

Wildlife Conservation and Management (includes fish)

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Region: EAST **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)

Other: County Extension Agents

What is the issue/problem?

Loss of the quality and quantity of habitat (i.e. freshwater ?, forest lands and rangelands) due to land fragmentation and lack of knowledge and skills among landowner managers leading to decreased profitability, ecosystem health and recreational opportunity.

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

All rural counties in Texas

Problem severity? (How serious is this issue?) *High*

Description:

1) Landowners and Land Managers,

2) Consumers (i.e. anglers, wildlife watchers and hunters, nature tourism operators) in cases where they impact wildlife population and land management.

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

Rural landowners, outdoor recreationists and lastly, all Texas because bio-diversity is an important measure of ecosystem health.

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

1) Landowners that need to integrate wildlife management into existing forest lands/rangelands management that may or may not need to realize a profit from their wildlife management efforts. 2) Consumers (anglers, hunters and wildlife watchers, nature tourism operations).

Section 2. Response

State the goal of the program.

Enhance the quality and quantity of wildlife habitat for increasing farm and ranch recreation, nutrition and income.

State the outcome objectives

Client Change	At the end of this program, will....
<i>Knowledge</i>	increase knowledge on.... Species life histories habitat requirements.
<i>Skills</i>	develop skills.... on manipulating vegetation communities to provide high quality and diverse habitats capable of supporting viable wildlife populations while fostering sound range/forest management practices.
<i>Attitude</i>	change their attitudes pertaining to... developing sustainable wildlife populations as a result of sound and viable habitat management principles.
<i>Behavior Change</i>	adopt.... practices that favor diverse wildlife populations that also support prevailing and future land usage (rangeland and forest land, livestock)
<i>New Technology</i>	adopt.... GIS systems as a means to identify and predict land fragmentation trends.
<i>Best Practice</i>	adopt

Program Design

Topic (Subject Matter)	Strategy to Deliver Content (Method)	Existing Resource(s)	Contact Person(s) (Includes CEA's Specialists, Commodity Reps)
Habitat Management	Field days, seminars, result demonstrations, publications, videos	Texas Master Naturalists W.W.W. TCE TWA TPWD NRCS TWS	Neal Wilkins Kirby Brown Mike Berger Gary Valentine

Population Censuses	Field days, seminars, result demonstrations, publications, videos	Texas Master Naturalists W.W.W. TCE TWA TPWD NRCS TWS	Neal Wilkins Kirby Brown Mike Berger Gary Valentine
Exotic Species Impacts	Field days, seminars, result demonstrations, publications, videos	Texas Master Naturalists W.W.W. TCE TWA TPWD NRCS TWS Wildlife Services	Neal Wilkins Kirby Brown Mike Berger Gary Valentine Gary Nunnelly
Nuisance Animal Control	Field days, seminars, result demonstrations, publications, videos	Texas Master Naturalists W.W.W. TCE TWA TPWD NRCS TWS Wildlife Services	Neal Wilkins Kirby Brown Mike Berger Gary Valentine Gary Nunnelly

Topic (Subject Matter)	Strategy to Deliver Content (Method)	Existing Resource(s)	Contact Person(s) (Includes CEA's Specialists, Commodity Reps)
Featured Species Management Strategies	Field days, seminars, result demonstrations, publications, videos	Texas Master Naturalists W.W.W. TCE TWA TPWD NRCS TWS	Neal Wilkins Kirby Brown Mike Berger Gary Valentine

Profitability Through Wildlife Management	Field days, seminars, result demonstrations, publications, videos	Texas Master Naturalists W.W.W. TCE TWA TPWD NRCS TWS Recreation, Parks, Tourism Dept. TAMU	Neal Wilkins Kirby Brown Mike Berger Gary Valentine Andy Skadberg
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Section 3. Results

Client Change Level	Sample Questions (Review the objectives section to help place questions or statements in the space below)
<i>Knowledge</i>	<ol style="list-style-type: none"> Do you believe an integrated approach to wildlife management in cooperation with rangeland/forest land management can result in optimum yields of all resources? Design pre/post test questions to be administered at field days/seminars.
<i>Skills</i>	Measure impacts of result demonstrations on manipulating wildlife habitat, including aquatic ecosystems.
<i>Attitude</i>	Convince landowners that habitat <u>should equal</u> wildlife. "Build it and they will come."
<i>Behavior Change</i>	Measure adoption <u>rate</u> and <u>level</u> of practice adoption that enhances the habitat's ability to support wildlife community.
<i>New Technology</i>	Have clientele adopted GIS information to determine degree of fragmentation and accompanying limitations?
<i>Best Practice</i>	<ol style="list-style-type: none"> Acres impacted by practice adoption. Income increases as a result of habitat management Are practices adopted favoring wildlife management also conducive to rangeland/forest land management?

