

# HOW TO PULL A SAMPLE FOR KDA FORAGE TESTING

## Kentucky Department of Agriculture Forage Testing Program

Kimberly Field, Program Coordinator

[www.kyagr.com](http://www.kyagr.com)



Forage Testing Program

# Our Goal

To Educate on the Benefits of Testing Forage(s)

# Your Objective

Maximize Production, Minimize Cost and Maintain Healthy Livestock



What types of  
hay/haylage do  
we test?



Legume  
Mixed Hay (legume/grass)  
Grass  
Legume Haylage  
Mixed Haylage (legume/grass)  
Grass Haylage  
Small Grain Haylage  
Cornstalk Hay  
Soybean Hay

we do not test: corn silage, nitrates, minerals or toxins. You can google and type in "wet chemistry forage testing labs", this will bring up a list of labs that process all types of forages. Please go to the website to read the instructions before submitting samples.

# Why is it important to have your hay tested:

“Forages are the foundation upon which a balanced ration is built”

KNOWING WHAT YOU ARE FEEDING CAN SAVE YOU MONEY AND PRODUCE PROFITABLE HEALTHY LIVESTOCK

BY NOT KNOWING & GUESSING, YOU ARE OVER OR UNDER FEEDING YOUR LIVESTOCK WHICH COULD WIND UP COSTING YOU A PROFIT OR CAUSE A LOSS SUCH AS LOWER LACTATION PRODUCTION, BREEDING BACK AND/OR WEIGHT GAIN



# Forage Testing Can Save Dollars

Steve Niemeyer, Nebraska Extension Educator

As cow-calf producers strive to reduce feed costs by finding different avenues to increase grazing days, many still have to use harvested forages in their year-round feeding program. Sampling and testing forages for quality can make designing a feeding program easy and economical. Nutrient concentration can vary considerably in feeds especially forages.

## Importance of Feed Testing to Make Sure Nutrient Requirements are Met

Winter forages often need to be supplemented with protein or minerals. The only way to determine the nutrient quality and levels of various nutrients of forage is to **have it analyzed**. Mary Drewnoski, Beef Systems Specialist, University of Nebraska-Lincoln, says one of the biggest benefits of feed testing is to determine protein levels—especially if hay got overly mature before it could be cut, or rained on before it could be baled. American Cattleman 02/24/2021

# When do you Sample your Hay?

**Dry hay** - you can send it in to test after it is baled and through the sweating process.

**Silage** – after ensiling process. Before you mail; squeeze out all the air from the bag. Make sure you tape the holes up after you core the bales.

Each **lot** (same field/ same cutting) should be tested separately due to different environment and soil conditions.

## **Submitting to KDA:**

You can **mail it or drop it off** after the 1<sup>st</sup> cutting or after you have finished cutting for the season. Submit Per cutting if you are feeding, for sale or purchased. Wet hay needs to be sent expedited due to mold issue during transit time.

Due to program changes we no longer make farm visits, so it is up to the **producer or extension agent** to pull the sample and mail it in. Most agents have a coring unit; they may lend it out or pull the hay for you. You can also purchase your own unit.

A Check or Money Order for the total and a Forage Request Form for each lot must be included when you submit the forage.

If you go to our Forage Testing web page - <https://www.kyagr.com/marketing/forage-program.html> it will have the links for the “Recommended Principles for Proper Hay Sampling”, “Interpreting Forage Quality”, “Understanding Forage Quality” “Coring Units” and a fillable “Forage Request Form”.



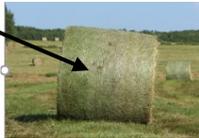
# How do you Sample your Hay?

## NFTA “Recommended Principles for Proper Hay Sampling”



The “Recommended Principles for Proper Hay Sampling on the National Forage Testing Association website gives you background on the importance of a proper core and how to pull the sample. Remember, a lab test is only as good as the sample provided.

Wet or dry when taking a core sample you want to pull the core from the middle at the end of the square bale and the middle of the outside of a round bale.



The way you should not send in a sample is by pulling some hay from one bale, I call the “hand sample” – the hand sample has been shown to be significantly lower in quality. This one grab from one bale does not give you the proper average of your forage lot. Using a coring device and taking a sample from multiple bales will provide a good representation of your lot.

