

Texas Dairy Matters

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RFV AND RFQ – WHAT’S THE DIFFERENCE?

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Frequently alfalfa hay is bought based, at least partially, on the basis of RFV or relative feed value. But, why don't cows fed two hays with the same RFV always milk the same? The RFV estimate is based strictly on the NDF (neutral detergent fiber) and ADF (acid detergent fiber) concentrations of the forage. No adjustments are made for other nutritional factors such as CP (crude protein).

A new feed evaluation tool is RFQ or relative feed quality. Just like RFV, ADF and NDF are used to calculate this estimate. The difference is that the digestibility of the NDF is included in the equation. And it is the digestibility that may be the reason cows produce differently on hays of similar RFV.

The digestibility of alfalfa hay NDF can vary significantly and will change the RFQ, while it doesn't change the RFV. For example, if we have a number of alfalfa hay samples that all have a RFV of 140, how do we compare them? First have them analyzed for NDF digestibility. Using the NDF digestibility, the RFQ can then be determined. In one group of alfalfas the values ranged from 110 to 170. Just as with RFV, the higher the number the higher the quality.



A number of factors result in changes in fiber digestibility. Some of these include: the plant species, the varieties within the plant species, the stage of maturity at harvest, the climatic conditions under which the crop was grown and then interactions between these factors.

Currently NDF digestibility is only determined in a few labs around the country and RFQ values are just starting to be calculated. Additional feeding trials are needed to ensure that RFQ accurately reflects feeding value. This new tool promises to provide a method to more accurately select which alfalfa hay will provide the most return for the dollar spent.