Forage Standards

The UK Division of Regulatory Services Forage Testing Program follows the standards outlined by the National Forage Testing Association (NFTA)

KADF
KENTUCKY AGRICULTURAL DEVELOPMENT FUND

Through a collaborative partnership between the UK Division of Regulatory Services, Kentucky Department of Ag, and the UK Forage Extension Program, we are committed to supporting producers, enhancing animal nutrition, promoting sustainable agriculture, and protecting consumer trust in forage-based systems.

Cooperative Extension Service

Sampling Hay

UK recommends that Producers and County Extension agents complete a free one-hour course, "***How to take a Good Hay Sample***," provided by NFTA, to ensure that samples are properly collected. The training is available online at **foragetesting.org**, by clicking the "**Certified Sampler**" tab.

Contact Information

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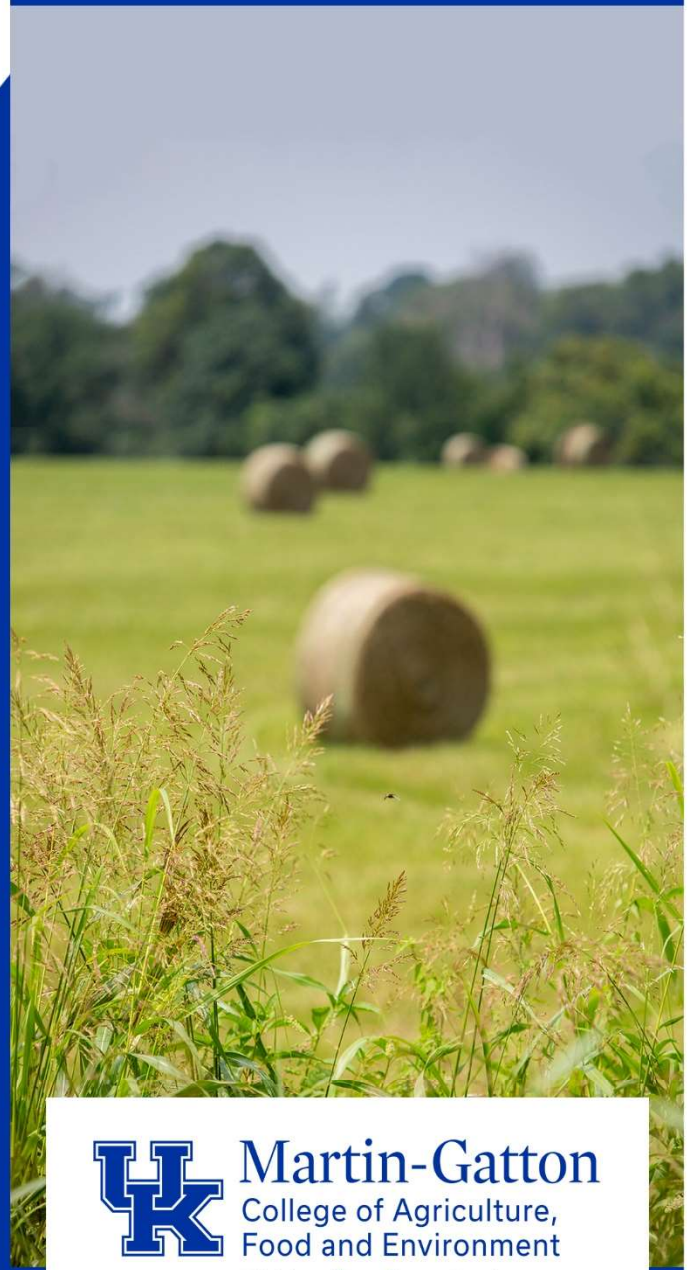
Forage Testing



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Benefits of Testing

Forage: plant material of grass, legume, or grain origin eaten by livestock. **Forage testing** can help producers minimize cost and maximize production.

The Forage Testing Program offered by the UK Division of Regulatory Services (UKDRS) provides essential nutritional analysis for Kentucky forage producers.

This data supports livestock producers in formulating balanced rations for their animals, promoting better health and productivity.

By testing forage, producers can assess its market value, monitor quality changes over time, and make informed decisions for both selling and feeding purposes.

Ultimately, forage testing helps producers reduce costs and enhance production efficiency.

Marketing:

Kentucky Proud

Forages tested by the UKDRS Forage Testing Program can be listed for sale on the Kentucky Department of Ag (KDA) Marketing website.

Forage Report Interpretation:

- Work with your Extension Agent to interpret results and balance rations
- Helpful resources are available at: Forage Testing | Beef Center of Excellence

Forage Testing

Forage Sample Submission Guidelines:

1. **Sampling Best Practices**
   - Representative sample is critical
   - Minimum quart-size freezer bag
   - Refer to how to pull a core sample
2. **Sample Identification**
   - Clearly label each sample
   - List codes & requested services
   - Use comments to clarify sample origin
3. **Submission & Payment**
   - Submit samples M-F, 8-4
   - Ship via UPS or FedEx to:

     Regulatory Services
     Attn: Forage Program
     103 Regulatory Services Building
     Lexington KY 40546-0275

Calculated Values:
TDN, RFV, RFQ
NE_M (Net Energy for Maintenance)
NE_L (Net Energy for Lactation)
NE_G (Net Energy for Gain)

Reports by species (equine and ruminant)

Sample Analysis

Understanding your Forage Report

AS IS (As Fed) value reflects the nutrient concentration in the forage sample as it was received, including all moisture. Values used for formulating rations

Dry Basis value represents nutrient concentration with all moisture removed. Dry Basis values are used for comparing samples

Key Nutritional Components:

CP (Crude Protein) sum of true protein and non-protein nitrogen

ADF (Acid Detergent Fiber) Indicates least digestible plant components: cellulose, lignin, silica

aNDF (Amalyase-treated NDF) total cell wall content.

dNDF (24, 30, 48 hour) Digestible NDF after 24, 30, or 48 hours of fermentation. Indicates how much fiber is actually usable by the animal

aNDFom NDF value corrected for ash content

uNDF240/uNDF240om Undigestible NDF after 240 hours Reflects the indigestible fiber fraction, which can impact passage rate

Ash Total mineral content of the forage

Crude Fat Includes all lipid content. Important for energy density.

Liginin Indigestible component of plant cell walls

Fructan type of carbohydrate stored in cool-season grasses

Starch Readily digestible carbohydrate. Important energy source

ESC (Ethanol Soluble Carbohydrates) Readily digestible carbohydrate

WSC (Water-Soluble Carbohydrates) Includes simple sugars and some fructans. Important for palatability and energy

IVTDMD (In Vitro True Dry Matter Digestibility 24, 30, 48 hour) Measures how much of the forage is digestible after a set time.

Minerals:

Ca (Calcium) Essential for bone development, muscle function, and milk production

P (Phosphorus) Important for energy metabolism and skeletal health

K (Potassium) Regulates fluid balance and nerve function.

Mg (Magnesium) Supports enzyme function and nerve transmission.

Protein Fractions:

ADICP (Acid Detergent Insoluble Crude Protein) Protein bound to fiber and unavailable to the animal.

NDICP (Neutral Detergent Insoluble Crude Protein) associated with the cell wall. Partially available depending on digestibility.

INSOL CP (Insoluble Crude Protein) Portion of protein not soluble in water. May include both digestible and indigestible fractions

Analytes above reported in %