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A voluntary partnership with private landowners

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What Animal's Eat Can Maximize Investment

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When cattleman Cliff Schuette was told that manure samples from his cow herd could increase the profits and efficiency of his operation, he took a couple steps back. "You want me to do what?" Schuette remembered saying. After three years of testing manure samples and getting the data readings, that's exactly what happened.

Schuette runs a cow/calf operation just north of Breese, Illinois which he began in 1997. Open minded when it comes to running his operation, he set out to balance the management verses equipment challenge. After several meetings with the Extension Service and NRCS, he decided to move towards more forage and less row crops. Schuette said, "I didn't like constantly repairing equipment and couldn't afford to purchase new equipment. I am always looking to optimize the level of production to see how I can maximize my operation and be as economical as possible."

Cliff Schuette, cattleman from Breese, Illinois has had success using the NUTBAL program.

Schuette was introduced to the Nutrient Balancing Analyzer (NUTBAL) assessment by Roger Staff, Grass Land Specialist for the USDA Natural Resources Conservation Service (USDA-NRCS), in 1999. By 2003, he was able to visually see how his cattle were doing and has learned to make different forages available at the proper time. "I have gained the confidence needed to know the forage and how the animals use it," he said. "The program [NUTBAL] gave me the data I needed to know to make the right decisions."

Winter feed alone accounts for more than 60% of the cost of keeping cows in Illinois and is generally the most costly and labor intensive portion of beef production. There are options to greatly reduce feed costs for the cow herd and maintain consistently higher quality feed than large round hay bales stored outside. Schuette uses a combination of oats, wheat, clover, turnips and rye,

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What Animal's Eat *(continued from page 1)*

as well as stockpiling tall fescue, to ensure his cattle have the correct amount of protein and energy at all times. "I am able to use the land all year," he said, "not just the traditional eight months." Schuette said he has cut his daily costs from approximately one dollar a cow to 20 cents a cow.

The NUTBAL assessment program was developed by the late Dr. Jerry Stuth, Professor at Texas A&M University's rangeland ecology and management department. Dr. Stuth also established the Grazingland Animal Nutrition Lab (GANLAB) in College Station, Texas. The procedure is a two step process. The GANLAB performs the near infrared spectroscopy (NIRS) analysis of the manure samples, the NUTBAL software assesses the values determined from NIRS analysis and extrapolates the values for crude protein (CP) and digestible organic matter (DOM). There have been upgrades made to the program and the latest version is now called NUTBAL PRO.

The USDA-NRCS offers cattle producers the opportunity to work with NUTBAL through the agency's grassland specialists. According to Arnold Norman, USDA-NRCS, Rangeland Management Specialist at the Central National Technical Support Center (NTSC), the NUTBAL program is essential when determining the proper forages to the particular animal. "We can analyze the fecal content, input it into the database, and tell the operator when and where the cattle should be grazing at any time during the year." Norman calls this process 'management through economics.'

Schuette has sent 160 samples through the NUTBAL assessment software over the three year span. He is joined by 20 other producers in Illinois that have utilized the data, as well as many producers across the upper Midwest. All have found the data useful in improving their management efficiency with animal nutrition as well as financially rewarding.

Schuette's Improvements

Schuette managed three different herds, totaling 220 head, on 200 acres in permanent pasture with another 200 acres of row crops incorporated into the pasture rotation during the manure sampling period. When analyzing the data on the predominate forage of Tall Fescue and Red Clover, the nutritional values have leveled out during the last year of sampling.

The cows are rotated on an average of a five day sequence to allow the grasses to recover. Depending on the type of forage, weather conditions, and other elements, they may stay only a couple days to a week. He rotates the cattle in multiple forage pastures of oats, rye, turnips, clover, tall fescue, corn stalks and crabgrass.

With this more intensive grazing approach, Schuette has seen some environmental advantages as well. "It's a mind set I have where I want something growing all year, whether it's green forage for grazing or a good root system in place that protects the soil. And we have noticed the absence of soil erosion in the fields." he said. "The water quality in the adjacent streams has improved considerably and wildlife have increased over the past couple years."

