

# North West Labs' Recommended Hay Sampling Techniques

## Hay sampling is probably the most important aspect of forage testing

Think about what we are trying to do: The pinky-sized ground-up sample the lab analyzes must represent tons and tons of alfalfa hay from the field. The sample must fairly represent the leaf/stem ratio, as well as the weed composition. Whether the sample accurately represents a stack is the responsibility of the sampler. The lab can only accurately test whatever sample is presented to them!

Protein and fiber can vary considerably from bale to bale. Leaves & stems are very different in protein and fiber. Therefore, it is important to follow a definite protocol when sampling. The goal is to obtain a representative and randomly-chosen sample. Each core should represent the stack. Never present an uncored sample to a lab (e.g. a flake).

### Here are some important guidelines for taking samples of alfalfa hay:

- 1. Identify a single lot of hay** - Lots must be from the same cutting, variety, field, stage of maturity and harvested within 48 hours. Do not mix lots. A lot should not exceed 200 tons.
- 2. Choose a good, sharp coring device** -The coring device should have an inside diameter of the cutting edge (3/8 to 5/8 inch). The cutting edge must be kept sharp, as dull edges will cause material to be pushed out of the core. Do not use an auger or corkscrew type device, which selectively samples leaves. Both leaves and stems are needed for an accurate sample.
- 3. Sample at random** - Walk around the entire stack and sample bales at various heights. Do not bias the sample by avoiding some bales or choosing others.
- 4. Take enough cores** – Sample at least 20 bales (one core per bale). Take more cores (20-40) in larger lots or if the hay is very mixed.
- 5. Use good Technique** -probe the end of the bale near the center, and at least 12-18 inches. The probe should be at a right angle to the bale end. Do not slant the probe.
- 6. Handle samples correctly** -Combine cored samples into a single sample and store them in a sealed plastic (i.e. Ziploc® qt or gallon) freezer bag. Do not expose to heat or direct sun, and send to the lab as soon as possible.
- 7. Sample size** - The sample should weigh about ½ lb. Too small a sample will not truly represent the hay lot.
- 8. Splitting samples** - It is very difficult to accurately split core samples. If you want to test the performance of a lab, have the lab return your ground sample for further testing.

Condensed from an article by Steve Orloff and Dan Putnam