



Equi-Analytical Laboratories

Summer 2017 Newsletter

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About Us

Equi-Analytical exists to provide horse owners with high quality analytical services to make educated decisions regarding their horses diet. New technology and traditional methods are combined to deliver fast, accurate results.



Hay and Pasture Testing?

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With summer coming to a close, many horse owners are looking to purchase hay for their winter feeding needs. This used to involve a quick phone call to the local hay supplier to have a load dropped off at the barn. However, as we learn more about conditions with special dietary needs, such as Equine Insulin Resistance and Cushing's Disease, the importance of testing hay prior to purchase has never been greater. For most horse owners, the mainstay of their horse's diet is hay. The hay may have the look, feel and smell of a high-quality cut, but looks don't always tell the whole story. Grass hay can have 5 - 35% (on a dry matter basis) non-fiber carbohydrates (NFC), which can have major repercussions for a horse's insulin levels. If hay forms the bulk of your horses' diet, it's important to determine the nutrient composition to decide what, if any, supplementation is needed. If you live in an area with an extended grazing season you may not have to invest as much in hay, but your pasture may need to be tested. The grass in your pasture can change quickly depending on growing conditions, which can leave some horses in the field susceptible to laminitis.

Evaluating hay quality

Perhaps you don't have a choice in the hay you purchase or your horse doesn't have special dietary needs. What value does hay testing have for you? Hay can change from year to year with big fluctuations in quality depending on water availability, temperature, fertilization, etc. This year saw very different growing conditions from last year. The Northeast saw high rainfall, which delayed hay cutting, resulting in higher fiber and lower energy contents. The plains in North and South Dakota and Montana have seen severe drought most of the summer, reducing the availability of hay in those markets. These varying

conditions will affect hay quality and how much nutrition your horse derives from it. You can save yourself time and money by checking your hay quality and either increasing or decreasing supplementation at the beginning of the season. It is potentially dangerous for your horse's health to wait until you see a significant change in body condition to tell you that you need to alter their diet.

Do not be afraid to ask a hay broker if you can test the hay before purchase. Some sellers may even have an analysis of their hay that you can review. If you're not sure what the test results mean for your horse, many feed companies are happy to review hay analyses and make feed and supplement recommendations to "fill in the gaps" in your horse's diet.

Sampling a load of hay

So how exactly do you sample a load of hay for testing? In order to take a proper hay sample, you will need a hay probe, a hand brace or electric drill, and a one quart plastic bag. If you don't have a hay probe, your local extension office or feed company may have one that you can borrow. Randomly select 12 - 20 bales and probe each in the center, on the end in between the strings. Plunge the core sample into the sample bag after each probe. The final sample should be $\frac{3}{4}$ - 1lb. Clearly label the sample bag, fill out the sample information sheet and send both to the lab.



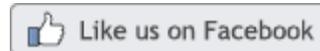
Sampling Pasture

For a pasture sample, you will need scissors, a clean plastic bucket, a one quart plastic bag, and a ruler. Go into your pasture and figure out the grazing height, which is the height of stubble remaining after grazing. You don't want to sample the whole plant including roots if the horse is not eating it! Randomly select 12-20 sites in the pasture and clip handfuls of forage at grazing height. Clip the forage into 1 - 2 inch strips into the plastic bucket. Mix the sample thoroughly in the bucket and pack the sample bag as full as possible, getting at least one pound. Label the sample bag clearly and fill out the sample information sheet. Freeze the sample before sending it to the lab.

Testing for Nitrates

We have also received a number questions regarding high nitrates in feeds and forages. Nitrate toxicity is well documented in cows, but we generally do not see levels of nitrates that are risky for feeding to horses. Many nitrate toxicity cases for horses come from the contamination of drinking water. If you would like to test your horse's drinking water for nitrates, please contact the lab to receive a sterile container. To collect a sample, use a sterilized container and avoid touching the inside of the container or cap/lid. Sample only from the cold water faucet and remove the aerator. If testing for bacteria as well, sterilize the faucet with heat or bleach. For heat sterilization, run a flame back and forth over the faucet several times or pour boiling water over the faucet. For bleach sterilization, prepare a bleach solution (1 part bleach: 4 parts water) and immerse the faucet end for 2-3 minutes. After sterilizing, run cold water for 3-5 minutes and then rinse the container once with the water to be sampled. Submit at least 250 ml and completely fill the container leaving little or no air space at the top. Tighten cap/lid completely and secure with tape to prevent accidental spillage. The sample must reach the lab within 24 hours. Please keep the sample cool but **do not** freeze it.

Proper sampling technique is the first and most important step in obtaining representative results. Please contact us if you have any questions about sampling or interpreting your results. Call us at (877) 819-4110 and check out our website at www.equi-analytical.com



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