Are Your Enterprises Profitable?

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UNIVERSITY PARK—Most Pennsylvania dairy farms have multiple enterprises. The primary enterprise on these farms is the production of milk. However, each of the forages or grains produced on the farm is also a separate enterprise, as is the production of replacement heifers. It is important that each of the enterprises on the farm contributes profit to the whole-farm business.

Pennsylvania dairy farms generally produce feed for the livestock on the farm. One way to look at this activity is that farmers are able to "add value" to the grain and forage grown on the farm by "marketing" it through the animal. This strategy makes sense, particularly if the farmer is primarily interested in producing crops. The modern dairy, however, must focus on the profitability of the milk enterprise. Consequently, it is important to acquire quality feed inputs at as low a cost as possible.

Increasing costs of farm machinery and storage structures force many dairy farmers to rethink their current crop programs. Too often, costs of production for crops reach levels that are far higher than the price at which feed can be purchased. Continued on-farm production of feed crops under these conditions result in lost profits. Alternatives available to dairy farmers who find themselves producing crops at a cost that is higher than market value include: the use of custom operators for certain field operations, leasing equipment instead of buying it, and outright purchase of feeds instead of on-farm production. There are many farms that no longer milk cows but are still in crops. Frequently, contractual arrangements can be reached to have those farms produce feed for dairies that are still in operation.

Results from an analysis of farm records provided by the Pennsylvania Farm Bureau for the 1994 Pennsylvania Dairy Farm Business Analysis indicate that almost one-quarter of the 850 farms in the sample would have been better off renting out their land and buying all feed than continuing their current crop programs. This large number of farms indicates the impact that a close examination of enterprises profitability can have on the dairy farm. Of course, such an analysis takes time and fairly good records. The allocation of expenses such as seed and fertilizer to individual crops is fairly straightforward. Care must be taken to also allocate the farm's fixed costs associated with machinery ownership and both paid and unpaid labor to each enterprise. For example, if unpaid family labor was no longer used to bale hay if all hay was to be purchased, that labor could be used elsewhere to improve farm profitability.

Although the previous discussion has focused on crop enterprise profitability, the same arguments can be used for replacement heifers. Again, good records are essential for enterprise evaluation. The bottom line, though, is the bottom line. Remember, each enterprise should contribute to profitability on the farm.

Milk Urea Nitrogen: Why Is This Important, What Does It Mean To Your Herd?

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UNIVERSITY PARK—Pennsylvania DHIA is offering an additional management tool, milk urea nitrogen analysis, which can monitor the urea concentration in milk. This is another method to monitor your herd's performance feedstuffs. The rumen microbes use fermentable carbohydrates to provide energy and organic acids in combination with ammonia to form amino acids and subsequently microbial protein. When rumen ammonia concentrations exceed the ability of rumen microbes to along with other records and pertinent information.

Milk urea nitrogen or MUN measures the efficiency by which nitrogen is utilized by the animal. Nitrogen is an essential component for rumen microorganisms and the production of microbial protein. Ammonia (NH3) results from the microbial degradation of incorporate ammonia into microbial protein, ammonia is absorbed through the rumen wall, converted to urea by the liver, and high levels are found in blood, serum, or milk. If ruminal ammonia concentrations are low, this can also be reflected as low MUN's.

When MUN values are too low or too high, then problems may exist in the ration which can impair animal performance, reduce economic efficiency, and affect environmental pollution. The primary areas in nutrition that affect MUN levels are total crude protein intake, degradable and soluble protein intake, and the amount and type of nonstructural carbohydrates supplied in the ration.

The following areas should be examined closely in a ration program if MUN levels are higher than what is considered normal:

- Excess crude protein in the ration
- Excess levels of degradable intake protein
- Excess levels of soluble intake protein
- A combination of any of the first three items
- Inadequate nonstructural carbohydrates and excess protein

Lower than normal levels of MUN's may indicate:

- Excess nonstructural carbohydrates and inadequate protein
- Deficiency of soluble intake protein
- Deficiency of degradable intake protein
- Excess levels of undegradable intake protein

These are some areas in nutrition that would need to be evaluated. However, MUN values are not meant to be used as the sole indicator of a possible problem. MUN's are an additional TOOL. You need to use other information in conjunction with MUN's to evaluate the herd such as records on reproduction and health performance, milk fat and protein levels, and diet composition through analysis of forage, feed, and TMRs.

