

Caldensity Black Label Ingredients

Proprietary Organic Calcium

According to a study sponsored by Trouw Nutrition organic calcium **increased bone density** in just 120 days, while it also **increased calcium digestibility in young horses**.

These findings are extraordinary because calcium is the most important nutrient in bone content, muscle function and electrolyte maintenance.

The body maintains its largest stores of calcium in its bones. A horse manages or regulates calcium in much the same manner as the engine in your car regulates the use of gasoline. When the engine needs more gas it gets it from the tank until it runs out and eventually fails.

Muscles require lots of calcium. The more intense the workload, the greater the supply of calcium is needed. It becomes extremely challenging on race day with the use of the medication Lasix. This diuretic is often responsible for 100-150 lbs of body weight lost in the form of much needed calcium and other fluids.

The massive loss of calcium is often so great that horses will suffer post-race from a syndrome called "Thumping". It is a severe calcium deficiency that causes a horse's body to "thump" or shake and only a veterinarian providing calcium intravenously will most likely stop a horse from experiencing cardiac failure.

It is pretty easy to understand now how proper maintenance of calcium throughout the body is so crucial to high performance and strong healthy bones.

Interestingly, the horses in the West Texas A&M University bone density trials were raised on the rock hard ground of a 1,000-acre West Texas ranch. Quarter horses have much stronger and much denser bone than thoroughbreds, especially compared to the thoroughbred foals raised on the lush green pastures in Central Kentucky.

Oddly, quarter horses and standardbreds experience dramatically fewer bone injuries than thoroughbreds. According to a study conducted by Dr. Gary Norwood and presented at the AAEP (American Association of Equine Practitioners) national convention, there are at least two reasons for the skeletal problems plaguing thoroughbreds. One is nutrition and the other is the training techniques. The combination apparently results in fatigue fractures (bucked shins) in approximately 70% of thoroughbreds aged 18-36 months.

It is surprising because quarter horses are so much larger and sprint so hard, while standardbreds train and race on much harder surfaces like limestone.

The Norwood report explained that this is the same with human long-distance runners experiencing stress fractures while it is very rare that human sprinters ever suffer bone problems.

The Organic Calcium is a break-through ingredient but is only a part of the puzzle. The introduction of training regimes designed to increase bone density and bone flexibility must become a greater priority. And finally, avoiding the use of Lasix must become an alternative again.

Proprietary Organic Minerals

CalDensity® incorporates five unique organic mineral complexes: calcium, zinc, copper, magnesium and manganese. Each of these can be used by the body without the fear of creating mineral imbalances unlike the challenges faced when feeding inorganic compounds. Each has been tested for stability and digestibility and have been found far superior to other organic minerals over 100% higher than many inorganic minerals. Results with your horse may vary based on many factors.

All of the minerals have been the subjects of university research. These findings can be learned by visiting the "Science" page.

It is important to note that on the CalDensity® label, each of the minerals is listed separately as part of the Ingredient Statement. These organic minerals are classified as proteinates by the American Association of Feed Control Officials (AAFCO). This designation allows for proper labeling that meets the AAFCO standards, an important step in qualifying for registration of CalDensity®.

Proprietary Hyaluronic Acid - *USA Formula Only*

Our unique complex that provides your horse with a wonderful blend of hyaluronic acid (75mg/maintenance 1.5-oz 1/2-scoop, 150mg/full strength 3-oz full scoop, and 300mg/maximum-research strength 6-oz 2 scoops), glucosamine, glucuronic acid and chondroitin sulfate. This comes from animal By-Product Meal sources that are approved for use in equine feed and feed supplements here in the USA. Due to labeling laws here in Kentucky, this ingredient can only be presented as "Animal By-Product Meal". Our independent laboratory analysis will prove exactly how much Hyaluronic Acid, glucuronic acid and chondroitin sulfate is present in each batch. It is important to understand that bone trauma of any type stimulates the body to produce prostaglandins and other potentially deteriorating enzymes that are dumped into the synovial fluid between the bones in joint space. These enzymes can interfere with cartilage as it is forming. HA is often injected and/or fed to horses in order to provide the body with a greater ability to

improve the culture of the synovial fluid. The indirect but potentially healthy effect on bone development would come from protecting cartilage as it is forming. Cartilage begins to form on the lining of the synovial capsule and eventually turns into bone.

Proprietary Hyaluronic Acid - *International Formula Only*

A naturally occurring vegetable source of collagen and hyaluronic acid, this is a HUMAN GRADE nutrient and a key part of the potential influence that CalDensity® can provide your horse. From this naturally occurring source, approximately 150mg of HA can be found per 6-oz 2 scoops serving of CalDensity®.

