

# Restoration of Native Rangelands- Upland Restoration

Work Group Names: Alan McGinty, Marty Gibbs, Michael Palmer, Tommy Yeater

Region: West List the 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?**

Native rangeland has significantly degraded due to extended drought and overgrazing during the past decade

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

Western half of state (I-35 West)

### **Problem severity?** *(How serious is this issue?)* **HIGH**

Ten years of drought and overgrazing have caused extensive decline in range health.

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

Rangeland owners/managers, absentee landowners, urban residents

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

- lack of understanding of best management practices to improve rangeland health
- skewed vision of land use and health
- lack of knowledge of public policy issues affecting rangelands
- endangered species
- water capture rights
- private property rights
- best management practices \_\_\_\_\_

## Section 2. Response

**State the goal of the program.**

To restore native rangeland to improve range health for livestock production, wildlife habitat and watershed health.

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**State the outcome objectives.**

<b>Client Change</b>	<b>At the end of this program, will....</b>
<i>Knowledge</i>	increase knowledge on.... range health, rangeland monitoring, sustainability, stocking rates, best management practices for rangeland health, risk management, flexibility
<i>Skills</i>	develop skills.... in range monitoring, in calculating stocking rates, in prescribed burning, etc.
<i>Attitude</i>	change their attitudes pertaining to... be range health is more important than maximizing production
<i>Behavior Change</i>	adopt.... a conservation ethic philosophy in management of rangeland
<i>New Technology</i>	adopt.... (Not a major problem)
<i>Best Practice</i>	adopt .....

individual plant treatment, prescribed burning and development of coops, ripping and reseeding, etc.

**Program Design.** In the space below, provide an explanation of the program design. Try to list the topics that could be addressed under this issue. For example, if this was an educational program for new ranch landowners, topics could include: pond management, introduction to beef cattle production, introduction to wildlife management, and general landscaping. How would you deliver the subject matter to address this issue? There are many strategies to deliver information. It could be a newsletter series, a workshop, and a meeting once a week for six weeks to name a few. It could also be a combination of all of these. Also, try and list resources that could be used to help develop or provide existing curriculum to address the issue.

Topic (Subject Matter)	Strategy to Deliver Content (Method)	Existing Resource(s)	Contact Person(s) (Includes CEA's Specialists, Commodity Reps)
Range monitoring	Result demonstrations Tours/Educational programs Newsletters	Series of range publications (TCE) NRCS	Alan McGinty, Bob Lyons, Charlie Hart- RLEM Specialist NRCS
Ripping and/or Reseeding	Result Demonstrations Field Days Newsletters	Exp. Station Fact Sheets Extension Publications NRCS Range Mgt. Handbook	Darrell Ueckert - TAES Allan McGinty, Bob Lyons, Charles Hart - RLEM Specialist
Stocking Rate Management	Workshops/Clinics Field Days	TCE Publications NRCS Brush Bustees Tex Nat Web Site Brush Sculpting	Allan McGinty, Bob Lyons, Charles Hart- RLEM Specialist Rick Machen, Bruce Carpenter, Frank Craddock- Ani. Sci. Specialist Dale Rollins and Ken Cearly- Wildlife and Fisheries Specialist Darrell Ueckert- TAES Chemical Co. Reps. NRCS Range Specialist
Prescribed Burning	Burning Coops Result Demonstrations Field Days	TCE Publication TPW Publication NRCS Publication	Allan McGinty, Bob Lyons, Charles Hart- RLEM Specialist Darrell Ueckert- TAES Butch Taylor- TAES NRCS Range Specialist Texas Forest Service

Brush Management	Burning Coops Result Demonstrations Field Days	TCE Publications TPW “ ” NRCS “ ”	Allan McGinty, Bob Lyons, Charles Hart- RLEM Specialist Darrell Ueckert- TAES Butch Taylor- TAES NRCS Range Specialist Texas Forest Service

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


**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.

<b>Client Change Level</b>	<b>Sample Questions</b> (Review the objectives section to help place questions or statements in the space below)
<i>Knowledge</i>	Questions Relating to: <ul style="list-style-type: none"> <li>- Calculating Stocking rates, etc.</li> <li>- Importance of rangeland monitoring</li> <li>- What is healthy rangeland?</li> <li>- Warning signs of “at risk” rangeland.</li> <li>- Importance of rangeland best management practices.</li> <li>- Use rangeland Health pretest (you CTB have it)</li> <li>- Use Brush Control Evaluation (CTB has it)</li> </ul>

