

**Marketing Compost Manure to Public Entities
Texas Cooperative Extension
FY 01 319(h) Nonpoint Source Grant
TCEQ Contract No. 582-2-44407**

Quarter no. 14 From 9/01/05 Through 11/30/05.

I. Introduction/Abstract

Simulated rainfall was applied to both unvegetated and vegetated plots at the TTI facility to monitor soil and runoff water quality from compost amended and inorganic fertilizer amended plots. Data collection and analysis were conducted per the approved project QAPP.

A final compost assessment trip was conducted in September of this quarter and all compost data has been received from the Soil Control Lab (an STA certified Laboratory). Compost quality data has been compiled into a data sheet and shared with the individual composters. In addition, this information was submitted to TCEQ.

II. Overall Progress and Results by Specific Work Task within each Phase

PHASE 1

Task 1.1 Texas Water Resources Institute (TWRI) will serve as the prime contractor for the project and provide overall administration required fulfilling the "Technical Contractor" responsibilities under the Texas Commission on Environmental Quality (TCEQ) Composted Manure Incentive Project scope of work. Responsibilities include planning and facilitating meetings; negotiating subcontracts; submitting reimbursement documents and appropriate documentation of project progress; handling budget and fiscal reviews; adherence to Texas State Soil and Water Conservation Board (TSSWCB) and TCEQ nonpoint source management program; and ensure all activities, deliverables and tasks follow TCEQ contract provisions.

The following actions have been completed during this reporting period:

- a. Administrative tasks completed by TWRI will fall under phase II activities from this point forward.

Task 2.1 Assess the potential market, the compost product quality, existing educational and promotional materials available for a composted manure marketing project, and research and demonstration needs.

The following actions have been completed during this reporting period:

- a. All tasks completed through phase I activities.

Task 2.2 Develop a strategic Compost Education and Marketing Plan (CEMP). The CEMP will include a Research/Demonstration Design Plan (RDDP) to address the research and demonstration needs and a Quality Assurance Project Plan (QAPP) to address environmental

data collection.

The following actions have been completed during this reporting period:

- a. All tasks completed through phase I activities.

Task 2.3 Implement the strategic CEMP. The CEMP will provide educational outreach, technical assistance, and documented materials for compost producers and users. It will also provide for the direct marketing of composted manure. The CEMP will target both public entities and private citizens throughout the region.

The following actions have been completed during this reporting period:

- a. Tasks completed will fall under phase II activities from this point forward.

Task 2.4 Develop a project web site comprised of technical information for project cooperators, demonstration locations and research data, sources of available compost, educational literature from TCE, and facts about TCEQ rebate program and the TCEQ and TSSWCB nonpoint source management program.

The following actions have been completed during this reporting period:

- a. Tasks completed will fall under phase II activities from this point forward.

Task 3.1 Provide TCEQ with assistance for quality assurance activities. Compost production sites will be evaluated to ensure sound production practices and at least 20 random site visits will be conducted to monitor uses of compost to ensure applications, BMPs and rates are made in an environmentally appropriate manner.

The following actions have been completed during this reporting period:

- a. Tasks completed will fall under phase II activities from this point forward.

Task 3.2 Where existing guidance literature is lacking, reports of current and past field trials and result demonstration activities will be documented and published. All effective compost production and use aspects will be documented in draft case studies, cost analysis and effectiveness assessment reports.

The following actions have been completed during this reporting period:

- a. Tasks completed will fall under phase II activities from this point forward.

PHASE II

Task 1.1 TWRI will continue to provide overall administration required to fulfill the "Technical Contractor" responsibilities under the TCEQ Composted Manure Incentive Project scope of work in FY 2004. In addition to the responsibilities detailed in the Phase I scope of work, TWRI will negotiate a subcontract with a Compost Marketing Firm to assist with marketing and educational tasks.

