

M.A.N.U.R.E.

Manure Agreements, Nutrient Utilization and the Rural Economy

Baughman Township, Wayne County, Ohio

December 2010, Policy Brief #2010-8

Christy George

Center for Farmland Policy Innovation

Department of Agricultural, Environmental, & Developmental Economics

College of Food, Agricultural & Environmental Sciences, The Ohio State University



I	Introduction	V	Project Plan
II	Background	VI	Advice
III	Project Objectives	VII	Conclusions
IV	Pictures	VIII	References



M.A.N.U.R.E. serves as a low-cost solution to a common issue among livestock farmers, as well as a need for manure for other uses. This policy brief will be most useful to communities and individuals looking for a community-based economic solution to problems related to excess manure.

I. INTRODUCTION

The Wayne County agricultural community has a wealth of manure due to a well established livestock industry, composed primarily of dairy cattle. In recent years, the community has been concerned about both environmental and economic aspects of livestock farming. Because of these concerns, the M.A.N.U.R.E. (Manure Agreements, Nutrient Utilization and the Rural Economy) project was designed by collaboration from the Countryside Conservancy and the Wayne County Economic Development Council. The purpose of M.A.N.U.R.E. is to develop a manure bartering program for Baughman Township, in Wayne County, turning the potential problem of excess manure into a viable, economic resource. This project was made possible with funding from the Center for Farmland Policy Innovation at The Ohio State University and the Rural Rehabilitation Board of the Ohio Department of Agriculture. The project took place in Baughman Township over the span of a year.

Farmland Protection Partnership Program

The Center for Farmland Policy Innovation partners with communities to conduct policy experiments. The main purpose is to develop and convey information on the performance of land and local economic policy options for Ohio communities, as well as other techniques that should be available. Further, the Center conducts carefully defined policy experiments in the field to determine what other methods might be helpful, and what it would take to add them to the list of local policy tools. This land policy laboratory aids local policymakers in achieving what their citizens want through on the ground demonstrations of completed experiments. These experiments then become tangible models for the rest of the state.

Project website:
<http://cffpi.osu.edu/baughman.htm>

M.A.N.U.R.E.

Manure Agreements, Nutrient Utilization and the Rural Economy

II. BACKGROUND

As a heavy livestock producing county, especially in the dairy industry, the environmental and economic concerns regarding excessive amounts of manure have been increasing recently in Baughman Township. The M.A.N.U.R.E. project was developed to create ways to turn the problem of excessive amounts of manure into a viable resource, such as bio-gas. A bartering program consists of an exchange between a farmer and a resident or other farmer. Manure can be bought outright, involve an in-kind trade, or farmers can engage in a “dutch treat.” In this last case, if part of Farmer A’s farm is closer to Farmer B and part of Farmer B’s farm is closer to Farmer A, they apply manure to each other’s farms to save on resources. Before a bartering program existed in Baughman Township, manure was a wasted resource, and developed rising concerns of water pollution and proper manure management.

A project out of the University of Wisconsin Extension Environmental Resources Center served as a guide for this project providing examples of farmer surveys and soil sampling. In Wisconsin, a case study was conducted to determine if a manure bartering system would be beneficial and viable for the community. The case study concluded that the barter system saved each farmer an average of 64 hours of labor and eliminated approximately 700 miles of road wear on equipment. The project was a contract to exchange manure between father and son-in-law that lived 2.3 miles from one another, instead of passing each other with empty tankers on the road they began to spread the manure on each other’s fields. The father and son-in-law bartered their manure to be more resourceful.

III. PROJECT OBJECTIVES

The overall objective of the project was to create a manure bartering program for livestock producers in Baughman Township. Other important objectives for the project are:

- Develop contract templates for farmers and create agribusiness support for the needs in the county and surrounding areas.
- Educate local farmers to learn more about the processes involved in manure bartering, contract negotiation, tax implications and other related topics and interest.
- Promote the project and the potential it will create for the township and county.
- Encourage farmers and community relationships.
- Market manure as a valuable resource.
- Create a manure management model for broader use.

M.A.N.U.R.E.

Manure Agreements, Nutrient Utilization and the Rural Economy

IV. PICTURES



Don Grimes, farmer and Baughman Township Trustee leads group discussion at planning meeting.



Local farmer, Joel Steiner observes a map of the Twin Birch Farms manure distribution pipeline.



From Left: Brian Gwin, John Douglas, Jim Comp, Larry Baer, Joel Steiner, Floyd Schanbacher, Katie Myers-Griffith, Mark Duncan, Amanda Meddles, Ken Wheeler, and Philip Simon



Pictures courtesy of Katie Myers-Griffith

M.A.N.U.R.E.

Manure Agreements, Nutrient Utilization and the Rural Economy

V. PROJECT PLAN

To develop a manure bartering program the following plan was put in place:

- 1. Conduct background research** such as a survey of local farmers about their operations and production, to determine existing uses and/or need of a bartering program.
- 2. Conduct soil sampling and manure analysis** to determine the viability of a bartering program. Soil sampling was done at the start and end of the project to determine whether the project was successful in improving environmental factors. Also, a manure analysis was performed to determine the availability and fertility of the manure in the area.
- 3. Hold several educational meetings** to gain support for a bartering program and educate the community on other projects that have had success, like in Wisconsin. Also, other general education of what the project is accomplishing and what the community would like to learn more about (i.e. environmental factors, cost-effective solutions, and more).
- 4. Promote the resulting manure bartering program** through a website, ManureLink that contains information for those interested in manure bartering. Also, other promotional items such as t-shirts, bumper stickers and yard signs were created.

