Eastern District Innovative Grant Program

Fiscal Year 2006/2007
Application

1. **Project Title: Earless Corn Silage for Feeding Heifers**

2. **Funding Requested: $ 1275**

3. **Project Lead/Grant Applicant (Name & County): Zen Miller, Outagamie County**
   a) **Project Collaborator(s) (if applicable) Pat Hoffman, Joe Lauer, Jeff Polenske, Paul Knutzen, John Everett, Jeff Pethke, Dean Luedtke**

4. **Signature:** 
   Grant Applicant/Lead

5. **Project Description**

Situation Statement: Outagamie County is in the center of one of the most cow dense areas in the United States with over 50 cows per square mile. There are 36,500 milk cows in Outagamie County and approximately the same number of dairy heifers. In the last decade custom heifer growers have developed in the dairy industry to support farms that have expanded milk cow numbers and chosen to have their heifers raised on other locations. This system has put heifers in more intensely confined facilities and also increased the feeding of corn silage in heifer rations due to manure management concerns, and improved yield of corn for silage. This has resulted in heifers that are fatter and have increased calving difficulty, which decreases milk production and profitability in first calf heifers. Part of my plan of work is to develop systems and techniques to improve dairy herd management and specifically heifer systems that provide better heifers ready to calve in with little trouble and provide large milk yields.

Collaborators:
This is the second year of preliminary work to find corn hybrids that are long enough in maturity to guarantee few or no ears, which reduces starch content and lowers the Total Digestible Nutrients (TDN) in corn silage for heifers. University staff involved are: Pat Hoffman, Dairy Herd Management Specialist, Marshfield Ag Research Station, Joe Lauer, UW-Extension Corn Specialist, and Zen Miller UW-Extension Dairy/Livestock Agent for Outagamie County. Local Crop Consultants involved are Jeff Polenske and Nathan Nysse of Polenske Agronomic Consulting, and Paul Knutzen from Knutzen Crop Consulting. There will be four or five plots on area farms and one or two producers who will plant 10-15 acres of long season tropical corn to feed to their heifers. Seed will be procured for the plots and purchased by the two farms that wish to plant larger field as a demonstration.

2007 will be the second year of plots in Outagamie County and is being conducted in cooperation with a similar exploratory research project being conducted by Dr. Wayne Coblentz at the Marshfield Research Station. These projects are being implemented because numerous custom heifer raisers and dairy producers are identifying a serious need

for extremely high NDF forages in their feeding programs. . Presently the need for high NDF forages has driven the cost of straw to over $100.00/ton, which is not profitable to feed to dairy heifers and dry cows on Wisconsin dairy farms.

Project Objectives:

1. To find full season tropical corn hybrids that will flower late and not produce any or few ears of corn and yield adequate tonnage of corn silage with less than 62 percent TDN and under 10 percent starch.
2. To show how this corn silage provides better nutrition to older heifers and reduces the need for other cutter in the ration.
3. To explore different ways to reduce the cost of feeding older heifers.

Project Outcomes:

1. Five seed companies will carry long season tropical corn hybrids for producers to plant.

2. Twenty-Five producers will try long season tropical hybrids on their heifer operations.

3. Two hundred and fifty producers will explore / contemplate long season tropical hybrids as a way to reduce costs of heifer raising and the need for other cutter in the ration.

Data from the 2006 growing season will be shared with producers, crop consultants, and seed dealers at the Outagamie County Forage Council Meeting. Heifer raisers will be exposed to this new idea a the Raising Dairy Heifers area meeting at DePere and Fond du Lac. Other counties will be asked to share or have me share this information at meeting in their counties. Results will be presented at a district meeting or an Ag Natural Resources annual conference as well.

Project Time Line:

Winter 2007
- Recruit farmers for plots and demonstration fields.
- Obtain seed for plots by contacting seed companies.
- Share results from last year and keep team involved.

Spring 2007
- Plant plots (April / May)
- Scout field, take stand counts, journal growing period

Summer 2007
- Scout fields, note tasseling time, record growth, pest concerns
- Hold field day to share 2006 results and explore reasons to adopt

Fall 2007
- Harvest after frost or when ready
- Sample hybrids and run tests to determine starch, TDN and other nutrients

Winter 2007- 2008
- Share results at producer meetings
- Plan for next year
- Evaluation of farmers

Evaluation Plan:

End of meeting evaluations at winter meetings
Project cooperators evaluation at end of each year
Long-term evaluation to be done of farmers on adoption in 2008

Budget:

Seed 4 plots x 5 hybrids = 2 bags of 5 hybrids =	$1250	
Seed 2 demonstration fields 10-15 acres each 14 bags of seed =	$1750	
Land for plots and field demos, farmers extra time	$1000	
Crop consultants' time and mileage	$1000	
Agents mileage: planting, harvesting and monitoring plots 1546 x.485 =		$750
Field demonstration day, misc.signage, travel for speaker @ .485 =		$125
Samples run at Marshfield 22 x $17 = $374 plus postage =		$400
In kind funds from other sources	$5000	
Total Grant Request		**$1275**

Past Resource Management Funds received:

2003/04 Outagamie County Dairy Intern	$2000
1999/00 Bilingual Agriculture Intern	$3000
1998/99 4-H / Ag Intern	$5098

The last dairy intern in Outagamie County was involved in Milk Urea Nitrogen (MUN) and milk house energy conservation. Funding was received form Focus On Energy, and the Dairy Science Department, with two scholarship funds as well as the $2000 received from district resource funds. Laurie Volkman and I worked with Michel Wautieux and several Focus on Energy staff to research MUN and do energy audits on local dairy farms milk houses. A fact sheet that was used through out Wisconsin and the upper Midwest was one of the final products.

The bilingual agriculture intern was Ann Ledvina who was the first bilingual Extension intern who helped develop English/Spanish milking procedure posters and conduct meetings on farms in both languages. This program was huge success and was followed by another bilingual summer intern and Dairy Worker Training. Funding was received by affirmative action, Crowley fund and the $3000 shown above.

The first experience I had with resource management funds was for Amy Williamson who worked with Jeanne Baum and myself. She did milk quality work on the farm and training for the Ag program area and 4-H work on special assignments.

All of the above mentioned programs were a direct outreach of my plans of work in milk quality, Hispanic labor, and nutrition and energy conservation. This initiative is different in that I am working to develop corn silage to reduce over conditioned heifers and the feed cost to raise them. No intern is part of this request. However it directly relates to improving health of animals and reducing cost, which all projects have striven to accomplish.