



A-MAX Concentrate China Swine Research Trial in Starter Diets

Introduction: A feeding trial was conducted at Dai-Hsing, a private research center in China.

Objective: To determine the benefits of A-MAX™ Concentrate in swine starter diets.

Materials & Methods: Pigs were weaned at 35 days of age and randomly assigned to 1 of 2 treatments. There were 8 pigs per pen with 4 pens per treatment. One treatment served as the control and the second treatment was the same diet as the control, except A-MAX Concentrate was added at 0.4% (4 kgs/ton). Two different phase diets were fed as noted below. Complete diets are shown in table two.

- Phase one was fed from day 35 to day 49, so 2 weeks post weaning.
- Phase two was fed from day 50 to day 70, so an additional 3 weeks.

Pigs were allocated to pens by sex, so each pen had half male and half female pigs. Pigs were weighed individually at the beginning and the end of the experiment. Feed intake was calculated on a pen basis, and feed disappearance was measured each day to determine feed intake and feed/gain. The pigs were observed daily to record diarrhea rate, mortality, feces condition, and hair condition. This experiment was conducted in July and August of 2007.

Results: Complete results are shown in Table 1. Pigs on diets with A-MAX had significantly improved ADG and feed/gain as compared to the control diet. Additionally, pigs on A-MAX had higher ADFI, 26 grams/day, versus the control diet. Pigs receiving A-MAX in the feed had 10.6% higher ADG and 6.6% less feed per unit of gain. In this experiment, the diarrhea rate and mortality of A-MAX treatment was lower than the control treatment.

This trial was conducted during the hot summer time during heat stress conditions. This would indicate that A-MAX helped improve feed intake during heat stress conditions. Additionally, the increased feed intake translated into improved weight gain and feed efficiency. It is theorized the metabolites in A-MAX, such as peptides and enzymes, are helpful in stimulating proliferation of beneficial intestinal bacteria and improving digestion.

Conclusions: In summary, A-MAX Concentrate significantly improved ADG and Feed Efficiency in swine starter diets during the first 5 weeks postweaning.



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Results Table:

Table One: Effect of A-MAX™ Concentrate on growth performance of weaned pigs

Parameter	Control	A-MAX Concentrate
Number of Pigs, Beginning of Trial	32	32
Number of Pigs, End of Trial	28	30
Weaning Age, Days	35	35
Initial Weight Kgs (pounds)	8.53 (18.8)	8.5 (18.7)
Final Weight Kgs (pounds)	22.8 ^a (50.3)	24.2 ^b (53.4)
ADG Grams (pounds)	406 ^a (0.89)	449 ^b (0.99)
ADFI Grams (pounds)	735 (1.62)	761 (1.68)
Feed/Gain	1.81 ^a	1.69 ^b
Diarrhea Rate %	25	12
Mortality %	12.5	6.25

a, b indicates $P < 0.05$

Table Two: Diets

Ingredient	Phase 1 Day 35 – 49	Phase 2 Day 49 - 70
Corn %	52	61
SBM %	13	33
Fish Meal %	6	0
Whey %	6	0
Extruded Soybeans %	16	0
Wheat Bran %	3	2
Premix %	4	4

Lysine %	1.35	0.97
Crude Protein %	20.0	19.1
Energy MJ/Kg	13.89	13.36

Note: Premix includes vitamins, minerals and antibiotics.

