

NEW RELATIVE FEED VALUE (RFV) FORMULA MORE RELEVANT FOR LIVESTOCK NUTRITION

University of Wisconsin scientists have developed a new formula for calculating forage feed values in an effort to more accurately predict the nutrient value of forages for livestock rations. These scientists' measurements of fiber digestibility (relative feed value) index, which would shortcoming that has become more through research into fiber digestibility.

The proposed new index, tentative relative feed value (dRFV), was developed by Dan Undersander, extension forage specialist at the University of Wisconsin, along with Randy Shaver. If approved by testing labs, nutritionists, growers, and others, dRFV will replace RFV across the country as early as spring. Everything looks positive so far. Undersander. If people accept it, we'll likely go steam ahead.

The current RFV was implemented in 1978, but farmers know that hay lots with identical always result in the same amount of milk. Scientists have learned more about fiber digestibility. It has become apparent that a forage's energy content has more to do with the ability for livestock to digest the fiber than originally assumed. Forages' parameters (see sidebar beginning analysis definitions) can vary widely in fiber digestibility.

The old RFV uses ADF (acid detergent fiber) to estimate energy content, but ADF doesn't fully explain variation in forage digestibility. While that was a lot of years, that's not good enough. Undersander. NDF is factored into the formula for the new dRFV, in order to predict potential intake of forages in addition to the energy content, and has been added to the Wisconsin's Milk2000 spreadsheet for estimating the amount of milk produced per ton of forage.

WHAT'S IN A HAY TEST? KEY DEFINITIONS

Crude fiber (CF) is the total cell walls and lignin. Higher NDF means the forage is higher in fiber. **Acid detergent fiber (ADF)** estimates all cell wall contents except hemicellulose, and can be used to measure digestibility. **Crude fiber (CF)** is the total cell walls and lignin. Higher NDF means the forage is higher in fiber. **Crude fiber (CF)** is the total cell walls and lignin. Higher NDF means the forage is higher in fiber. **Crude fiber (CF)** is the total cell walls and lignin. Higher NDF means the forage is higher in fiber.

Total digestible nutrients (TDN), the energy value of a forage, is the sum of the digestible portions of that forage. **Total digestible nutrients (TDN)**, the energy value of a forage, is the sum of the digestible portions of that forage.

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HAY TEST, CONTINUED....

Dry matter (DM) is nutrient content minus water. Feeds are compared on a dry-matter basis.

Dry matter intake (DMI) estimates the intake of a forage by body weight of the animal. It is calculated by dividing 120 by NDF. A DMI of 3% indicates that a 1000 pound cow should consume 30 lbs. of forage on a dry matter basis.

Digestible dry matter (DDM) is a measure of energy; the higher the ADF, the lower the DDM.

Relative feed value (RFV) is an index that combines digestibility estimates of ADF and intake estimates of NDF. The reference value of 100 is based on full-bloom alfalfa. Theoretically, hay with 110 RFV would have 10% more energy than full-bloom alfalfa.

Digestible relative feed value (dRFV) is a more accurate predictor of energy content and intake of forages. The formula is:

$$dRFV = (TDN \times \text{intake} \div 16.8) + 39.2$$

Where:

$$\begin{aligned} TDN_{1x} &= dNFC + dCP + (dFA \times 2.25) + dNDF - 7 \\ &= [(NFC \times .98) + (CP \times .93) + (FA \times .97 \times 2.25) + (NDF \times NDFD \div 1000)] - 7 \end{aligned}$$

NDFCP = crude protein remaining in NDF residue (average 3.8 for alfalfa/grasses)

FA = ether extract - 1

NFC = 100 - (CP + NDF ÷ ether extract + ash - NDFCP)

NDFD neutral detergent fiber digestibility = grams NDF digested in 48 hours per gram NDF

WSHGA LEADERS TO MEET WITH OREGON, IDAHO GROWERS IN TRI-STATE MEETING

The Washington State Hay Growers Association will participate in a tri-state meeting with the Idaho Hay Association and the Oregon Hay Association. This 2nd annual tri-state meeting will be held at the Oregon State University Extension Office at 3rd and Isaac in downtown Pendleton. For the meeting will feature a variety of topics for hay growers.

Thursday, April 4

- 9:00 a.m. Call to Order and Introductions
- 9:15 a.m. Genetically Modified Alfalfa Varieties
Dr. Peter Reisen, Forage Genetics International
- 10:00 a.m. Klamath Basin Update
Rodney Todd, OSU Ag Extension
- 11:00 a.m. Market News Report
Jack Getz, USDA-AMS
- 11:30 a.m. General Discussion and working lunch
Cereal Leaf Beetle Research
Clopyralid-contaminated Compost
Agricultural Financing
Northwest Hay Markets
Export Hay Markets
Western States Alfalfa Conference
- 1:00 p.m. Power Outlook
Rick Itami, BPA
- 1:55 p.m. Future Meeting Date
- 2:00 p.m. Adjourn

There will be a no-host dinner.

MARK YOUR CALENDARS!!!

**WSHGA ANNUAL HAY CONFERENCE
JANUARY 21 - 22, 2003**

**DOUBLETREE HOTEL
PASCO, WA**

MARCH 2002

FRIENDS TO HOLD BENEFIT FOR DOUG FLAUGH

Early on the morning of November 2, 2001, 46-year-old Doug Flaugh of Moses Lake had a heart attack, flat-lined in the emergency room and thanks to excellent medical help, was revived and stabilized. He was airlifted where he was diagnosed with leukemia (CML). Doug went to transplant, which will be required to save his life.

Doug Flaugh is a WSHGA member and has been farming in Moses Lake for good in 1994 and he and his family raise alfalfa, wheat, corn, and grass seed.

Doug's wife Debbie is with him in Seattle and they have had to rent an apartment at Hutchinson Cancer Research Center. Regrettably, Doug's insurance so with the added rental expense, the family is quickly being overwhelmed with bills.

Doug's friends will be holding a dinner and benefit auction on Saturday, April in the cafeteria. There will be a silent auction begin at 7:15 p.m. Yarbro Auctioneers have donated their time and JonathINN's has graciously donated their catering services for the main course and side dishes. A delicious BBQ dinner will be served for only \$10 per person, \$18 per couple, and \$5 each for proceeds going back to the Doug Flaugh Fund.

Any items or services that anyone can donate to this worthy cause would be greatly appreciated. Money made to the Doug Flaugh Medical Account, c/o 12511 Road 7 NE, Moses Lake, WA 98837. Money to Doug can be sent to him at Oakwood Seattle Apartment #402, 312 2nd Avenue W, Seattle, WA 98119. For about the auction call 509/765-6434 or 509/765-3072.

