

Prairie News

RFV vs RFQ

Relative feed value (RFV) is a term the feed industry has used for years for comparing forages. This index uses the fiber fractions (ADF and NDF) to calculate the value of a forage relative to full bloom alfalfa (100 RFV). While it really is not used in formulating rations, it has been widely accepted as a tool for pricing hay and predicting livestock performance.

However, RFV does not take into account differences in fiber digestibility. You may have noticed that 1st crop hay tends to outperform later cuttings and grass hay tends to outperform alfalfa at a similar RFV. These differences are due to changes in NDF digestibility (NDFd).

Crops grown during cool weather grow slowly and

incorporate more digestible forms of NDF into the plant structure. This is why early crops tend to be more digestible than later cuttings and hay grown in northern climates tends to be more digestible than hay from hot southern areas.

Another place that RFV falls short is in comparing alfalfa to grass or grass/alfalfa mixtures. Grass naturally contains more total fiber so the RFV is typically lower than pure alfalfa. However, the fiber is more digestible so at a fixed RFV, grass contains more digestible nutrients.

A newer index, Relative Forage Quality (RFQ), takes into account these changes in digestibility and more accurately predicts animal performance. Us-

ing RFQ, different mixtures of grass and alfalfa can be more accurately compared.

Next time you buy or sell forages consider using RFQ, or at least look at the spread between RFV and RFQ. Forages with a much higher RFQ are likely to contain more grass and early season alfalfa. For more information on RFQ and the effects of NDF digestibility contact your Prairie Ag Nutrition Consultant.

Kyle Taysom
Nutrition Consultant

$$RFV = \frac{[88.9 - (0.779 \times \%ADF)] \times [120 / (\%NDF)]}{1.29}$$

$$RFQ = \frac{[120 / (\%NDF)] \times [(NFC \times .98) + (CP \times .93) + (FA \times .97 \times 2.25) + (NDFn \times (NDFd / 100)) - 7]}{1.23}$$

Upcoming Events

- > June 19: Pepin County Dairy Breakfast - Doug & Toni Knoepke Farm
- > June 26: Buffalo County Dairy Breakfast - Randy & Deb Rotering Farm
- > July 20-22: Farm Technology Days— Roger and Beverly Peterson Farm
- > August 14: St. Croix County Farm City Day— Croes Udder Dairy/ J&C Croes Farm

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The average cow spends over 5 hours per day eating.

Time Budgeting—A Cow’s View

At first glance, it may seem that a high producing cow has nothing to do all day except eat, drink, and sleep. In an ideal world this would be true but time spent in the holding pen, parlor, management rail or locked in head locks really cuts into her day.

Research has repeatedly shown that elite cows, in the top 10% for milk production, require 13-14 hours of resting time per day. The average cow spends over 5 hours eating, 1/2 hour drinking and 2 hours of standing each day. At best that leaves 3.5

hours per day for milking and management.

Overstocking pens puts even more stress on already time-crunched day. In pens with stocking rates over 120% cows will spend an extra 1/2 hour per day standing. This especially hurts 1st lactation cows and cows with lameness issues.

Researchers at the Miner Institute put together a spreadsheet to help analyze your dairy herd’s time budget. Simply enter your estimates for time spent milking,

and being managed (rbst treatments, herd health, and synchronization). Then enter the number of cows and usable stalls in each pen.

The spreadsheet will calculate the available time for resting and estimates for lost milk, energy, and body weight if your cows are short of resting time. To access the spreadsheet simply locate it under the tools/calculators section at prairieagsupplyllc.com. For further assistance or questions contact your Prairie Ag Consultant.

For more useful tools and calculators click on Tools/Calculators at prairieagsupplyllc.com. Then create a username and password to access a variety of spreadsheets that can be used for management decisions and performance evaluation.



Tom, Allicia, Jackson –2, and Mason—9 months

Employee Profile—Tom Pfeilsticker

Tom Pfeilsticker has been a Dairy Nutrition Consultant at Prairie Ag Supply for over 11 years. Originally from Wabasha, Minnesota he received his Bachelors degree from UW-River Falls in 1998.

After graduation he began working at Prairie Ag Supply where he provides ration balancing services for his clients and works to help them improve their produc-

tion and management practices.

Tom and his wife, Allicia, are proud parent of two young boys, Jackson—2 years, and Mason, 9 months. While the boys are too young to do chores yet, they are already excited about agriculture and the newborn beef calves on Tom’s hobby farm.

Outside of his career, Tom enjoys raising a small herd of An-

gus beef cattle. He’s also been known to be a proficient turkey hunter and whitetail deer hunter.

Around the office Tom is known for his outgoing personality. Evidence of this is his favorite quote, “It’s a dog eat dog world out there, and I’m wearing milk bone underwear.”

