

CHROMIUM FOR DAIRY META-ANALYSIS

Kemin conducted a thorough meta-analysis of 16 peer-reviewed scientific journal articles that evaluate the impact of chromium supplementation in dairy cattle. The findings not only confirm the benefits of chromium, but also provide a comprehensive statistical analysis of the advantages in production and profitability that dairy producers stand to gain.

Table 1: Summary of meta-analysis

| | ITEM | Chromium, mg | Control | Chromium | Difference | SEM | P-Value |
|------------|-----------------------|--------------|---------|----------|------------|-------|---------|
| | Dry matter intake, kg | 8.49 | 17.69 | 18.67 | 0.98 | 0.244 | < 0.001 |
| | Milk, kg | 8.91 | 34.25 | 35.80 | 1.55 | 0.344 | < 0.001 |
| Components | Fat, % | 8.04 | 4.11 | 4.06 | -0.05 | 0.062 | 0.432 |
| | Protein, % | 8.62 | 3.08 | 3.04 | -0.04 | 0.019 | 0.033 |
| | Lactose, % | 7.76 | 4.71 | 4.72 | 0.01 | 0.026 | 0.609 |
| Yields | Milk fat, kg | 7.88 | 1.32 | 1.39 | 0.07 | 0.009 | < 0.001 |
| | Milk protein, kg | 8.24 | 1.17 | 1.21 | 0.04 | 0.017 | < 0.001 |
| | Milk lactose, kg | 7.96 | 1.76 | 1.87 | 0.10 | 0.024 | < 0.001 |
| | Body weight change, % | 10.06 | -10.34 | -8.11 | 2.23 | 0.919 | 0.02 |

But what's the likelihood of achieving results on your operation?

98.5%

PROBABILITY THAT DMI WILL INCREASE BY 0.45 KG/HD/D

99.9%

PROBABILITY THAT MILK YIELD WILL INCREASE BY 0.45 KG/HD/D

96.9%

PROBABILITY THAT MILK YIELD WILL INCREASE BY 0.91 KG/HD/D

70.9%

PROBABILITY THAT MILK YIELD WILL INCREASE BY 1.36 KG/HD/D

The probability of achieving a positive response with chromium supplementation and, ultimately, a positive return on your investment is

100%.



KEMIN IS THE SCIENCE BEHIND HEALTHIER CATTLE.

Since 1961, Kemin has used advanced molecular science to develop **industry-leading solutions for gut health, ruminant nutrition and feed quality**. It's just one of the ways we sustainably transform the quality of life every day for 80% of the world with our 500+ ingredients, which are all **backed by technical, lab and product support**. This ensures you have a partnership where you get the most out of every product.

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SUMMARY

Harris, T. L., J. E. Hergenreder, D. J. Dickson, and M. D. Sellers. 2019. Effects of additional bioavailable chromium on dry matter intake, milk yield, and component production: a meta-analysis. American Dairy Science Association Annual Meeting, Cincinnati, Ohio. Abstract W179.

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