



BUSINESS BROCHURE

PRODUCT DETAILS

Hoofgrow[™] has a formula high in sulphur that will help your horses to have the nutrient-rich diet they need to help improve the integrity of the hoof and optimise its growth. It consists of the sulphur-rich nutrient MSM and amino acid Methionine. The reason sulphur is so important is that keratin sulphate contains a high level of sulphur and this is crucial to the strength of your horse's hoof horn. It also contains Biotin, Zinc, which helps the epidermal tissue to heal, Calcium which is crucial for the hoof wall's cohesion and a variety of amino acids.

FEEDING DIRECTIONS

Foals and Ponies:

20g every two days

Adult Horses:

20g every day

We recommend you feed your horses Hoofgrow™ for at least 180 days for the best results. Improvements and new growth around the coronary band of the hoofs within a month.

UNDERSTANDING THE THREE ASPECTS OF HORSE FOOT CARE

Farriery – Farriery involves everything to do with the work of a farrier, a person who trims and grooms a horse's hooves and shoes them also. It is important that you hire a professional and fully qualified individual for this work, as the farrier can have a big impact on your horse's balance. Force displacement on the limb joined to the forefront and the forefront itself is affected by the hoof preparation, the kind of horseshoe used and how it's placed. As such, many defects and issues affecting horse hooves are caused by several different factors.

Shoeing errors and failing to look after your horse's feet can be caused by various diseases and problems like brittle, cracked bones and hoof horn dysfunction. In our humble opinion, the best way to ensure your horse's hooves are healthy and grow appropriately, you need to provide a suitably hygienic living environment for your horse, adequate care for their hooves and feed them Hoofgrow™.

Hoof Hygiene – Most importantly for good foot hygiene your horse's stables should be designed with an area for water and urine, along with free-flowing fresh air. Bedding comes down to a personal choice and while there is no right or wrong material to use, it is vital it is not too dry, or it could have detrimental effects on the hoof horn's moisture content. The bedding should also be fresh, to limit the chances of fungi and endemic bacteria from establishing and building up in the stables.

Nutrition – Horses that are involved in training should be given a balanced and nutritious diet. Particularly, if you are expecting them to put in a high-level performance. Special attention should always be given to the health of the hoof and the connected parts as part of the horse's foundation. Underperformance in a horse is often caused by lameness. Lameness of the foot is the type most commonly suffered from by horses used in equestrian sports. As it gives the necessary nutrients that help provide sufficient nourishment for hooves, Hoofgrow™ is the perfect supplement for a horse's food.

HOW DOES THISSUPPLEMENT WORK?

BIOAVAILABLE-AVAILABLE SULPHUR: METHIONINE AND MSM

Bioavailable-available sulphur, as experts in the equine industry, like vets, farriers and nutritionists have started to agree, is a crucial nutrient for a horse's diet, particularly when it comes to hoof and hair growth, along with the structural integrity of the connective tissue. The RDA of sulphur for a horse is 15% of the dry matter of their diet, as noted in the National Research Council Nutrient Requirements of the Horse of 1989. Horses need to get the sulphur they need from this bioavailable-available sulphur. As such the quality and source of this nutrient are crucially important.

Hoofgrow™ consists of 2 highly-effective sources of this sulphur – an amino acid known as Methionine and MSM or Methylsulphonylmethane. Every Hoofgrow™ sachet of 28g consists of 2,500mg of methionine and MSM, which are both absorbed very easily. Sulphur is important with regards to the keratin sulphate molecule durability and hoof growth. This molecule is reliant on the various disulphide bonds of amino acids bearing sulphur. The inclusion of the amino acid Methionine is vital for enhancing keratin sulphate's integrity. MSM is rich in naturally produced sulphur. MSM provides the horse with 34% of the needed bioavailable-available sulphur, making sure enough sulphur is included in the horse's diet towards the growth of the hoof.

BIOTIN

Although it's often called Vitamin H, Biotin is part of the family of B vitamins. It is a vitamin that contains sulphur. The best place for horses to get biotin from is fresh green pasture. Hindgut bacterial activity produces a lot of the B vitamins and biotin horses need. The problem is with performance horses and modern husbandry of these animals is that they are not given enough time to access high-quality pasture.

It is common for horses being put through the training given a low forage and high grain diet to suffer a deficit in B vitamin because the caecum natural pH will be reduced by rapid starch digestion. As a result, the hindgut's bacteria that produces B vitamin is reduced. As such, all horses kept in stables going through training stand a chance of suffering from a deficiency in biotin.

