VETERINARY FORMULA
Wiser Concepts™

BoneWise™

Vitamin and mineral supplement to support bone development in horses of all ages.

General Information

Efficient bone remodeling is essential to proper development, soundness, and longevity in the horse. BoneWise contains a unique calcium and trace mineral source derived from a calcareous marine alga known as Lithothamnion. The natural minerals in this ingredient are easily digested and absorbed by the horse. They positively affect the maintenance of optimal bone remodeling and healthy bone density.

Indications

Bone remodeling occurs continuously throughout a horse's lifetime. As horses age, health status, housing situation, management, and training and competition schedules affect bone density on a daily basis.

Layup and convalescence.
When horses are kept in stalls due to injury or illness, stimulation to the bones is insufficient to maintain optimal bone turnover and bone density is quickly lost. Supplementation with 4 ounces per day of BoneWise supports healing and a reduction in bone density losses. The nutritional support provided by BoneWise may help to shorten recovery periods and protect a horse from additional injuries as it returns to work.

Demanding training or competition schedules that keep a horse confined to a stall.
Research shows one of the keys to healthy bone formation is exercise. Exercise supports bone density and stimulates bone remodeling. Inadequate exercise reduces both remodeling and bone density. Athletic horses are at increased risk for lameness and injury from both lack of bone density and microtraumas. Microdamage that is repaired too slowly or left unrepaired is a precursor to more severe injuries. Remodeling repairs microscopic bone damage caused by recurring microtraumas. When horses are kept in stalls for extended periods, even when they receive some daily exercise, the stimulation to bones is insufficient to maintain optimal bone turnover and bone density. Supplementation with 4 ounces per day of BoneWise supports a reduced risk of bone loss and related injuries.

Third trimester broodmares, growing horses (weanlings, yearlings and 2-year-olds) or horses exhibiting signs of bucked shins, osteochondritis dissecans (OCD), and other developmental bone diseases.
Remodeling is most active in young, growing horses. Remodeling allows bones to adjust to the physical stress new activities put on the skeleton. As in older horses, remodeling repairs microscopic bone damage caused by recurring microtraumas. The ingredients in BoneWise have been shown to positively affect the maintenance of optimal bone remodeling and healthy bone density, lowering the risk of bone-related injuries and developmental diseases. Four ounces per day of BoneWise will support the optimal nutrition needed for proper skeletal development.

Dosage and administration

FEEDING RECOMMENDATIONS
1 scoop = 2 oz

Mix into feed at the rate of 2 scoops (4 oz) daily for all classes and ages of horses. When possible, split the amount into two 2-oz servings per day.

AVAILABLE SIZES
10 lb (4.53.kg) bucket (contains 80 scoops)
20 lb (9.09kg) bucket (contains 160 scoops)

SAFETY
BoneWise is recommended for all horses, including foals, weanlings, yearlings, gestating mares, lactating mares, geldings, and stallions. When fed at the recommended levels it will not adversely affect the mineral balance of a correctly balanced ration.

To ensure the efficacy of BoneWise for the entirety of its shelf life, store it in a cool, dry place and reseal the lid during storage. Shelf life is 18 months from date of manufacture when stored under suitable conditions.

GUARANTEED ANALYSIS

	Per 4 oz	Concentration
Calcium (Min.)	16 g	14%
Calcium (Max.)	18 g	16%
Magnesium (Min.)	3,400 mg	3%
Zinc (Min.)	97 mg	860 ppm
Copper (Min.)	43 mg	380 ppm
Manganese (Min.)	41 mg	360 ppm
Vitamin D3 (Min.)	3,750 IU	15,000 IU/lb

BoneWise contains no added selenium.

INGREDIENTS

Seaweed-derived calcium, ground wheat, flaxseed meal, yeast culture, soybean oil, magnesium oxide, zinc polysaccharide complex, copper polysaccharide complex, manganese polysaccharide complex, vitamin D3 supplement.

Calcium from Lithothamnion

BoneWise contains a unique form of calcium, a calcareous marine alga know as Lithothamnion, which is rich in highly digestible calcium and trace minerals. The minerals found in Lithothamnion are arranged in a distinctive honeycomb construction that increase digestibility. Because of its varied crystalline forms and honeycomb structure, Lithothamnion provides a large surface upon which digestive enzymes can act, allowing for the optimal release and uptake of minerals over extended periods of time. Lithothamnion contains the trace minerals magnesium, boron, silicon, zinc, and manganese, all of which play a role in bone formation and remodeling.

Research conducted at Michigan State University on two groups of yearlings—one supplemented with Lithothamnion, the other (the control) supplemented with calcium carbonate—revealed that the Lithothamnion group showed significant difference in blood markers of bone metabolism and bone density as compared to the control group. Osteocalcin, which is a measure of bone formation, and CTX-1, a measure of bone resorption, were both higher in the supplemented group, indicating a positive effect on bone metabolism. Bone density within the supplemented group remained unchanged over time; however, the control group exhibited a significant decrease of 14% in bone mineral content over the same time period. Although both groups started at similar levels of bone mineral content, the supplemented group had 11% greater bone mineral content than the control group at the end of the supplementation period.

Vitamin D

Vitamin D is critical to mineral metabolism and bone growth. It facilitates the absorption of calcium in the small intestine by stimulating proteins known as calcium transporters. The transporters move the calcium out of the lumen of the intestine, across the epithelial cells, and into the bloodstream. In the bone, vitamin D regulates the balance of calcium and phosphorous necessary for proper bone mineralization.

Yeast cultures

Yeast positively supports enhanced mineral absorption by improving microbial metabolism of enzymes and vitamins. Calcium absorption by enterocytes (cells in the intestinal lining) is stimulated in the presence of yeast, and microbial enzymes improve phosphorus absorption.

Developed by:

Kentucky Performance Products LLC

PO Box 1013, Versailles, KY 40383
KPPvet.com
859-873-2974, 800-772-1988

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