

APR 30 2002

From: "Sandy Dunn" <Sandra.Dunn@state.mn.us>
To: LCCDOM.GWIA("yvonne.forsythe@daneel.commissions.le...
Date: Wed, Apr 24, 2002 2:55 PM
Subject: Re: 1997 Final Report

JRV _____
SAT _____
SVM _____
YF _____
SS _____

Revised

Yvonne,

Here is the revised document. The budget of \$10,000 for disposal came out of the original \$250,000. I have changed the totals to better reflect this. The breakdown of the budget at the end shows the \$10,000 for disposal. If you want me to change it in any way, just let me know.

Thanks for all your help!

Sandy

Sandy Dunn
Minnesota Department of Agriculture
Dairy and Food Inspection Division
90 W. Plato Blvd.
St. Paul, MN 55107
Sandra.Dunn@state.mn.us

>>> "Yvonne Forsythe" <yvonne.forsythe@commissions.leg.state.mn.us> 04/24/02 02:06PM >>>
Dear Sandra,

Thank you for the final report on the 1997 project: Mercury Manometers. After staff review there are a few changes we will need. Please complete the changes and resubmit the report, an e-mail is fine. If you have any questions please call 651-296-2406. I will be back in the office on Tuesday but all of the staff can help you.

1.) Page 2, Under Result 1. You mention that you applied to various funds to make up the \$65,951.87. LCMR was NOT one of the those funds. After our proposal process was closed you came in to ask for funds, but at that time our process was closed and so this was not an official request. Please remove LCMR as a source in this section. ✓

2.) The Budget for Result 2 : Please state where the \$10,000 came from. It does not show up in your budget context? Also, why is there a balance left here of \$4,529.35?

Thanks,

Yvonne Forsythe
LCMR, Staff

100 Constitution Avenue
Room 65, State Office Building
St. Paul, MN 55155
Phone: (651) 296-2406
Fax: (651)296-1321

Web Address: <http://www.lcmr.leg.mn>

its a negative
balance
they need
some thing
less on that
portion on p 2.

Date of Report: March, 2002
LCMR Final Work Program Report

Date of Workprogram Approval:
Project Completion Date: June 30, 2001

LCMR Workprogram 1997

I. PROJECT TITLE:

Mercury Manometers

Project Manager: Sandra J. Dunn
Affiliation: Minnesota Department of Agriculture
Mailing Address: 90 W. Plato Boulevard
St. Paul, Minnesota 55107-2094
Telephone Number: (651) 297-2133
E-mail: Sandra.Dunn@state.mn.us
Fax: (651) 297-5176
Web Site Address: <http://www.mda.state.mn.us>

Total Biennial Project Budget:

\$LCMR	\$250,000.00
- LCMR	\$ 0
Amount Spent:	\$315,951.87
= LCMR	\$ 0
Balance:	\$ (65,951.87)

A. Legal Citation: ML 1997, Chap. 216, Sec. 15, Subd. 7F.

Appropriation Language: *This appropriation is from the future resources fund to the Commissioner of Agriculture for the purposes of Minnesota Statutes, sections 17.861, 115A. 932 and 116.92 and is available until June 30, 1999. ML 1998, The availability of the appropriations for the following projects is extended to June 30, 2001: mercury manometers; Subd. 7, paragraph (f)*

B. Status of Match Requirement: No match was required but there was a provision in the legislation which allowed for the charging of up to \$50 from a dairy farmer toward the purchase of a new gauge.

II. & III. FINAL PROJECT SUMMARY:

Overall Project Outcome and Results

For decades, Minnesota dairy producers have used mercury manometers in their milking operations. These manometers, which contain approximately one pound of mercury, measure the volume of vacuum pressure in milk lines. If broken, these units could be an environmental hazard.

After being alerted in 1997 that these manometers could be replaced with non-mercury units, the MDA spearheaded a campaign to replace and recycle the mercury manometers on Minnesota dairy farms.

At the onset of the project, it was estimated that approximately 2,000 mercury manometers existed in dairy barns across Minnesota. Through their routine inspections, MDA dairy inspectors identified farms that used mercury manometers, and office staff at the MDA created a database to identify the producers and track the progress of manometer replacement and recycling.

A recycling company was selected by the MDA and PCA for manometer disposition.

Letters were then sent to dairy producers to explain the project and the law change barring the use of mercury manometers. The letter also encouraged them to contact their milking equipment dealer and replace their mercury gauges right away. Dealers were also sent letters that explained the project, necessary paperwork and procedures for sending the manometers to the recycling company.

Wherever possible, the MDA assisted the recycling company, dealers and producers to ensure a successful process.

Project Results Use and Dissemination

Through the efforts of dairy farmers, dealers and inspectors, 1,550 mercury manometers were identified and 1,353 were replaced with non-mercury gauges. This effort removed 1,134 lbs of mercury from the environment – at little cost to participating producers. Through contracts with the selected recycling company, the manometers and mercury were disposed of and recycled in an environmentally safe manner.

IV. OUTLINE OF PROJECT RESULTS:

Result 1: Removal and replacement of mercury manometers on dairy farms.

