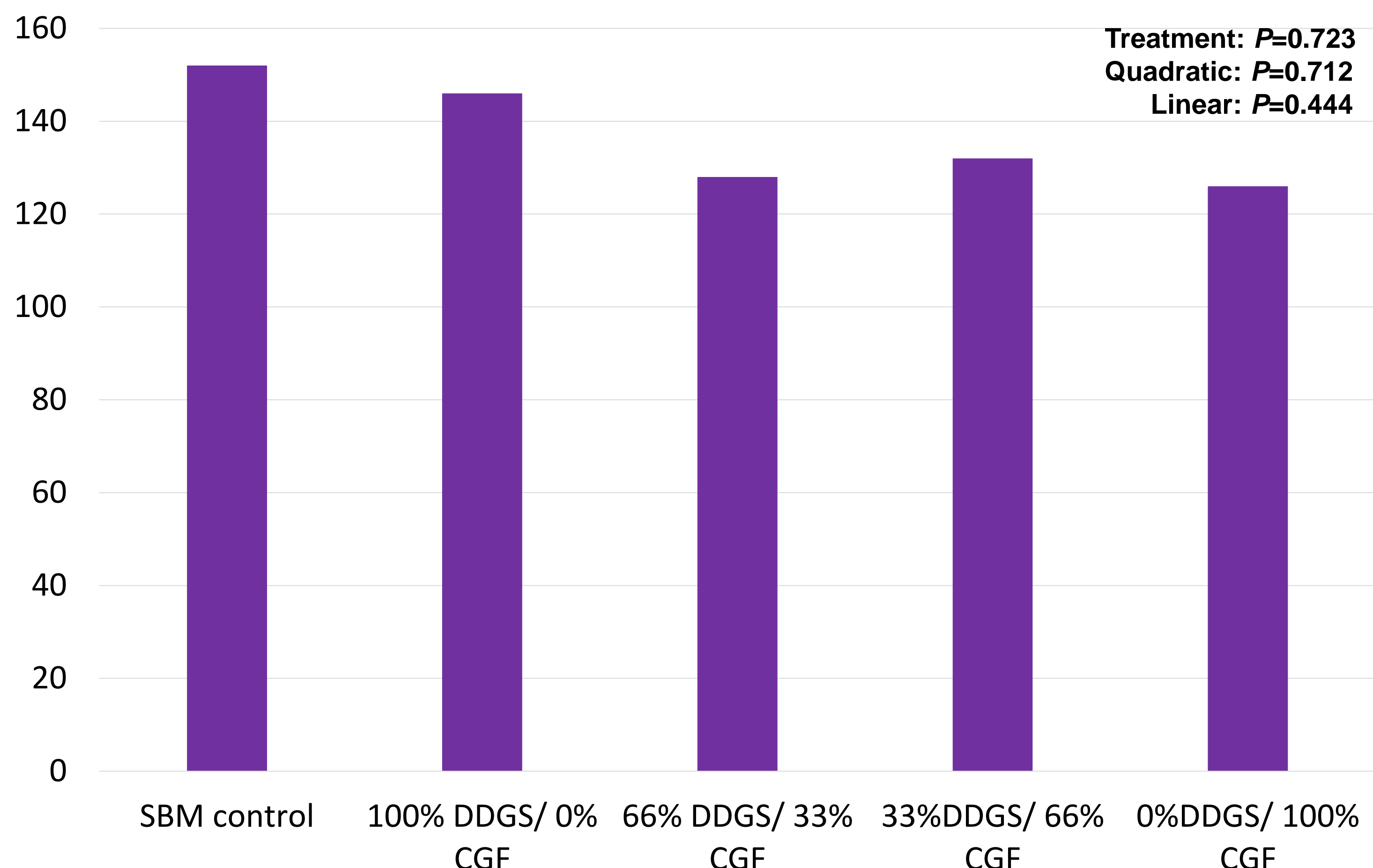
- 75 Boer-type goats were fed 5 dietary treatments randomly.
- 3 goats per pen and 5 pens per treatment in a completely randomized design.
- Treatments consisted:
 - 1). Soybean Meal
 - 2). 100% DDGS 0% CGF
 - 3). 66% DDGS 33% CGF
 - 4). 33% DDGS 66% CGF
 - 5). 0% DDGS 100% CGF
- In the beginning, goats were weighed about 28.2-28.4 kg.
- For 35 days the goats were fed step-up rations.
- Goats and feeders were weighed weekly and recorded.
- During the experiment, goats got vaccinated to prevent deworming.
- In the end, ADG, ADFI, and G:F was calculated every week.
- Data were analyzed using the GLIMMIX procedures of SAS with 0.05 as the accepted alpha value.