When sending in a pulled core sample to KDA:

A zipped sandwich size baggie of the sample – 8 to 12 cores usually fills up a baggie

A Forage Request Form filled out with comments and attached to each sample

A Check or Money Order for the total amount of samples; one check is sufficient per producer.

Mail it or drop it off with the receptionist – we are open 8:00 am to 4:30 pm.

# What do you Use to Sample your Hay?

## Coring Units

There are multiple styles and sizes from manual core to using a drill

If you purchase a manual unit, give thought to how tight your bales are

If you use the drill coring unit, make sure you get a voltage that can handle the stress

If you enter “forage core sampler” in the search on the internet, it will list a variety of units

single core – must empty after each core

multiple core with a collection chamber – collect the entire sample

They range in price from \$130.00 for single core and up \$\$\$ for the multiple core unit

Some agents lend the their unit out or will come take the samples for you. Having your own unit may be more convenient and fit your schedule better.

One thing I want to stress is how the tip is replaced. Some are more expensive than others and some are easier to replace than others.

Pay attention to the length, they come in multiple sizes; I do not recommend anything over 18”

## The Analysis Report –

### How much does it cost?

It is \$10.00 per lot which is same field same cutting.

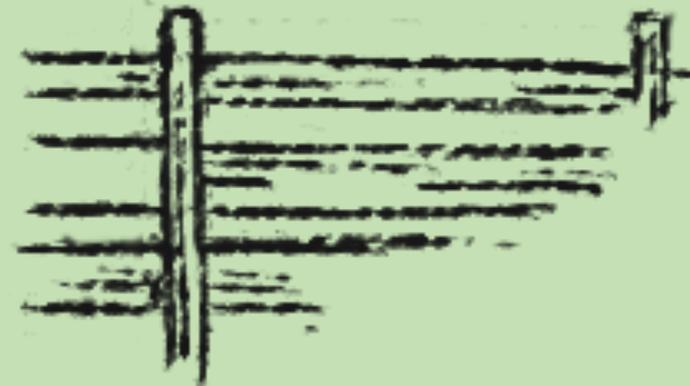
### What do you get?

You and your extension agent will receive an NFTA (National Forage Testing Association) certified forage analysis report via mail or email listing your nutritional and energy levels.

### What do you do with it?

You can use this information to:

- \* Set a ration balance – (reference next slide).
- \* Establish hay allocation - who gets what hay?
- \* Determine the amount of supplements if needed.
- \* Compare from year to year / field to field
- \* For sale – you want a fair price.



# We talked about the livestock – Lets talk about the monetary profit or loss

It's winter, it's cold and time to feed your stored forages. You put out a few bales of hay along with some corn, grain or other supplements that you think they might need; you think - not know!

Say you are feeding the clover grass you put up late at the end of the season. You are feeding to cows in mid gestation that needs 10% CP – 60% TDN. You don't know this but the clover grass is actually 14% CP – 64% TDN . This puts you over feeding by 4%! And what about your energy? Is it there? How do you know?

Your herd is eating good because you are feeding a high protein hay since you didn't have it tested. Plus the added supplements and/or a protein or mineral block; that protein consumption could actually be higher. All this adds up

Let's say you have 20 head of livestock

The 4% represents \$2.00 per head cause you are over feeding – 4% and \$2.00 is a number off the top of my head

Let's break it down:

\$2.00 per head x's 20 head of livestock = **\$40.00** per day

\$40.00 per day x's 7 day's because you don't get weekends off = **\$280.00**

\$280.00 per week x's 4 weeks = **\$1,120.00**

\$1,120.00 per month x/s 4 months = **\$4,480.00**

**That is \$4,480.00 you have lost that could have been a profit with a \$10.00 forage test.**

Think about that a minute – is that a farm payment, a doctor bill, or farm equipment repair.

Now what if you lost your herd due to underfeeding? I am sure you all have heard the horror stories of herds starving to death because the farmer thought he had good hay.....Don't be that farmer.

