



Feeding Zinpro® Performance Minerals® Improves Milk Production and Reproductive Performance in Lactating Dairy Cows

Study Objective



Critically review randomized controlled trials evaluating the effectiveness of supplementing dairy cows with Zinpro Availa 4 or Zinpro 4 Plex.

Study Duration



20 research papers used in the analysis were published between 1997 and 2009.

Animals



Data from 20 published research papers and reports

Treatments

Fed starting pre- or post calving:

Zinpro Availa 4: 360 mg Zn, 200 mg Mn, and 125 mg Cu from amino acid complexes, and 12 mg Co from cobalt glucoheptonate

Zinpro 4 Plex: 360 mg Zn and 200 mg Mn from methionine complexes, 125 mg Cu from Cu lysine complex, and 25 mg Co from cobalt glucoheptonate

Location



Various research locations throughout the USA



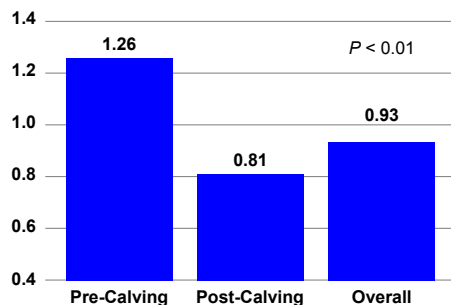
Results Summary

Supplementing dairy cows with Zinpro Performance Minerals resulted in:

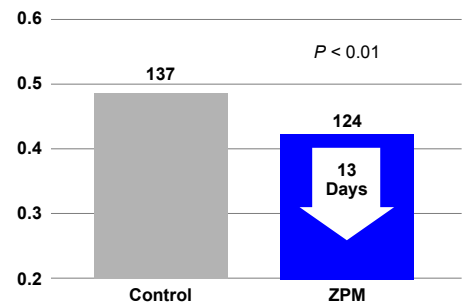
- ✓ Greater milk, ECM, and FCM production
- ✓ Greater milk solid content
- ✓ Fewer days open
- ✓ Fewer services per conception
- ✓ 5.6% more cows pregnant at 150 d post-partum

Feeding Zinpro® Availa® 4 or Zinpro® 4 Plex®, increases cow productivity and economic return.

Zinpro Performance Minerals Increased Milk Production, kg/d



Zinpro Performance Minerals Reduced Days Open, d



Zinpro Performance Mineral Economic Return

Item	Zinpro Availa 4 / Zinpro 4 Plex
Milk price, \$/kg	0.30
Zinpro Performance Mineral investment, \$/cow/d	0.04
Open cow cost, \$/d	3.0
AI, \$/service	20
Milk production increase, kg	0.93
Reduction in days open, d	13.46
Reduction in services/conception	0.27
ROI (per calving interval)	9:1

Rabiee, A. R., I. J. Lean, M. A. Stevenson and M. T. Socha. 2010. Effects of feeding organic trace minerals on milk production and reproductive performance in lactating dairy cows: A meta-analysis. J. Dairy Sci. 93:4239-4251.

