

Environmental Stewardship in Urban & Suburban Areas

Work Group Names:

Region: WEST Circle which primary base program it addresses - ANR

Section 1. Relevance

Where did this issue surface?

Texas Community Futures Forum

County Committees

Commodity / Industry / Special Interest Groups

Specialist(s)

What is the issue/problem?

Development and management of properties in urban and suburban areas threaten the environment and quality of life of residents and lengthen the need for enhanced environmental stewardship.

Problem size and scope? (How many people does it affect? How wide spread?)

Very wide spread and effects all Urban and suburban residents.

Problem severity? (How serious is this issue?)

High

Target Audience? (Who does the problem impact and how many?)

All Residents in West Region

What are some general characteristics of the audience this program targets? How will you market this program to others?

Homeowners, urban and suburban residents, elected officials, landscape industry, employees, municipal employees, small acreage landowners

Section 2. Response

State the goal of the program.

Protect water quality and quantity through targeted educational programming for identified audiences.

State the outcome objectives.

Client Change	At the end of this program, will....
<i>Knowledge</i>	increase knowledge on.... <ul style="list-style-type: none">- use and disposal of pesticides and fertilizer products- benefits of green space- water conservation practices
<i>Skills</i>	develop skills....
<i>Attitude</i>	change their attitudes pertaining to... <ul style="list-style-type: none">- selection of plants and landscape designs
<i>Behavior Change</i>	adopt....
<i>New Technology</i>	adopt....
<i>Best Practice</i>	adopt <ul style="list-style-type: none">- proper water conservation technologies- BMP's for landscape plants

Program Design.

Topic (Subject Matter)	Strategy to Deliver Content (Method)	Existing Resource(s)	Contact Person(s) (Includes CEA's Specialists, Commodity Reps)

Pesticide and fertilizer usage, selection and disposal	Field Days, Seminars, Media, Newsletters, Publications, RD's, Web sites	Pat Training materials EPA handbook Grow Green Pubs IPM Web site Plant Disease Handbook Extension Publications	Don Renzie TDA Field Man State Pest Board Mike Merchant TCEQ Extension Specialists
Proper plant selection and landscape design	Field Days, Seminars, Media, Newsletters, Publications, RD's, Web sites	Texas Superstars CEMAP Local Plant Lists Grow Green Plant Guide Aggie Hort website	Jerry Parsons Extension Specialists Grow Green Organization Urban Foresters TPWD, NRCS
Landscape water conservation	Field Days, Seminars, Media, Newsletters, Publications, RD's, Web sites	TWDB Irrigation Institute PET Network River Authorities Water Utilities	Guy Fipps TWRI - Alan Jones Doug Welch - Xeriscaping TCE Turfgrass Specialists
Environmental stewardship for small acreage landowners	Field Days, Seminars, Media, Newsletters, Publications, RD's, Web sites	TPWD (Wildscape Cert.) Master Naturalists LCRA Audubon Society Native Plant Societies	Extension Wildlife Specialists Extension Range Specialists Extension Agronomists Sonny Arnold

Section 3. Results

The last section deals with evaluation of this program. The evaluation content should mirror the objectives that are outlined in section two. Please try and list some specific questions that should be asked to the target audience to determine if the intended change took place. List as many potential questions as possible. The goal here is to create a question bank for each client change level so that the educator can review these questions to see if any of them are relevant to their program. If they are, then they can use them to measure change in their program. Remember, not all evaluation strategies have to be written questionnaires. They may also be interviews, direct observation, or focus groups. Please describe your method in this section where appropriate.

Client Change Level	Sample Questions (Review the objectives section to help place questions or statements in the space below)
<i>Knowledge</i>	<ul style="list-style-type: none">- use and disposal of pesticides and fertilizer products- benefits of green space- water conservation practices
<i>Skills</i>	
<i>Attitude</i>	- selection of plants and landscape designs
<i>Behavior Change</i>	
<i>New Technology</i>	

<i>Best Practice</i>	<ul style="list-style-type: none"> - proper water conservation technologies - BMP's for landscape plants
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Economic Indicators. *Are there economic indicators that can be measured concerning this issue?*

YES

Please list them below.