# 10 Keys To A Profitable Forage Program

FORAGES TYPICALLY ACCOUNT FOR OVER HALF THE COST OF PRODUCTION OF FORAGE-CONSUMING ANIMALS AND PROVIDES MOST OF THEIR NUTRITION. EFFICIENT FORAGE PRODUCTION AND UTILIZATION ARE ESSENTIAL TO A PROFITABLE OPERATION

- #1 Know Forage Options & Animal Nutritional Needs:** Forages vary as to adaptation, growth, quality, yield persistence and potential uses.
- #2 Establishment is Critical:** Good forage production requires an adequate stand of plants.
- #3 Soil Test, then Lime & Fertilize as Needed:** This practice affects the level & economic efficiency of forage production. It helps to ensure good yields, improve forage quality, lengthen stand life and reduce weed problems.
- #4 Use Legumes Whenever Feasible:** Legumes offer important advantages including improved forage quality and biological nitrogen fixation.
- #5 Emphasize Forage Quality: High animal gains, milk production, and reproductive efficiency require adequate nutrition.**
- #6 Prevent or Minimize Pest & Plant Related Disorders:** This lowers yields, reduces quality and stand persistence and/or steals water and nutrients from forage plants.
- #7 Strive to Improve Pasture Utilization:** The quantity and quality of pasture growth vary over time.
- #8 Minimize Stored Feed Requirements:** Stored feed is one of the most expensive aspects of animal production so lowering requirements reduces costs. Extend grazing seasons if possible.
- #9 Reduce Storage & Feeding Losses: Minimizing waste with good management, forage testing and ration balancing enhances feeding efficiency.**
- #10 Results Require Investments:** The best and most profitable forage programs have had the most thought put into them.

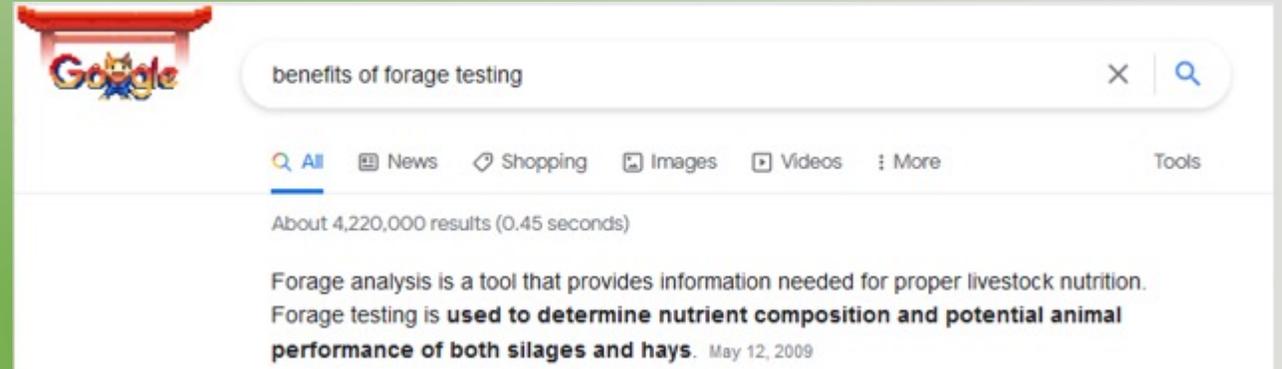
Don't take our word on it -

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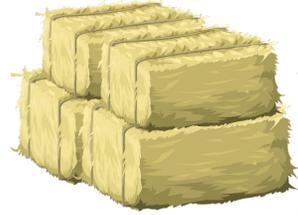
If you need additional information

Google it!!!!

There are over 4 million results on the benefits of Forage Testing.



# For Sale Website



If you have your forage(s) tested by KDA and would like to sell it; we can help you. It is a free service we offer to help promote your hay.  
<https://www.kyagr.com/marketing/hay/hay-search.aspx>

We do not guarantee that you will sell your hay; but you can't beat free advertising.

If you need hay, this website will display tested Kentucky hay by county, type of hay and/or size of bale.

We are supporting and bringing the Kentucky consumer and producer together.

If you have any questions please contact me at:

[kimberly.field@ky.gov](mailto:kimberly.field@ky.gov)

or

502-782-9210