The horses that stand a chance of suffering from a deficiency in biotin includes:

- ThosewithBiotin metabolism-related inherited diseases
- Older geriatric horses and those pregnant and/or lactating
- Those suffering from microbial guy activity loss cause by adjusted gut motility or antibiotic therapy
- · Deficiency in dietary biotin

SUPPLEMENTATION OF BIOTIN

The Biotin RDA a horse weighing 500kg should receive is 2mg a day. There has been evidence that proves an increase in biotin supplementation for horses who suffer from hoof problems produced positive improvements to the integrity of the hoof and its growth. There is 37.5mg of biotin inside each Hoofgrow™ 20g sachet. As the biotin is in a concentrated form, it provides the optimum absorption of biotin in the horse's smaller intestine. supplementation helps to improve hoof repair and stops them from happening again. A lot of great evidence from scientific studies shows that the supplementation of biotin increases the

strength of the hoof while reducing lameness and cracks in the sidewall horn and hell horn junction. Comben et Al conducted one study involving 40 horses who suffered from long term chronic foot problems who were given 15mg of biotin every day. All the horses involved in the study had various symptoms such as hell and toe cracks, tender hooves with crumbling and very brittle and weak hooves. Within 5 months of biotin treatment, farriers that were originally very cynical were surprised at how the animal's hoof horns had improved. The hoof wall horns were harder and thicker, and the feet were shaped better. Thanks to the improvements in hoof growth that resulted from the treatment, farriers noted that shoes were able to be nailed more easily and it provided the opportunity for them to shape horse hooves more.

The research showed the hoof improvements were noticeable between 3 and 6 months of the horses being supplemented with biotin. The improvements were noted to have continued for at least 12 months. No evidence suggested the supplementation of biotin had no or little effect on any of the involved horses. There was also evidence that supported that the supplementation of biotin only worked with stratum extremum hoof defects.

The University of Edinburgh's Professor S. Kempson ran a study into scanning defects in hoof horns using electron microscopes. It was discovered that they could find the precise location where the hoof horn defect. It was identified that many of the cracks were found in the hoof stratum extremum with there being evidence of horn loss. Stratum internal and stratum medium are were other cracks are found, caused by the structural breakdown of the layers. It was found with some further investigation that horses suffering from stratum extremum defects responded well to supplementation with biotin, while the cracks that related to deeper layers of hooves experienced beneficial results from the addition of calcium and protein to the horse's diet.

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The majority of people, even horse owners, don't have regular access to a scanning electron microscopy. With that in mind, it is hard for the average horse owner to know where the exact origin of hoof horn weaknesses is located. As a complete supplement for a horse's hoof that delivers the nutrients necessary to all hoof horn layers, $\operatorname{Hoofgrow}^{\operatorname{IM}}$ is an effective supplement for chronic foot and hoof issues.

CALCIUM

As noted in the above section, Kempson found in his research that the horses with stratum internum and stratum medium defects had better results when their diet was supplemented with biotin in combination with sulphur, protein, and calcium. Diets consisting of high volumes of protein are better with more calcium than phosphorus. Hoofgrow™ features amino acids in high levels and calcium, all that's needed to make protein. It was concluded by the University of Edinburgh team that calcium being added to the diet helped alleviate the problems with hooves more than just biotin.

When horses are fed low protein, high phosphorus diets or too much bran it can stop calcium being absorbed. Another issue with increased volumes of bran results in higher phosphorus levels which often precedes quick-acting laminitis. Therefore, adding calcium to a horse's diet can have both prophylactic and therapeutic benefits concerning laminitis. Hoofgrow™ is a great supplement to use with horses suffering from chronic foot issues and animals who have a risk of contracting laminitis or those already recovering from it. It contains a total of 7,5000mg of calcium carbonate, as advised by Kempson.

ZINC

Zinc's function in a horse's body acts as a crucial component for numerous metalloenzymes in carbohydrate metabolism and protein. It is one of the oldest used treatments for various disorders affecting connective tissue. It is vital for the synthesis of protein and DNA and is crucial with healing epithelial cells that are damaged. Keratin is predominately a proteinaceous element. Therefore, zinc is crucial in Hoofgrow™ when it comes to healing the tissue in hoof horns. When found in horses that are healthy, a deficiency in zinc related to the depressed utilisation of sulphur and amino acids. Because of this, Hoofgrow™ consists of concentrated levels of 600mg of elemental zinc in every 20g sachet, which can help healing and superior growth in the hoof horn.

AMINO ACIDS

There is a wide range of non-dispensable and dispensable amino acids in Hoofgrow™ which are important nutrients necessary for protein. The fact that they are included in the makeup of Hoofgrow™ is vital as it offers enhanced keratin sulphate and full recovery and healing.

OVERVIEW

Hoofgrow™ is a full supplement for hooves and consists of amino acids, bioavailable-available sulphur, methionine, zinc, calcium and biotin and helps them with any issues and problems. When you use Hoofgrow™ it has the following benefits:

- · Tougher and thicker walls
- Better shaped hooves
- The disappearance of brittleness and cracks during the period of treatment
- Improved quality and strength of the hoof
- · Quicker and steadier growth of the hoof.