Once he started receiving the NUTBAL data, Schuette began his management changes. He started stockpiling fescue over winter for about 60-80 days and as long as 120 days. This way he has good quality feed on hand without the need to purchase stored feed. He started using turnips just to try something different. The turnips fill the gaps between other forages nutritional high and low cycles and are high in protein and water.

There can be a problem where forages are too high in quality. The data also shows when there's a need for balancing it with dry matter. The samples tested tell the nutritional count of the forage at the time it peeks and when it drops.

NUTBAL has shown surprises

Norman reinforces this has been an education for everyone involved. "Forages we have always assumed to be high in nutrients such as switchgrass," he said, "have shown to have a very short timeframe where their nutritious levels are high. Whereas, crabgrass had always been considered a weed, our data analysis shows it has great value for nutrition for a much longer time period."

The fecal test records the type of forage the animal has ingested. The producer fills out additional information regarding animal attributes, environmental conditions, pasture conditions, feeding program, and metabolic modifiers. The program then incorporates GANLAB analyses crude protein (CP) and digestible organic matter (DOM). As each sample is tested, the data results tell at what nutrient level a specific forage species is that the cattle are ingesting.

Known forage samples are matched with feces of cows grazing. Then appropriate tables are used to reference data sets to build prediction or calibration equations. Fecal equation diet quality predictions were then validated against herds with known diet qualities. Equations developed to date appear to be highly reliable across a broad spectrum of forage types.

The guidance on nutritional management of livestock provided by NUTBAL PRO will help ranchers make critical management decisions, utilize their animals as a monitor for assessing how well their grazing and animal management program is working, and alert them of potential problems before negative conditions impact livestock and range conditions.

To learn more about the NUTBAL program, contact your local USDA-NRCS office or go to http://cnrit.tamu.edu/ganlab/Software/nutbal_pro_software.htm.

Foraging The Web

Online image gallery helps landowners ID plants

A useful website to help identify plants is the Noble Foundation's online Plant Image Gallery at http://www.noble.org/imagegallery. It is divided into sections on grasses and grass-like plants; forbs; and trees, shrubs and woody vines. Each section contains an index of common names, scientific names and family. Multiple full-color photographs of each entry enhance a user's ability to correctly identify the plant in question. The "Image Gallery Search Engine" is a new tool that allows users to choose criteria about an unknown plant from dropdown menus and then run a search for potential matches.

"It can be very time consuming to browse the gallery if you have no idea what you are looking for," says Chuck Coffey, a pasture and range specialist at Noble and one of the co-creators of the site. "The user will now be able to take a plant to the computer and work through the search engine in an attempt to identify it."

The new search engine is enhanced with pictorial keys for menu items such as leaf structure and fruit type, letting users see drawings and definitions of the characteristics and choose the right one for the plant they want to identify, Coffey says.

Coffey stresses that the closer users are to southern Oklahoma and North Texas, the greater the likelihood of them finding plants in Noble's Plant Image Gallery that are common to their region.

Home study course focuses on feeding corn co-products to beef cows

University of Nebraska Extension educators and specialists have developed a home study course for producers titled "Using Corn Co-Products in the Beef Cow Herd." This is the seventh course in a series of home study courses that have been written by the University of Nebraska extension staff since 1993. To date, over 5,000 courses have been distributed worldwide.

There are four chapters in the Beef Basics VII course which focuses on corn co-products. They offer the following information:

- Differences in the wet and dry milling process
- Nutrient content of different corn co-products
- Handling, storage, transportation and economics of utilizing corn co-products
- Beef cow rations/backgrounding rations using corn co-products

There is a quiz at the end of each chapter that can be mailed in and graded by University of Nebraska Extension educators. The graded quizzes will be mailed back to the participant.

The cost of Beef Basics VII is $40. For more information or to enroll in the course contact Dennis Bauer, University of Nebraska Extension educator at 800-634-8951.

Birds: At home on the range

The South Dakota Grassland Coalition is taking a clever approach to their annual summer grazing tour. They are teaming up with bird watchers and graziers to host a two-day tour that will showcase the beauty of birds and the importance of properly managed grasslands. In addition to touring two Western South Dakota ranches and allowing time for bird watching and photography, habitat speakers are on the agenda to discuss birds and cows co-existing with one another. A slide show highlighting bird photography taken by participants will conclude the event.