Management Considerations to Combat Heat Stress

It's getting to be that time of year when higher temperatures and humidity can lead to stress on your herd. Heat stress occurs when an animal's body temperature rises above normal due to environmental factors. Air temperature, humidity, air flow, radiation, sunlight, and ground temperature all influence the ability of the animal to control its internal body temperature. Here are a few considerations to help combat the stress and keep your herd productive:

1) Water – Provide plenty of clean, fresh drinking water in both pens and the return alleys. Keep waterers clean to stimulate intake. You may want to consider cleaning waterers twice as often as in winter (Dirty water will discourage intake). Waterers should be located close to feeding area to encourage both feed intake and frequent drinking. Provide plenty of water space, to encourage consumption. Fans and sprinklers or at least shade should be located over the feeding and watering area to encourage consumption. Cooled water can help dissipate body heat, but is not really practical due to cost of cooling and cows prefer to drink warmer water.

2) Cow Cooling – Run sprinklers on a 15 minute cycle (3 minutes on, 12 minutes off) at 70-75 degrees F, 10 minute cycle (2 minutes on, 8 minutes off) at 80-

85 degrees F, and 1-2 minutes on, 3-4 minutes off when temperatures exceed 90 degrees F. Sprinklers that emit large droplets are preferred. Sprinklers that produce a fine spray/mist increase humidity and do not cool cows as effectively. Occasional spraying with a high volume hose may be helpful if no sprinklers are available.

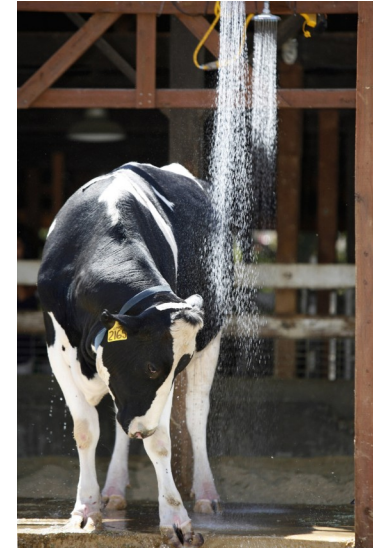
3) Air Movement/Ventilation – We need to get rid of stale air and keep air moving over cows at all times. We recommend fans over the stalls, to ensure cows want to lie down. If fans are over the feeding area, they should not be blowing water on feed, which would cause feed to heat quicker. Fans should be placed 10 feet apart for every foot of fan diameter (i.e. 4 feet fans should be 40 feet apart or less). Turn fans on when temperature exceeds 65-70 degrees, and keep in mind the air temperature will be 5-10 degrees warmer between the cows. Be careful not to turn off fans too quickly, nighttime is a crucial time for cooling cows, as their internal body temperature peaks at night.

4) Feeding – Consider feeding in late afternoon/evening, since cows may eat as much as 2/3 of their diet at night. This will help keep feed fresh, and could be especially important this year with some HMSC and corn silage containing high levels of yeasts

and molds. If feed is heating, consider putting preservatives/TMR savers into TMR to limit heating and spoilage. Feeding sodium bicarbonate and/or potassium carbonate will help to balance electrolytes. This will help maintain water balance, dry matter intakes, and replenish minerals lost when the cow sweats. Increase the nutrient density of rations to meet energy and protein requirements, but do not compromise rumen health. Grains produce less heat than forages during rumen fermentation, so increasing grain levels we can lower the heat load on the cows. Finally, feeding rumen specific yeasts and yeast cultures will help maintain dry matter intakes during heat stress as well.

For more information on how to combat heat stress in your particular barn contact me or any of the Prairie Ag Nutrition Consultants.

Neal Winger
Nutrition Consultant



Even occasional treatment with large doses of water can help mitigate the effects of heat stress.



Consider cleaning water troughs twice as often during summer months. Dirty water troughs discourage intake.

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Spring is a great time of year to start supplementing your deer herd with mineral. With does nursing young fawns and bucks rapidly growing antlers, the whole herd can benefit from the additional vitamins and minerals in Uncle Kurt's.

Plus, repeated use of a mineral lick can help establish a buck's home territory and behavior patterns. Can mineral really make deer grow bigger antlers? That's hard to prove but providing vitamins and minerals that are essential for antler develop-

ment will help bucks reach their genetic potential. Our philosophy is, a healthier deer herd will produce more trophy bucks.

While employees at Prairie Ag Supply have seen the results of Uncle Kurt's for years, our new website has allowed customers to share their stories as well.

Mike R. wrote:

""After putting out multiple mineral piles and some trail cameras, I was able to not only see how many deer we had on our

hunting land, I was able to watch the antlers get BIGGER and BIGGER throughout the summer. We had some unbelievable pictures taken over our mineral stations. Some deer would come twice a day! "

To see more testimonials and pictures of last year's deer harvest visit unclekurts.com. To try Uncle Kurt's for yourself just stop by our manufacturing facility or call and ask about our route truck delivery service.

1-800-535-4484



Repeated use of a mineral lick can help establish a buck's home territory and behavior patterns.