

## New from Milne Feeds - Selected Pegasus feeds now contain KER BMC™. KER BMC is research-proven to provide multiple benefits

**Inclusion of KER BMC in horse feeds provides three key research-proven benefits to horses: (1) improved bone density; (2) improved gastric health; and (3) improved hindgut health.**

KER BMC has been shown in research studies conducted by Kentucky Equine Research to serve as a potent buffer in both the stomach and large intestine, and as a key component of a new supplement shown to increase bone density.

Reducing acid load in both regions of the digestive tract is important to maintain health. Limestone (calcium carbonate) is commonly used as a source of calcium in feeds and has some ability to buffer acid.

KER BMC contains several bioavailable minerals and, when included in horse feed, serves as an alternative to limestone as a calcium source while providing greater buffering capacity throughout the digestive tract.

Recent studies have shown that omeprazole use can reduce calcium digestibility by 20%. However, the greater digestibility of the calcium in KER BMC combined with its greater solubility at higher pH means that KER BMC is less affected by omeprazole than traditional calcium sources such as limestone.

### Bone Density

Bone density is an indicator of bone strength, and low bone density is associated with a higher incidence of skeletal problems such as fractures, shin soreness, splints and sesamoid issues, as well as osteochondrosis in weanlings.

Triacton™, a supplement recently developed by Kentucky Equine Research, includes KER BMC and has demonstrated efficacy in increasing bone density in Thoroughbred racehorses (Figure 1a).

Horses receiving Triacton had a 3-fold greater increase in bone density in the dorsal cortex of the cannon bone (shin) and a 2-fold increase in dorsal cortical thickness and bone width compared to horses receiving a placebo.

Studies were also performed in Thoroughbred weanlings in which supplementation with Triacton positively affected bone mineral density compared with non-supplemented horses (Figure 1b).

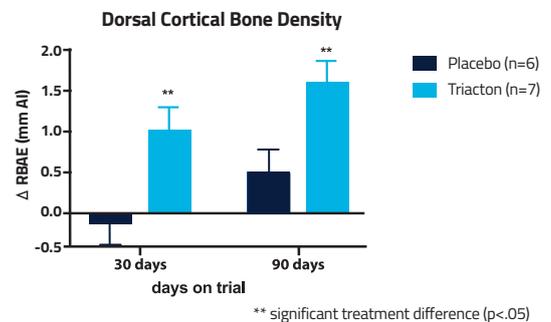


Figure 1a. Dorsal cannon bone density in racehorses

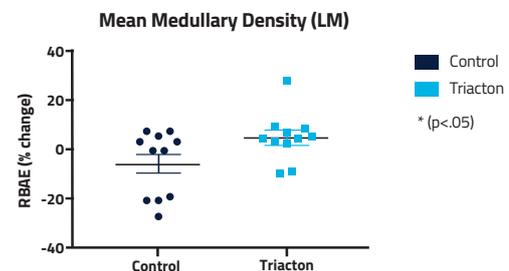


Figure 1b. Lateral medial cannon bone density in TB weanlings



Contact our WA based Equine Nutrition Advisor,  
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## Gastric Buffer

Laboratory studies at Kentucky Equine Research have shown that KER BMC in horse feed increases buffering capacity by 2.7-fold in acid conditions typically seen in the stomach. In vivo studies further confirmed the buffering capacity of KER BMC as horses fed sweet feed with KER BMC had greater gastric fluid pH one hour post feeding (6.2 vs 3.7) than those fed sweet feed alone (Figure 2). Excessive acidity is a major factor in the development of gastric ulcers in horses.

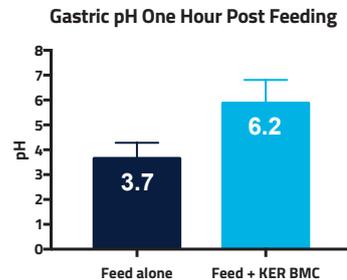


Figure 2. Gastric pH one hour after consuming feed fortified with or without BMC. ( $p < 0.01$ )

## Hindgut Buffer

Excessive acid production in the large intestine can lead to hindgut acidosis. Hindgut acidosis often occurs in horses with high grain intakes or in horses grazing rich pasture. Symptoms of hindgut acidosis include poor appetite, loose manure, chronic colic and stereotypic behaviors such as wood-chewing and stall-walking. Acute hindgut acidosis can lead to intestinal damage and even laminitis. Research at Kentucky Equine Research has shown that horses fed feeds fortified with KER BMC have a 54% better capacity to buffer acids produced in the horse's hindgut compared to the same unfortified feed (Figure 3).

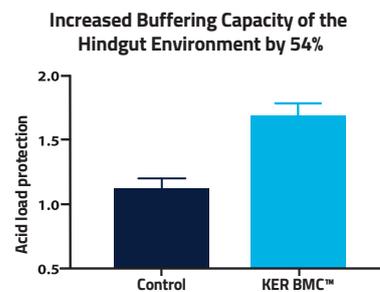


Figure 3. Buffering capacity of feces from horses fed feeds fortified with or without BMC

## KER BMC - now included in Pegasus Equibalance, Performax, Sweetmax and Studmaster

- KER BMC is the major ingredient in a new supplement KER Triacton, research-proven to improve bone mineral density
- KER BMC supports gastric health – effective stomach buffer
- KER BMC supports hind gut health – attenuates acidosis in hindgut
- Highly digestible form of calcium
- Recommended for young, growing horses including weanlings and yearlings
- Recommended for performance horses, especially those at risk of shin soreness and/or gastric ulcers and/or Big Head disease from grazing high-oxalate pastures



**MILNE** Feeds

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