



# SWINE NEWSLETTER

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## Micro-Aid® for Grow-Finish Pigs

**Introduction:** Micro-Aid® (MA) is a feed additive that in numerous studies has reduced environmental ammonia levels and improved growth performance of pigs. A sixteen-trial summary of data from 1983 to 1998 revealed an average improvement of 4.7% in daily gain (ADG) and 3.2% in feed:gain (F:G). Akey recently conducted a field trial (1999-2000) with MA to determine its effect on performance of pigs raised in a commercial setting.

**Design:** A commercial operation with wean-to-finish (WF) barns was used for this trial. Pigs were of a modern, high lean growth genotype. A total of 8 barns were used (four 1200 head barns and four 2400 head barns). Pigs averaged 9.8 lb at weaning and 260 lb at slaughter. Pigs in entire barns received diets with either 0 (control) or 1 lb/ton of Premium MA Premix-1®. Dietary supplementation with MA began at 60 lb and continued to slaughter. Pigs were fed a 5-phase sequence of diets from 60 lb to slaughter. Total barn closeout information was used to evaluate the impact of MA on growth performance of pigs.

**Results:** A total of 7,189 pigs received MA and 7,154 pigs served as controls. Pigs fed MA had a 3.4% increase in ADG and a 2.4% improvement in F:G (Table 1). Death loss was not affected by treatment.

**Table 1. Field Trial<sup>a</sup> Evaluation of Micro-Aid® (MA) Supplementation<sup>b</sup> of GF Diets**

Item	Premium MA Premix-1, lb/ton	
	0	1
Pigs, no.	7,154	7,189
Initial wt, lb	9.8	9.8
Final wt, lb <sup>c</sup>	256.3	264.7
ADG, lb <sup>d</sup>	1.46	1.51
F:G <sup>d</sup>	2.54	2.49
Death Loss, % <sup>d</sup>	2.2	2.0

<sup>a</sup>Trial conducted at a commercial farm in the Midwest.

<sup>b</sup>MA fed from 60 lb to market.

<sup>c</sup>Final weight adjusted to a common 168.8-d WF period. Actual days: Control, 168.8 d; MA, 164.4 d.

<sup>d</sup>Numbers reflect WF performance.

**Conclusions:** An analysis of the cost vs. return for feeding MA in this trial is shown in Table 2. Supplementation of Premium MA Premix-1 costs about \$1.10/ton of complete feed. MA-fed pigs consumed 560 lb feed from 60 to 264.7 lb for a final MA cost of \$0.31/pig. These calculations assume equal performance (75 lb/pig of nursery feed from weaning to 60 lb body wt) of all pigs before the MA treatment was initiated at 60 lb. Better overall F:G and 8 lb more slaughter weight resulted in extra income of \$2.51 per pig fed MA (Table 2). Thus, a cost of \$0.31/pig for MA returned \$2.51, an 8:1 return on investment.

**Table 2. Cost vs. Return for Micro-Aid<sup>®</sup> (MA) Supplementation of GF Diets**

Item	Premium MA Premix-1, lb/ton		Difference
	0	1	
Mkt wt, lb/pig <sup>a</sup>	256.3	264.7	8.4
Mkt price, \$/cwt	40	40	---
Mkt value, \$/pig	102.52	105.88	3.36
Feed, lb/pig <sup>b</sup>	551	560	9
Feed cost, \$/lb	0.0600	0.06055	0.005
Feed cost, \$/pig	33.06	33.91	0.82
Mkt value – feed cost, \$/pig	69.46	71.97	<b>2.51</b>

<sup>a</sup>Market weight adjusted to a common 168.8-d WF period. Actual days: Control, 168.8 d; MA, 164.4 d.

<sup>b</sup>Estimated feed required from 60 lb to slaughter, assuming each pig consumed 75 lb of feed from weaning to 60 lb body weight.