

Hay is the most fundamental and essential part of the equine diet. The horse's gastrointestinal tract is specifically designed to a grazing lifestyle and because of this the main component of the equine diet needs to be long stemmed forage (hay). As horse owners we spend hours analyzing and comparing grain labels and supplement ingredients, yet we often have little to no understanding of the actual nutritional value of the majority of our horse's diet—their hay. Fortunately, there is a solution: hay analysis. Hay analysis is a simple, low cost, and effective way to know exactly what the largest component of your horse's diet actually is.

What will hay analysis tell me about my hay?

Moisture Content—optimum moisture content is between 10-16%. Hay above 17% moisture has a much higher chance of molding, and hay with a moisture content above 25% is at high risk for heat damage and **becoming a fire hazard**.

Crude Protein—will vary depending on the type of legumes or grasses composing the hay. Horses require an average of 12% crude protein

Acid Detergent Fiber (ADF)—the non-digestible components of hay. A hay that is high (>45%) in ADF will have little nutritional value.

Non-Structural Carbohydrate (NSC)—a calculated value by adding together the Water-Soluble Carbohydrates (WSC), and the Starch. Horses with metabolic disease that need their sugar/starch intake monitored should have hay that is <13% NSC. Knowing the NSC of the hay being fed can eliminate the need for soaking hay (provided the NSC is low enough) in a horse that has or is prone to laminitis.

Calcium, Phosphorus, Magnesium, Potassium, Sodium, Iron, Zinc, Copper, Vitamin E plus many more—depending on the hay analysis selected a complete nutrient breakdown is possible. These values can help determine what might be missing from your horse's diet and allow you to better select the correct supplementation. You might be surprised to find that maybe your horse doesn't need as many supplements as you thought!

How do I do a hay analysis?

Sampling a single bale of hay will not give you enough information. The best time to do a hay analysis is when you receive a fresh supply. Knowing the moisture content will help you determine how and where to store the hay from a fire safety aspect. Understanding the nutritional value of the hay can help you determine how much needs to be fed to individual horses, and the safety of feeding it to those with metabolic concerns.

A hay probe is the ideal way to test hay because it allows for core samples to be taken from multiple bales without disrupting the bale itself. **Northern Lakes Equine Practice** is equipped with a hay probe for ease of sampling. The probe drills into the center of the hay bale and takes a small sample that is then placed in a small baggie for overnight transport for the lab. Ideally 15-20 bales need to be sampled at the core/in the center for representative values.

For more information on hay analysis or to speak with one of our doctors to determine if hay analysis is right for you, please call our office at 847-388-9141.