



BEYOND THE HELIX

FLIPPING THE SWITCH ON F18 E.COLI

WITH DR. RANDY BORG

Escherichia coli (E. coli) is a leading cause of post-weaning diarrhea in nursery pigs and is one of the few pathogens for which natural immunity exists in the swine population. A recent study by DNA Genetics verified the inheritance of genetic resistance to E. coli F18 in DNA Line 600 x DNA 241 market pigs.

Prior to the E. coli challenge, pigs were genotyped and assigned to three treatment groups based on their resistance genotype. All 179 pigs were inoculated intraorally with a highly pathogenic strain of E. coli F18. Pigs with a resistant genotype suffered no mortalities during the trial, had normal and substantially better growth rates, lower feed efficiency and few total bacterial counts in the ileum compared with susceptible pigs

The results of the trial confirm the accuracy of the genetic marker for resistance in use by DNA Genetics. Further, the difference between the treatment groups support that a full level of resistance to E. coli F18 can be achieved within the full DNA program.

This trial was conducted by Carthage Innovative Swine Solutions. The results have been presented at the 2024 Carthage Swine conference, the 2024 Leman Conference and are currently under peer review for publication.

To listen to the full podcast episode, visit dnaswinegenetics.com/podcasts and subscribe to receive future episodes of "Inside the Helix."