The following actions have been completed during this reporting period:

- a. A minor amendment to the updated and approved QAPP was processed and approved during September prior to the first rainfall simulation. The amendment removed the statement, “Only compost material which meets TxDOT specification will be used in the indoor study”. Material obtained by TCE for the study met all TxDOT specifications except pH – it had a pH of 9.06, whereas TxDOT specifies a maximum of 8.5. However, given high pH is typical of composted manure in this program and previous successful results utilizing such compost, TCEQ granted permission to utilize the high-pH material. Further, it was noted that a demonstration of the high-pH material could benefit the study’s purpose documenting safe and beneficial qualities of the compost, despite a pH above typical specifications.

Task 2.3 Implement the strategic CEMP. The CEMP will provide educational outreach, technical assistance, and documented materials for compost producers and users. It will also provide for the direct marketing of composted manure. The CEMP will target both public entities and private citizens throughout the region.

The following actions have been completed during this reporting period:

- a. The use of dairy manure compost to establish landscapes was a highlighted focal point at the Turfgrass and Ornamental Field Day in Dallas. Participants were able to see the visible differences noted in the compost treated plots versus the untreated plots.
- b. TCE conducted the second compost assessment sampling trip on 9-22-05. Samples were collected from Organic Residual Reclamation and Bosque River Compost facilities. Samples were submitted to Soil Control Laboratory in Watsonville, CA.
- c. Per a request from TCEQ, TCE also collected samples of ‘stockpiled’ material during the sampling trip on 9-22-05. Three different stockpiled materials were collected from three different compost facilities. These materials varied significantly in age, practices and amendment. In addition, the level of maturity of these materials (as compared to a mature and stable compost product) varied from raw to very stable or mature. Thus, given TMECC methodology was developed for use on composted material, the value and accuracy of sample collection and laboratory test results was unclear. Therefore, results in the data summary were clearly distinguished between compost and stockpiled material.
- d. Individual compost test results were shared with the compost producers. In addition, TCEQ and the compost producers also received a summary of all compost sample results. and
- e. TCE conducted the rainfall simulation study on unvegetated and vegetated plots on 9-26-05 and 11-15-05, respectively.
- f. Samples from the soil and water quality study were submitted to the Soil, Water and Forage Testing Laboratory and results will be compiled during the next quarter.

Task 2.4 TWRI will maintain project web site by incorporating new information from the project’s success in year 2. Information added to the web site will include, but is not limited to the following: results of compost use in field trials and demonstration programs from year 2 of the RDDP; success stories of compost use as a result of the project; and recent technical information obtained from project activities in year 2.

The following actions have been completed during this reporting period:

- a. Internet user statistics of Project Website remained steady during quarter 13. Unique visitors for the month of September, October and November were tracked at 703, 894 and 1125, respectively.

Task 3.1 Continue to provide TCEQ assistance with quality assurance activities by conducting at least 20 random site visits to monitor the beneficial uses of compost by participating state and local government entities and assess the agencies' and users' implementation of suggested BMPs.

The following actions have been completed during this reporting period:

- a. Statistical analysis of data from the organic matter mixing study was completed and a full report was completed drafted to be included in the draft final report submitted during the next quarter.

Task 3.2 Where existing guidance literature is lacking, reports of current and past field trials and result demonstration activities will be documented and published. All effective compost production and use aspects will be documented in draft case studies, cost analysis and effectiveness assessment reports.

The following actions have been completed during this reporting period:

- a. Project fact sheets were provided to participants at the Turfgrass and Ornamental field day in Dallas.
- b. Two presentations were presented at the Southern Region Water Quality Meeting in Lexington, KY during October.

Task 3.3 Develop and submit annual and final joint reports of 'success stories' including assessment and feasibility of program strategies so that similar programs could develop from the provided outline.

The following actions have been completed during this reporting period:

- a. The draft final project report was initiated and will be submitted to TCEQ during the first part of the next quarter. Data and reports related to the soil and water quality study, however, will not be completed in time to be included in the first draft. Upon completion of this report, it will be submitted to TCEQ in the final project report.

III. Related Issues/Current Problems and Favorable or Unusual Developments

Nothing to report at this time.

IV. Conclusion/Projected Work for Next Quarter

The following will be accomplished during the coming quarter:

- a. Data from the first and second rainfall simulation will be compiled and report preparation for the study will commence.
- b. A draft final project report will be submitted to TCEQ.