

ZPM in the Transition Period Improves Postpartum Cow Performance and Metabolic Responses

Study Objective

Evaluate the effects of supplementing Zn, Mn, Cu, and Co from Zinpro Performance Minerals® (ZPM) during the peripartur period (-30 through 30 DIM) on cow health and performance.

Animals

44 multiparous Holstein cows

Treatments

Control: daily bolus of 40, 20, 5, and 1 mg of Zn, Mn, Cu, and Co/kg DM from sulfate sources

ZPM: daily bolus of 40, 20, and 5 mg Zn, Mn, and Cu/kg DM from Availa®Zn, Availa®Mn, and Availa®Cu and 1 mg Co/kg DM from COPRO®

Study Duration

Pre-calving period (d -110 to -31): All cows were offered a common diet supplemented entirely with sulfate sources of trace minerals

Transition period (d -30 to 30 DIM): cows were fed a common diet with 35, 45, and 6 mg Zn, Mn, and Cu/kg DM from sulfate sources and one of two daily oral mineral bolus treatments

Location

University of Illinois, IL, USA

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IS-D-004
DL-696, 697, 699, 704



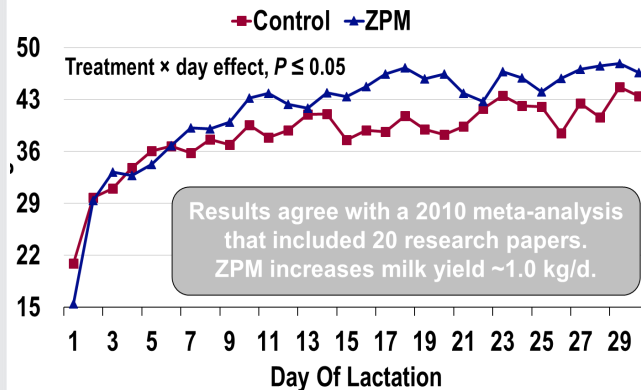
Results Summary

Feeding ZPM to dairy cows from 30 d pre-partum through 30 d post-partum:

- ✓ Increased DMI and milk components
- ✓ Improved metabolic status and immune function

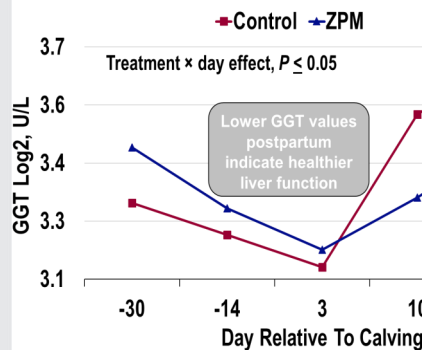
Feeding ZPM to peripartur dairy cows improves transition cow health and production efficiency.

ZPM Increased Milk Yield, kg/d

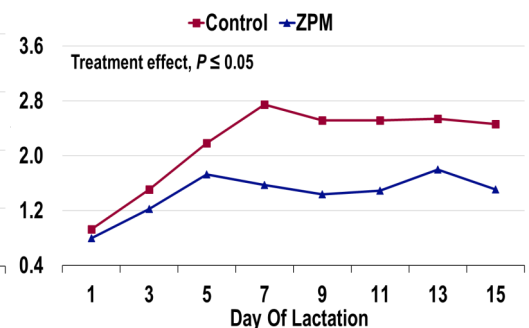


Feeding ZPM lowers cost/45 kg milk production by 8%

ZPM Improved Liver Function^a



ZPM Lowered Blood Ketones, mmol/L



^a Gamma-glutamyl transferase (GGT); indicator of liver function

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Osorio, J. S., E. Trevisi, C. Li, J. K. Drackley, M. T. Socha, and J. J. Looor. 2016. Supplementing Zn, Mn, and Cu from amino acid complexes and Co from cobalt glucoheptonate during the peripartur period benefits postpartur cow performance and blood neutrophil function. *J. Dairy Sci.* 99:1868-1883.