<i>Skills</i>	<ul style="list-style-type: none"> <li>- can you conduct a prescribed burn, are you comfortable doing it?</li> <li>- can you set up rangeland monitoring system using photo points?</li> <li>- can you evaluate photos obtained from monitoring system?</li> <li>- can you calculate animal units?</li> <li>- can you do a leaf spray, stem spray, etc.?</li> <li>- identify desirable brush plants, key browse plants, etc.?</li> </ul>
<i>Attitude</i>	<p>What are the goals for the rangeland you own or manage?          What is more important, maximizing production or protecting rangeland health?          Is sustainable rangeland health important to you?</p>
<i>Behavior Change</i>	<ul style="list-style-type: none"> <li>- very conservative stocking rates</li> <li>- know your plants and land resources</li> <li>- become a member of professional rangeland management association and societies</li> </ul>
<i>New Technology</i>	N/A
<i>Best Practice</i>	<p>Are you currently using best management practices?</p> <ul style="list-style-type: none"> <li>- prescribed burning</li> <li>- range monitoring</li> <li>- ripping</li> <li>- reseeding</li> <li>- etc., etc., etc.</li> </ul>

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

**YES**

Please list them below.

- variable cost per animal unit
- cost analysis of brush control practices (pick the most cost effective method)
- productivity of rangeland for livestock and wildlife
- grazing lease values, wildlife lease values
- waste quantity and/or water quality from rangeland

**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
TCE Administration Rangeland Ecology and Management Department Animal Sciences Department Wildlife and Fisheries Department Ag Eco Department CEA's TAMU System	Elected officials and legislators NRCS Texas Parks and Wildlife AG/NR Program Area Committees TDA USFWS Nature Conservancy Environmental Stakeholders Wildlife Coops TWRI Commodity Groups

**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.

Money, Grants, etc.

## Brush Control Evaluation #1

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*.

TOPICS	LEVEL OF UNDERSTANDING							
	Poor 1		Average 2		Good 3		Excellent 4	
	<u>BEFORE</u> the Program				<u>AFTER</u> the Program			
<b><u>DRIFT</u></b> <i>Understanding of proper spray conditions to minimize herbicide drift.</i>	1	2	3	4	1	2	3	4
<b><u>MORE IS NOT BETTER</u></b> <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	1	2	3	4
<b><u>UNLABELED USES</u></b> <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	1	2	3	4
<b><u>SURFACTANTS</u></b> <i>Understanding the importance and function of surfactants when using water based herbicide sprays.</i>	1	2	3	4	1	2	3	4
<b><u>ADVICE</u></b> <i>Understand who to contact about proper use of herbicides.</i>	1	2	3	4	1	2	3	4
<b><u>TIMING OF APPLICATIONS</u></b> <i>Understanding of why timing is so important when applying herbicides.</i>	1	2	3	4	1	2	3	4
<b><u>HERBICIDE CARRIERS</u></b> <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	1	2	3	4
<b><u>OFF SITE DAMAGE WITH SOIL APPLIED HERBICIDES</u></b> <i>Understand that soil applied herbicides can move down slope and kill non-target plants.</i>	1	2	3	4	1	2	3	4
<b><u>PATIENCE</u></b> <i>Understanding that it may take 1 or 2 growing seasons before final control is obtained.</i>	1	2	3	4	1	2	3	4
<b><u>STORAGE AND DISPOSAL OF HERBICIDES</u></b> <i>Understanding how to safely store herbicides and how to dispose used herbicide containers.</i>	1	2	3	4	1	2	3	4
<b><u>HERBICIDE TOXICITY</u></b> <i>Understand what the proper clothing and eye protection is when using toxic herbicides.</i>	1	2	3	4	1	2	3	4

**SELECTION OF PROPER APPLICATION TECHNIQUES**

*Understanding which application technique (leaf spray, stem spray, cut stump) is appropriate for various plant growth forms.*

1

2

3

4

1

2

3

4

## Brush Control Evaluation

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

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

**What is the most significant thing you learned during the Brush Control Program (feel free to list more than one)?**

**Do you feel like what you learned today provides you the ability to analyze your land situation and make better land management decisions? (Circle the best answer)**

YES

NO

- Please explain your answer or provide an example.

**Please provide any additional information in the space below.**

**Thank you very much for your time!!!**