

**Texas A&M AgriLife
Texas Water Resources Institute**

**Integrated Farm Management
Strategic Ag Initiative Program
EPA Cooperative Agreement No. X8-96668501-0**

Quarter no. 1 From 9/1/08 Through 11/30/08

I. Abstract

AgriLife Extension, USDA-Natural Resources Conservation Service and Texas State Soil and Water Conservation Board were all identified in the Arroyo Colorado watershed protection plan (WPP) as the primary responsible parties for ag and natural resources education. Thus, AgriLife Extension has been working over the years to develop and implement a sound education program for agricultural producers on topics such as proper nutrient management, reduced and safer pesticide use, and efficient irrigation and crop production practices. With the WPP in place and currently being implemented, the Integrated Farm Management Education Program was able to begin fairly quickly. Advisory meetings to plan training events and actual training events occurred over the course of this quarter. A waste pesticide collection event attracted 40 residents and education programs during this quarter had a total attendance of 455. Further, the annual soil testing campaign, which promotes proper use of fertilizer and nutrient management was also kicked off during this quarter.

II. Overall Progress and Results by Task

Task 1. Project Coordination:

Subtask 1.1: Project Oversight – TWRI will provide technical and fiscal oversight to ensure Tasks and Deliverables are acceptable and completed as scheduled and within budget.

The following actions have been completed during this reporting period:

- a. TWRI worked with AgriLife Contracts and Grants to finalize contract and set up project account at TWRI and in Weslaco District 12 Extension. TWRI developed a subaccount notice for District 12 personnel outlining deliverables to be met over the period of the project.
- b. TWRI also worked with District 12 personnel to set up payroll charges against the project to begin in early 2009.

14% Complete

Subtask 1.2: Fiscal/invoicing – The Texas AgriLife Extension Service will submit reimbursement forms per the schedule established/requested.

The following actions have been completed during this reporting period:

- a. An invoice (R016830) for the time period of 9/1/08 thru 11/30/08 was submitted to EPA for \$1,036.77 leaving a balance of \$91,574.83 or 98% of the budget to be spent on the project.

2% Complete

Subtask 1.3: Regular Meetings - To facilitate good communication between project participants, a quarterly meeting or teleconference will be scheduled and hosted by TWRI.

The following actions have been completed during this reporting period:

- a. TWRI arranged a meeting to discuss project activities and expectations. The meeting will be held during the next quarter on December 17. To save on travel funds, project personnel will meet via TTVN in College Station and Weslaco.
- b. TWRI also announced acquisition of the contract and funds at the Arroyo Colorado Watershed Partnership steering committee meeting on October 23, 2008. This project fulfills implementation activities for the Arroyo Colorado Watershed Protection Plan.

5% Complete

Subtask 1.4: Quarterly progress reports - TWRI, with the assistance of the project personnel, will submit progress reports to EPA Region 6 quarterly. The Reports will include the status of deliverables for each Objective and Task and a narrative description of activities for each task outlined in this Scope of Work in Progress Report format

The following actions have been completed during this reporting period:

- a. TWRI will submit year 1, quarter 1 report on December 16, 2008.

14% Complete

Subtask 1.5: Final Report – TWRI, with assistance of project personnel, will provide EPA Region 6 with a comprehensive report on the activities during the course of this project.

The following actions have been completed during this reporting period:

- a. Nothing to report at this time.

0% Complete

Task 2. Conducting Integrated Farm Management System Education Programs:

Subtask 2.1: A joint county Pesticide Applicator Safety Training and Continuing Education Program will be held on a quarterly basis for growers in Cameron, Willacy and Hidalgo County to educate individuals on the following topics:

- *principles of integrated pest management*
- *non-chemical alternatives and pest features*
- *ground and surface water protection*
- *laws and regulations and record keeping*
- *cost benefit of IPM*
- *pesticide labels*

- *endangered species protection*
- *Worker Protection Standards and personal protection*
- *maintenance and calibration of application equipment*
- *pesticide application safety training*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
9/12/08	Sugarcane Board	CHW	Discussed the upcoming waste Pesticide Collection Day	20
10/21/08	Waste Pesticide Collection	CH	collection and proper disposal of unwanted pesticides. Also collected batteries, oil, oil filters and plastic pesticide containers for recycling	40
11/5/08	Pesticide Safety Training	CH	Topics included: the principles of integrated pest management, non-chemical alternatives, pest features, ground and surface water protection, laws and regulations, pesticide labels, endangered species protection, Worker Protection Standards, record keeping, personal protection, application equipment, calibration and continuing education units.	9

14% Complete

Subtask 2.2: Educational meetings will be held to educate producers on crop production, proper nutrient and irrigation management, soil testing, and integrated pest management practices including the economic benefits of an integrated management approach. Each of the following meetings will be held on an annual basis.

