

Horse Nutrition 101

One might think that the feeding requirements for all livestock would be the same: tossing some feed over the fence or letting them out to graze. However, each species has different requirements, and horses, in particular are sensitive consumers.

That grass is a major component to a horse's diet is true enough, but the nutritional value of your grass, other "volunteer" plants living in your pasture, the age and type of horses you are feeding, seasonal and weather conditions, are all important factors to consider when feeding horses.

Often people, particularly new horse owners, do what their neighbor down the way or what someone they know does. There are numerous contributing factors affecting the quality of your hay: hay purchased from a different area may have different weeds, soil may be of a lower quality, as well as weather and climate. Observing fodder qualities such as, "Oh that's good hay because it look green," is a good start to recognizing hay quality, but gives you very little information regarding nutritional value. However, you definitely do not want to be feeding dusty or moldy hay. This is a dangerous recipe for horses that can lead to heave, a condition similar to asthma in people.

The manner in which the hay is harvested makes a tremendous difference to the quality of the fodder. For example, the maturity of your hay will have a large impact on nutritional value. The later the hay is harvested, the lower the nutritional value. This late harvested, more mature hay provides roughage. In addition, studies have proven that the time of day your hay is cut has a large impact on the nutritional value. Ideally hay should be cut in the early morning before the heat of the day begins or on an overcast, cloudy day. The amount of hay cut should be the amount of hay that can be baled within approximately 3-4 hours. However, weather seldom provided ideal haying conditions. To the best of your ability, you want to avoid feeding hay that has been rained on after being cut. This hay is lower in nutritional value, and it has the potential of being a dustier, moldy hay. Mold or dust is not visible, but it can be smelled. The dust and mold become visible after the hay has be baled and stacked for a time. When baling hay, the moisture content should be between 12 - 15%. Anything drier than 12% can produce a dusty hay as the baling process breaks down the plants with almost a grinding effect that creates dust. Hay baled over 15% moisture also has the potential of being dusty/mouldy. The moisture produces heat within the bale, which in turn cause the hay to mold..



The age and activity of horses is a key factor underlying nutritional requirements. A mature horse does not have the same nutritional requirements of a growing young horse, brood mare, lactating mare, or performance/working horse. According to the "Kentucky Equine Research" a mature horse (average weight of 1100 lbs.) needs approximately 1.4 lbs of protein a day for maintenance, early pregnancy, or light work. This amount of protein is generally ingested by grazing or eating grass hay with an intake of about 22 lbs. A mature horse doing moderate to heavy work needs approximately 2 - 2.5 lbs of protein a day. A broodmare in late pregnancy needs a higher quality of protein. Generally a hay with a moderate percentage of alfalfa will provide an adequate amount of protein of approximately 2 - 4 lbs per day. A broodmare in the first three months of lactation requires approximately 2.75 lbs of protein, and broodmares in late lactation after three months requires approximately 2 lbs of protein. Adult horses need protein only for repair and maintenance of body tissues so their protein requirements are fairly low. These varying adult protein requirements are met with a

quality grass hay or grazing controlled grass pastures. Owners can confirm that these needs are met by core testing their hay and having it analyzed. Not only will this test give you information regarding the protein content of your hay, but also significant details on vitamins, minerals, and trace elements. For those growing and harvesting their own hay, periodic soil samples should be taken approximately every 5 - 7 years to monitor soil quality.

Nutritional requirements are necessary throughout all the seasons, but winter feeding throughout the very cold months requires extra attention. Here at Six-Barr Ranch - home of Canadian Natural Horsemanship Inc. - we feed horses in rows on the ground, feeding both earlier harvested hay that is higher in nutrients and protein combined with a more mature hay to provide roughage. This feed combination coupled with adequate shelter helps maintain internal body heat through the cold months. In early spring, great care has to be taken to not make a sudden change in a horse's diet when the grass begins to grow. Any sudden change in diet can create a disturbance within the horses' digestive system leading to laminitis, often referred to as founder. These early grasses are often high in sugar and starch as the freezing temperatures in the evening stresses the plant raising the sugar and starch content. If you have insulin resistant horses or horse prone to laminitis or insulin resistant horses, during periods of overnight frost, only let horses graze after the overnight moisture has evaporated. Be sure to not let them graze on this grass until the frost has gone, and the grass has dried thoroughly during warmer daily temperatures. Allow these types of horses to graze for short but frequent periods. Avoid binge feeding as this too is very hard on their digestive system.



Good land management practices including weed control and pasture management are critical to avoid undesirable plants from taking over pastures and hay fields. If you are buying hay, watch for new different weeds since every area has its own varieties. For example, one type of plant that is toxic to horses is Alsike Clover. Hay or pasture containing a large percentage of Alsike Clover is not recommended for horses. The most common symptom of Alsike poisoning is photosensitization or a reaction to light. This is readily seen in areas of white on horses where they will develop blisters or sores. However, the real problem is not so readily observed; liver damage. Alsike Clover flowers are usually pink and white in colour, but the plants can appear darker depending on the growing conditions. The flower stem originates from the same point off the main stalk as separate leaflet stems. Whether you have a large herd or small herd of horses, rotational grazing is beneficial, preventing over grazing and under grazing. In under-grazed pastures, horses eat their favorite plants, and this habit allows the more undesirable plants to over shadow and choke out the other grasses that have been eaten. In addition, manure management, such as harrowing, will eliminate dangerous parasite infestations and encourage plant re-growth.

Remember there is no ideal or perfectly managed farm, ranch, or facility. However, with a solid knowledge base, we can keep striving towards reasonable and affordable standards bringing you towards optimum success with your horses.

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Six-Barr Ranch - Home of Canadian Natural Horsemanship Inc.
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