Herd-Id: 23 69 9990

PaDHIA MUN Analysis Report

PROFILE OF COWS BY DAYS IN MILK

Days In Milk Caregory	Cows Milking	Cows MUN Samples	Testday Values Milk Lbs	% Fat	% Pro	% SNF	Linear SCC	Wtd SCC	Lo MUN	Hi MUN	Avg MUN
FIRST LACTATIONS 0 - 40 Days											
41 - 99 Days	2	2	70.5	3.9	3.5	7.8	3.6	152	16.4	19.9	18.2
100 - 199 Days	1	1	73.0	4.4	3.9	6.6	4.7	327	14.0	14.0	14.0
200 - 299 Days											
300+ Days	1	1	50.0	3.6	3.4	9.2	4.7	332	19.1	19.1	19.1
Avg/Total	4	4	66.0	4.0	3.6	7.7	4.2	235	14.0	19.9	17.4
SECOND LACTATIONS 0 - 40 Days											
41 - 99 Days											
100 - 199 Days											
200 - 299 Days	1	1	60.0	3.3	2.9	10.3	4.7	340	10.8	10.8	10.8
300+ Days	1	1	59.0	3.6	3.2	11.8	3.6	156	18.0	18.0	18.0
Avg/Total	2	2	59.5	3.4	3.0	11.0	4.3	249	10.8	18.0	14.4
THIRD LACTATIONS 0 - 40 Days	2	2	84.5	3.5	3.2	8.0	3.9	190	12.1	18.2	15.2
41 - 99 Days	7	7	90.3	4.1	3.8	11.2	3.1	113	10.9	17.6	15.2
100 - 199 Days	1	1	84.0	4.5	4.1	18.5	3.8	186	16.7	16.7	16.7
200 - 299 Days											
300+ Days	2	2	47.0	4.3	4.0	10.9	4.5	291	11.6	12.8	12.2
Avg/Total	12	12	80.8	4.0	3.7	10.3	3.6	153	10.9	18.2	14.8
THIRD+ LACTATIONS 0 - 40 Days	2	2	84.5	3.5	3.2	8.0	3.9	190	12.1	18.2	15.2
41 - 99 Days	9	9	85.4	4.1	3.7	10.5	3.2	121	10.9	19.9	15.9
100 - 199 Days	2	2	78.5	4.5	4.0	7.6	4.3	252	14.0	16.7	15.4
200 - 299 Days	1	1	60.0	3.3	2.9	10.3	4.7	340	10.8	10.8	10.8
300+ Days	4	4	50.8	3.9	3.6	10.7	4.3	262	11.6	19.1	15.4
Avg/Total	18	18	74.8	4.0	3.6	9.8	3.8	179	10.8	19.9	15.3

Profile of Cows by Group Number

Group Number	Days in Milk	Cows Milking	Cows MUN Samples	Testday Values Milk Lbs	% Fat	% Pro	% SNF	Linear SCC	Wtd SCC	Lo MUN	Hi MUN	Avg MUN
Group 1	137	18	18	74.8	4.0	3.6	9.8	3.8	179	10.8	19.9	15.3
Group 2												
Group 3												
Group 4												
Group 5												
Avg Total	137	18	18	74.8	4.0	3.6	9.8	3.8	179	10.8	19.9	15.3

The analysis of sample day milk for urea nitrogen (MUN) is new to DHIA. MUN values are expressed as milligrams per deciliter (mg/dl) For a group of 10 or more cows with 40 or more days in milk, a target group average MUN is 10 to 14 mg/dl. Within a group, most animals will be within +/- six units of the group average MUN (Ex: If the group's average is 12, most cows will fall within a range of 6 to 18).