Experimental Results

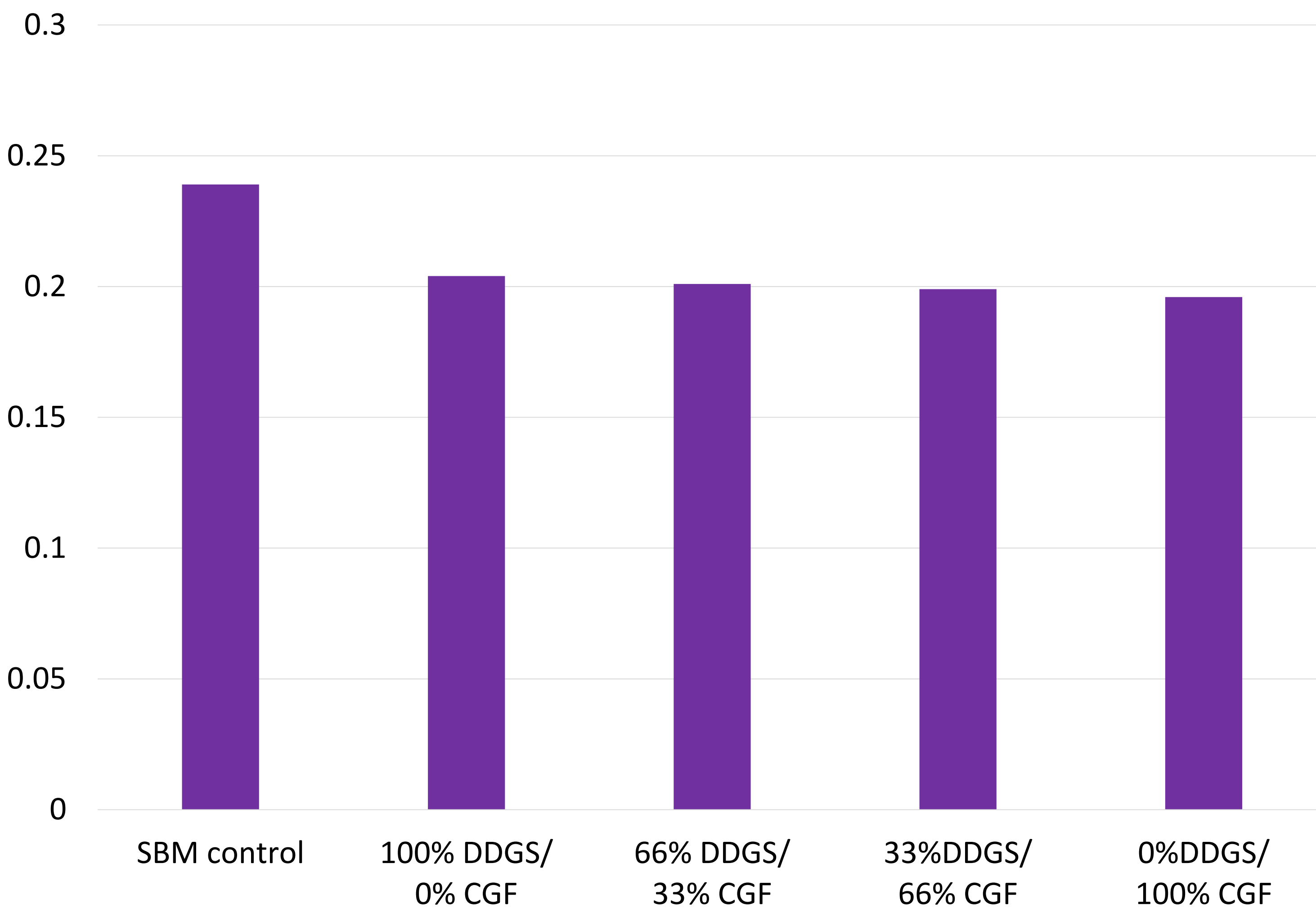
Day 0 - 25 Growth Performance



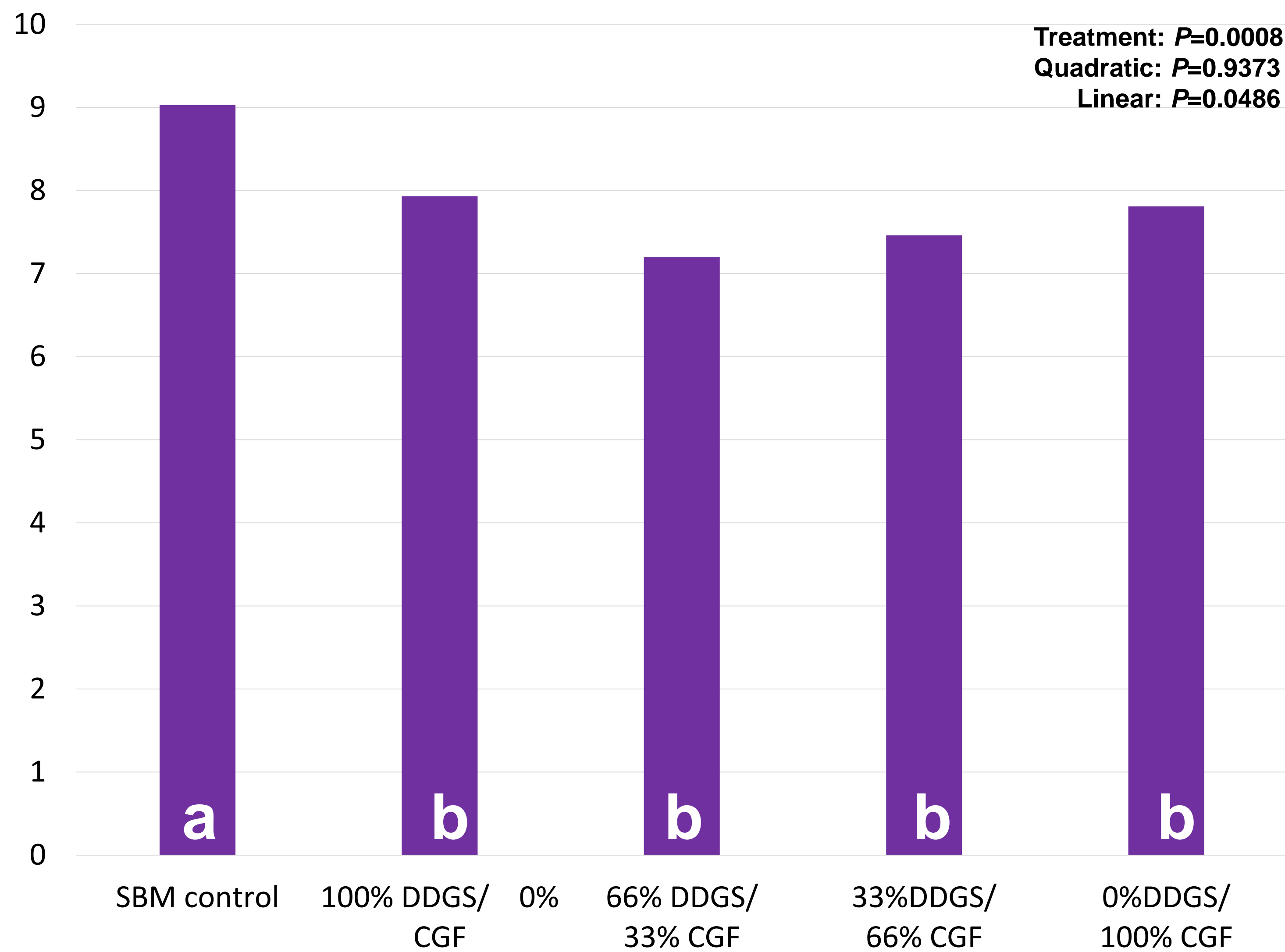
ADG



Feed cost per kg of feed



Feed cost per goat



Conclusions

- Overall, the diet had no absence impact on the goat's growth performance, ADG, ADFI, or G:F when comparing to SBM.
- Even though, kg of feed was lower this lead to lower ($P=0.0008$) when feeding with corn co-products comparing to soybean meal.
- Also, feed cost per kg of gain had no impact on the diet ($P>0.05$)
- However, when 100% DDGS 0% CGF comparing to 0% DDGS 100% CGF, there was a difference in ADG, ADFI, or G:F.
- Replacing SBM with DDGS or CGF may be cost-effective on feed cost per goat approximately \$0.04/kg of feed lower.

