

From: Jessica Nelson <jnelson@ilsr.org>
To: Susan Thornton <susan.thornton@daneel.commissions....>
Date: Tue, Jan 2, 2001 3:35 PM
Subject: Re: Final Report for LCMR 1999 10(e)

Susan,

As you requested, here is an abstract summarizing the accomplishments of the Minnesota Environmentally Preferable Chemicals Project.

The Minnesota Environmentally Preferable Chemicals Project created a network of over 3000 Minnesota businesses, unions, commodity organizations, and technical assistance groups that have the potential to aid the shift from the use and manufacture of petrochemical-based products to alternative, environmentally preferable biobased chemical products. Members received information on the benefits of using biochemicals, including a 20-page report entitled "Lubricants from Vegetable Oil" which looks at vegetable oil-based industrial and automotive lubricants and their application in a range of industry sectors, and an 8-page fact sheet called "Biobased Chemicals Benefit the Workplace" addressing worker safety and cost issues associated with using chemical products. ILSR staff also created a web page on the use, advantages, and availability of biochemicals, and provided information on specific biobased chemical products, technology advances, and policy developments in the program's quarterly newsletter ("The Carbohydrate Economy"), electronic bulletin, and main web site. Staff gave presentations on the use of biobased products at various industry meetings. Work was overseen by a steering committee established at the beginning of the project.

Thank you once again for your support and attention, and please call with any further questions that you may have.

Sincerely,

Jessica

--

Jessica Nelson
Research Associate, Carbohydrate Economy
Institute for Local Self-Reliance
1313 5th Street SE
Minneapolis, MN 55414
Phone: (612)379-3815
Fax: (612)379-3920
Email: jnelson@ilsr.org
<http://www.ilsr.org>

Visit our web site at <http://www.carbohydrateeconomy.org>

CC: David Morris <dmorris@ilsr.org>

1999
10(e)

Date of Report: December 30, 2000

LCMR Work Program Final Report

Project Completion Date: December 31, 2000

LCMR Work Program 1999

I. PROJECT TITLE Minnesota Environmentally Preferable Chemicals Project (MEPCP)

Project Manager: David Morris, Vice President
Affiliation: Institute for Local Self-Reliance
Mailing Address: 1313 5th Street S.E.
Minneapolis, MN 55414
Phone: 612-379-3815
Fax: 612-379-3920
E-mail: dmorris@ilsr.org
Web Address: <http://www.ilsr.org/>

Total Biennial Project Budget: \$200,400

LCMR:	150,000	Match:	40,000
<u>Spent:</u>	<u>96,318</u>	<u>- Spent</u>	<u>40,000</u>
LCMR	53,682	Match	0
balance:		balance:	

A. Legal Citation: ML 1999, Chap. 231, Sec. 16, Subd. 10 (e)
Minnesota Environmentally Preferable Chemicals Project (MEPCP)

Appropriation Language: Minnesota Environmentally Preferable Chemicals Project \$75,000 the first year and \$75,000 the second year are from the trust fund to the Office of Environmental Assistance for an agreement with the Institute for Local Self-Reliance to build an industry network of users and producers of petrochemicals and biochemicals, and to promote a shift to environmentally preferable chemicals. This appropriation must be matched by at least \$40,000 of non-state money.

B. Status of Match Requirement: We have a commitment for \$10,400 in-kind support from the Minnesota Office of Environmental Assistance. (See attached letter from Art Dunn, Director MN OEA, dated June 12.) We have received a check for \$40,000 of non-state matching funds from the Minnesota Corn Research and Promotion Council.

II. PROJECT SUMMARY AND RESULTS

The goal of the Minnesota Environmentally Preferable Chemicals Project (MEPCP) is to reduce pollution and enhance rural economies by promoting a shift from

petrochemicals to biochemicals as the basis for our industrial products and processes. In partnership with MN OEA, MEPCP will identify and bring together a network of [a] manufacturers of petrochemically-based products, [b] manufacturers of bio-based products, and [c] Minnesota businesses using those products, in order to provide information about environmentally preferable products and encourage not only the end-user but the manufacturers themselves to shift to safer materials.

