



Soybean Hulls - the healthy alternative for lactating mares & their foals.

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A racehorse and a showjumper have very high energy, protein and other nutrient needs to perform at high levels.

But, did you also know that lactating mares, those producing milk over the first few months after the birth of their foals, require just as much or even more nutritional support than these high-level equine athletes?

Lactating mares need plenty of energy, protein and key minerals to feed their foal milk.

Did you know?

- Milk is mostly water – Mare's milk is about 90% water, with the exception during the first 12 hours parturition (after the foal is born) when it contains the vital colostrum. The remaining 10 to 12% is made up, on average, of lactose (6.5%), protein (2.2%), fats (1.6%), calcium (0.1%), phosphorous (slightly less than calcium), magnesium (0.01%), and very small quantities of potassium, sodium, zinc, copper, iron and the main vitamins (A, B group, C, D, E and K).
- Mares can produce a lot of milk each day – Mares can produce between 2 and 4% of their bodyweight in milk each day. Most milk is produced in the first two months after foaling, falling away as the foal gets larger and starts to eat solid foods. This means a mare around 500 kg will produce between 10 and 20 L of milk each day.
- There is good energy in milk – On average, there is about 2 MJ of digestible energy in every litre of mare's milk. A foal will consume between 20 and 40 MJ of energy each day.

The nutrient requirements for a lactating mare change over the first four months of lactation, especially the amount of energy, protein, calcium and phosphorous she needs to consume. In the first one to two months of lactation, her nutrient requirements, on average, will be about 50% higher than her maintenance needs (the point where a mare, not in foal or with a foal at foot, neither gains or loses weight or condition).

This could mean that a lactating mare needs to eat up to 3.5% of her bodyweight in feed, depending on the nutrient value and digestibility of the feed. Over the next couple of months, her intake requirements drop off as the foal starts to eat solid foods and drinks less of the mare's milk.

Mares will still produce high volumes of milk, even if not fed enough feed. If nutrient intake is less than what the mare needs, she will draw her requirements from her own body reserves. This, over time, could result in significant weight and body condition loss and nutrient deficiencies. This loss will not only negatively affect the mare's health, it also will most likely reduce the chances of her going back in foal or carrying it full term.

So, it is vital to increase both the quantity and quality of the feed for the broodmare as she starts to lactate until a few months after giving birth. We know we need to provide more energy, protein, calcium and phosphorous in particular, in a form that is easily consumed, digested, and absorbed. What is recommended is to provide a high-quality, forage-based diet with some concentrates that meets your mare's needs. Providing too much grain though also introduces high levels of sugars and starch to her diet. This can cause an insulin response, something known to negatively affect the mare's health. These same sugars can be transferred to the growing foal through the milk, potentially exposing it to the risk of developmental orthopaedic diseases (leg problems).

Instead, consider providing good quantities of highly fermentable fibres which are almost completely digested through natural microbial fermentation, providing a sustained concentration of "cool" energy for the mare, with a small quantity of grain. The energy produced in the hindgut from the microbes digesting and fermenting the soybean hulls is in the form of fats (volatile fatty acids) which safely travel through the blood to the liver for use by the horse. Each unit of fat produced has 2.5 to 3 times more energy than a unit of sugars or starch found in grains and does not cause any increase in the blood insulin levels. The same microbes fermenting the soybean hulls also produce necessary vitamins (B and K) as well as essential hormones and enzymes that improve both the physical and mental wellbeing of the horse. When fortified or combined with a quality mineral and vitamin product, soybean hulls can provide the requirements for your lactating mare without introducing too much sugar and starch.

So, next time you think of feeding your late pregnant/lactating mare, consider skipping the traditional grain-based feeds and choose a breeding feed that contains highly fermentable soybean hulls. It may just be the best thing you could feed your mare!