**Wisconsin Department of Agriculture, Trade and Consumer Protection**
**A**griculture **D**evelopment and **D**iversification **P**rogram
**2001 Grant Project Narrative Report No. 4**

Date: **August 15, 2002** WDATCP Contract No.: **16040**
Project Title: **Developing Soil Amendment Products from Organic Residuals in Wisconsin's Fox River Valley Region**
Project Leader: **Leslie Cooperband, UW Madison Department of Soil Science**
Final Report For: March-June, 2002

Activity for this final period has focused on compost operations, marketing and sales, assisting with the compost permit at Bio-Resource Products, and preparing for a feasibility study involving evaluation of additional compost processing sites in Green Bay, and the Appleton area. With FRVOR staff assistance, Bio-Resource Products hired a full-time Compost Operations Director, and Compost Site Manager. Bio-Resource Products declined to accept the DNR Recycling and Demonstration Grant written by the FRVOR project coordinator due to lack of necessary funds for the required grant match. The grant was intended to evaluate the feasibility of lime stabilization and other methods for creating an impermeable working surface at the compost processing site. In lieu of soil stabilization, Bio-Resource Products has invested in waterways and berms to improve site drainage. The project coordinator worked closely with the Compost Operations Director to evaluate compost screening technologies.

Bio-Resource Products and the project coordinator met with the Town of Greenville Planning Commission on June 24, 2002 for a public hearing to respond to complaints from nearby neighbors concerning odors and truck traffic at the composting site. The week prior to the Planning Commission meeting, FRVOR staff facilitated an open house at the composting site to meet with nearby neighbors and other interested parties. At the Planning Commission meeting, Dave Wiegman, owner of Bio-Resource Products, and the Town of Greenville have agreed that the site will not be expanded to accept more or different types of organic wastes due to potential conflicts with neighbors. Further, Bio-Resource Products is being permitted to operate on a probationary basis to demonstrate that problems identified by the neighbors can be resolved. The Town Board will review the situation again in November 2002 and decide if Wiegman can continue to operate the facility.

Due to the uncertainty of continued operations at the Wiegman site, FRVOR staff decided to investigate other processing locations, which is discussed later in this report.

The project coordinator continued to work on the GIS database design to identify and coordinate exchange of organic byproducts within the Fox Valley region. We applied for an EPA grant and received $25,000 to increase the work effort for this initiative. This grant will expedite the identification of other potential FRVOR participants and will include the design and set-up of a website that will permit information exchange between organic byproduct producers and processors.

Progress on the tasks listed in our ADD grant proposal has been as follows:

1. <u>Refine market survey and farmer attitudinal survey</u>

The project coordinator began transferring market information and customer relationships to the newly hired Compost Operations Director at Bio-Resource Products. He continued to meet

jointly with potential customers and the new director. These visits have resulted in additional compost sales, and strengthening of strategic partnerships and compost demonstrations important for business expansion. Specific accomplishments have included:

a. Development and distribution of color brochures on compost benefits and guidelines for compost use in landscape, turf, and horticultural applications.

b. Produced and began marketing a compost/topsoil blend, which has become popular with area landscape contractors.

c. Installation of several compost demonstration projects with landscape contractors, and nature centers. The largest was at Mosquito Hill Nature Center near New London. The center recently constructed a $1 million plus facility and needed to amend the soils and stabilize slopes around the building. Bio-Resource Products and UltraMulch Express (blower truck company) donated and applied a compost/bark/annual rye grass seed mix covering approximately ½ acre at the site. The rye was planted to control erosion, help eradicate competing plants and to prepare for fall planting of native grasses and wildflowers. Native grasses were planted in August 2002. The Nature Preserve gave recognition for the donation, and allowed the placement of educational brochures listing compost benefits and purchase information.

d. Expanded compost sales to nursery and greenhouse operations in the Milwaukee area.

e. Developed a bulk/bag distributor relationship with Schroth Wholesale Supply Company in Menasha, the largest greenhouse supplier in Wisconsin.

f. Continued to work with the Wisconsin Department of Transportation on testing the use of compost for erosion control on a 100-foot stretch of highway right-of-way along State Highway 10 in Winnebago County. The compost installation will take place in mid-September 2002, and will consist of three or four different compost/bark treatments (different application rates). Bio-Resource Products will be donating the compost/bark mixture, and UltraMulch Express will donate installation services. DOT has also agreed to work with FRVOR on the installation of compost filled “socks”, a substitute for silt fence. DOT is currently identifying test sites in southeast Wisconsin, and Quickscapes, a Wisconsin firm specializing in compost used for filtering silt has agreed to donate the compost-filled socks for the tests.

