

dhia


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Dairyman To Dairyman

GEORGE TUDOC

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cow's diet is probably the first parameter that we should establish when putting together a feeding program of any type.

I think that a TMR system requires some special consideration about fiber that should be talked about as effective fiber. Effective fiber needs to be thought of as both the tested chemical properties and the physical form of the diet.

Typically, ration parameters on fiber include Acid Detergent Fiber

QUESTION: We feed a single ration TMR and want to know what fiber levels to maintain?
ANSWER: Fiber levels in the

(ADF) and Neutral Detergent Fiber (NDF).

ADF is an indicator of digestibility of a feed and NDF is associated with intake potential of that same feed. It is well documented what acceptable levels of ADF and NDF should be.

I would like to concentrate the discussion on items that require judgement calls and management decisions.

Fiber in our cows' diet must address questions about maintaining rumen health. Fiber not only provides scratch that is needed to stimulate rumen contractions but also can form a matting effect in the cow's rumen that slows down particle separation, and this will maintain a more consistent rumen environment.

How much feed fiber sources we need to feed the cow is mostly dependent on what that source is.

Generally, dry alfalfa or alfalfa haylage that is made for high nutrient density is not the best source of effective fiber.

That is because of the relative high digestibility of the fiber. We also observe that alfalfa tends to physically break up when included in most TMRs. Grass type forages can give us a very nice matting effect that can maintain integrity throughout the TMR, but often is very soft and doesn't lend well to scratch stimulus to the rumen wall.

Feed byproducts have high fiber chemical properties, but does little for scratch or matting in the rumen.

Cottonseed, soyhulls or beet pulp can easily fool us into believing we have adequate fiber in our diets. Products like straw can give us a nice blend of both scratch and matting, but we need to be careful not to decrease nutrient density with such a product.

Ranking fiber sources on their ability to produce satisfactory results can be done on your farms if you think about the different properties of that fiber source more than the chemical comparison of ADF and NDF.

As a guideline, I always do a ranking of feeds that provide fiber

by how much I need to use as compared to the next fiber source:

1. Straw or late-made grass hay at low inclusion rates ranging from .5 to 2 pounds per cow.

2. Grass hay of average to good quality at 1.5 to 3 pounds per cow.

3. Late made alfalfa, 2 to 4 pounds per cow.

4. Quality alfalfa, 3 to 6 pounds.

5. Cottonseed or other byproducts can't be fed at a high enough rate, so put your vet on retainer for the displaced abomasum you're about to have.

In conclusion, let me say that the only one capable of saying what fiber level is right on your farm is that four-legged chemist that will give us outputs that are matched to our inputs.

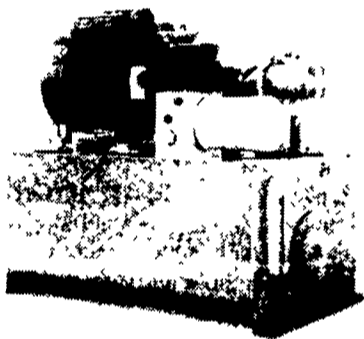
Look at your DHIA records, especially those that indicate rumen health, and make judgement as to how much fiber is needed. Percent butterfat, percent protein, milk pounds, and MUN tell us what we need to know about rumen health and output.

Coupling testing with research and education is still the best management practice we can follow.

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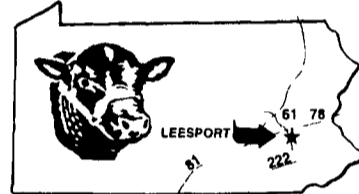
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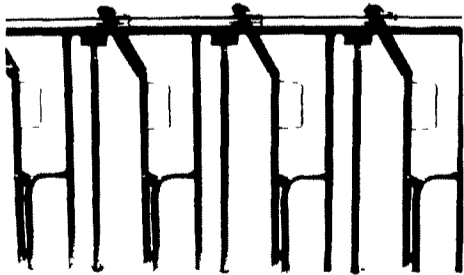
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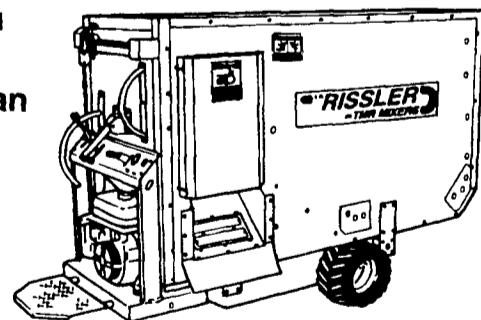
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