



# NUTRITION NOTES

Innovation + Research from Kent Nutrition Group

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## SUPPLEMENTAL CHROMIUM IN KENT NEXGEN® ADVANCED PIG STARTERS

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Chromium is a trace mineral that helps with cellular uptake of glucose, which provides energy to support biological processes such as growth and immunity. Chromax® branded chromium tripicolinate is a scientifically researched source of organic, highly bioavailable chromium that when fed to sows helps improve number of pigs weaned as well as having a positive effect on carcass leanness when fed to finishing pigs. Our objective was to evaluate Chromax (to supply 200 ppb Cr) throughout the starter stages (32 days) on performance and economics. Prior to the 32-day test period, we fed all pigs NexGen® Advanced (NGA) 8-13 pellets for the first 8 days post-weaning. We conducted the following study at the Kent Research Farm with 450 pigs and 48 pens per treatment. The average initial starting weight was 12.7 lbs. The data are shown below:

Treatments	NGA	NGA + Chromax
<b>Days 8-15</b>	-	+
Average Daily Gain <sup>1</sup> , lb	0.59	0.67
Feed/Gain <sup>2</sup>	1.15	1.04
Cost/Lb of Gain <sup>2</sup> , cents	48.4	43.6
Net Return <sup>1</sup> , \$/Pig @ \$0.80/Lb Live Weight**	1.45	1.87
<b>Days 8-22</b>		
Average Daily Gain <sup>3</sup> , lb	0.61	0.64
Feed/Gain	1.44	1.39
Cost/Lb of Gain, cents	45.9	44.4
Net Return <sup>4</sup> , \$/Pig @ \$0.60/lb Live Weight**	2.99	3.29

\*1st 8 days post-weaning pigs were fed NGA 8-13 pellets

\*\*value of pig weight gain minus feed cost

<sup>1</sup>Chromax effect (P = 0.001); <sup>2</sup>Chromax effect (P < 0.01); <sup>3</sup>Chromax effect (P = 0.11); <sup>4</sup>Chromax effect (P = 0.09)

During Days 8-15 (1st 7 days on grind and mix), we observed highly significant increases in gains (13.8%), and improved feed efficiencies (10%) along with markedly lower cost of gains (4.5 cents) and improved (P = 0.001) net returns of \$0.42/pig from supplemental Chromax, as opposed to those pigs on the control diets. While there were not significant improvements from supplemental Chromax during Days 8-22, we still had positive trends for improved gains (4.9%) and net returns of \$0.30 per pig. We did not find performance improvements from chromax during the last 18 days of this study.

### Summary

Based on the positive performance and economic responses to added Chromax, during the first 14 days on the grind and mix NexGen Advanced starter programs, we have incorporated this organic trace mineral into all of our early wean NexGen Advanced starters.

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