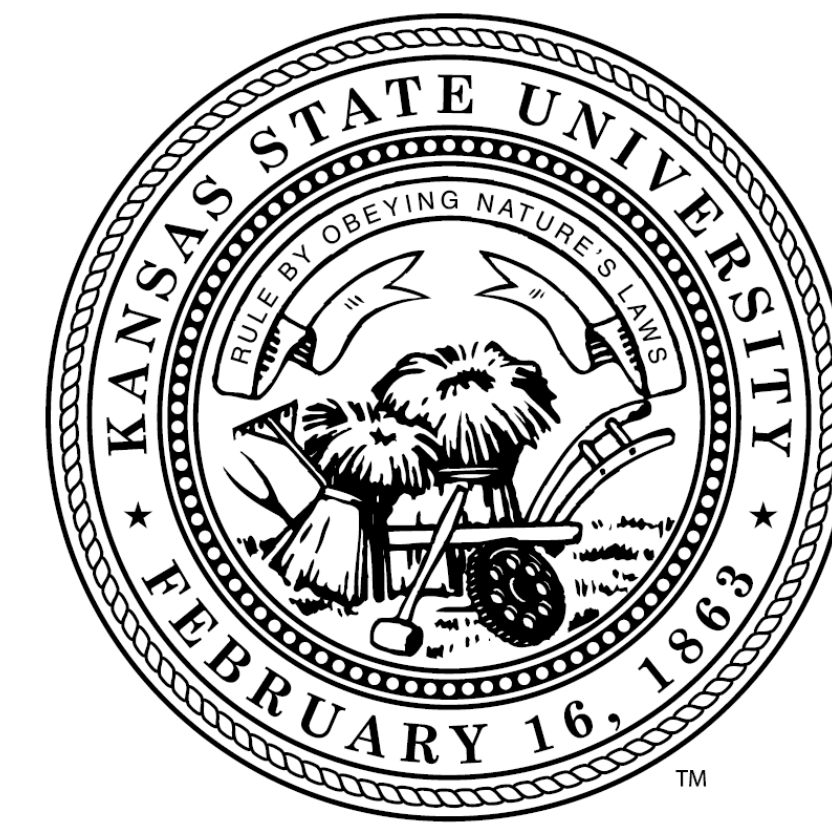


Effects of dried distiller grains with solubles in replacement of soybean meal in Boer goat diets

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Introduction

- Dried Distillers Grains with Solubles (DDGS) is a co-product of dry-milled ethanol production
- DDGS is utilized as a feed ingredient that serves as both a energy and protein supplement
- DDGS advantages:
 - Inexpensive (relative to soybean meal)
 - Highly available throughout the Midwest
- US goat population: Increased 211% in the last 15 years
- 1.01 billion goats, consuming 25% DDGS diet
 - 274,568 tons of DDGS annually
 - \$7.70/head savings
- There is insufficient data for goat producers and nutritionists related to DDGS in Boer goat diets
- With the growing goat population, several producers want to find a cheaper feed alternative to maximize their profits

