Animal Enhancement Activity – ANM65 – Monitoring nutritional status of ruminant livestock using the NUTBAL system

Enhancement Description
Use the NUTBAL Online application to determine if the current diet is sufficient to meet ruminant livestock nutritional needs and develop a least cost nutrition management plan. This requires the collection and laboratory analysis of forage or fecal samples to determine the nutritional value of grazing forages.

Land Use Applicability
Pastureland, Rangeland

Benefits
NUTBAL Online is a computerized decision support tool that assimilates information regarding animal attributes, environmental conditions, forage conditions, feeding program, and metabolic modifiers. The report produced from NUTBAL Online provides 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 to meet producer performance objectives;
- Evaluate feed stuff values with regards to the animal's nutrient deficiency or desired gain;
- Monitor the quality of grazeable forage throughout the year; and
- Better understand animal nutritional needs as they change throughout the year.

Conditions Where Enhancement Applies
This enhancement applies to all pasture or range land use acres.

Criteria
1. Analyze forages (using either fecal samples or forage tissue sample) by an accredited laboratory,
   - Samples must be submitted for analysis as soon as possible after collection.
2. Access NUTBAL Online application (see link below) to enter the information received from the laboratory for the fecal or forage tissue sample and the ruminant livestock kind, class, and weight:,
   - Access the website at: http://cnrit.tamu.edu/nutbal_online/
3. A NUTBAL report must be generated, and management decisions documented and implemented within 14 days from receiving the forage or fecal analysis, and
4. A minimum of 6 forage or fecal samples must be analyzed and NUTBAL reports must be completed throughout each year. It is best if samples are collected approximately every 2 months or during periods of nutritional stress (e.g., extreme cold or drought).

Adoption Requirements

This enhancement is considered adopted when a minimum of 6 NUTBAL reports have been generated per year and the results have been used to make management decisions.

Documentation Requirements

For each sample that reflects the current diet and sufficiency to meet ruminant livestock nutritional needs:

1. A copy of the forage or fecal sample analysis report.
2. A copy of the NUTBAL reports.
3. Written documentation of the management decisions made as a result of the analysis.

References

CNRIT. 2011. Grazing Animal Nutrition Lab website. Texas AgriLife Research. Texas A&M University. http://cnrit.tamu.edu/ganlab/index.php

Walker, J., D. Tolleson, S. Byrns and P. Benge. 2010. Shining Light on Manure Improves Livestock and Land Management. Texas AgriLife Research Technical Bulletin: SANG-2010-0250. Texas AgriLife Research and the Society for Range Management.