- conservation of irrigation water
- savings in reduced pesticide and fertilizer use
- savings resulting from less pollution

Interpretation. The last step in the process is interpreting the results to our stakeholders. List internal and external stakeholders that would be interested in the results of this educational program. Do not forget to think about other state agencies and groups that would be interested in these outcomes.

Internal to Extension Stakeholders	External Stakeholders
Administration Specialists Co. Committees/Task Forces	TNRCC TWDB TWRI LCRA TPWD Regional Water Planning Groups Water Utilities Legislators Other elected officials Industry

Additional Resources. *What additional resources are needed to address this issue? In other words, what is needed to design innovative programs that will impact our audiences? Use the space below or the back if needed.*

Small Landowner Example Evaluation

each of the topics listed below, in the LEFT column, circle the ONE number that best reflects your knowledge level before the *New Landowner Education Program*. Then, in the RIGHT column, circle the ONE number that best reflects your level of knowledge after the *New Landowner Education Program*.

KNOWLEDGE LEVEL
 Poor Fair No opinion Good Excellent
 1 2 3 4 5

DATE	TOPICS	<u>BEFORE</u> the Program					<u>AFTER</u> the Program				
	Taxing Entities (Appraisal District, School)	1	2	3	4	5	1	2	3	4	5
	USDA Agricultural Service, Wildlife Management, NRCS, FSA, Texas Cooperative Extension, and Texas Parks and Wildlife.	1	2	3	4	5	1	2	3	4	5
	Livestock and Crop Production	1	2	3	4	5	1	2	3	4	5
	Small Town Farm Base Business	1	2	3	4	5	1	2	3	4	5
	Value Added Processing (home grown foods, preservation, and safety)	1	2	3	4	5	1	2	3	4	5
	Water Issues (water wells, water waste systems, LPGCD, and water districts)	1	2	3	4	5	1	2	3	4	5
	Health and Safety (medical services, EMS, Fire Dept., DPS)	1	2	3	4	5	1	2	3	4	5
	Law & Order (stray cattle, dumping, waste Disposal)	1	2	3	4	5	1	2	3	4	5
	Volunteerism (civic organizations, clubs, and churches)	1	2	3	4	5	1	2	3	4	5

Please answer the following questions the best you can.

What agricultural practices did you go home and adopt?

Did this program help you determine new options you can adopt to your land? *(Circle the best answer)*

YES

NO

- Please explain your answer.

Do you feel like you have a better understanding of Texas Cooperative Extension? *(Circle the best answer)*

YES

NO

Will you come back to Texas Cooperative Extension for information in the future? *(Circle the best answer)*

YES

NO

Please provide any additional information in the space below.

Economic Indicators. Are there economic indicators that can be measured concerning this issue?

YES

NO

Please list them below.

Example #2 Pesticide Use / Environmental Example

For each of the topics listed below, in the LEFT column, circle the ONE number that best reflects your LEVEL OF UNDERSTANDING before the *Brush Control Program*. Then, in the RIGHT column, circle the ONE number that best reflects your LEVEL OF UNDERSTANDING after the *Brush Control Program*.