Sample Evaluation Questions

Perception of Knowledge

- Do you believe your knowledge about the merits concerning the practice of high fencing for white-tailed deer management was increased due to this seminar?
- Do you believe your knowledge about the drawbacks concerning the practice of high fencing for white-tailed deer management was increased due to this seminar?
- Do you believe your knowledge about habitat management for white-tailed deer was increased due to this seminar?
- Do you believe your knowledge about the importance of population management for white-tailed deer was increased due to this seminar?

- Do you believe your knowledge about the practice of supplemental feeding for white-tailed deer was increased due to this seminar?
- Do you believe your knowledge about marketing and the economics of white tailed deer enterprises was increased due to this seminar?
- Do you believe your knowledge about landowner's risk as it relates to a hunting enterprise was increased due to this seminar?
- Do you believe your knowledge about a landowner's liability as it relates to a hunting enterprise was increased due to this seminar?
- Do you believe your knowledge about the economics of brush management was increased due to this seminar?
- Do you believe your knowledge about the technology of brush management was increased due to this seminar?

Actual Knowledge Questions (Pretest Post Test Strategy)

- What are three factors that determine antler size in deer?
- What season is it when nutrition is most likely to be limited to the deer population?
- How much does the rut vary across the state?
- What is the most limiting nutrient for deer in south Texas?
- Is it possible for a doe to conceive twins with different sires?
- What age do bucks reach their full potential for antler growth?
- What age do bucks maximize his body weight?
- How many estrus cycles are does capable of having during one breeding season?
- Is significant weight loss common or uncommon in rutting bucks?
- Doe fawns are capable of conceiving, but are they capable of birthing or raising offspring?
- The four components to habitat are?
- Forbs are?
- Which forage class do white-tailed deer prefer the most?
- True / False - Lush, green vegetation does not help white-tailed deer meet their water requirements.
- Which of the following is the preferred hiding cover for fawns? (A) Dense Brush, (B) Patches of Prickly Pear, (C) Tall grass and forbs
- The percent of brush cover for ideal white-tailed deer habitat is:
- True / False - Roller chopping is generally an effective means of controlling prickly pear.
- True / False - Controlled burns usually result in at least 90% kill on mesquite.
- True / False - Vine ephedra and Texas kidneywood are highly preferred deer browses.
- Whitebrush and lantana are highly preferred deer browses.

Measuring Behavior Changes

For each of the practices, listed below, in the LEFT column, circle the ONE number that best reflects you before your participation in the wildlife program. Then, in the RIGHT column, circle the ONE number that best reflects you after the wildlife program.

NEVER 1	SELDOM 2	SOMETIMES 3	OFTEN 4	ALWAYS 5										
					<u>BEFORE</u> Program					<u>AFTER</u> Program				
STATEMENTS					1	2	3	4	5	1	2	3	4	5
I maintain healthy rangeland on my ranch.					1	2	3	4	5	1	2	3	4	5

I use visual appraisal to evaluate the range conditions.	1	2	3	4	5	1	2	3	4	5
I consider wildlife concerns before making a management decision.	1	2	3	4	5	1	2	3	4	5
I manage for native and improved grasses on my rangeland.	1	2	3	4	5	1	2	3	4	5
I practice proper land stewardship.	1	2	3	4	5	1	2	3	4	5
I manage for soil erosion properly.	1	2	3	4	5	1	2	3	4	5
I practice proper livestock grazing management with wildlife and livestock.	1	2	3	4	5	1	2	3	4	5
I understand the economics of brush management.	1	2	3	4	5	1	2	3	4	5
I utilize water infiltration practices on my ranch.	1	2	3	4	5	1	2	3	4	5
I practice wildlife habitat management.	1	2	3	4	5	1	2	3	4	5
I test my wildlife water supplies annually.	1	2	3	4	5	1	2	3	4	5
I increased my percent deer crop.	1	2	3	4	5	1	2	3	4	5
I purchase hay and supplement my wildlife.	1	2	3	4	5	1	2	3	4	5

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

YES

Please list them below.

Leasing value of property.

Interpretation.

Internal to Extension Stakeholders	External Stakeholders
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Range Science - TAMU
Forest Science - TAMU
Recreation, Parks & Tourism - TAMU
Wildlife and Fisheries Science - TAMU
Wildlife Services

Texas Forest Service
Texas Forestry Association
Texas Parks and Wildlife
Texas Wildlife Association
Ducks Unlimited
National Wild Turkey Federation
U.S. Fish and Wildlife Service
NRCS
Sister Universities with Wildlife Programs

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.

- 1) More funding for additional wildlife positions (TCE) specialists, program specialists, Extension Associates
- 2) Restoration of operating budgets
- 3) More training opportunities for specialist and CEA faculty