

Localized Equine Joint Inflammation Model Provides Insight Into Zinpro Performance Minerals®



ZPM Supplementation Supports a Greater Initial Inflammatory Response Indicating a Better Equipped Immune System

The presence of lipopolysaccharides (LPS) within a joint triggers the inflammatory process. Tumor necrosis factor- α (TNF α) is released, which stimulates the generation of pro-inflammatory prostaglandin E₂ (PGE₂) from healthy cartilage cells. Subsequent changes in cartilage are reflected by synovial concentrations of peptides that promote collagen synthesis (CPII), collagen breakdown (C2C), and synthesis of aggrecan, a component of cartilage that withstands compression (CS-846).

Growing horses were challenged with an injection of LPS into the joint. Horses receiving Zinpro Performance Minerals® (ZPM) had:

- Greater PGE₂ synovial concentrations 6 h post-injection
- Earlier peak in CS-846 (12 h)
- Greater C2C levels

CONCLUSIONS

- Results illustrated that horses fed ZPM had a more robust inflammatory response.
- This provided for degradation of damaged cartilage and a more rapid replacement of components critical for joint function.

Figure 1. Inflammation: PGE₂

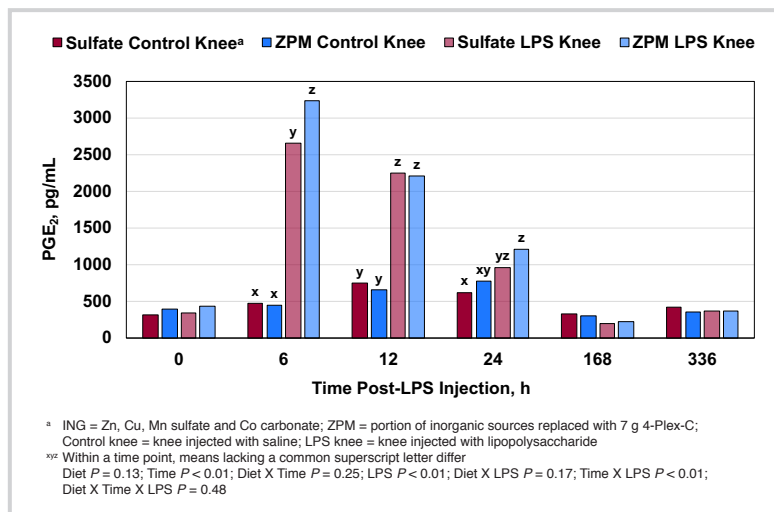


Figure 2. Aggrecan Synthesis: CS-846

