## EQUINE PRODUCT PROFILE

## **HISCORBADYNE**

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his powder contains both **Ester C**<sup>®</sup> (a patented form of Vit C bonded with calcium which has proven in laboratory studies to be 4x more accessible to the body than ascorbic acid and with far less or no stomach upset) and Vit P, the rutin/bioflavanoid cofactors which enhance the efficacy of Vit C. It is because of this Vit P addition that we prefer **Hiscorbadyne** to "plain" **Ester C**<sup>®</sup>. Unfortunately, due to current AAFCO labeling regulations, and despite research showing its value, this co-factor of Vitamin C can only be labeled as "citrus by-product meal." Hopefully this will change.

Originally designed to aid capillary strength of race track "bleeders" (EIPH/exercise induced pulmonary hemorrhage), which it has accomplished very successfully, it has also been found to be invaluable for further respiratory challenges as well. Numerous *DYNAMITE* horses over the years with both EIPH and "heaves" (COPD/chronic obstructive pulmonary disease) have been restored back to full working/campaigning potential following *Hiscorbadyne* use.

Even though horses supposedly make their own Vitamin C, modern usage and stresses consume this quickly. <u>Horse Journal</u>, August 2003 contaned an article titled "Antioxidants are Cheap Insurance" that stated: "The antioxidant status of many horses is borderline at best. Exercise, disease, infections, injuries, drugs, and aging all increase antioxidant requirements."

Some of their reasons to use Vit C include:

- 1. To help prevent exercise-related muscle damage and soreness
- 2. To improve the quality of fresh and stored semen
- 3. To improve utilization of carbohydrates and fat as energy sources
- 4. To protect nervous system, retina and lens from oxidation damage
- 5. To enhance immune system and prevent imbalances, such as allergies
- 6. To improve lung function

And in March 2004, the Horse Journal further reported in "Confirmed: Vitamin C Can Help Horses Battling Heaves:" "Vitamin C and its cofactors - the bioflavonoids like hesperidin, rutin and quercetin - are ingredients you definitely want to look for in supplements for horses with COPD. A study in the January 2004 American Journal of Veterinary Research looked at the vitamin C levels in fluid from the lungs of horses with chronic obstructive pulmonary disease (COPD) and compared it to normal horses. Significantly lower levels of active vitamin C were found in the airway fluids from horses with COPD, commonly called Heaves. The lowest levels were in horses that also had active inflammation, but even cur-

rently asymptomatic horses had levels lower than in normal controls. A previous study by the same authors had documented lower levels of inflammatory markers in horses given an antioxidant supplement. Vitamin C is an antioxidant important in controlling tissue damage during inflammatory states. Other studies also clearly demonstrated oxidative stress in the lungs of horses with COPD/heaves, though, so these latest findings aren't a total surprise. What they do, however, is document for the first time that Vitamin C is specifically in short supply."

Additionally, according to Dr. Alan Clemetson of Tulane University Medical School, adding extra Vit C for about a week before and after vaccinating a healthy horse helps mount an appropriate immune response and mitigates possible side effects of the vaccine. The key word here is "healthy" and horses with either EIPH or COPD are *not* healthy; in fact, vaccines seem to exacerbate their symptoms.

Because Vit C is so important for cellular strength, tendon/ligament integrity and collagen production, many find using **Hiscorbadyne** imperative when having chiropractic adjustments on their horses; it seems to help them hold the adjustments far longer and better. In fact many owners of working athletes find the addition of this product to benefit their horses in overall health and strength. Because of this, it is included in **Free and Easy**.

Many distributors give their horses extra **Hiscorbadyne** any time they are going to be under extra stress, especially during campaigning when exposed to not only travel stresses but also horses from all over the country. In fact, many rely on the apparently greater immune system boost of **Hiscorbadyne** and its sister **SuperStress** (used more short term for acute illnesses because of the extra blood builders contained in it), rather than on shooting more vaccines into their horses. Linus Pauling, winner of two Nobel Prizes, claims that sufficient amounts of Vitamin C can overcome virtually any virus.

AS WITH ANY DENSE, POWDERED FEED ADDITIVE, it is best to "fluff" the powder before measuring and add it to slightly moistened feed (spray with a water bottle) so it does not get snorted out by the horse. We have found the addition of a little bit of **DynaSpark**, between ½-1 oz. (depending on amount of powders and horse's resistance), to be invaluable in equine acceptance of some of these more bitter tasting items. Horses love the taste of **DynaSpark** and the extra electrolytes at minimal levels are simply an added bonus.