

DNA GENETICS RESEARCH TRIAL

The impact of lower energy diets on finishing pig performance

RESEARCH OBJECTIVE

To gain a better understanding of how DNA Genetics pigs perform when fed lower energy density diets.

COMPLETION DATE

May 2024

TRIAL OVERVIEW

This study evaluated two 1,200 head finishing barns equipped with Feedlogic systems. A control diet was formulated as a corn/soy ration and then titrated dietary energy content lower using a blend of dried distillers grains (DDGS) and soy hulls to create treatments. Corn, soybean meal and soy hulls were given metabolizable energy (ME) loading values from the NRC, while the DDGS energy loadings were calculated based on NIR analysis. All pigs were placed on the trial at 42 lbs. and evaluated up to 210 lbs.

KEY TAKEAWAYS

- We now understand how the DNA Genetics' pig will perform when challenged with lower energy density diets.
- A diet formulated with 500+ lbs./ton of soy hulls will challenge the flowability of the feeders, and will limit the tonnage that can fit in the feed bin.
- As the energy in the rations decrease, the FCR will deteriorate at approximately 1.5% per 20 kcal/lbs. of ME.
 - Additionally, gain slipped at 1.2% from corn/soy blend to the -120 kcal treatment, and then steepened to 2.3% with the -240 kcal treatment.

PRODUCER IMPLICATIONS

- These results provide producers the expected change in performance resulting from changes in energy density to support least-cost formulation.

PERFORMANCE DATA: CUMULATIVE SUMMARY

	Corn/Soy	-60 kcal ME/lbs. 8.53% NDF	-120kcal ME/lbs. 13.81% NDF	-180 kcal ME/lbs. 19.10% NDF	-240 kcal ME/lbs. 24.30% NDF	Linear <i>P equals</i>	Quadratic <i>P equals</i>
ADG, lbs.	2.34	2.26	2.18	2.04	1.90	0.001	0.001
ADFI, lbs.	4.83	4.85	4.91	4.78	4.70	0.001	0.001
Feed conversion	2.06	2.14	2.24	2.33	2.45	0.001	0.872
Mortality	1.34%	0.89%	2.04%	1.12%	1.09%	0.806	0.435
Mortality & Morbidity	2.00%	1.79%	1.83%	1.34%	1.50%	0.433	0.985

For more information on this study, please contact your National Account Leader or Ashley Hartman (ashleyrh@pillenfamilyfarms.com).



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