Environmentally preferable products are products with less negative impact on human health and the environment when compared with competing products that serve the same purpose. For instance, soybean-based ink can replace petroleum-based inks in commercial printing; cleaning products made from vegetable oils can replace products made from chlorine or ammonia; toxic solvents used for industrial cleaning can be replaced by solvents made from corn or soybeans; etc. The MEPCP will focus on chemical feedstocks for product manufacturing and commercial processes. Considerations will include the production process for the chemical, the product itself, and disposal options. Information about plant matter-based alternatives will be collected, evaluated, and maintained in an electronically accessible format by ILSR, and disseminated by ILSR and collaborating organizations, in electronic and print formats. At the same time, the project will evaluate and pursue possible avenues for state, county and local regulatory incentives for accelerating the shift to plant matter-based industrial materials, including procurement policies, contract conditions, and compliance criteria. Finally, information about the potential for biochemical processing will be disseminated to relevant economic development agencies throughout the state.

III. PROGRESS SUMMARY This is the final progress report for this project.

December 30, 2000

Work has been completed on the remaining two written resources for the MEPCP project, the 16-page report entitled *Lubricants from Vegetable Oil* and the 4-page fact sheet entitled *Biobased Chemicals Benefit the Workplace*. A description for both of these is found under Result 3. This ends ILSR's involvement with the MEPCP project.

August 2, 2000

ILSR staff met with OEA and LCMR staff on August 2, 2000 to discuss the future direction of the MEPCP network. The work plan changes contained within this report were presented at the meeting on August 2nd, and given verbal approval by OEA and LCMR staff. All changes/additions to this report have been highlighted for easy identification.

Due to recent staffing changes, the Institute for Local Self-Reliance (ILSR), can no longer proceed with the existing MEPCP work plan. At the end of the summer, Michelle Carstensen (Researcher) and Katherine Mullen (Project Manager) will be leaving ILSR. Since these two positions are critical to the project in terms of expertise on biochemical substitution and management responsibilities, it's not likely that ILSR can replace these positions in time to continue this project as it now stands. With these changes in mind,

we have carefully evaluated our internal resources and the existing work plan and have determined what can realistically be accomplished over the next couple of months.

The proposed changes to the MEPCP work plan call for ending the remaining work under Results 2 and 4 (Result 1 was completed June 30, 2000), and approval to complete two written resources in progress under Result 3. Provided under each project result is a summary of work completed, along with the current budget balance. As indicated in the progress report submitted June 30, 2000, ILSR staff have started work on two written resources, a report addressing the manufacture and application of biobased lubricants, and a fact sheet covering worker safety issues as they relate to the use of chemical products. The steering committee has been notified of ILSR's staffing changes and the nature of how the project will proceed through December 31, 2000.

Result 1 – Build Network and Define Public Education Strategy

August 2, 2000

Result 1 has been completed.

LCMR Budget: \$22,200
Balance: \$ 0

June 30, 2000

1. Organized a 16-member steering committee representing plant-based and petroleum-based product manufacturers; technical/market assistance groups, academia, government and non-profit organizations (a list of members is enclosed). ILSR hosted a half-day planning meeting with the steering committee to present information on the biochemical and petrochemical industries and potential within those industry sectors for biochemical substitution. The meeting also included a discussion regarding education and communication methods to employ. Notes from the first meeting are attached for review. ILSR established a web based list serve to facilitate on-going communication with the project steering committee.
2. Researched and identified industry sectors and specific companies in Minnesota that offer the greatest potential for shifting to biochemical manufacture and use. ILSR has constructed a database of nearly 3000 companies identified by industry sector and initiated discussion about biochemical substitution through written correspondence, the Carbohydrate Economy Clearinghouse web page and phone calls. In the coming weeks, ILSR staff will be meeting with individual companies and industry groups to discuss specific biochemical substitution strategies.
3. Drafted and mailed a letter and a postcard to each of the 3000 companies in the database which informs companies of the MEPCP network; biochemical substitution in general, and invites their participation in the project. So far, we have received 15 confirmed participants and calls are still coming in from interested companies. Through our research over the past few years on biochemical substitution, we identified industry sectors such as printers and automotive shops that have greater potential and interest in less toxic product alternatives. With this information, we

have started calling companies within these target sectors to invite their participation in MEPCP. Although this approach is more time consuming, it has proven more successful than written correspondence in recruiting participants for the project. In addition to manufacturers and end-users, we've compiled an inventory of organizations, commodity groups and technical assistance programs to contact with information about the MEPCP network and will begin inviting their participation as well.