VI. ADVICE

Katie Myers-Griffith from the Countryside Conservancy, the project manager for M.A.N.U.R.E. felt that the **flexibility allowed for the project contributed strongly to the overall success**. The project allowed for the participants to choose some of the things they were interested in and wanted to learn about in the educational meetings that they held.

Some other advice Griffith offered for future projects included the following:

- **Allow room for producers to negotiate.**
- **Engage a large enough geographic area to have enough participants.**
- **Include different incentives needed such as carbon credits. The incentives offered (50% off soil sampling and manure analysis) were not significant to the farmers because those costs were already being covered by their crop consultants.**

M.A.N.U.R.E.

Manure Agreements, Nutrient Utilization and the Rural Economy

- **Focus on partnerships.** The partnerships that were gained through the project were the most important for the farmers and community, to develop business relationships that will continue be enhanced in the future.

Brian Gwin, agricultural project manager for the Wayne County Economic Development Council, said that the project **was a success in many ways, especially in creating partnerships between different groups in the community.** The partnerships were formed through manure bartering, learning new technology and learning from professionals such as crop consultants.

Gwin offered this advice for others interested in this type of project:

- **Choose a few key people in the community to serve as leaders for the project.** The M.A.N.U.R.E. project utilized the township trustee's in this role, but having some key farmers would have been beneficial as well.
- **Think strategically about the timeliness of the project with the seasonal activities of the farmers and other participants involved.**

Don Grimes from the Baughman Township Trustees, serving as the client for M.A.N.U.R.E., was very happy and satisfied with the overall project and outcome. Grimes pointed out that the response/attendance was less than expected, but is apart of getting people interested in a new process or project. **His advice for future projects was to educate the constituents more on the value that manure has as a resource for farmers.**

VII. CONCLUSIONS

M.A.N.U.R.E had many ways to measure success, but two of the most important results were:

- **Partnerships created through several channels.**
- **A successful manure bartering system put in place.**

The M.A.N.U.R.E. project was successful in a number of other ways as well:

- **Sample contracts were created for participants interested in the system.**
- **Educational resources are now available for manure issues.**
- **A website developed to aid in making connections of all those interested.**
- **Awareness of the issues and successful alternatives increased among farmers and local residents.**

M.A.N.U.R.E.

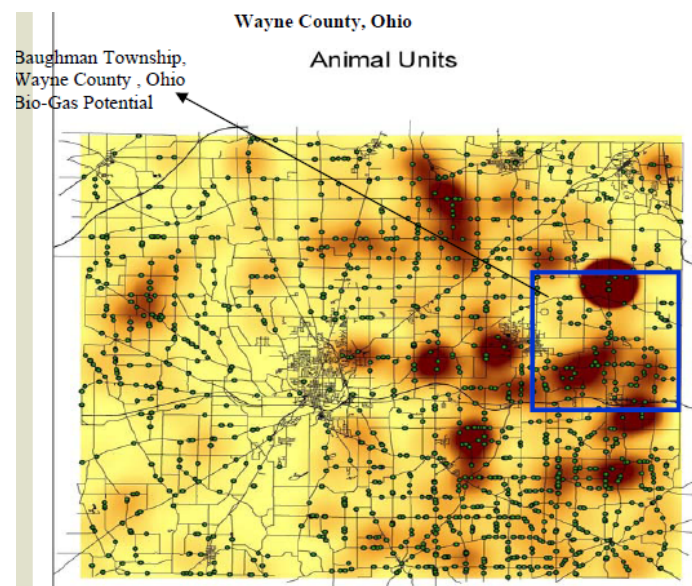
Manure Agreements, Nutrient Utilization and the Rural Economy

According to Katie Myers-Griffith, the project manager, the partnerships that were created through the project were very successful, from grain farmers and livestock farmers working together, to farmers learning from designers of anaerobic digesters, to farmers having more interaction with the soil and water conservation office. Myers-Griffith, Gwin and Grimes agree that the partnerships developed through the project were one of the most positive results that came from the project, because they open the door to working together in the future and being more collaborative in the efforts.

Also, the project has created a website, ManureLink, which assists farmers interested in a bartering system to reach out to others that are interested in creating a partnership for manure bartering. The website was developed through the project with the expectation that an entrepreneur will be found to manage the site and the manure bartering activities. Until an entrepreneur is found the Countryside Conservancy will maintain the site once it is launched.

Other states, such as Missouri and New Mexico have been contacting the project managers about the M.A.N.U.R.E. project and are interested in developing a similar project in their area to handle excess amounts of manure in their communities.

The picture to the right shows the potential areas in Wayne County for bio-gas, due to the high level of manure being produced in those areas. As you can see, there is a great deal of potential in the area for these unused resources.



VIII. References

For more information on the M.A.N.U.R.E. project check out the following websites for reports, forms, sample contracts and more!

- <http://www.cvcountryside.org/>
- <http://www.waynedevelopment.org/>