

**Texas AgriLife Research
Texas AgriLife Extension Service
Texas A&M University College of Agriculture and Life Sciences
Texas Water Resources Institute**

**Education of Best Management Practices in the Arroyo Colorado Watershed
FY 05 CWA 319(h)
TSSWCB Agreement No. 05-10**

Quarter no. 13 From 10/1/08 Through 12/31/08

I. Abstract

This quarter, 212 residents from Cameron, Hidalgo and Willacy Counties were educated on specific crop production techniques and pesticide applicator safety as it pertains to protection of water quality in the Arroyo Colorado. Included in this total are Mexican producers who participated in a crop tour that provided education on corn and soybean production, surge flow irrigation, soil moisture monitoring, crop nutrition and soil testing. An additional 82 residents benefited from programs specifically addressing nutrient management education in the watershed and the soil testing campaign was kicked off at the beginning of October. Finally, approximately 190 residents attended educational programs on EQIP, cost-share and protecting their local watershed. Total number of attendees who have benefited from the Arroyo Colorado Education Program is now 5,787.

II. Overall Progress and Results by Task

TASK 1: Project Coordination

Subtask 1.1: Conduct quarterly meetings as appropriate with project participants (TWRI, TCE, TSSWCB, SWCDs, NRCS, Arroyo-Colorado Watershed Coordinator, TAMU Kingsville, etc.) to discuss project schedule, completion of deliverables, outreach and participation strategies, communication needs and other requirements.

The following actions have been completed during this reporting period:

- a. TWRI worked to purchase a portable GPS unit to mark/monitor where soil samples are collected.
- b. Project personnel met on December 17 via TTVN to discuss final activities of the project and the necessary steps to begin drafting the project final report.
- c. County Extension Agents agreed to provide final report of education activities to TWRI to include in final report.

100% Complete

Subtask 1.2: TWRI will submit project strategies / programs and project status as necessary to the Ag Issues Workgroup via TSSWCB for inclusion in the Watershed Protection Plan.

The following actions have been completed during this reporting period:

- a. AgriLife Extension personnel provided an ag education program update to the Arroyo Colorado watershed steering committee meeting on October 23, 2008.

100% Complete

Subtask 1.3: TWRI will prepare electronic quarterly reports and submit to TSSWCB

The following actions have been completed during this reporting period:

- a. Submitted Year 4, Quarter 1 Progress Report to TSSWCB on January 29, 2009.

100% Complete

Subtask 1.4: TWRI and TCE will develop a final project report and submit to TSSWCB.

The following actions have been completed during this reporting period:

- a. TWRI will begin drafting the final project report this next quarter.
b. TWRI will submit a draft final report in February for TSSWCB review.

15% Complete

TASK 2: Conducting Local Educational Meetings

Subtask 2.1: Meetings will serve to educate individuals on specific crop production techniques. Each of the following meetings will be held on an annual basis.

- *2 cotton production meetings in Hidalgo, Cameron and Willacy Counties*
- *1 sorghum production meeting in Hidalgo, Cameron and Willacy Counties*
- *1 sugar cane production meeting in Hidalgo County*
- *1 citrus production meeting in Hidalgo County*
- *1 vegetable production meeting in Hidalgo County*
- *County / multi-county Pesticide Applicator Safety Training and Continuing Education*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
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
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	60
12/9/08	Mexican Growers Tour	C, Mexico	corn production, soybean production, surge flow irrigation, soil moisture monitoring, crop nutrition and soil testing	18
12/11/08	Soybean Seminar	CHW	soybean herbicides and varieties, disease update on soybean production, integration of double crop scenario, soybean varieties, soybean budget, soil test campaign	35

100% Complete

Subtask 2.2: Meetings, demonstrations and other educational activities will serve to educate individuals on nutrient management techniques. Specifically:

- *A soil testing campaign will be conducted within the 3 counties to promote proper use of fertilizers.*
- *When available, summarized data will be collected from TAMU-Kingsville and compiled into educational fact sheets or presented.*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
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10/01/08 - 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
10/24/08	Master Gardener Training	H	Soil Fertility	8

100% Complete

Subtask 2.3: Meetings and promotional events will serve to advertise and educate individuals on related programs addressing water quality. For example, TCE will:

- *Promote cost-share programs (319(h), EQIP, etc.).*
- *Educate producers or assist SWCDs in development of water quality management plans.*
- *Educate producers on involvement and development of the Watershed Protection Plan and the potential effects of its implementation.*

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

10/29/08	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
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

100% Complete

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

- The following education programs are not directly related to agricultural production, but teach the same principles of nutrient management, environmentally sound practices and water quality aspects that help protect the Arroyo Colorado.

Date	Event	County	Description	Attendance
10/16	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 draft and submit the project final report.