4. With approval and support from Minnesota Waste Wise, ILSR staff drafted and mailed a letter inviting Waste Wise member companies representing several industry sectors, to participate in the MEPCP network. ILSR has received no responses yet from this mailing.
5. Chippewa Valley Ethanol Company in Benson, Minnesota hosted a meeting with ILSR staff to discuss industrial grade ethanol production and the issues associated with selling non-denatured alcohol to biochemical manufacturers. The ethanol industry currently adds a denaturant such as methanol to render the grain-derived alcohol unfit for human consumption. Industrial grade ethanol is a primary constituent in solvents and other chemical products and plant-based product formulation blenders are interested in using industrial grade ethanol minus the denaturant. Chippewa Valley is pursuing a solution.
6. Presented a session on biochemicals and biobased product procurement at the Minnesota Pollution Control Agency's Annual Solid Waste Conference.
7. Exhibited a booth at the Paint and Powder Coatings Exposition hosted by the Minnesota Technical Assistance Program. We displayed plant-based paint and wood finishing products and distributed information on biochemical substitution to attendees. A letter inviting paint companies to participate in the MEPCP network was also distributed.
8. Exhibited a booth of biochemical based products, literature and MEPCP invitations at the National Association of Purchasing Managers (business purchasers). The conference, attended by 2000 company purchasers, provided a good networking opportunity for recruiting network participants.
9. Attended the 2000 Corn Utilization and Technology Conference sponsored by the National Corn Growers Association. The conference covered chemical uses of corn including polyols such as propylene and ethylene glycols, biorefineries, and lactic acid based plastics. Knowledge gained from this conference will be shared with network participants.
10. Participated in a one-day workshop with the Cuningham Group, a major architectural company, to discuss opportunities within the company's operations and business exchanges to promote the use of biochemical based products.
11. The Agricultural Utilization Research Institute (AURI) and the Minnesota Soybean Growers Association (MSGA) contacted ILSR with their interest in participating in the MEPCP network. ILSR staff met with both organizations to discuss the potential to co-sponsor a workshop or conference that would bring together Minnesota based biochemical manufacturers and end-users and national manufacturers. Discussions are still underway and if an agreement is made to go ahead with the conference,

AURI and MSGA will provide funding for this effort. The conference would most likely take place this fall.

The public education strategy for this project has been defined to include written and oral communication, meetings/presentations and will soon include a web based list serve (separate from the biochemicals web page). ILSR staff is addressing issues that concern the choice of communication methods among the MEPCP participants. Originally, we had planned to communicate more regularly with the network as a whole but now consider this impractical for a couple of reasons. Companies and industry specific groups have specialized issues to address such as finding a less toxic print press cleaning solvent to replace a product which contains a Toxic Release Inventory (TRI) listed chemical. And, information related to the manufacture or formulation of products is often proprietary in nature and companies are not likely to share this information in a larger group setting. ILSR will continue to consider modes of communication and will make adjustments as needed to promote effective discussion with MEPCP network participants.

Communication with the MEPCP network participants will more often occur one-on-one with individual companies and industry specific groups. A web based list serve and larger group meetings will be used to exchange information of a general nature or that which applies broadly across industry sectors such as the use of plant based lubricants in equipment and machinery.

Result 2 - Construct, Research and Maintain Up-to-date, Accessible Database

August 2, 2000

Due to staffing changes at ILSR, work on Result 2 ceased as of August 1, 2000.

LCMR Budget:	\$60,000
Balance:	\$12,658

Match Budget:	\$20,000
Balance:	\$ 0

June 30, 2000

ILSR staff constructed a web page devoted to biochemical substitution that is posted at the Carbohydrate Economy Clearinghouse home page. This site includes an introduction to biochemicals and overview of biochemical substitution methods, fact sheets on biochemical substitution, links to companies manufacturing biochemical based products, case studies, reports, and related web links. Information as determined by industry sector's needs and input from the steering committee will be added throughout the duration of this project.

To review the biochemical substitution section of the Carbohydrate Economy Clearinghouse, go to <http://www.carbohydrateeconomy.org> and enter through the "Biochemical Web Page" link provided.

In January, ILSR began posting a bimonthly Carbohydrate Economy electronic bulletin, which includes a category for news related to biochemical manufacture and use. To view the first three bulletins, again visit <http://www.carbohydrateeconomy.org>, then enter the "Resources" section and select "Bulletins" (a print out of the most recent bulletin is enclosed).