- *1 cotton production meetings*
- *1 sorghum production meeting*
- *1 sugar cane production meeting*
- *1 citrus production meeting*
- *1 vegetable production meeting*
- *A soil testing campaign to promote proper use of fertilizers and nutrient management*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
9/16/08	Texas Ag Industries	CHW	Nutrient loading	20

9/25/08	Sugarcane Field Day	CHW	Sugarcane varieties, development of sugarcane GMO's, crop rotation, Co-Op update, pesticide laws and regulations, Waste Pesticide Collection Day, Nutrient Management Field Day and soil testing campaign	82
9/26/08	Cotton & Grain Producers Association Meeting	CHW	Discussed the following upcoming events: Waste Pesticide Collection Day, Nutrient Management Field Day and soil testing campaign	15
10/01/08 thru 12/31/08	Soil Testing Campaign	CHWS	Soil testing campaign conducted to provide ag producers scientific data of nutrient levels present in soil and recommendations on fertilizer levels needed to produce a sustainable crop	n/a
10/15/08	Conservation Tillage/ Nutrient Management Field Day	CHW	pest management with Conservation Tillage, Herbaceous wind barriers, grower panel of farming with conservation tillage, nutrient management and soil testing timing and application pesticide rules and regulations, company representatives perspective, kickoff of soil testing campaign	74
10/29/08	Rio Grande Valley Irrigation Conference	CHW	trade show, educational posters, current water supply situation-forecast for the 2009 crop, EQIP program, improved irrigation technologies (selection, benefits and costs), maximizing the efficiency of furrow irrigation, measuring soil moisture metering and using ET for crop management, agronomic considerations in irrigation management, fertigation, recycling irrigation plastics, evaluation of canal lining projects, (telemetry, remote control and automation)	110

11/18/08	Rio Farms Crop Production Meeting	CHW	cotton, grain sorghum, corn, soybean, production, use the science of soil testing to target crop fertility requirements, 2009 production economics in the Rio Grande Valley, 2009 market forecast for feed grains, FSA report, drift minimization	50
11/24/08	Sugar Growers Annual Meeting	CHW	Soil testing campaign and the benefits of soil testing for effective and environmentally conscience production of sugarcane	60

14% Complete

Subtask 2.3: Texas AgriLife Extension Service will hold joint county training events (at least 2 per year) to advertise and educate individuals on related programs addressing water quality.

- *Promote cost-share programs (319(h), EQIP, etc.)*
- *Educate producers or assist local Soil and Water Conservation Districts (as possible) in development of water quality management plans*
- *Educate producers on involvement and implementation of the Arroyo Colorado Watershed Protection Plan and the potential effects*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
10/23/08	EQIP Workgroup Meeting	C	Provisions of EQIP Program	10
10/30/08	EQIP Workgroup Meeting	H	provisions of EQIP program	20
11/20/08	Watershed Training	CHW	overview of watershed systems (watershed hydrology, natural watershed features and functions), overview of watershed impairments (water quantity and quality, water quality law and policy, water quality monitoring), managing to improve watershed function(watershed approach, urban/ag BMP's), Community-driven watershed protection and management	50

14% Complete

Subtask 2.4: *Expand the outreach program to include a fact sheet and IPM newsletter (distributed annually and more frequently if needed) addressing the adoption of an integrated farm management system including implementation of IPM practices, production and best management practices to protect water quality, nutrient and irrigation management practices and participation in cost-share programs.*

The following actions have been completed during this reporting period:

- a. Nothing to report at this time.

0% Complete

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

- Due to the overlap between this program and a similar effort, activities satisfying the scope of this project have occurred despite the lack of expenditures. The related effort is scheduled to end 2/28/09 at which time, expenditures from this program will pick up. Activities will continue as planned.
- The following education programs are not directly related to agricultural production, but teach the same principles (nutrient management, environmentally sound practices and water quality aspects) on a residential/garden/home yard level to help protect the Arroyo Colorado watershed.

Date	Event	County	Description	Attendance
9/4/08	Master Gardener Leadership Team	C	Tour arboretum, ID native plants- Drainage Evaluation	8
9/10/08	Master Gardener Leadership Team	C	Composting Class	14
9/17/08	Master Gardener Class	C	Turf Irrigation and Fertilization	27
9/25/08	Master Gardener Leadership Team	C	Native Landscape Activity- Arboretum	14
10/16/08	Composting Training	C	How to compost, use of compost	12
10/27/08	Composting Training	C	How to compost, use of compost	9
11/15/08	Recycling and Composting Day	CH	Master Gardeners provided information on recycling and composting to public	83

IV. Projected Work for Next Quarter

- TWRI will work with AgriLife Extension to draft pre/post surveys to assess knowledge gained at meetings.
- TWRI will work with AgriLife Extension to schedule charging the salary and benefits for the education technician employed in the watershed.
- AgriLife Extension will monitor soil testing campaign and report on results (nutrients reduced, dollars saved, etc.)