



# NUTRITION NOTES

Innovation + Research from Kent Nutrition Group

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## EVALUATION OF A 2 PHASE VS. 1 PHASE STARTER PROGRAM DURING THE FIRST 14 DAYS POST-WEANING

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There are some nursery unit managers who would prefer using one starter product in bulk during the first 14 days post-weaning as opposed to bringing in 3 to 4 pounds of a bagged starter followed by 6 to 7 pounds of another starter in bulk. The advantages to using one starter in bulk would be simplicity and less labor in handling bags of the first starter in a two-phase program. While a two-phase starter program would be the most efficient biologically in feeding a pig, we formulated a diet that contained a blend of ingredients and nutrients from both of the two-phase starters to create a single starter product. This product would be fed for roughly the first two weeks post-weaning.

In Treatment 1, we used NexGen 12-17 for the first 7 days followed by NexGen 17-25 the next 7 days, simulating our current two-phase program with all diets fed in meal. In Treatment 2 we fed a single product for the first 14 days. The comparison of these two programs during the first two weeks post-weaning is shown in Table 1 from trials conducted at the Kent Product Development Center.

**Table 1. Effect of Two-Phase vs. One-Phase Starters on Performance & Economics in Pigs During Days 0-14**

Treatment	1	2
2 Phase (1st 14 Days)	√	-
1 Phase (1st 14 Days)	-	√
Common Diets (Days 14-34)	√	√
<b>Days 0-7</b>		
ADG, lb	.26	.23
ADF, lb	.37	.37
F/G	1.86	2.40
Cost/lb Gain, ¢	58.69	65.00
<b>Days 7-14</b>		
ADG, lb	.63	.69
ADF, lb	.73	.73
F/G	1.18	1.07
Cost/lb Gain <sup>1</sup> , ¢	24.30	29.14
<b>Days 0-14</b>		
ADG, lb	.44	.46
ADF, lb	.55	.55
F/G	1.26	1.23
Cost/lb Gain <sup>1</sup> , ¢	30.63	33.35
Net Return, \$/Pig@80¢/lb	3.11	3.01

KNG; 240 pigs/trt; 28 pens; Avg. Initial Wt., 13.8 lb

<sup>1</sup> Starter effect (P ≤ .05)

continued

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During Days 0-7, pigs on the two-phase program had numerically better gain, feed efficiency and cost of gain compared to those on the one-phase diet. The poor feed efficiencies were a result of the pigs having some sickness the first few days before they started eating and growing better as observed during Days 7-14. During Days 7-14, the pigs on the one-phase program had numerically better gain and feed efficiency compared to those on the two-phase program. In contrast, cost of gain was higher on the one-phase program. After 14 days on test, the pigs performed the same between both programs with cost of gain being significantly lower on the two-phase program compared to the one-phase program along with a slightly higher net return (\$0.10/pig). Net return is calculated as the value of pig gain (at \$0.80/lb) minus the feed cost to put that much gain on. During Days 14-34, all pigs were fed standard NexGen 25-40 grind and mix diets for the next 20 days as shown in Table 2.

**Table 2. Effect of Two-Phase vs. One-Phase Starters on Performance & Economics in Pigs During Days 14-34 and Days 0-34**

Treatment	1	2
2 Phase (1st 14 Days)	√	-
1 Phase (1st 14 Days)	-	√
Common Diets (Days 14-34)	√	√
<b>Days 14-34</b>		
ADG, lb	.86	.87
ADF, lb	1.32	1.37
F/G	1.54	1.59
Cost/lb Gain, ¢	20.09	20.70
<b>Days 0-34</b>		
ADG, lb	.69	.70
ADF, lb	1.00	1.04
F/G	1.46	1.49
Cost/lb Gain, ¢	22.78	24.00
Net Return, \$/Pig@60¢/lb	8.72	8.53

*KNG; 240 pigs/trt; 28 pens; Avg. Initial Wt., 13.8 lb*

During Days 14-34, when pigs were all fed similar diets, there were no statistical differences in performance and cost of gain. Overall (Days 0-34), we had similar performance with a small numerical advantage in cost gain and net return (\$0.19/pig) for pigs fed the two-phase starters during Days 0-14 compared to the one-phase starter during Days 0-14.

### DISCUSSION:

For producers who want to use a two-phase starter program during Days 0-14, there are small advantages in cost of gain and a slightly higher net return by feeding pigs two separate diets. However, the product we formulated to be used as a “1 Starter Product” for the first 14 days does result in solid performance with the benefit of a producer ordering this product in bulk only and avoiding bags and labor costs. So this product (NexGen 1 Phase) will now be offered for producers wanting this option in their nursery programs.