Objective

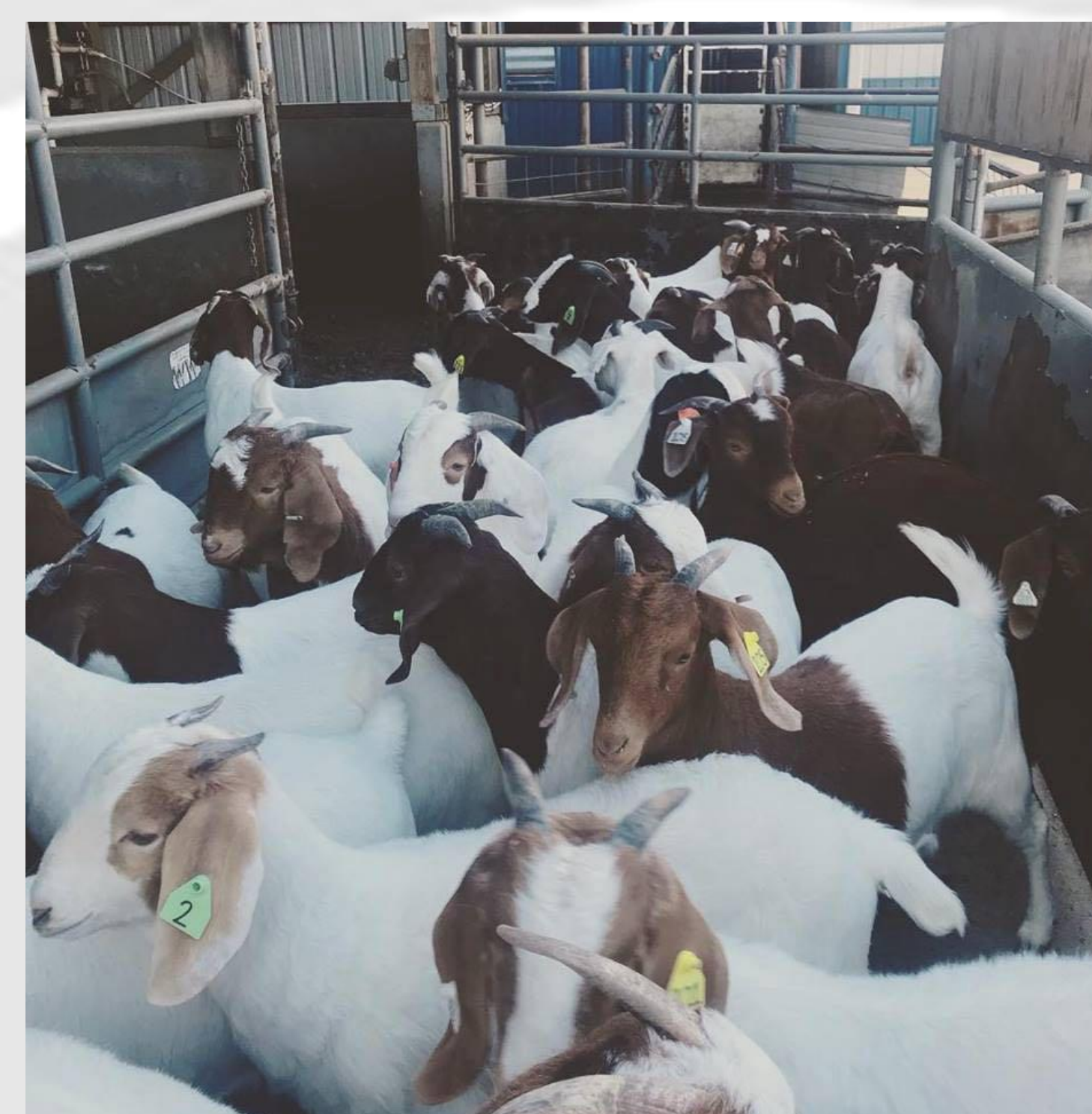
To evaluate the efficiency of Dried Distillers Grain with Solubles as a replacement for Soybean Meal (SBM) in a growing Boer goat diet.

Methods

- Prior to the experiment, goats were dewormed, treated with Exceed and tagged with their own separate ID to be easily identifiable
- 48 meat goats were randomly housed in a pen that contained three goats at the KSU Sheep and Meat Goat Center
- Four separate, pelleted diets were fed for 47 day with a 14 day step up period prior to the experiment
- The four separate diets contained:
 - 1) 0% SBM replaced by DDGS
 - 2) 33% SBM replaced by DDGS
 - 3) 66% SBM replaced by DDGS
 - 4) 100% SBM replaced by DDGS
- All four diets were developed at the Kansas State Feed Mill to ensure consistent rations
- Goats and feeders were weighed weekly to determine ADG, ADFI and G:F
- At the completion of the experiment (d 56), shortly after the goats were harvested

