TECHNICAL PAPER

RESEARCH SUMMARY

Evaluating the effect of different inclusion rates of FurstSTRIKE™ on nursery and finisher growth performance parameters.

FURSTSTRIKE™

BACKGROUND

Poor health status of piglets due to the increased antibiotic resistance to enteric pathogens such as *E. coli* has led to a need for nutritionally supported gut health. Recent research with FurstSTRIKE Direct™ (water form) has shown beneficial impacts on performance, including survivability and feed efficiency during challenges, as well as during 'standard health' live production environments.[1–3]

In collaboration with Iowa State University, we evaluated the benefits of FurstSTRIKE in the feed during the nursery period and followed those pigs into the finishing phase to evaluate the impact of FurstSTRIKE on enteric health issues, feed intakes and lifetime growth performance using dose titration technology.

BACKGROUND ON PIGS

- 1,152 DNA-sired weaned pigs (initial Body Weight [BW]: 13.7 ± 0.3 lb) sourced from PRRS-negative sow herds
- 48 pens (24 pigs/pen; mixed sex)
- On day 10, a 109 CFU inoculum of *E. coli* (a genotype that is susceptible to F18 with a toxin profile that produces EAST1, LT, STb, STx2, and STx2e) was sprayed in each pen as part of the unsanitary environment model, with 5 mL sprayed on the cup waterer, 10 mL on the feeder and 5 mL on the pigs directly.
- On day 24, the trial barn tested positive for Influenza A. Pigs were NOT given any antibiotics through feed or water.

TREATMENTS:

- 3-phase nursery diet; Zinc oxide was included in N1 and N2 on all treatments
  1. Control
  2. Control + FurstSTRIKE at 5 lbs/ton of complete N1 and N2 diets
  3. Control + FurstSTRIKE at 10 lbs/ton of complete N1 and N2 diets
  4. Control + FurstSTRIKE at 15 lbs/ton of complete N1 and N2 diets
- All pigs consumed the same G-F diet based on the 4-phase feeding program.

RESULTS

FIGURE 1:
Effect of nursery FurstSTRIKE on Average Daily Feed Intake (ADFI) in N1, F2, and overall finishing period, lbs.

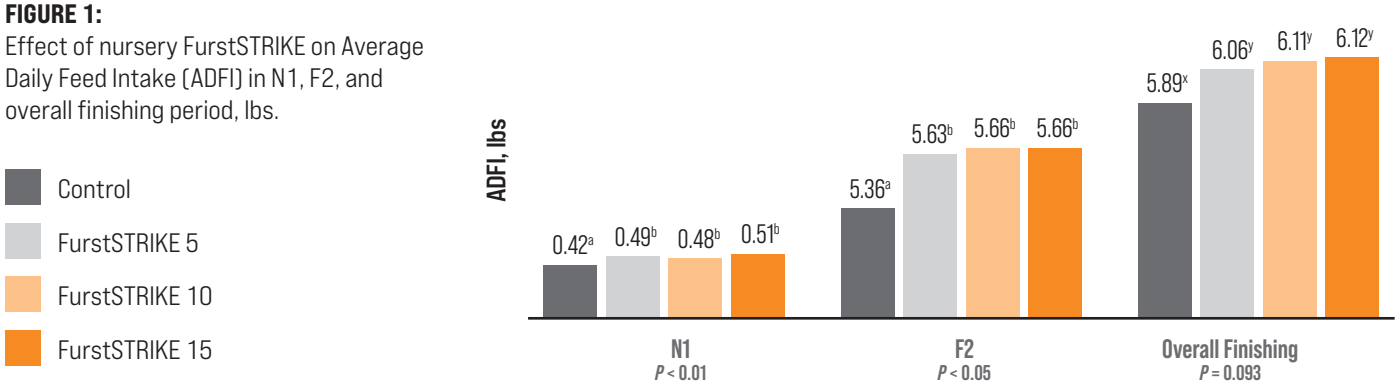


FIGURE 2:
Effect of nursery FurstSTRIKE on carry over lifetime Average Daily Gain (ADG) in finishing period, lbs.

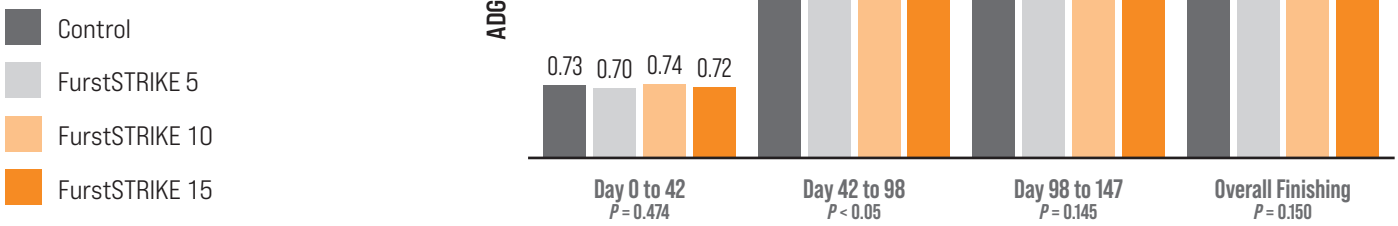
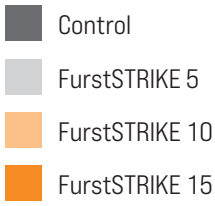
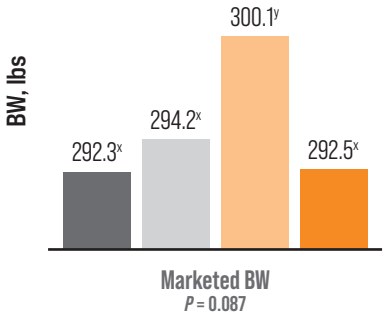


FIGURE 3:
Effect of nursery FurstSTRIKE on marketed BW, lbs.





RESEARCH SUMMARY

- FurstSTRIKE drives early feed intake (N1) and has a carryover effect on finishing feed intake (F2 and overall)
- 7.7 lbs increase in marketed BW from FurstSTRIKE compared to Control
- FurstSTRIKE at 10 lbs/ton of complete feed is determined as an optimal inclusion rate in health-challenged pigs

FURSTSTRIKE™

[1] Kwon, W. B., G. A. Hartsook, P. Aparachita, K. T. Soltwedel, R. L. Fischer and F. B. Sandberg. 2024. Effectiveness of using a novel water-soluble nutritional supplement (FurstSTRIKE Direct) on recovery and survivability of grow-finishing pigs under a lateral influenza and PRRS 144 L1C challenge. In: *Proceedings of 50th Allen D. Leman Swine Conference*, St. Paul, MN.

[2] Sandberg F. B., S. J. England, K. T. Soltwedel, P. Aparachita, R. L. Fischer, G. A. Hartsook and W. B. Kwon. 2024. Impact of a nutritional water supplement on nursery mortality as determined by different statistical methods and consequences for on-farm application of technology. *Journal of Animal Science* 102 (E-Suppl. 2):9-10.

[3] Sandberg, F. B., K. T. Soltwedel, R. L. Fischer, and W. B. Kwon. 2023. Effects of FurstSTRIKE Direct on mortality and injectable treatments in nursery pigs. In: *Proceedings of the AASV 54th Annual Meeting*, Denver, CO.

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