

BIG PIG Use in Swine Diets, Trial SIA-103

Introduction:

Results from previous experiments indicate that BIG PIG containing anti-phospholipase A₂ (aPLA₂) antibody harvested from whole egg may hold potential for improving growth performance of nursery pigs when diets contain an antibiotic, as well as pharmacological levels of zinc and copper. Microbial PLA₂ may be a mechanism by which microbes gain access into the animal. Hence, BIG PIG containing anti-PLA₂ may serve as an antibiotic/anti-inflammatory agent and improve pig health and growth performance. Thus, the objective of the proposed experiment will be to determine the effect of supplemental BIG PIG on the growth performance of nursery pigs fed diets with or without antibiotic addition.

Results:

***Supplementation of BIG PIG resulted in reduced ($P < 0.05$) ADG from d 5-7, but improved ($P < 0.10$) feed/gain ratio overall (d 5-29).**

***CTC/Denaguard supplementation improved ($P < 0.10$) feed/gain ratio**

***BIG PIG and CTC/Denaguard together resulted in a 1.6 lb heavier pig at the end of the trial.**

Materials and Methods:

A total of 52 newly-weaned piglets were used in a 4-treatment study to determine the effect of BIG PIG and antibiotic on weanling pig growth performance. Piglets were weighed immediately and randomly allotted to dietary treatment from within litter. During the first 4d, 12 replicates were housed in pairs with one replicate housed individually, to give a total n of 7 for the first 4d. After that

initial 4d period, pigs were housed individually until the end of the 29d experimental period (n = 13).

Pigs were fed a 2-phase dietary program, with each phase being fed for 2 wk. Diets were formulated to meet or exceed the pigs' requirements for all nutrients, and were based on corn, soybean meal, dried whey, and fish meal. Dietary treatments included a negative control diet (Diet 1) that did not include growth promoting levels of either zinc oxide or antibiotics, or plasma. Diets 2 through 4 included the control diet supplemented with 50 g/ton chlorotetracycline and 10 g/ton denaguard, 0.40% BIG PIG, or both, respectively.

Pigs were weighed weekly for determination of daily gain, daily feed intake, and feed efficiency. Data were analyzed as a randomized complete block design with 13 litters and four dietary treatments. Means were separated using single degree-of-freedom comparisons. Due to the presence of a few missing values, data are presented as least-squares means.

Effect of BIG PIG and CTC/Denaguard on pig performance from weaning to 29d post weaning

