

# Inflammation and Reproduction



The transition period is one of the most stressful times in the life of cattle. After parturition, a metabolic shift occurs related to the initiation of lactation. During this time, the cow's reproductive tract must also prepare itself for future pregnancies. This involves tissue remodeling and clearing of pathogens. Feeding Zinpro Performance Minerals® during the dry period has been shown to encourage an earlier, more efficient remodeling of the endometrium than cows fed inorganic trace minerals, as evidenced by the increase in expression of genes involved in pro-inflammatory pathways fourteen days after calving and then returning to lower levels at day 30 (Figure 1).

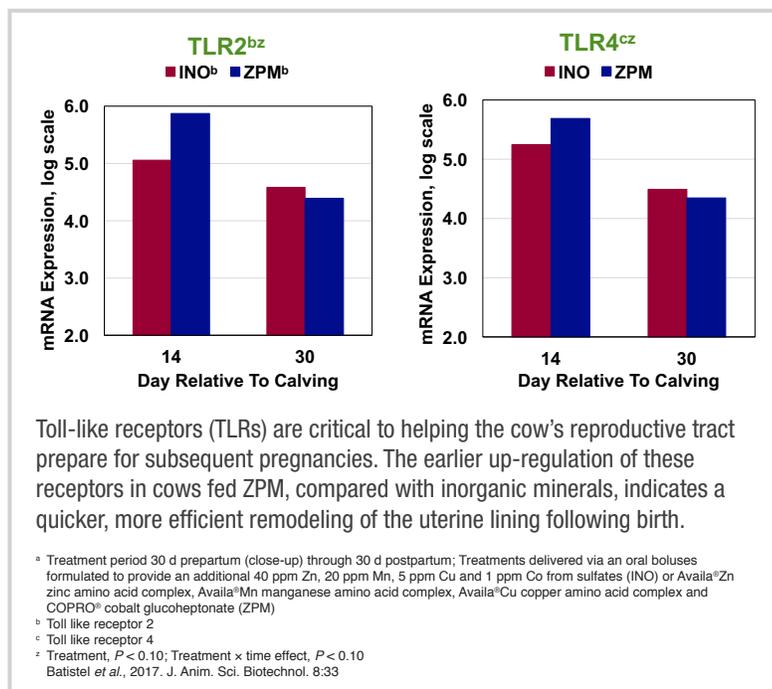
Zinpro Performance Minerals have been shown to improve reproductive performance in cows that experience transition disorders, similar to that of animals that did not experience a disorder (Figure 2). The same response was not observed when cows fed inorganic minerals experienced a transition health disorder.

## CONCLUSIONS

Feeding Zinpro Performance Minerals®

- Improves reproductive tract repair post-birth
- Limits the negative impact of transition disorders

**Figure 1. Effect of Trace Mineral Source on Endometrium Tissue Gene mRNA Expression**



**Figure 2. Effect of Trace Mineral Source and Transition Health Disorders<sup>a</sup> on Pregnancy Rates**

