

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

Quarter no. 12 From 3/01/05 Through 5/31/05.

I. Introduction/Abstract

Project personnel during this quarter focused on data summaries, reporting and unfinished tasks. Specifically, TWRI and TCE worked directly with QA staff and project manager at TCEQ to finalize and update QAPP and other necessary tasks to rectify the nonconformance issue. It is anticipated that the QAPP will receive approval during the next quarter allowing TCE to finish their project duties.

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 corrective action report for the QAPP nonconformance was developed, agreed upon and submitted to TCEQ.

- b. A draft quality assurance laboratory manual for TCE-SWFTL was submitted to TCEQ.
- c. Costs associated with previous compost analysis (conducted under absence of QAPP) were reversed.
- d. TWRI met with TCEQ to determine proper action necessary to update expired QAPP and amend project contract to extend project period to April 30, 2006. Although project end date may occur prior to contract end date, this date was preferred by EPA.
- e. TWRI also met with TCEQ to determine the budget revision necessary to extend project, yet reduce overall project budget.
- f. An amended contract and revised budget will be submitted and signed in the next quarter.
- g. An amended and updated QAPP will be submitted and signed in the next quarter.

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. TCE worked extensively with the Upper Leon and Cross Timbers SWCD and the TSSWCB Regional Office in Dublin to allow an agricultural producer in Shive, TX access to the SWCD rebate program. Confusion existed because the SWCD 319 program ended on 3-31-05 and therefore, personnel thought the compost rebate program ended as well. To avoid further confusion, all calls will be directed to Missy Jones at Upper Leon SWCD or Cecilia Gerngross at Colleget Station.
- b. Drafted several study summaries including bermudagrass rate study, bermudagrass timing study and outdoor soil/water quality study. Study summaries remaining to be completed are Jose tall wheatgrass, corn silage, shade study, newly constructed landscape study and indoor soil/water quality study.
- c. TCE met with TTI personnel to locate a facility to conduct the indoor soil/water quality study. It was determined due to study needs (vegetation establishment) that an individual bed will be constructed for use at the TTI facility. Materials for bed construction were obtained from Custom Fabricators in Bryan, TX.
- d. Indoor soil/water quality study will commence during next quarter (given QAPP approval).
- e. TCE and RAA conducted on site facility visits to conduct follow up assessment of each facilities production practices, marketing strategy and growth/development potential.
- f. During next quarter, RAA will submit follow up reports to TCE for review and each individual report will be provided to the compost producer for their information as well.

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 continually increased during quarter 12. Unique visitors for the month of March were tracked at 817 visits and increased in April and again in May to 916 and 938, 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. TCE initiated organic matter mixing study in April. Prior to study initiation, several sources of compost material from Gustine Compost, Producers Compost, O'Neals Compost and Dairy Cow Compost were analyzed to ensure none of the compost sources past the current TxDOT specifications.
- b. All 4 compost sources failed the DOT spec based on percent organic matter and 3 of the 4 sources failed based on pH.
- c. Based on analysis, all 4 sources were utilized in the organic matter mixing study. Three carbon sources identified abundant and available in the area by Ron Alexander, Associates survey, were obtained for the study. The 3 sources were woodchips, sawdust and peanut hulls and were mixed at 2 ratios, 10% and 30%.
- d. Zero day mixes were submitted to the Soil Control Lab and the Soil, Water and Forage Testing Lab for complete analysis on 4-25-05.
- e. Thirty day mixes were submitted to both the Soil Control Lab and the Soil, Water and Forage Testing Lab for complete analysis on 5-23-05.
- f. TCE met with Hamilton County CEA, Whit Weems and City of Hamilton personnel on 5-6-05 to discuss the use of dairy compost on a city owned and developed recreational park. The recreational park will contain 4 baseball fields and a combination soccer & football field. It was determined that compost use will not be feasible on the entire field. However, soil samples were collected and analyzed to determine chemical and physical properties of soil so that proper amounts of dairy compost will be utilized in field development. City personnel will utilize dairy compost either thru the TCEQ Incentive payment or through the Bosque-Leon RC&D cost-share program.
- g. TCE also pursued repeat compost use demonstrations in Palo Pinto County and Stephens County. Unfortunately, cost for compost use exceeded school districts budget and compost will not be used this year.
- h. TCE met with McLennan County Extension Agent, Will Kiker, and Riesel

ISD personnel to determine proper rate and technique for compost use on the Riesel ISD practice field. The compost use demonstration will be installed during the next quarter.

- i. Case studies for compost use demonstrations in Tarrant County, McLennan County and Stephens County were submitted to TCEQ. Case studies were developed in a news release format to allow for publicity of project. Additional case studies highlighting compost demonstrations in Erath County and Palo Pinto County are in development and will be submitted in 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 personnel in Dallas, Stephenville and College Station have been notified to develop study summaries of research conducted in their specific area. Summaries will be incorporated into already developed guidance literature.

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. No progress to report at this time.

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

No comment at this time.

IV. Conclusion/Projected Work for Next Quarter

The following will be accomplished during the coming quarter:

- a. Analyze organic matter improvement study results (0 and 30 day data).
- b. Finalize methodology for reporting compost sale/transport data.
- c. Submit follow up individual compost facility visits to each composter and to TCEQ.
- d. Finalize data summaries from Dallas and Stephenville.
- e. Finalize summaries of county demonstrations and request additional information from County Extension Agents to include in Final Report.
- f. Conduct initial phase (no vegetation) of indoor soil/water quality study.
- g. Conduct compost sampling and TMECC analysis. (at least 2 samples per facility will be collected and submitted)
- h. Draft final report (minus compost and indoor study results)