

Conservation Stewardship Program – Animal Enhancement Activity –ANM17- *Monitoring Nutritional Status of Livestock using the NIRS/ NUTBAL PRO System*

Enhancement Description:

Use the NUTBAL PRO software to determine if the current diet is sufficient to meet livestock nutritional needs. This requires the collection and laboratory NIRS analysis of fecal samples to determine the nutritional value of grazed forages.

Land Use Applicability: This enhancement is applicable to pastureland and rangeland.

Benefits: NUTBAL PRO is decision-support software that assimilates information regarding animal attributes, environmental conditions, forage conditions, feeding program, and metabolic modifiers. Nutbal Pro reports provide information to:

- balance animal nutritional needs with contributions from grazing forage,
- select the most cost efficient feed alternative, amount to be fed, and cost per day,
- evaluates feeds' values with regards to the animal's nutrient deficiency or desired gain,
- monitor the quality of grazing forages throughout the year, and
- better understand animal nutritional needs as they change throughout the year.

For specific information on monitoring criteria as well as required documentation please contact your local NRCS office or agent administrating your CSP Contract.

Attached are portions of our rancher information packet that will address many of the questions that producers may have. You will also notice a couple of them are written from the "consultant's" perspective rather than directly for the producer.

Pricing on the two products the GAN lab offers:

Option 1: NIRS Results and NUTBAL Report \$35.00 per sample this option includes NIRS fecal analysis (crude protein and energy of forage consumed) and an online NIRS/NUTBAL PRO system report for multiple profiles. Users can choose between online system access or have the results and report sent directly to them via email, fax or regular mail.

Option 2: NIRS Results and NUTBAL Advisory \$70.00 per sample This option includes NIRS fecal analysis (crude protein and energy of forage consumed) as well as an advisory written by one of our staff providing recommendations to meet desired production goals. This option is NOT required for CSP contracts, but can provide additional help for interpreting NIRS/NUTBAL results and evaluating options for meeting production goals. Delivery of the advisories will be via email, fax, or regular mail. For samples with more than **three profiles**, a fee of **\$ 10.00 will be assessed for each additional profile**. Please allow for extra time for completion of option 2 as each advisory is written on an individual basis.

Which option should the CSP participating producer choose?

Either of the above options will satisfy the requirements for the CSP program. The answer to this question depends on how knowledgeable the producer is regarding animal nutrition, as well as how comfortable the producer is making management decisions from this information. Insight and feedback from the producer's local NRCS representative is also quite beneficial.

Please call or email with any questions.

Thank you and regards,

Stephen Prince

Stephen Prince

Lab Director

Grazingland Animal Nutrition Lab

Blackland Research & Extension Center

720 E. Blackland Road

Temple, TX 76502

254.774.6134 Fax: 254.774.6150

ganlab@brc.tamus.edu

<http://cnrit.tamu.edu/ganlab>

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Helpful hints and frequently asked questions:

Can I collect and freeze fecal samples before I ship them?

Yes, freezing of the fecal samples do not negatively affect the NIRS analysis and will help insure that shipped samples arrive in good condition.

Can I collect samples over time and then wait and send in all six samples at the same time?

No, in order to have the best information possible to support your decision making, we highly recommended that you send in samples over the course of the entire year. Doing so will provide you with near real time nutritional information and will help mitigate nutritional deficiencies and/or extra expenses incurred due to unnecessary supplementation.

How much manure is needed to complete the analysis?

As part of our sample processing procedure, all samples are dried to a consistent moisture content level and then ground in a sample mill. The processed sample basically looks like green flour. It is for this reason that we recommend sending in no more than a pint sized sample of manure in a quart sized zip-lock style bag. Please do not use the slider style bags, as these tend to leak during transit.

How long does it take to get my NIRS results and NUTBAL reports?

Normally this process takes 3 to 5 days from the time the lab receives the sample until results and NUTBAL Reports are ready to be sent. If an advisory is requested this will take additional time as the advisories are written on an individual basis.

In addition, the lab typically experiences an extremely high number of samples in the last few months prior to the yearend contract deadline. To insure the quickest turnaround time, we advise that samples be submitted over the course of the year or growing season to avoid the yearend deadline rush.

Is the GANLAB a private commercial Laboratory?

No, the GANLAB is a unit within Texas AgriLife Research, a division of the Texas A&M University System. Our focus is to offer diagnostic analysis and decision support software that is used as a nutritional monitoring program for grazing livestock. In addition to our own research, we facilitate the research of other entities with our NIRS capabilities. We operate under the Center for Natural Resource Information and Technology (CNRIT), a center within Texas AgriLife Research that is devoted to providing technology solutions in the realm of natural resource management. We provide CNRIT the capability to assess and manage animal nutritional well-being and to develop project specific NIR applications. Though research is our primary focus, we also offer nutritional analysis to the public through our commercial services. Since we are a university entity, our rates for services are solely for cost recovery, and not for profit.

I, or my NRCS representative, would like to run my own NUTBAL reports. Is this possible?

Yes, if you or your NRCS representative would like to run your own NUTBAL reports you can use the online system and/or download the "standalone" version of the software from our website.

What is the best way to find additional information about the GANLAB and offered services not cover in this correspondence?

Our website has the most up to date information about the GANLab along with downloads and training information. Please visit <http://cnrit.tamu.edu/ganlab>.