Result 3 - Produce and Distribute Information about Biochemical Alternatives

December 30, 2000

Work has been completed on the two remaining products for the MEPCP project. A 16-page report entitled *Lubricants from Vegetable Oil* and a 4-page fact sheet entitled *Biobased Chemicals Benefit the Workplace* have been written, reviewed by the project steering committee, and printed (see attached reports). *Lubricants from Vegetable Oil* looks at the manufacture and use of vegetable oil-based lubricants in North America, and provides specific details and contact information for companies manufacturing these products. *Biobased Chemicals Benefit the Workplace* addresses worker safety, economic, and regulatory issues as they relate to using chemicals in the workplace and promotes the use of environmentally friendly biochemicals in place of more toxic petrochemicals.

These resources were distributed, along with a cover letter introducing the reports, to over 3000 Minnesota businesses (those identified for the MEPCP network), unions, technical assistance organizations, commodity groups, and others.

LCMR Budget:	\$30,000
Balance:	\$ (2,424)

Match Budget:	\$10,000
Balance:	\$ 0

August 2, 2000

Due to staffing changes at ILSR, modifications have been made to the MEPCP work plan as indicated at the start of the project summary section. ILSR will complete and distribute the lubricants industry report and worker safety fact sheet as outlined below. The completion of these written resources and outreach materials used to promote biochemical manufacture and use (summer 2000 issue of *The Carbohydrate Economy* newsletter, web page entries, and electronic bulletins) will end ILSR's involvement on the MEPCP project on or before December 31, 2000.

LCMR Budget: \$30,000
Balance: \$ 1,532

(Upon completion of the outlined tasks under Result 3, a balance of \$1,532 will remain from the LCMR budget.)

Match Budget: \$10,000
Balance: \$ 0

Biobased Lubricants Industry Report (16 pages)

ILSR staff will complete and distribute a report on the manufacture and use of biobased lubricants (see attached outline).

Completion Dates

Research and write	September 29, 2000
Peer review	October 20, 2000
Edit and format	November 17, 2000
Print	December 1, 2000
Mail	December 15, 2000

4000 copies of the report will be mailed along with the worker safety fact sheet and a cover letter to MEPCP database, unions, technical assistance organizations, commodity groups and others.

Staffing

Researcher Jessica Nelson will continue to research and write the report. Editor Elizabeth Noll will edit the report. Katherine Mullen and David Morris will provide content input and manage output of the report. ILSR will contract with Holle Brian to design layout and format report. The report will be peer reviewed by the steering committee. Researchers Sarah Hannigan and Jessica Nelson will distribute the final report with enclosures.

Worker Safety Fact Sheet (6 page Fact Sheet)

ILSR staff will complete and distribute a fact sheet addressing worker safety issues as they relate to using chemical products (see attached outline).

Completion Dates

Research and write	September 15, 2000
Peer review	October 6, 2000
Edit and format	October 31, 2000

Print
Mail

November 15, 2000
December 15, 2000

4000 copies of the fact sheet will be mailed along with the lubricants report and cover letter to MEPCP database, unions, technical assistance organizations, commodity groups and others.

Staffing

Researchers Michelle Carstensen and Sarah Hannigan will research and write the fact sheet, Katherine Mullen will manage output of the fact sheet. ILSR has contracted with John Jaimez to provide consultation services related to the production of this fact sheet. Editor Elizabeth Noll will edit and format the fact sheet. MEPCP steering committee will peer review the fact sheet. Researchers Jessica Nelson and Sarah Hannigan have distributed the fact sheet with enclosures.

(Matching funds were used to support production and distribution of the summer 2000 issue of *The Carbohydrate Economy* newsletter, web page entries and electronic bulletins - each of which promotes the manufacture and use of biochemicals and will be used to distribute information about the lubricants report and worker safety fact sheet.)

