

Vitamin E

The role of Vitamin E in your horse's health and well being is a critical one.

You may ask yourself, why Vitamin E? After all, there are so many Vitamins, A, B1, B2, B6, B12 even, then of course there's Vitamin C (an old favourite) and Vitamin D shouldn't be forgotten either. So why - why is Vitamin E so special that it gets an entire article devoted to it?

Well, have a look at the following list of scenarios of situations where your horse may benefit from Vitamin E supplementation;

- Is green pasture virtually non-existent in your horse's diet?
- Is your horse extremely fit?
- Is your horse fed a high grain diet?
- Is your horse prone to tying-up?
- Is your horse tense and nervous?
- Is your horse confined to stables for long periods of time?
- Does your horse suffer from muscle soreness and stiffness?
- Does your horse lack colour in his gums?
- Is your horse inclined to catch coughs and colds?
- Is your horse exposed to creosote-painted fences?
- Is your horse rehabilitating from a recent injury?
- Is your horse a "senior citizen" of the equine world?
- Do you have poor conception rates for mares on your farm?
- Does your stallion have a low fertility rate?
- Has your horse been diagnosed with a neurological disorder?

Obviously, with many parts of the country in various stages of drought, the availability of green pasture is very scarce, and as any literature on equine nutrition will tell you, green pasture is the primary source of vitamin E for most horses. Hence, supplementation may be something you should consider for your horse.

Vitamin E is an antioxidant, - but what exactly does that mean?

Firstly, we will discuss oxidation, which is a process that starts when oxygen is used by the cell to burn glucose. This creates "free radicals", a highly reactive by product that attacks phospholipid cell membrane. This in turns initiates a chain reaction of damage to phospholipid molecules.

The amount of oxidation is determined by the level of activity of your horses cells, - the more active they are, the greater and faster the production of free-radicals, and therefore, the greater the need for anti-oxidants. Horses that are fighting off an illness, infection or injury, are competing at a high level, doing intense work, are stressed, having a growth spurt, are all more susceptible to damage from free-radicals.

As an antioxidant, Vitamin E intervenes by donating an electron to the free radical and neutralising it - therefore, stopping the oxidation (hence the name: ANTI-oxidant).

Vitamin E then recharges itself by picking up an electron from Vitamin C before repeating the process to neutralise another free radical.

The process of Vitamin C donating an electron to Vitamin E is facilitated by Selenium.

Copper and Zinc are also involved, increasing the speed at which the antioxidation process occurs.

As we often say, it is about providing your horses with a well-balanced diet, because there is so much interaction between the vitamins, minerals and trace elements. In fact, if you take nothing from the explanation of the anti-oxidant process above, other than it is a complex scenario that involves the interaction between several nutrients, then you have definitely learned something.

It will also help you understand why at Horsepower, we place so much emphasis on what the label on the back of the bag says – because that's where you'll find the nitty-gritty information about just how good a feed is.