Proprietary Inulin

CalDensity® contains a proprietary Belgian sourced brand of inulin*. Inulin is considered a prebiotic that promotes a healthy gut. Inulin is a fiber that can help digestion. Studies also suggest that adding inulin to calcium-rich foods may boost calcium absorption. thus, inulin can create an indirect effect on bone formation and muscle function. This is important not only when providing CalDensity®, but in digesting all forms of feed.

Proprietary Kaolin - Boron Complex

CalDensity® contains a proprietary brand of kaolin which is most famous from human stomach anti-acid products. It's job is to soothe the often irritated lining of a horse's stomach. It is also a natural source of boron, a key mineral for bone health.

Proprietary Betaine

CalDensity® contains a proprietary brand of betaine hydrochloride that is fed to increase moisture in cells throughout the body. This is important in bone matrix development because cartilage is over 80% water. Betaine allows a cell to hold on to electrolytes longer.

Proprietary Silicon

CalDensity® contains a proprietary brand of silicon, that is used for two reasons: to allow the powder to maintain a free-flowing consistency and it has been shown in some studies to increase calcium digestibility.

Lysine and Threonine

(Black Label formula key amino acids)

CalDensity® contains a pair of the most important amino acids - Lysine and Threonine. Proteins are made up of linked amino acids. They serve as structural components for muscle and ligaments in the body and are a source of energy. There are 22 amino acids that are needed by the horse, but not all of them are necessary in the horse's feed. Non-essential amino acids are produced in the body tissues and therefore are not necessary. However, the essential amino acids, like lysine and threonine, must be provided in the diet or synthesized by the microorganisms in the intestine.

Stabilized Rice Bran, Gamma Oryzanol, plus Omega 6 & 9 fatty acids

A proprietary brand of stabilized rice bran that contains approximately 20% fat that on a per pound basis contains the equivalent to 8 ounces of vegetable oil. It contains high levels of natural vitamin E, a powerful and safe antioxidant that is essential for healthy muscle function. It provides a natural source of Gamma Oryzanol (3,000-mg/lb). This nutrient has been supplemented with confidence for years in an effort to assist in the production of healthy muscle mass. It is also an excellent source of Omega 6 and 9 fatty acids that support many activities in the body.

Proprietary Yucca

Yucca is considered an ammonia scavenger. Ammonia is the result of protein waste or nitrogen excess in the body. Yucca is a natural substance that has the potential of binding the excess protein that can be found in many horses both at the farm and at the track. These toxic nitrogen levels can come from pasture that has been fertilized with heavy nitrogen levels or nitrogen rich alfalfa being fed at the racetrack. It is simple to know if a horse is getting too much nitrogen by smelling the urine and detecting the ammonia present in the urine. A groom can identify this problem without any teaching necessary. The addition of force fed sea salt to a horse's diet is recommended to support the removal of protein excess.

Proprietary Ground Flax & Omega 3 fatty acid source

It is a proprietary brand of ground Flax Seed, a nutrient rich source of Omega 3 essential fatty acids. A horse is not capable of producing these and must be acquired through the feed. It is particularly important to note that applying any heat to Omega 3 fatty acids will kill their potency. This product will have no effectiveness if delivered in a pellet. Low levels of Omega 3 fatty acids often result in cracked hoofs. Benefits of daily use of this in a horse's diet have been the potential to be any of the following: helping skin conditions; increased bone strength; improved skin and coat condition; pregnant mare have often produced larger offspring with faster healthy growth and stronger hooves;

valuable source of digestible energy (great to feed during the cold months or during times of stress to prevent weight loss); may increase oxygen uptake to the cell; can decrease recovery time from strenuous exercise.

Proprietary Brewer's Yeast

Contains B vitamins, essential branched chain amino acids (BCCA) leucine, isoleucine and valine these are of special importance for athletes because they are metabolized in the muscle rather than in the liver.

CalDensity® is PRESERVATIVE FREE and ships direct

CalDensity® is a PRESERVATIVE-FREE formula that is shipped direct to the customer anywhere in the world within 10 business days. Packaged in resealable, airtight plastic containers insuring maximum freshness, CalDensity® is made in small batches and maintains a 12-month potency life. Each batch is independently tested to prove that what we say is in the product is actually in there.

CalDensity® is DENSE

The formula contains 99% active ingredients with 48% of the formula consisting of a stabilized rice bran base. An essential aspect of the CalDensity® formula is the avoidance of heat. This process protects the fragile naturally sourced amino acids, essential fatty acids and Hyaluronic Acid. Any heat can compromise potency. Steam or heat formed pellets can kill the potency of many of the key nutrients in other supplements and pelleted compound feeds.

DO NOT FEED TO CATLE OR OTHER RUMINANTS