

Department of Agriculture, Trade and Consumer Protection
Division of Agricultural Development
Agricultural Development & Diversification Program (ADD)
Grant Project Final Report

Contract Number: 23036
Grant Project Title: **Use of Delactosed Permeate in Dairy Feed**
Amount of Funding Awarded: **\$33,000, however, none was disbursed**
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1) *What was the original intent of the grant?*

The product remaining after crystallizing lactose out of permeate is referred to as “delactosed permeate,” (DLP). DLP ranges from 34% to 37% solids. Of those solids, about 60% is lactose and 26% is total ash. The lactose is a nutrient that would be a benefit to a dairy cows’ rations. However, there is little information available on how much DLP can be included in dairy feed rations. The **original intent of this grant** was to help fund work by nutritionists that will determine an inclusion level at which the DLP could be added to a liquid ration for dairy cows.

- *What did you want to accomplish with the grant?*

We wanted to develop a market for DLP. DLP has been a cost to the coop to dispose of it, this project intended to create a market for DLP in dairy rations. The planned first step was to determine the feed value of the DLP, the grant proposal was to assist Foremost in the costs of determining this feed value.

- *How was it expected to benefit Wisconsin Agriculture?*

Three primary benefits were expected from this work.

- (1) Provide dairy producers with a low cost source of energy in dairy rations
- (2) Reduce land spreading costs to improve return to Foremost Farms members; and
- (3) Aid environmental concerns by reducing or eliminating land spreading.

- *What makes this project work important or significant?*

The **importance** is that these efforts would quite easily be applicable to **any dairy manufacturer** that separates their whey or otherwise further processes it.

2) *What steps did you take to reach your goal?*

The initial step, as described in the grant application, was undertaken. It was to contact nutritionists to determine an appropriate level of inclusion in the dairy ration.

- *What worked?*

Starting with nutritionists was a very effective first step. Due to the markets that existed in 2008 – low milk prices and high feed prices -- dairy producers were facing an unprecedented level of unprofitability. There was, therefore, a very high level of interest in this product, both on the part of the nutritionists to bring this option to their clients, as well as to the producers to reduce their feed costs. Rather than wait for results of a scientifically rigorous feed trial, dairy producers were willing to determine the level in their rations based on analysis of the DLP, and do an immediate trial using their herd.

- *What challenges did you face?*

One of the biggest challenges was coordinating of shipments among the different producers that were using the product. It was primarily a logistical issue, to ensure that sufficient DLP was available to provide a steady supply.

- What would you do differently?

In general, it might have been more efficient to go directly to producers without the wished for trial data. Recognition of the producers' extreme interest would have made it clearer that a trial, as well as this grant, was not necessary.

3) *What were you able to accomplish?*

- *What are the results from this project?*

Foremost Farms now sells all of its DLP into dairy rations. A very small percentage of DLP is now land-spread. Foremost shipped approximately 70,000,000 fluid pounds of DLP in 2009.

- *Include any analysis of data collected or materials developed through project work.*

No nutrition trials were performed. No money was disbursed by the State of Wisconsin to Foremost Farms for this project.

4) *What conclusions can you make based on project work the analysis of collected data?*

Many producers who use DLP in their dairy rations feel they have experienced an increase in butterfat and protein in their milk. While this has not been analyzed using objective methods, it has been a fairly common comment among users.

5) *What do you plan to do in the future as a result of this project?*

We will continue to sell DLP into dairy rations. As demand increases, it is possible that rices will increase as well.

6) *What information or additional resources are needed to commercially develop this enterprise?*

None.

7) *How should the agricultural industry use the results from your grant project?*

There are several other dairy manufacturers other than Foremost Farms that are currently selling DLP, as well as condensed whey, into dairy rations. Producer interest continues to increase in using these products in an attempt to reduce feed costs for dairy operations.