Gel Supplementation after Long Haul Transportation (> 7 Hours) Increases Pig Weaning Weights and Improves Survival during the Nursery and Wean-to-Finish Period

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A field study was conducted in Iowa to evaluate gel supplementation on starter performance and survival after long-haul transportation (> 7 hours). After long-haul transportation, 800 pigs were weighed, placed in pens based on initial body weight and then randomly allotted to one of two dietary treatments: (1) common diet without Gel or (2) common diet with Gel. Gel was fed on mats or boards 2 times a day at the rate of 0.05 lbs per pig per feeding for 5 days. After the treatment period (5 days), all pigs received common diets throughout the rest of the wean-to-finish period.

Supplementation of gel for 5 days after long-haul transportation resulted in pigs **gaining 11.9% faster** and **eating 11.9% more** during the first 8 days and being **1.0 lb heavier at the end of the nursery period** (d 33 after weaning) when compared to pigs not receiving gel (Table 1). Additionally, mortality and removal rate was reduced by 50 and 44%, respectively, during the nursery period (d 0-33 after weaning) and mortality and removal rate was reduced by 59 and 27%, respectively, throughout the entire wean-to-finish period when pigs received gel for 5 days after long-haul transportation.

Table 1. Supplementation of gel after long-haul transportation improves nursery pig performance & survival rate as well as pig survival rate during the entire wean-to-finish period.

	Common Diet + NO Gel	Common diet + Gel	Improvement
Day 0 to 8 Postwean			
ADG, lb	0.370[b]	0.414[a]	**11.9%**
ADFI, lb	0.370[b]	0.414[a]	**11.9%**
Feed:Gain	0.998	0.998	**-**
Pig Weight, lb			
Initial	13.03	12.96	**-**
Day 8	16.0[b]	16.3[a]	**0.3 lb**
Day 33	38.7	39.7	**1.0 lb**
Day 0-33 Postwean			
Mortality, %	3.0	1.5	**-50%**
Removals, %	2.25	1.25	**-44%**
Day 0-92 Postwean			
Mortality, %	4.25	1.75	**-59%**
Removals, %	2.75	2.0	**-27%**

a vs b, $P < 0.03$

How does Gel Supplementation Improve Pig Performance & Survival?
Gel is scientifically formulated with high moisture content and natural intake enhancers to encourage consumption, prevent dehydration and aid in transition to dry pellets while supporting intestinal health.

Studies have shown that the faster pigs start eating after weaning, the healthier their intestine becomes and thus, the better they will grow. Pluske (1996)[1] demonstrated that greater feed intake in pigs 5 days after weaning increases villus height and absorption surface. These changes in gut architecture not only improve absorption of nutrients to enhance pig growth but also, to a certain degree, influence how the pigs' immune system will react to a viral or bacterial challenge. Therefore, a healthier intestine is critical to piglet health and growth.

Furthermore, piglet feed intake and growth during the first week after weaning should be of the utmost concern. A study by Tokach (1992)[2] has shown the relationship between live-weight gain during the first

week after weaning and its' impact on the number of days to market. The greater the pigs average daily gain during the first week after weaning, the shorter time it takes to get to market. Therefore, maximizing early feed intake leads to heavier, healthier pigs in the nursery resulting in enhanced success in the grow-out unit. **Similarly, the current study demonstrates that enhancing performance and intestinal health during the first week after weaning due to gel supplementation increased the number of pigs going to market thus potentially increasing profits to the producer.**

[1]Pluske, J.R., D.J. Hampson, and F.X. Aherne. 1996. Maintenance of villous height and crypt depth in piglets by providing continuous nutrition after weaning. Animal Science 62:131-144.

[2]Tokach, M. D.; Goodband, R. D.; Nelssen, J. L.; Kats, L. J. 1992. Influence of weaning weight and growth during the first week post-weaning on subsequent pig performance.
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p.19-21 Publication Year: 1992, Editors: Goodband, B.; Tokach, M.
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