MUN levels are affected by the total intake of crude protein, degradable and soluble protein, and the amount and type of nonstructural carbohydrates supplied in the ration. While low levels of MUN might indicate low protein intake and high levels of MUN might indicate high levels of protein intake, it is quite possible the problem is the result of a combination of several different nutrient intake levels. Therefore, a trained herd consultant should work with you in interpreting these results

To assist you in the analysis of your herd's milk urea nitrogen values, PaDHIA has prepared this report. It summarizes test day data for your milking herd by days in milk and by group number.

The 'PROFILE OF COWS BY DAYS IN MILK' summarizes data by days in milk categories for 1st, 2nd, 3rd and greater lactations. Cows are summarized across lactations within days in milk categories to provide herd averages.

The 'PROFILE OF COWS BY GROUP NUMBER' summarizes data by group number Cows are summarized across groups to provide additional herd averages.

The information that appears within each profile is described below

Cows:

- Milking . . . . . Number of milking animals
- MUN Samples . . . . Number of milk samples analyzed for milk urea nitrogen

Testday Values:

- Milk Lbs . . . . . The average daily milk production on test day.
- % Fat . . . . . The average percent butterfat of the milk produced on test day.
- %Pro . . . . . The average percent protein of the milk produced on test day.
- %SNF . . . . . The average percent solids-not-fat of the milk produced on test day.
- Linear SCC . . . . . The average weighted somatic cell count of the milk produced on test day expressed as a linear score.
- Wtd SCC . . . . . The average weighted somatic cell count of the milk produced on test day.
- Lo MUN . . . . . Of the test day samples analyzed, this is the lowest milk urea nitrogen value.
- Hi MUN . . . . . Of the test day samples analyzed, this is the highest milk urea nitrogen value.
- Avg MUN . . . . . The average milk urea nitrogen value of the milk produced on test day.
- Days in Milk . . . . . The average days in milk through current test day for milking cows. This only appears for the Profile of Cows By Group Number.

New Herds On Test

Bedford
Ron & Diane May
Simplicity Farms
Elvin & Esther Garman

Berks
L and L Farms #3

Blair
Luke Zimmerman

Bradford
Jack-Walters
Heather & Steve Sharer

Bucks
Penn View Farm
Bryce & Blaine Keller

Centre
Claude Nyman
Steve L. Swarey

Chester
Gideon F. Miiler
William Duncan
T and T Grossman
Nolan King

Clinton
Steven F. Stoltzfus
Paul Dotterer & Son, Inc.

Crawford
Renee Kehn
Lost Acres Farm

Cumberland
Floral Rose Holstein
Paul J. Basehore
Chester & Katht Deitch
Lavern Brubacker

Erie
Arthur Novel
Tim Church

Fayette
God's Country Ranch

Franklin
Edward Martin
Mervin, Lois Peckman

Fulton
Scott & Darla Mellott

Huntingdon
Dana Wallace
Kevin Fluke

Jefferson
Longview Farm
Brian Hindman

Juniata
Glenn D. Lauver

Lackawanna
John Howanitz

Lancaster
Kenneth Findley
John David Zimmerman
Kore M. Stoltzfus
Elam Z. Simmerman

Lebanon
Nelson Martin
Ken-Joda Farm
John H. Lehman
Spring Valley Farm
Dennis R. Burkholder
Clyde-Marlene Martin

Lycoming
Benjamin McCarty
Dane Shrawder

Luzerne
Paul Zagata
Charter Land Farm

Mercer
Don & Kathy Cornelius
Spring Run Farm

Mifflin
Ivan T. Peachey
Steve Hesser

Montgomery
Johns Bros Dairy
Christine Michalik

Northumberland
Oscar Baumert
Ephraim S. King

Potter
Gay Torrey

Snyder
Pasture Green Farm
Chester & Lizie Martin

Somerset
Joe Walker
L.B.J. Farm
Paul Rae Val Farm

Susquehanna
Dennis Lewis
Laura Grosvenor

Tioga
Fuller Farms
Polar Brook Jerseys
Windswept Dairy

Venango
Mitch-Hill Dairyfarm

Wayne
Art Rutledge Jr.
James & Cinde Grossman

Westmoreland
John Mormack
David & Barbara Miller

Wyoming
Bryan Kostick

York
David E. Myers
Thomas A. Boyer
Geor-Bren Farms

New York
Jim Gauss
Clifford & Mary Good