



SARACEN
HORSE FEEDS

Fact Sheet

Feeding To Help Build Muscle And Top Line

Wouldn't it be fabulous if all we had to do was to buy a bag of 'Muscle and Top line Builder' to get that amazing toned and fit outline on our horses without even having to put in any regular exercise or schooling! Unfortunately, we all should know that no such feed exists, but certainly feeding a correctly balanced diet in CONJUNCTION with the correct fittening and schooling routine will achieve the muscle tone and top line required for that perfect picture.

Before talking about the types of feed that are suitable for supporting muscle and top line development a quick recap on what muscle actually is!

All horses, regardless of breed, fitness and age, have the same arrangement of skeletal muscles, but some muscles may be better developed in particular horses due to their specialist training. There are, however, three types of muscle found in the body, each of which has its own characteristics and functions:

- Cardiac Muscle** *Is only found in the heart, does not tire and enables heart to work as a unit*
- Smooth Muscle** *Spread throughout body's organs, especially the gut, not under conscious control*
- Skeletal Muscle** *Can be influenced by work and under conscious control*

As horsemen we are most interested in skeletal muscle, as we can see these muscles under the skin and can influence them through work. Each muscle is made up of many millions of specialised elongated cells called muscle fibres and each muscle fibre itself is composed of thread-like myofibrils, which are the contractile elements of muscle. Each myofibril is composed of sarcomeres, which are crossed by regular bands of contractile protein called actin and myosin. These are one of the main classes of protein in the horse. Muscle contraction is brought about when the thin filaments of actin slide over the thicker filament of myosin.

So, how can feeding help to influence the increase in muscle tone and top line with a regular work programme?

Proteins are made up of many building blocks called amino acids. There are 22 amino acids and some of these are known as essential amino acids (must be provided in the diet) or non-essential amino acids (these can be made by the horse itself). In the horse, essential amino acids are Lysine and Methionine. These must be present in the horse's diet in order for optimum muscle function, cell renewal, tissue repair and growth.

Muscles are almost constantly working. Even at rest there will be muscle tone so that they are always ready for action, for the possible flight response. This means that muscle cells need to be repaired and renewed, so require a good source of nutrients including a supply of available protein and amino acids. Protein obtained from food cannot function in the horse's body until it is broken down into its constituent parts, the amino acids.

To ensure an adequate supply of essential amino acids and to ensure optimum muscle function and health you need to look for feeds that contain good levels of quality protein sources. Quality protein sources contain the essential amino acids. Very often horse owners tend to be more concerned about the protein % inclusion, which is wrong as a high protein % may be made up of poor quality sources of protein! Feeds containing quality protein sources will also need to be fed at lower intakes.



For those who know what they're on.

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Cereal grains are lacking in lysine and therefore are considered to be a poor quality protein and if you were to feed your horse a diet containing predominantly cereals and restricted quality protein sources you would find that, no matter how much work you put in to your horse, the development of muscle tone and top line would be very difficult. It is also likely that your horse would also experience increased muscle soreness and become more prone to infections etc. In extreme cases you may even start to observe muscle wastage.

Raw materials that are high in quality protein include soya bean meal, alfalfa, linseed and peas and these will be listed on ingredient labels, so giving you an idea of the quality of the protein included in the ration. Typically, stud feeds e.g. Level Grow Mix, convalescing e.g. Re-Coup 11 and conditioning feeds e.g. Show Improver Mix would have higher inclusion levels of quality protein sources than a feed used for maintenance.

In Summary

Quality protein intake in conjunction with exercise is known to cause a muscle- building effect by stimulating the release of hormones that are concerned with the uptake of amino acids by the body's cells. Potentially, the more amino acids that are taken up the more protein is produced and the more muscle is laid down.

Caution

Exceeding a horse's protein intake will not build twice as much muscle and can have a detrimental effect on your horse's respiratory health and hydration status. Horses cannot store excess protein and have to break it down by a process called deamination, which produces ammonia or urea, which is excreted.

- **01622 718487 FOR FURTHER TECHNICAL INFORMATION ABOUT THE PRODUCTS MENTIONED PLEASE VISIT OUR WEBSITE www.saracenhorsefeeds.co.uk OR FOR A PERSONAL FEEDING PLAN PLEASE CALL OUR FEED HELPLINE**



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