



F18 E. COLI

CHALLENGES & RESOLUTIONS

Escherichia coli (E. coli) is a common disease in swine, typically occurring in the farrowing or nursery production phases. There are many strains of E. coli, with F18 being one of the most prominent in post-weaned pigs. Pigs typically come into contact with the bacteria through contaminated environments, enhanced by external stressors and pig susceptibility. We have experienced successful management of F18 E. coli within the DNA lines using the following strategies.

Management approach	Sanitation	Additional considerations ...
➤ All in all out pig flow • Try to fill in less than one week. • Reduce age spread within one room. ➤ Reduce stressful events in the pig's environment. • Transport and handling • Ventilation • Vaccination ➤ Warm, dry, draft-free environment ➤ Colostrum management	Prepare each room between each turn by: ➤ Removing organic material • Remove and soak (if possible) ➤ Detergent • 30 min contact time ➤ Powerwash rooms, and ensure the water is atleast 130°. ➤ Inspect • Target feeders, mats, and gruel pans. ➤ Disinfect • 30 minute contact time ➤ Dry and downtime overnight.	➤ Vaccination strategies • Avirulent live culture • Vaccine timing ➤ Extra sanitation steps • Whitewash • Elevated downtimes • Formaldehyde ➤ Treatment through water, feed, or injectables. ➤ Water acidification between 4 and 6 pH. ➤ In-depth diagnostics to evaluate antimicrobial sensitivities and virulence factors.

Nutrition

Nutritionists have long utilized specific dietary strategies to combat post-weaning diarrhea, including F18 E coli. If your farm is struggling with enteric pathogens, including F18 E. coli, visit with your nutritionist and veterinarian about ways to combat that pathogen. Examples for consideration include but are not limited to the following:

- Dietary pharmacological dose of zinc oxide, copper, and other functional ingredients (specific proteins, specific fibers, simple sugar source, and concentration)
- Ingredient choice: choose highly palatable and digestible (protein and carbohydrate) ingredients
- Reduced dietary crude protein.

Resistance

PATH TO RESISTANCE:

DNA Genetics will continuously increase the resistant allele frequency in our nucleus populations resulting in decreased mortality due to E. coli F18 challenges.