June 30, 2000

ILSR staff will use the following educational outreach tools to promote the manufacture and use of biochemicals: the Carbohydrate Economy Clearinghouse web page, the bimonthly Carbohydrate Economy electronic bulletin (800 recipients) and ILSR's quarterly printed publication, *The Carbohydrate Economy* (4000 recipients). The spring 2000 issue includes articles on plant-based cleaners, the University of Minnesota pledging its commitment to use plant based custodial products, and a profile of a plant based lubricant manufacturer (the spring 2000 issue is enclosed). ILSR's web page and bimonthly electronic bulletins can be viewed by visiting <http://www.carbohydrateeconomy.org>

ILSR staff is researching and writing a report on the manufacture and use of plant based lubricants, a category of biochemical products that crosses many industry sectors. A preview of this report, in article format, will be printed in the summer 2000 issue of *The Carbohydrate Economy* due out in August. This report will be distributed to all network participants and others in industry to educate and encourage the use of biochemical based products. Fact sheets and other select written resources will be drafted and distributed as identified by industry needs. In addition, ILSR staff is distributing two previously printed reports, "Biochemicals for the Printing Industry" and "Biochemicals for the Automotive Industry" to all MEPCP network participants.

ILSR contracted with John Jaimez of Materials Productivity to assist ILSR staff in the development of a fact sheet which addresses worker safety issues related to chemical product use. The fact sheet will compare the physical characteristics and safety issues for a variety of commonly used petrochemical-based products and their biochemical

counterparts. ILSR staff will seek input from professionals in the industrial hygiene and safety occupations while conducting research for this fact sheet.

Result 4 - Analyze Possible Regulatory Changes to Encourage Shift to Biochemicals

August 2, 2000

Due to staffing changes at ILSR, **Result 4 will not be completed.**

LCMR Budget: \$37,800

Balance: \$37,800

Budget Notes:

ILSR's original grant match for this project was \$40,000 provided by the Minnesota Corn Research and Promotion Council (MCRPC). ILSR received an additional \$35,000 from MCRPC earlier this spring. And, last week, the MCRPC renewed funding with ILSR in the amount of \$75,000. Funding from MCRPC is designated to support Carbohydrate Economy program work, specifically research and writing for all outreach tools including the Carbohydrate Economy Clearinghouse web page, bimonthly electronic bulletin and quarterly newsletter — outreach tools that directly support the results outlined in the MEPCP work plan. In addition, this funding can be used for printing and distributing other written materials created during fiscal year 2001. A budget detailing the Carbohydrate Economy program expenses and revenues including funds from MCRPC is enclosed for review.

IV. OUTLINE OF PROJECT RESULTS

◇ RESULT 1 - Build Network and Define Public Education Strategy

MEPCP will put together a network of manufacturers and business users of both petrochemicals and biochemicals, and the network will define the project's public education strategy. With our project partners, we will identify key stakeholders and form a steering committee. With the steering committee, we will build the network to include: manufacturers of products using petrochemicals; key industrial users of products with petrochemicals; manufacturers of biochemicals; and key users of products with biochemicals. Drawing on the experience of all participants, we will define our educational strategy (including materials and meetings) within the represented industries and regions.

Result 1: LCMR: \$22,200 Match: \$10,000

Balance: \$ 0 Balance: \$ 0

Completion date: June 30, 2000

Note: All four results are overlapping rather than strictly sequential, so completion dates reflect the order in which tasks happen more than an absolute end to the task. For instance, the network will likely be built within the first six months, yet the work of staffing the network will continue for the full two years.

◇ **RESULT 2 - Construct, Research and Maintain Up-to-date, Accessible Database**

On an ongoing basis, we will research, evaluate, input, and maintain a user-friendly, publicly accessible, interactive Web-based database with information on biochemicals producers, processors, products, users, and new developments, as well as specific information about MEPCP.

Result 2:	LCMR: \$60,000	Match: \$20,000
	Balance: \$12,658	Balance: \$ 0
Completion Date:	June 30, 2001 (ceased as of August 1, 2000)	

◇ **RESULT 3 Produce and Distribute Information About Biochemical Alternatives**

MEPCP will research, write, design, and print materials about environmentally preferable alternatives, in formats accessible and appropriate to industrial chemical users, for broad dissemination throughout state. We will also distribute to relevant economic development agencies throughout state information about the potential for rural economic development based on biochemicals. For help with dissemination, we will turn to our partners, as well as to other organizations, such as the Agricultural Utilization Research Institute (AURI) and the Minnesota Association of Resource Conservation and Development Councils.

Result 3:	LCMR: \$30,000	Match \$10,000
	Balance: \$ 1,532	Match \$ 0
Completion Date:	December 31, 2000	

◇ **RESULT 4 Analyze Possible Regulatory Changes to Encourage Shift to Biochemicals** In consultation with partner MN OEA, we will produce an analysis of state, county and local agency regulations--such as procurement policies, compliance criteria, and contract conditions--that could be amended to encourage a shift to environmentally preferable chemicals. We will produce and disseminate throughout targeted government agencies clear, accessible, and informative educational materials; the information will be disseminated electronically as well.