LEVEL OF UNDERSTANDING

Very Poor
1

Poor
2

Average
3

Good
4

Excellent
5

TOPICS	<u>BEFORE</u> the Program					<u>AFTER</u> the Program				
<u>DRIFT</u> <i>Understanding of proper spray conditions to minimize herbicide drift.</i>	1	2	3	4	5	1	2	3	4	5
<u>MORE US NOT BETTER</u> <i>Understand that using higher than recommended herbicide does NOT improve control and can be a violation of the label.</i>	1	2	3	4	5	1	2	3	4	5
<u>UNLABELED USES</u> <i>Understand that herbicides are labeled for specific land use types and using them on non-labeled land is illegal.</i>	1	2	3	4	5	1	2	3	4	5
<u>SURFACTANTS</u> <i>Understanding the importance and function of surfactants when using water based herbicide sprays.</i>	1	2	3	4	5	1	2	3	4	5
<u>ADVICE</u> <i>Understand who to contact about proper use of herbicides.</i>	1	2	3	4	5	1	2	3	4	5
<u>TIMING OF APPLICATIONS</u> <i>Understanding of why timing is so important when applying herbicides.</i>	1	2	3	4	5	1	2	3	4	5
<u>HERBICIDE CARRIERS</u> <i>Understanding of proper carriers for herbicide applications (i.e. water or oil/water emulsions for leaf sprays, oil for most stem sprays).</i>	1	2	3	4	5	1	2	3	4	5
<u>OFF SITE DAMAGE WITH SOIL APPLIED HERBICIDES</u> <i>Understand that soil applied herbicides can move down slope and kill non-target plants.</i>	1	2	3	4	5	1	2	3	4	5
<u>PATIENCE</u> <i>Understanding that it may take 1 or 2 growing seasons before final control is obtained.</i>	1	2	3	4	5	1	2	3	4	5

<u>STORAGE AND DISPOSAL OF HERBICIDES</u> <i>Understanding how to safely store herbicides and how to dispose used herbicide containers.</i>	1	2	3	4	5	1	2	3	4	5
<u>HERBICIDE TOXICITY</u> <i>Understand what the proper clothing and eye protection is when using toxic herbicides.</i>	1	2	3	4	5	1	2	3	4	5
<u>SELECTION OF PROPER APPLICATION TECHNIQUES</u> <i>Understanding which application technique (leaf spray, stem spray, cut stump) is appropriate for various plant growth forms.</i>	1	2	3	4	5	1	2	3	4	5

Agreement / Disagreement Section

Please rate your level of agreement/disagreement with the following statements. Simply place an 'x' in the box that best matches your thoughts.

TOPIC	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
<u>DRIFT</u> <i>I understand proper spray conditions to minimize herbicide drift.</i>					
<u>MORE US NOT BETTER</u> <i>I understand that using higher than recommended herbicide does NOT improve control and can be a violation of the label.</i>					
<u>UNLABELED USES</u> <i>I understand that herbicides are labeled for specific land use types and using them on non-labeled land is illegal.</i>					
<u>SURFACTANTS</u> <i>I understand the importance and function of surfactants when using water based herbicide sprays.</i>					
<u>ADVICE</u> <i>I understand who to contact about proper use of herbicides.</i>					
<u>TIMING OF APPLICATIONS</u> <i>I understand why timing is so important when applying herbicides.</i>					

<p><u>HERBICIDE CARRIERS</u> <i>I understand proper carriers for herbicide applications (i.e. water or oil/water emulsions for leaf sprays, oil for most stem sprays).</i></p>					
<p><u>OFF SITE DAMAGE WITH SOIL APPLIED HERBICIDES</u> <i>I understand that soil applied herbicides can move down slope and kill non-target plants.</i></p>					
<p><u>PATIENCE</u> <i>I understand that it may take 1 or 2 growing seasons before final control is obtained.</i></p>					
<p><u>STORAGE AND DISPOSAL OF HERBICIDES</u> <i>I understand how to safely store herbicides and how to dispose used herbicide containers.</i></p>					
<p><u>HERBICIDE TOXICITY</u> <i>I understand what the proper clothing and eye protection is when using toxic herbicides.</i></p>					
<p><u>SELECTION OF PROPER APPLICATION TECHNIQUES</u> <i>I understand which application technique (leaf spray, stem spray, cut stump) is appropriate for various plant growth forms.</i></p>					