g. Began planning for greenhouse growing trials with Natural Beauty near Denmark who has agreed to work with us on compost evaluation and testing. The trials will be conducted during early 2003, at the beginning of their next major growing season. The purpose of these trials will be to evaluate economics and performance of the substitution of compost for peat in container mixes. Natural Beauty has 22 acres under glass, and sells more than 100 million plants per year. FRVOR staff will begin conducting greenhouse trials this fall at the University of Wisconsin’s greenhouse facilities using the experimental batches of compost prepared earlier this year. These trials will provide insight for the design of the Natural Beauty growing trials.

h. Met with Waupaca Sand and Materials, a division of Faulks Brothers Construction on several occasions to discuss development of golf industry soil amendments, and sale of Bio-Resource products through their existing sales and distribution channels. We

are currently evaluating blending Bio-Resource Products compost with sand and other materials that the firm currently produces.

i. Met management and toured Waupaca Materials operations, which packages and distributes soil amendments nationally. They informally advised us that they are capable and interested in purchasing all of the compost that could be produced by the FRVOR operations. At first glance this is an attractive possibility, however the price they would be willing to pay may not provide sufficient profit incentive for FRVOR members, and relying primarily on one customer is not advisable.

2. Finalize organizational and business structures for FRVOR/Assess regulatory issues

Progress on the business structure continues. The project coordinator convened several meetings with American Foods, Agrilink, Hillshire Farms, Sara Lee Corporation, the City of Green Bay, City of Appleton, and the Green Bay Area Metropolitan Sewerage District to discuss development of a second site closer to the Green Bay feedstock suppliers, and an alternative to the Bio-Resource Products processing site. Several members of the group previously mentioned have agreed to fund a feasibility study and 5-year business plan (donating $21,000) that will evaluate construction and operation of a Feedstock Cooperative at a site owned by the Green Bay Sewerage District, and to identify another processing site in the Appleton area, probably near Black Creek, Wisconsin. The study and business plan are expected to be completed by January 2003.

The Feedstock Cooperative would receive, process, market and distribute soil amendment products. The feasibility study and business plan will be used to identify and encourage equity investors to form the cooperative who would lease and improve the site, purchase processing equipment, and hire staff. Under this arrangement the Greenville and new Black Creek processing sites would become satellite operations to serve feedstock producers in the Appleton area and would be able to use some of the equipment purchased for the Green Bay area operation. Feedstock cooperative members would be able to reduce their waste management costs through patronage refunds paid from the profit of products marketed by the cooperative. FRVOR is retaining the services of a professional business-planning firm to produce the business plan, and will work closely with an engineering firm on plant construction and operating costs, and with the UW Center for Cooperatives on business structure alternatives.

3. Test composts

FRVOR and Bio-Resource Products Staff completed processing the research piles and have performed preliminary chemical/biological tests of the 7 different compost recipes. The compost has been covered and is being stored at the Bio-Resource composting site.

Our growing trials from the yardwaste compost conducted earlier this year indicate that the compost blends outperformed the standard peat mix in plant growth, and that the plants in the trial developed much more rapidly in the compost blends, a factor of great interest to commercial greenhouse growers. We expect even better results using some of the compost blends, due to higher nutrient levels present in many of them.

4. Produce test batches of refined products, prepare to conduct greenhouse & field trials

The batches of experimental compost are ready for testing and trials. Approximately 3 cubic yards of each batch have been stored for testing. Greenhouse trials will be initiated in October 2002 at UW Soil Science facilities, and growing trials with commercial growers will begin in January 2003.

We are continuing to arrange field trials using composts and compost blends at Green Acres Landscape and other Fox Valley locations. This includes sites at public and private operated golf courses, greenhouses, parks, and community gardens in the Fox Valley area.

5. FRVOR Steering Committee meetings and Project Publicity

The Steering Committee and Advisory Group have not met formally as a group since March 6, 2002 due to the high number of individual and group meetings conducted over the past three months. FRVOR staff is planning to have a joint meeting with the Steering Committee and Advisory Group for mid-September 2002. Several key participants have provided additional financial and in-kind support for the project.

The project coordinator will be making FRVOR presentations at the Waste to Energy Conference to be held in Middleton, Wisconsin in the November 2002, and at the Solid Waste Conference in Waupaca, Wisconsin in October 2002.

We met twice with a group of public and private organizations in southwest Wisconsin (City of Lancaster area) to discuss formation of another project similar to FRVOR in this region. This effort has attracted the attention of Wisconsin State Senator Dale Schultz, and his aide, Tom Jackson, facilitated the meetings. A search for funding to support start-up of this project is currently underway. The University of Wisconsin-Platteville is also interested in serving in a facilitator role.