

Evaluating Hay for Equine



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Forage is a very important staple in a horse's ration. This is usually met with either pasture or hay. Since pasture is not always available, hay is the forage that is often fed. When selecting one to feed, the different options can be confusing. This article will

discuss what to look for and consider when evaluating hay for equine rations.

Nutritional Requirements

Before purchasing or feeding hay, owners first need to establish the nutritional requirements for the horse that is being fed. These requirements are based off several factors, below is a list and some examples:

- body condition - underweight or overweight, gaining muscle and topline
- activity level - hours of work as well as intensity
- age - growing foal or senior
- physiological status - pregnant, lactating, breeding
- overall health - coat and hoof quality, digestive sensitivity

Establishing nutritional requirements gives direction on which type and quality of forage should be considered for the ration. The goal should be to find hay that best fits the energy and protein needs of the horse. Typically, a horse should be able to consume 2% to 2.5% of it's bodyweight per day of hay without becoming over conditioned or needing to consume large amounts of grain to maintain body condition. For example, an early cut alfalfa mix hay might be a good fit for an early lactating mare's diet but might cause undesired weight gain for a middle-aged Quarter Horse that is not worked.

Once the right hay is selected for a horse, it is important that a quality mineral is fed in addition to

the hay. Dry hay can meet energy and protein needs but does not meet the needs for micro minerals and vitamins. Feeding either a granular or pelleted mineral such as the Crystal Advantage® mineral line offered by Crystal Creek®, will ensure that all nutritional requirements for a horse are met.

To read more about nutritional requirements, with a focus on reproductive needs, read 'Maximizing Equine Reproductive Performance: The Impact of Nutrition' from the Crystal Creek® August 2020 Newsletter.

Sampling

Contrary to popular belief, buying hay because it is a 2nd or 3rd cut is not a reliable way to guarantee high quality. Many factors play a role in the nutritional value of hay, such as time of cut and harvesting management. The best way to know the nutritional value is by taking a forage sample. Sampling allows owners to select the best hay and to find any gaps in the nutritional requirements that may need to be filled with supplemental feeding. Test results can also give insight into other factors such as mold risk or poor harvest practices. For example, if the ash content is high, greater than 10%, this indicates cutting too low and/or poor merging or raking techniques. High ash content can lead to decreased palatability and increased mold risk.

Before purchasing, buyers should request a forage sample of the hay source. If feeding homegrown hay, a test is also advised. It is a great way to know what is being fed as well as an insight into agronomy, harvesting and storage practices. The results of a forage sample will only be as good as the technique and effort that went in to obtaining it. To learn how to take a sample read 'Forage Sampling' from the Crystal Creek® April 2018 Newsletter.

Other Things to Consider

Appearance

Visually evaluating hay is also very important. Make sure that the hay source is clean, free of mold and



dust. Mold and dust can not only cause poor intake, but also lead to respiratory issues such as recurrent airway obstruction. Good quality horse hay should be leafy and soft to the touch. The hay should be fine-stemmed and dry with no moldy or fermented smell.

Species and Location

It is important to know what species the grass and/or legume is, as well as where it comes from. Tall fescue is a good example of a grass species that can contain potential problems. Most tall fescues are endophyte-free, but there are still varieties that contain the endophyte fungus. This fungus increases the hardness of the plant but can be harmful to horses. Mares consuming this grass can have reproductive issues such as abortions. They can also give birth to weak foals and fail to produce milk.

Blister beetles are an issue in southern states, infecting alfalfa hay. These beetles release a toxin called cantharidin. This happens when they are crushed during the harvesting process. If ingested some common symptoms include sores or blisters on the tongue and in the mouth, colic, straining, increased temperature, depression, and more.

Harvest and Storage

The goal should be to cut at an early enough maturity that the hay provides the protein and energy required while also maximizing tonnage per acre. The management during the baling and the storing process also have a big impact on the quality. For example, if the hay was too wet when baled (greater than 18-20% moisture), it will most likely mold and could be a fire hazard. If the hay becomes too dry before baling (less than 14% moisture), leaf shatter can occur, and the nutritional value will greatly decrease.

Knowing what to look for and how to evaluate hay can ensure that a quality hay and the best nutritional fit is being selected. The addition of a pelleted or granular mineral, such as the Crystal Advantage® Equine line from Crystal Creek®, can ensure that there are no gaps in a horse's nutrition. The nutritionists at Crystal Creek® are here to help with forage sampling questions and ration balancing services. Consult with a Crystal Creek® nutritionist today to guarantee your horses are receiving everything they need to perform at their best.

References available upon request.