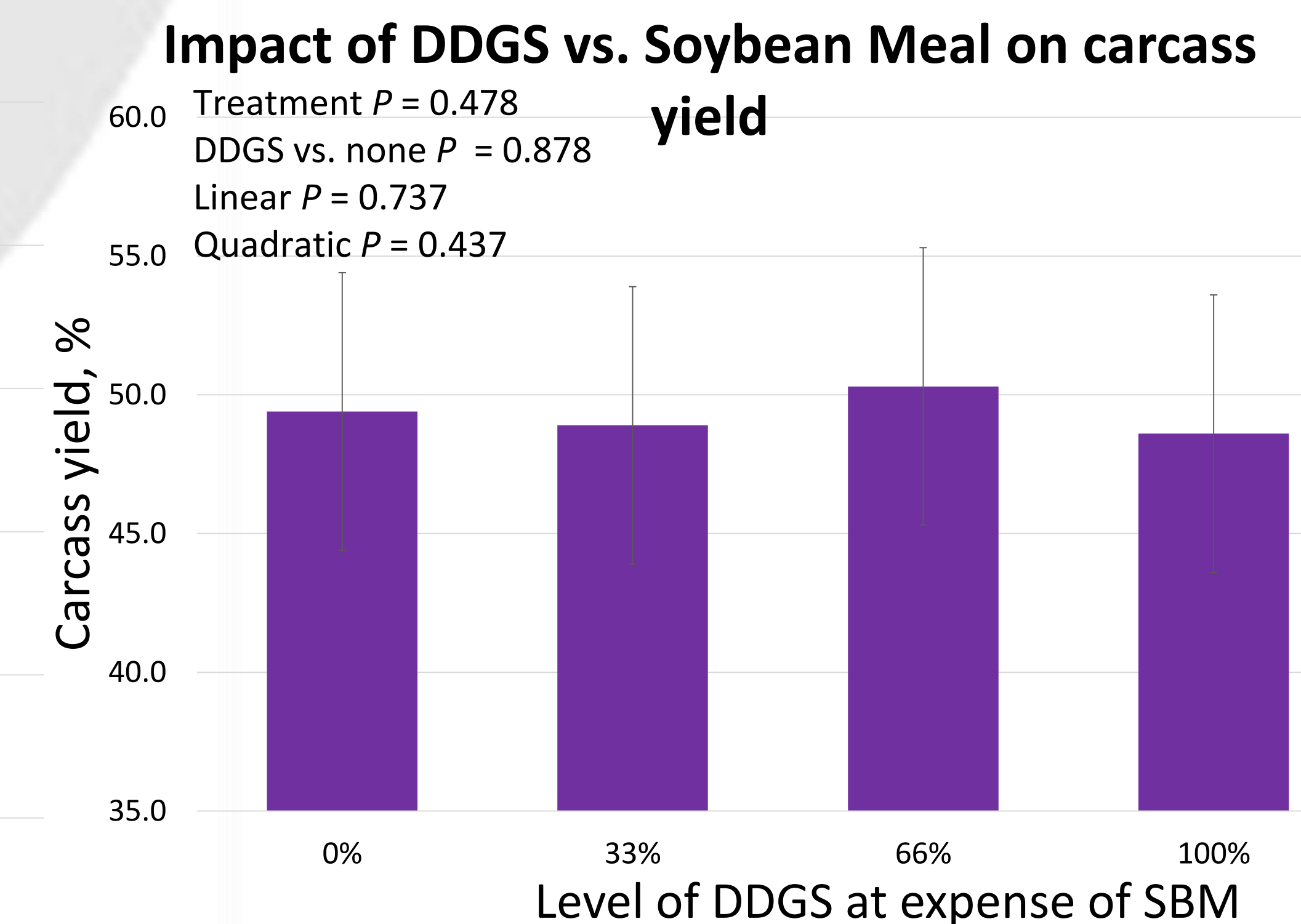
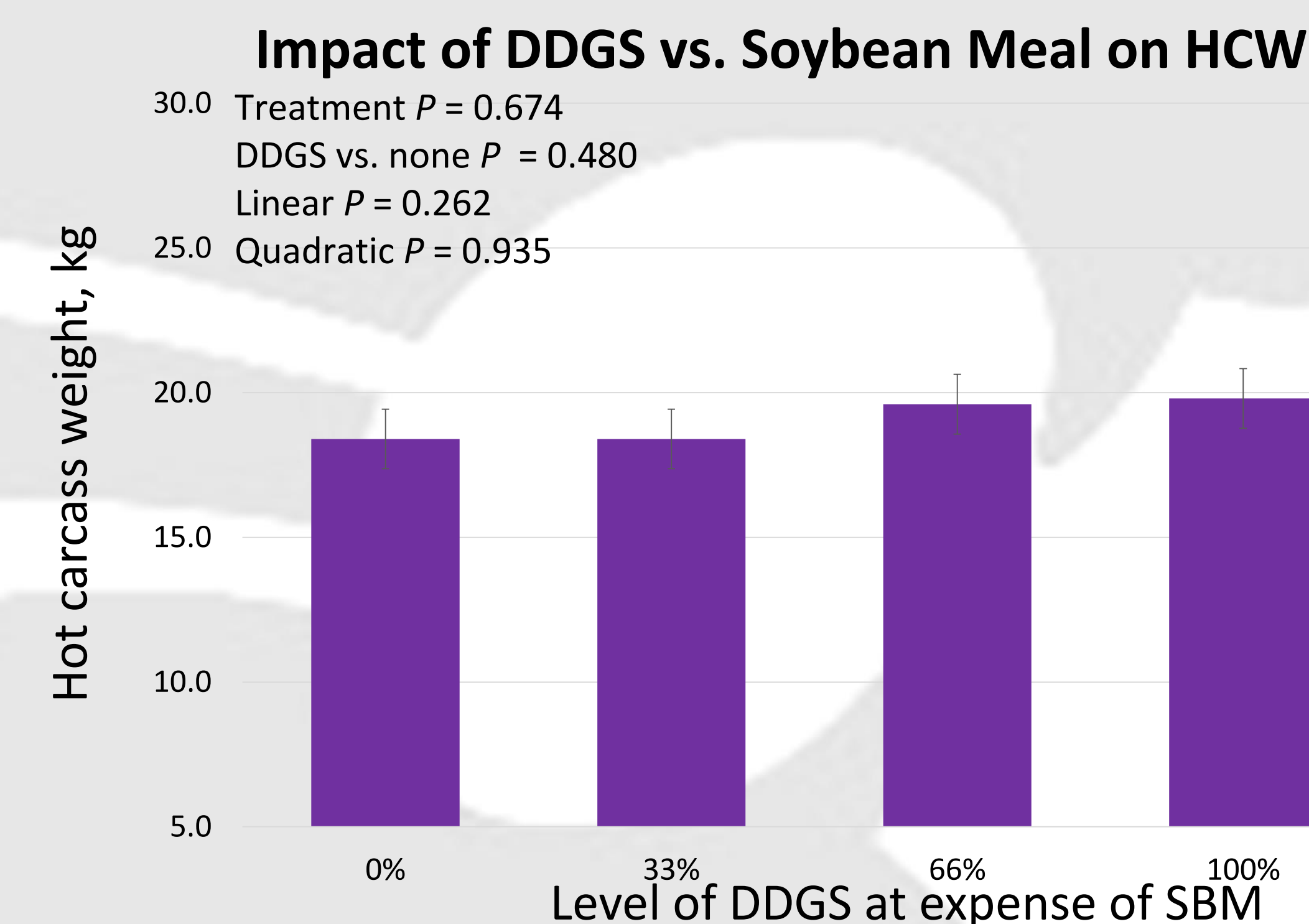
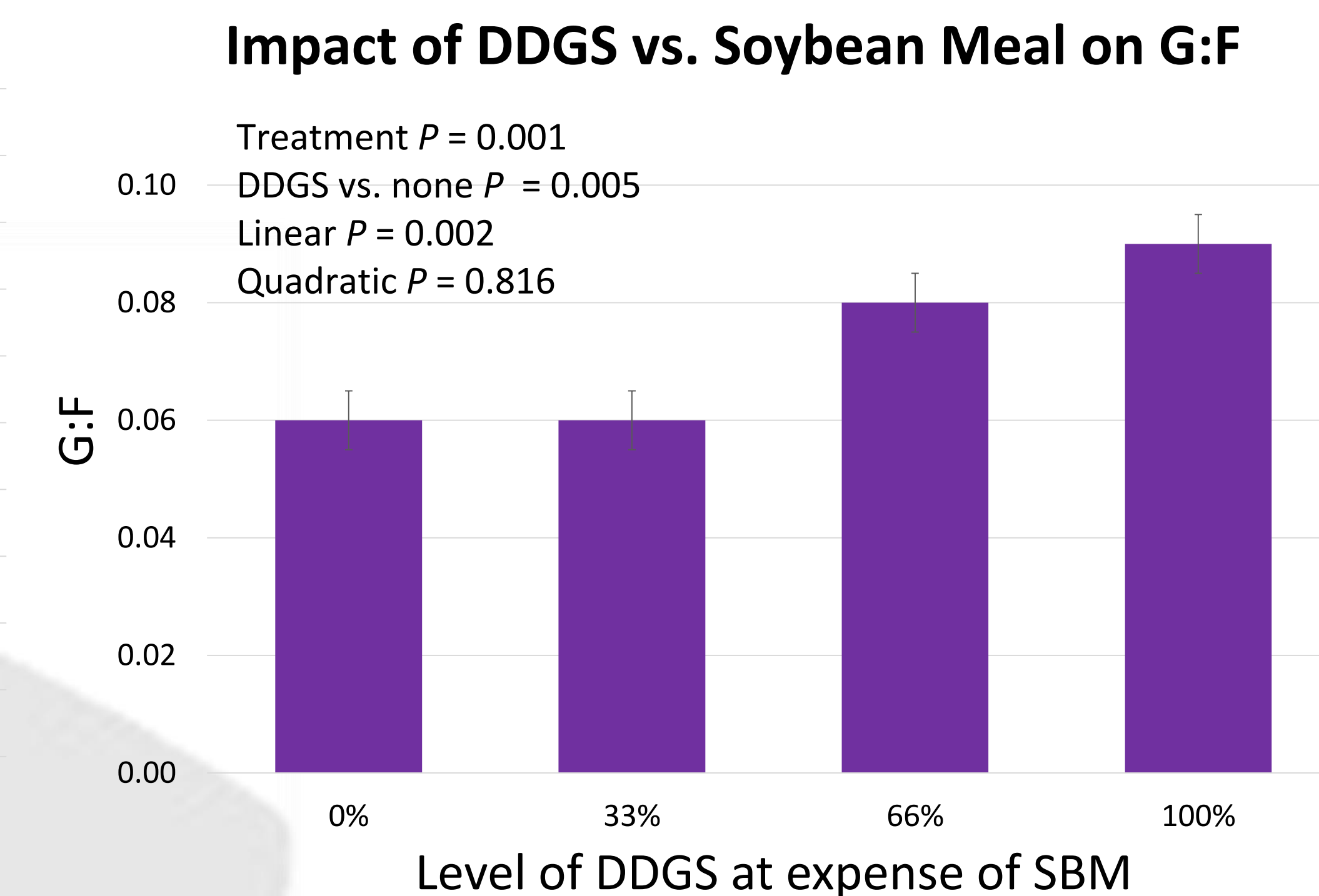
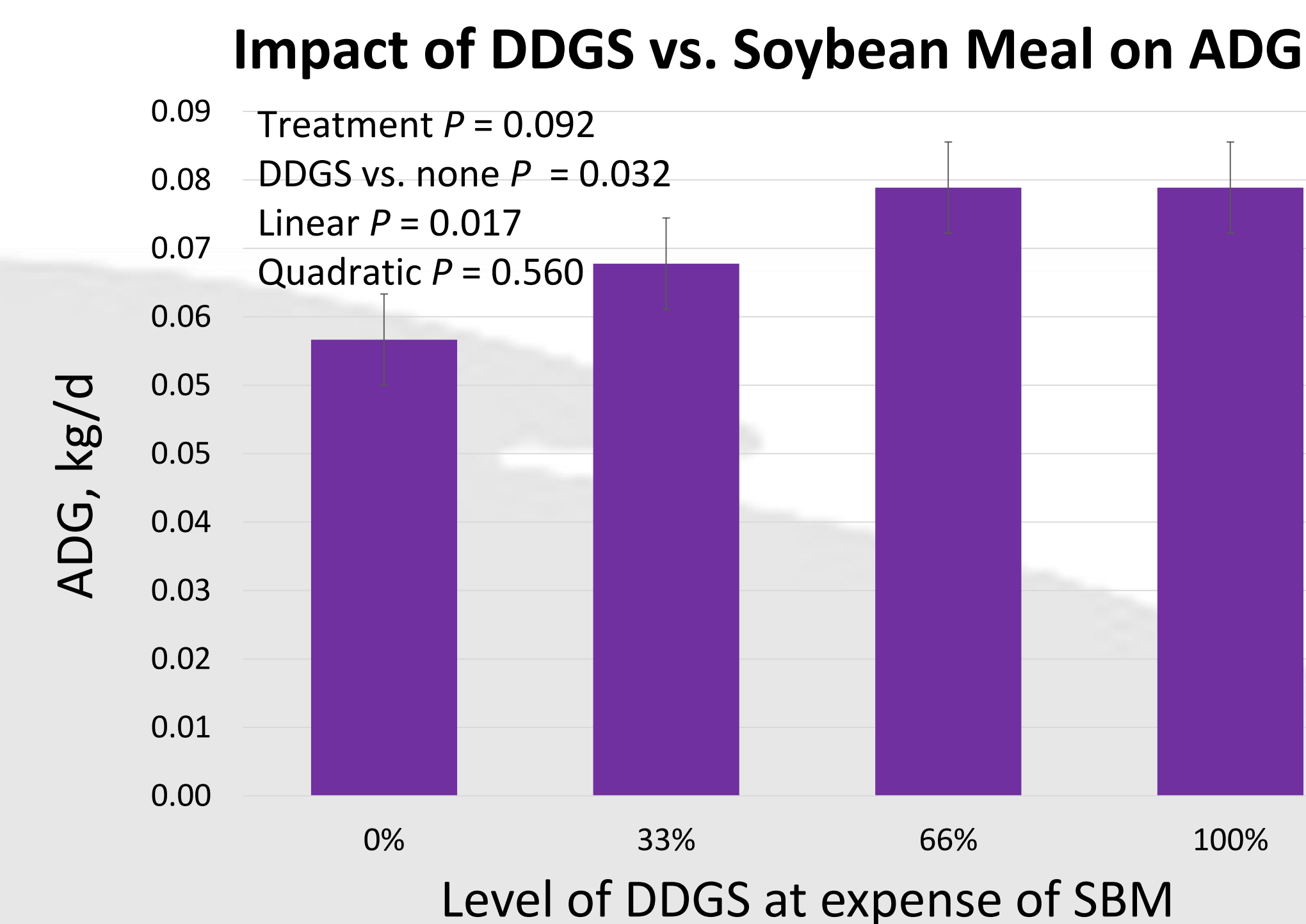


Within the 16 pens, goats were fed daily and fresh water was provided.



- Carcass data was collected from the lightest and heaviest weight goats in each pen
- Data was analyzed using the GLIMMIX procedure of SAS (SAS Inst., Cary, NC) with pen serving as the experimental unit.
- Including:
 - Hot carcass weight, carcass yield, loin eye area, loin eye depth, fat thickness, and body wall thickness

Results



Summary and Conclusion

- DDGS can replace SBM without sacrificing performance and growth with a reduced feed cost
- Replacement of SBM with DDGS at any linear level improved ($P < 0.05$) ADG and G:F
- No evidence ($P > 0.05$) that the addition of DDGS or increasing levels had an effect on ADFI and HCW
- Overall, these results confirm the hypothesis that SBM can be replaced by DDGS and yet still keep growth and performance in check

Acknowledgements

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