

# OPTIMIZING NURSERY PERFORMANCE WITH CHROMIUM

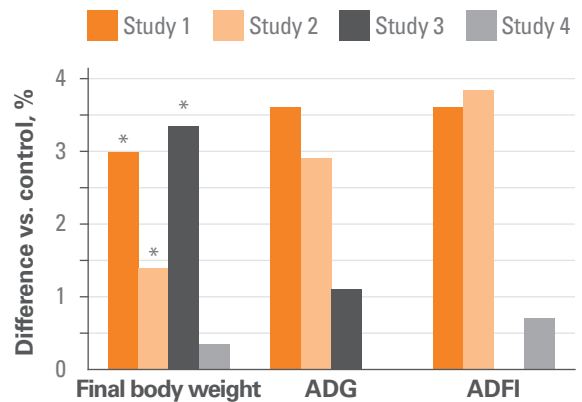
KemTRACE® Chromium — the first product of its kind on the market — is a safe, proven trace mineral for use in swine. This highly bioavailable, organic source of chromium propionate increases mobilization of blood glucose into tissues, allowing for improved performance in the pig’s hierarchy of needs. Key uses of cellular energy for swine include maintenance, reproduction and muscle or fat deposition. The net benefit is increased production and profitability in your operation.

## Benefits of chromium propionate in nursery

Larger pigs through weaning and nursery tend to be higher-performing pigs than their smaller counterparts over the span of their lifetime.

In order to maximize performance, nursery pigs must efficiently use the energy from feed. Efficient use of energy from feed results in improved average daily gain (ADG), average daily feed intake (ADFI) and increased body weight that ultimately results in an improved feed-to-gain ratio. KemTRACE Chromium supplementation may result in a positive response of these key metrics; however, there may be slight variation due to season, sex and each individual pig’s hierarchy of needs.

When four nursery pig studies were averaged, pigs supplemented with 200 parts per billion (ppb) of chromium propionate (KemTRACE® Chromium) were **on average 1.05 pounds heavier than pigs not fed chromium** at the end of the nursery period. The additional weight, less the additional feed cost associated with the heavier pig, provides an **excellent return on investment for KemTRACE Chromium supplementation.**



\* Means differ from their respective negative control at  $P < 0.05$ .

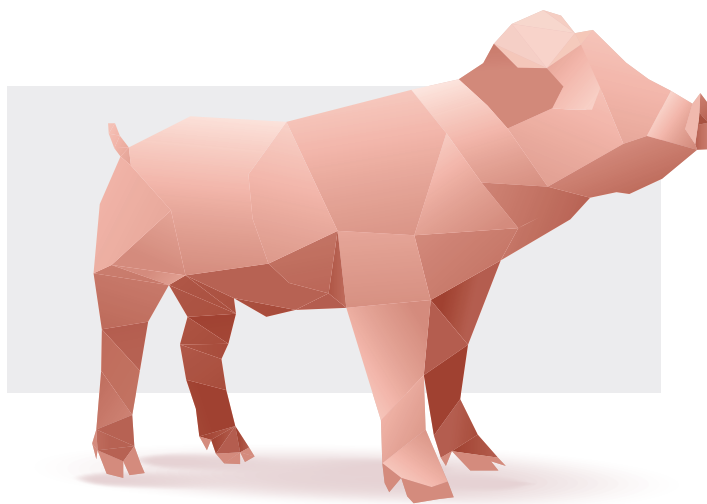
Figure 1: Summary of chromium propionate on nursery pigs research<sup>1-4</sup>



**Table 1:** Summary of results from nursery trials supplemented 200 ppb of KemTRACE® Chromium

Production parameter	Range of improvement*
Final body weight	0.22-1.80 lb.
Average daily gain	0-3.6%
Average daily feed intake	0-3.8%
Feed conversion	0-0.78%

\* Range of improvement based on the results of four nursery studies



**Table 2:** The effect of KemTRACE® Chromium on growth performance of nursery pigs supplemented at 200 ppb vs. control diets

	No. pigs	Final body weight, lb.			Average daily gain (ADG), lb.			Average daily feed intake (ADFI), lb.		
		Control	Chromium propionate	Difference	Control	Chromium propionate	Difference	Control	Chromium propionate	Difference
<b>Study 1</b>	234	47.3 <sup>b</sup>	48.7 <sup>a</sup>	1.41 lb.	0.84	0.87	3.6 %	1.10	1.14	3.6 %
<b>Study 2</b>	484	57.7 <sup>b</sup>	58.5 <sup>a</sup>	0.79 lb.	1.03	1.06	2.9 %	1.33	1.38	3.8 %
<b>Study 3</b>	360	53.8 <sup>b</sup>	55.6 <sup>a</sup>	1.80 lb.	0.95	0.96	1.1 %	1.30	1.30	0.0 %
<b>Study 4</b>	1000	57.7	57.9	0.22 lb.	0.97	0.97	0.0 %	1.49	1.50	0.7 %
<b>Average</b>	-	-	-	<b>1.05 lb.</b>	-	-	<b>1.9 %</b>	-	-	<b>2.0 %</b>

<sup>a,b</sup> Means with different superscript within a row differ at  $P < 0.05$

## Kemin is committed to quality and safety.

Kemin knows chromium. Only Kemin has invested more than 20 years and millions of dollars toward scientific research, validating the benefits of chromium propionate while bringing this essential trace mineral to millions of pigs around the globe. KemTRACE Chromium is the only FDA-reviewed source of chromium propionate on the market today.



[kemin.com/chromium](http://kemin.com/chromium)

#### REFERENCES

- Study 1: Chromium and Nursery Pig Performance, INF-2012-00003.
- Study 2: The Effect of Feeding KemTRACE® Chromium Propionate on Nursery Pig Performance, TD-10-00158.
- Study 3: Growth and Feed Conversion Response in Swine to KemTRACE® Chromium Propionate during the Early and Late Phase Nursery Period, WP-09-00062.
- Study 4: Effect of KemTRACE® Chromium Propionate Supplementation on Growth Performance from Wean to Finish Pigs, TL-10-00044.