Perhaps this is an idea that could work in your home state! For more information about the event which is being held June 8-9 with headquarters in Rapid City, SD contact Justin Jessop at 605-895-2301 or jjessop@sdconservation.org.

More Grazing Events

May 30-June 1 61st Southern Pasture and Forage Improvement Conference, Ramada Inn, Tallahassee, FL. Learn more at spfcic.okstate.edu/.

June 14 Kentucky Forage and Grassland Council Summer Field Day, John Hagan Farm, Mt. Hermon, KY. Directions to the farm and additional information area available at www.uky.edu/Ag/Forage.

June 23-26 American Forage and Grassland Council Annual Conference, Penn Stater Conference Center and Hotel, State College, PA. Call 800-944-AFGC or email info@afgc.org.

June 26-27 Wisconsin Grazing School, East Troy, and July 24-25 -- Wisconsin Grazing School, Neillsville. To register, write a check to UW-River Falls for $75/person ($35 for second person from same farm). Mail to: Dennis Cosgrove, UW-River Falls, 410 S. 3rd St., River Falls, WI 54022. Phone: 715-425-3345. For program, visit green.uwex.edu/ag/documents/GrazingSchools2007.doc.

August 7-8 Nebraska Grazing Conference, Kearney, NE for more information visit www.grassland.unl.edu/grazeconf.htm

GLCI Good-Will Visits Made in DC

The message of the Grazing Lands Conservation Initiative was taken to Washington, DC this spring. The annual spring meeting of the National GLCI Steering Committee was held in our nation's capital on Feb. 26 (despite a snow storm!) And in March, GLCI chairman Bob Drake made the rounds to several of our nation's policy makers to present Meritorious Service Awards and thank them for their support of grazinglands issues. Drake is pictured presenting one of the awards to USDA Secretary Mike Johanns.

Similar awards were presented to Department of Interior (DOI) Fish and Wildlife Service Director Dale Hall, DOI Dep. Asst. Sec. for Fish, Wildlife and Parks Julie MacDonald, USDA Farm Service Agency (FSA) Administrator Theresa Lassiter and FSA's Rob Hosford.

Grassfed Grilling

Just in time for the grilling season Shannon Hayes introduces her newest cookbook "*The Farmer and the Grill: A guide to grilling, barbecuing and spit-roasting grassfed meat...and for saving the planet, one bite at a time.*"

Like her inaugural cookbook "*The Grassfed Gourmet Cookbook,*" it is chock-full of user-friendly recipes and stories that bring home cooks closer to the world of pasture-based farming and earth-friendly cooking. Whether you are a pro at the coals, or a complete novice, *The Farmer and the Grill* will help you to work with pasture-raised meats with ease and confidence. The book includes an introduction by well-known sustainable farm advocate Joel Salatin. To order visit http://www.grassfedcooking.com.

Great Grazing Award

Gerald and Barbara Jaeger of Campbellsport, WI, were presented the "Grazing Communicator Award" this spring by the regional publication AGRI-VIEW. Gerald represents the Farmers Union on the National GLCI Steering Committee.

GrassWorks, Wisconsin's Membership Organization of Graziers, chose the Jaegers for the honor for a number of reasons. The couple has used Management Intensive Grazing since 1998 and they raise 400 diary heifers for a neighboring farmer. In addition, the Jaegers are active in their local grazing network in Fond du Lac County and came up with the name: Fond O' Grass Grazing Network.

Gerald is the fifth generation on his family farm, which dates to 1850. He told the AGRI-VIEW newspaper "My heart has been in grazing since the beginning."

To have your GLCI activities or upcoming events highlighted in this newsletter, contact Kindra Gordon at phone 605-722-7699 or kindras@gordonresources.com.

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National Association of Conservation Districts
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National Cattlemen's Beef Association
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National Farmers Union
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Society for Range Management
Jason Campbell
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Soil and Water Conservation Society
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Visit the GLCI homepage at http://www.glci.org

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