

## Avoiding Hay Sampling Errors

In addition to lots of question on the EC Group about sampling hay, I've recently received a few private emails about this. Taking a few minutes to check the links below can help you get a good sample and avoid having to redo it or having your mineral balance off because of a poor sample. If you borrow a hay corer from your extension service and it doesn't seem "right" or they can't tell you how to use it properly, ask us. Some of us can loan you a corer, but keep in mind that shipping and insurance costs may make it more economical in the long run to simply purchase one, especially if you get together with other Group members in your area.

*Question (in a private email) ~*

*The picture shows the s/s probe plus it looks like an adapter and the wooden dowel. The site [<http://www.equi-analytical.com/>] also says choose a type: drill or hand brace. I'm assuming you have the drill, does this have to be a certain type of drill? I went to another county extension office yesterday to look at their probe, it was just the s/s probe w/wooden dowel. They couldn't tell me how to use it? Doesn't it need an adapter for a drill?*

*Reply ~*

I bought my hay corer here - <http://www.enasco.com/product/C06541N>  
Because it gets used a lot, I also bought an extra tip and a case. If you're careful, you won't need the extra tip (I haven't had one break in over 6 years of use) and, of course, you can rig a "case" out of a mailing tube and some foam. I don't believe the "hand brace [hand drill] version is available anymore.

At one end of the corer barrel is an "adapter" which fits into the chuck of your drill. It releases from the barrel with a quick release button so you can empty the corer without removing the adapter from the drill chuck.

I use it with a standard battery drill. When I go to sample hay for someone, I take two battery drills with extra batteries, simply because it's embarrassing to have a battery run down and no backup with me, plus my electric drill and an extension cord just in case there is electricity close enough.

The corer/drill combination is heavy but goes into the bale easily. I usually throw out the first two cores to clean the probe (it has a little button on the shaft that allows you to "quick release" the tube from the small shaft part that goes into the drill) with the wooden dowel. This is the most awkward part - I make sure I have a surface to rest it on (or a helper) when I'm pulling it apart to make sure I don't drop it, and that I have a large, clean bucket to empty the cores into. The little release button can be hard to push in (my thumb isn't as strong as some men's). After the first two cores that are thrown away, clear the probe into your clean sample bucket each two cores.

You want to take at least 20 random cores from the butt ends of the bales (not the side or top) for loads up to 2 tons, more for larger loads. Don't avoid poorer looking bales; don't "select" the nicer looking bales. [http://www.foragetesting.org/index.php?page=exam\\_info2](http://www.foragetesting.org/index.php?page=exam_info2)

If you do more than 2 cores between clearing the tube, it will be packed in too tightly and the probe won't penetrate the bale deeply enough.

The cores in the bucket should be mixed thoroughly, then "quartered" (i.e., looking down in the bucket, just mentally divide the contents into four equal quarters). You want to fill a quart size zip lock bag or half fill a gallon size bag with hay from opposite "quarters". Save the rest in a sealed zip lock bag until you receive your results back - if you need to send another sample for some reason (for example, you

decide you should do a soaked/dried sample), this saved sample will be a similar representative sample. I generally just do this in the bucket (I don't dump it out onto something to "quarter").

Once you get "on a roll" using this corer, you'll be disappointed when you get to the end of your twenty cores. It can be a bonding experience with your husband, kid or friend you use as a helper (can you tell some folks are easy to entertain?). It does make a neat fun school or 4H project for kids.

Patti