Result 4:	LCMR \$37,800	Match: \$10,000
	Balance: \$37,800	Match: \$10,000
Completion Date:	June 30, 2001 (work will not be completed)	

V. DISSEMINATION

Project information will be disseminated both electronically and through printed materials to relevant Minnesota stakeholders: chemical manufacturers, economic

development agencies, environmental organizations and agencies, policy makers, industry and environment journalists. Information will be available on a Web site and through electronic communications, as well as through mailings. In addition, ILSR staff will speak to industry groups and other stakeholders throughout the life of the project. Details about information dissemination are included above within the progress summary.

VI. CONTEXT

A. Significance:

Significance. In 1996, approximately 20 million pounds of toxic chemicals were reported and released by Minnesota's industries into the air, earth and water, causing smog, ozone depletion, water contamination, and a host of hazards for wildlife and humans alike. The vast majority of these chemicals are petroleum-derived. While reducing or mitigating the effects of the toxic releases and transfers may help the situation, a far more sustainable approach is to stop using the hazardous chemicals altogether. Economically, this is feasible only if substitutes are available. Increasingly, substitutes *are* available: biochemicals--chemicals made from plant matter. Given up-to-date, accurate information about existing alternatives, Minnesota's manufacturers and industrial users can be persuaded to make the shift, particularly if biochemicals are favored by procurement policies and compliance criteria.

As far as we know, no organization other than ILSR is cataloguing the products, properties and producers of biochemicals used for industrial purposes; no other project has targeted chemical manufacturers as well as product users; no other project has focused on biochemical substitution statewide. Some other endeavors overlap with and complement aspects of MEPCP. Some of the most interesting are: [1] Presidential Green Chemistry Challenge, a program to honor innovations and those who incorporate principles of "green chemistry" into chemical design, manufacture or use; [2] Green Seal's certification of environmentally responsible products; [3] EPA's Environmentally Preferable Purchasing Program and [4] the City of Santa Monica's Toxics Use Reduction Program.

B: Time: All of the project results will be completed by June 30, 2001. Support for future work in this area will be pursued from a variety of governmental and non-governmental sources.

C: Budget Context: ILSR received \$75,000 from Minnesota OEA to establish a Carbohydrate Economy Information Clearinghouse in the state of Minnesota. The OEA grant project was completed June 30, 1999. While the scope of the OEA project is broader in content (covering non-wood alternatives and biofuels, as well as biochemicals), and different in strategy/outcomes (broad information collection and dissemination, as opposed to targeted working group of select industry leaders who have the ability to make this shift) it will never-the-less set the stage for our work on biochemicals. The OEA is our partner in the MEPCP. The project described here is our

How we as a state could lead the nation in shifting to plant-based industrial materials.

GET

Personnel*	117,700
Equipment	4,700
Acquisition	--
Development	--
Other	27,600
Consultant	1,000
Travel in-state	1,000
Phone/fax	2,000
Web-based software	3,600
Information services (Nexis/Lexis)	7,000
Printing/Copying/Design	9,000
Postage	4,000
Total	150,000

breakdown

	LCRM Project Funds	Time
David Morris	\$13,000	6.5%
Therine Mullen	\$46,000	55%
Shelle Carstensen	\$27,000	Part time 75%
Researcher, Jessica	\$27,000	55%
son		
John Bailey	\$ 4,700	5%
TOTAL	\$117,700	

PERATION

re
 Materials Program
 Office of Environmental Assistance
 n-kind, valued at \$10,400, no cost to project

scheid will not participate on this project as funding for Citizens for a Better
 ent (related to his project) has ended and attempts to reach him have been
 ul. We are looking for a replacement at this time, as we have time before this
 needed for the MEPCP project. (Please see note above in the progress
 regarding ILSR's contract with John Jaimez.)

EATION Statewide

IX. REPORTING REQUIREMENTS

Periodic work program progress reports will be submitted not later than June 30, 2000, and December 31, 2000. A final work program report and associated products will be submitted by December 31, 2000 or by the completion date as set in the appropriation.

X. RESEARCH PROJECTS N/A