

## Benefits of a Low Carbohydrate Diet!

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Your horse's health and performance are directly linked to the health of its digestive system. The equine digestive system is designed to continually graze fiber. Therefore, horses on high fiber feeds, which closer mimics their natural high fiber and low soluble carbohydrate (starch and sugar) diet, provides a healthier digestive tract and will allow horses to look and perform better.

High fiber diets are not necessarily new, high fiber feeds have been around for a long time. The problem with these diets in the past is that you sacrificed calories, because high-fiber ingredients are naturally lower in calories than grains. Therefore, the horse has to eat more of the feed to get the same amount of calories that are provided in a typical grain based feed.

A good rule of thumb used to be "the higher the fiber, the lower the calorie content", and in a lot of cases this is still true. However, the type and quality of the fiber used in manufacturing feeds is extremely important in determining how "energy dense" the diet may be. For instance, shredded beet pulp as provides about as many calories as oats. Other quality fibers include soy hulls, wheat midds, and alfalfa meal. Fiber products such as rice hulls, oat hulls, and peanut hulls are very low in digestibility and provide only a fraction of the calories found in grain. Therefore, to what extent the old rule applies depends on the quality of fiber used in the feed.

Typically, fiber based feeds are considered "complete" in that there is enough dietary fiber in the product that the horse can thrive just by consuming the feed without any hay or pasture. However, we want horses to continue to get long stem hay or pasture for as long as they are able to graze or eat hay.

Even using quality fiber ingredients, high fiber feeds are by nature going to have fewer calories than grain diets. With the advent of research in adding fat to horse diets, we can now supplement those lost calories by adding fat to the diet. By utilizing high levels of vegetable oil, flaxseed meal and stabilized rice bran, we can make up those lost calories, and potentially even make these feeds higher in calories than typical grain diets.

However, just because a feed is higher in fat, it does not make that feed necessarily lower in soluble carbohydrates. There is some research that indicates that higher fat in equally high grain based rations will help lower insulin response, but it is more related to less feed consumed and slower release of the feed into the digestive system, but the soluble carbohydrate percentage of the feed can still be high.

Be careful with fat because fat equals calories and some horses just don't need the extra weight. Look for a high fiber, low soluble carbohydrate diet that is fortified highly with vitamins and minerals to reduce that amount needed to be fed to the weight challenged

horses. If the tag reads "Feed 8 lbs. per day to a 1000 horse" and you are feeding considerably less, look for a feed with a lower feeding rate.

Utilizing diets that are high in fiber will typically lower soluble carbohydrates which research has demonstrated is beneficial to horses with specific metabolic problems such as Cushing's Disease, PSSM, EPSM, and RER. Similarly, this type of diet is also recommended for horses with insulin resistance and with a history of laminitis and colic. Some initial research is also linking higher soluble carbohydrate intake with hyperactivity in horses. Although there are no guidelines, nutritionists agree that soluble carbohydrate levels of below 20% are desirable. Since there are no guidelines, many feed companies are promoting products as low in starch or carbs without providing the actual measured soluble carbohydrate levels.

It seems we do as much as we can to screw up the horses natural digestive process, we put them in a stall and restrict movement essential to proper digestion, we feed them meals, and then those meals have historically been grain based when a horse is a fiber consuming animal. We can't give you more pasture space, we can't give them a handful of grain every fifteen minutes, but we can make a logical change to a different diet that is high in digestible fiber.