The project success exceeded our expectations and found us short of funding. If we received an opportunity to complete a project like this again, we would try to assess the situation more closely and would anticipate the outcomes so funding could be found prior to paying out. We applied to EAP for additional funds to finalize payments to this program without success. After receiving that information, we used unbudgeted funds to pay reimbursement costs of \$65,951.87.

Budget:

Budget: \$240,000

Balance: \$(61,422.52)

The final numbers are \$283,636.78 to dealers for reimbursements, \$14,529.35 to the recycling company and \$11,615.65 for staffing and \$6,170.09 for administrative costs. The total expense was \$314,759.69 (**\$65,951.87 of salary savings dollars from other programs**). We have completed the mercury manometer project and paid final bills. The totals paid in FY 01 are \$113,836.18.

Result 2: Disposal of the Mercury and old Manometers. A recycling company received the mercury and manometer tubes from the dairy equipment suppliers. They provided shipping containers to the equipment dealers to ship the manometers and mercury for disposal as required by environmental laws. The recycler notified the MDA of each manometer received and its source so suppliers were paid their fee based on the exact number of units removed. This information also provided a crosscheck list for the location information obtained from the dairy inspection sheets. The recycling company was paid based on the pounds of mercury received for disposal.

Budget.

Budget:	\$10,000	Balance	\$(4,529.35)
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Completion Date: The disposal schedule followed the collection and replacement schedule very closely. 1353 manometers were replaced and 1134 lbs of mercury removed from the environment by June 2001.

V. DISSEMINATION:

Letters were sent to all dairy inspectors informing them to record the location of dairy farms with mercury manometers during their normal inspection process. Letters were sent to dairy farmers with mercury manometers informing them of the changes in the law and of the removal and replacement program. Letters were sent to dairy equipment suppliers informing them of the changes in the law and asking for their participation and help in replacing the mercury manometers. A tracking form was used to provide the information necessary to record the location of the farm and to track the proper disposal of each mercury manometer.

VI. CONTEXT:

A. Significance: All mechanical milking systems operate on vacuum. It is very important to the prevention of udder injury and mastitis that these systems operate on an adequate vacuum. To accurately measure the amount or inches of vacuum in the milking system, many manufactures equipped their system with mercury manometers. These were 'U' shaped tubes about 30" in length

per side and contained about 1 pound of mercury. The heavy weight of mercury allowed for an accurate way to measure the inches of vacuum being pulled by the system during milking. Mercury is considered a hazardous material and is classified as a 3 on a scale of 0 - 4. It is extremely difficult and expensive to remove once it is in the environment. It is dangerous to public health and can affect animals as well as man. There is currently good replacement (non-mercury gauges), for mercury manometers and this project is intended to remove this major source of mercury from dairy farms. Each manometer contains almost one pound of mercury and represents one of the largest single sources of this heavy metal on dairy farms. Non-mercury gauges of the recommended type will provide the vacuum readings necessary to properly control milking machine vacuum without the use of mercury manometers.

Documentation of proper disposal provided assurances that mercury from this source was not being released into the environment. This program removed 1134 lbs. of mercury that otherwise could become an environmental pollutant.

B. Time: The project was completed June 30, 2001.

C. Budget Context:

	July 1995 - 1997 Prior Expenditures on this project	July 1997 June 1999 Proposed expenditures on this project	July 1999 June 2001 Anticipated future expenditures on this project
1. LCMR	\$0	\$250,000	\$0
2. Other State	\$0	\$0	\$(65,951.87)
3. Non Cash State	\$0	\$0	\$
Total	\$0	\$250,000	\$(65,951.87)

BUDGET	Budget	Expended	Balance
Personnel (data base management, part-time unclassified	\$ 25,000	\$ 11,615.65	\$13,384.35
Equipment	\$ 0	\$ 0	\$0
Acquisition	\$ 0	\$ 0	\$0
Development	\$ 0	\$ 0	\$0
Collection and Replacement Fees	\$210,000	\$ 283,636.78	\$(73,636.78)
Disposal Fees	\$ 10,000	\$ 14,529.35	\$(4,529.35)

Promotion and Publications	\$ 5,000	\$ 6,170.09	\$(1,170.09)
Total	\$250,000	\$ 315,951.87	\$(65,951.87)

****The balance reflects the overage incurred with this program absorbed by the Minnesota Department of Agriculture.**

- Joe Spitzmueller, MN Department of Agriculture
- John Gilkeson, Office of Environmental Assistance
- Emily Moore, Office of Environmental Assistance
- Ned Brooks, Minnesota Pollution Control Agency
- John Polanski, Minnesota Technical Assistance Program
- Tom Mosher, Wabasha County/S.W. Recycling
- Deanna Chyerner-Leverson, Superior Specialties, Inc.

No LCMR project dollars will be received by these individuals, they will only serve as advisors to this project.

VIII. LOCATION: Statewide

IX. REPORTING REQUIREMENTS: Periodic workprogram progress reports were submitted in February 1998, June, 1999, July 2000, November 2000, and February 2001. A final work program report was submitted by June 30, 2001 with a corrected update on March 2002.

X. RESEARCH PROJECTS: Not applicable