

# The Dairy Business

By  
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## The Fiber in Cow Rations

There must be some way to take the "fib" out of fiber. Whether we use the word in relation to human food, as in Fruit an' Fiber, or in the context of dairy nutrition, as in CF, NDF, and ADF, it's a confusing term. The confusion should be sorted out.

Fiber is an analytical term for one of the important nutrients in all feeds for cows as well as humans. In cow feed it's often related to the term "roughage," meaning almost anything we feed cows except grains and grain byproducts. This relationship is false, because nutrient fiber is found in many feeds. Technically the term refers to the analytical measure of the cell structure - Lignin, cellulose, hemicellulose and pectin.

Lignin is indigestible and

reduces the digestibility of the other fiber components. It is the primary limiter of forage digestibility. The other components are digestible, but at slower rates than starches, proteins and sugars. The individual components of the fibers in cow feed must be considered, in formulating rations. They are separated in the laboratory and reported as crude fiber (CF), neutral detergent fiber (NDF), and acid detergent fiber (ADF).

Crude fiber (CF) fails to separate the digestible parts of the cell wall constituents from the indigestible parts. These components are often "guestimated," but can be too rough for a finely tuned feed program. So Dairy nutritionists use lab techniques to separate the undigestible lignin

from the more digestible cellulose, hemicellulose and pectins. Hence, the terms NDF and ADF have now become important terms in feed formulation.

NDF fiber relates to the intake of feed by the cow. It contains all the fiber elements that take up room in the rumen, but are slowly digested. ADF fiber relates to the digestibility of forages, because it still contains all of the indigestible portions of the fiber fraction, (lignin), plus some very slowly digestible cellulose.

Why be concerned about these little niceties of laboratory analyses? Especially when we are talking about cell walls, not the really important stuff like energy, protein, vitamins and minerals.

Well, since these fiber components influence both intake of forage feeds as well as the digestibility of the forages, they become vital to the nutritional balance that directly effects milk production. It "ain't just hay" we're talking about now.

We are getting very picky and choosy about the kind of stuff that makes up our hay, haylage, pasture and anything else that comes under the heading of forage for cattle.

The great variation in forage quality is universally recognized, but often underplayed in actual feeding. We still try to wing it by guessing at the actual intake of forages, based on what we have in the hay mow or silo. Of course, once the stuff is in storage, what can we do but feed it?

The big secret here is to control quality at harvest and storage time. The only other control is to

analyze what you have, and balance it accordingly. This requires a competent nutritionalist, not a salesman. Unless, of course, the salesman is a trained nutritionalist working for you, with results as his goal. A competent dairy nutritionalist will insist on forage analysis, as well as an educated "eyeball" of your forage quality.

Some dairy nutritionists are giving high priority to the NDF and ADF content of the feeds they prescribe for high production.

When all the other nutrients are properly balanced, there is no other way to measure the potential intake of the feeds prescribed.

Therefore they start with the forage QUALITY, and then prescribe the forage amounts, based on actual intake. When intake of quality forage dry matter is high, feed balancing is fairly straight forward and economical. The economy is the name of the game, when it means efficient production.

## Dairymen Returns

### \$17.2 Million To Members

SYKESVILLE, Md. — Members of the Middle Atlantic Division of Dairymen Inc. were allocated on May 1 their share of \$17.2 million in equity for the 16-state regional milk marketing cooperative.

This allocation brings to more than \$192 million the total amount of equity distributed to members during the cooperative's 17-year history.

The Middle Atlantic Division serves 894 producer-members in Virginia, West Virginia, Maryland and Pennsylvania.

Equity is the net retained margins (patronage dividends) and capital retains invested in the cooperative by the members, and is returned to the members after it has performed the important function providing the necessary capital to finance the cooperative.

Checks totaling over \$2.1 million accompanied the notices mailed this week to Dairymen's total membership of approximately

retirement periods among dairy cooperatives.

"We are proud of our member equity program," said Division President Fred G. Butler, Inwood, W. Va. "We're also quite pleased to be in a financial position that has allowed us to revolve this amount

within just five years. This is a sound program which has the strong support of our membership."

This equity allocation to members was made at the rate of 29.7 cents per hundredweight (100 pounds) of milk marketed through Dairymen during fiscal year 1985.

"Members can look upon this current distribution of equity as the final settlement paid to them for the milk they marketed," said James E. Mueller, chief financial officer. "We are pleased to be able to return our members \$97.70 of each \$100 in sales for milk marketed in fiscal 1985."

7,000 dairy farmers. This check represents that portion paid in cash at this time. The remaining portion will be returned under the cooperative's revolving equity program.

Dairymen has historically revolved its members' equity investment on a five-year cycle. This is one of the shortest

Dairymen markets approximately 70 percent of its members' milk to processors of milk and dairy products in the East and Southeast United States. The remaining 30 percent is marketed through the cooperative's 20 bottling and manufacturing facilities under the brand name products, Flav-O-Rich and Farm Best.

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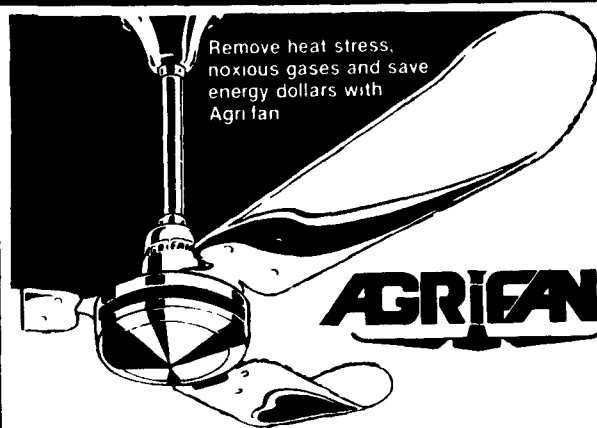
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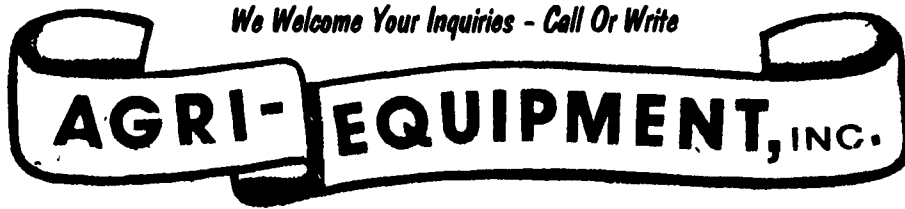
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