

Tips for Small Acreage Landowners

Moving to the Hill Country

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It is a great feeling to own land in the country. Images of country living can surpass all your dreams. Fresh air, sounds of nature, breath taking views, starlit nights, and country roads all come to mind. And, wildlife, cows, horses, pets, fishing, hiking, hunting or whatever your picture perfect place is, can become reality in the country. But, once you have bought your property - what next?

The land and its natural resources are fragile. Just like a piece of china - once it is broken, it is hard to mend. And it is easier to keep it in one piece than to reassemble. Nature is the same. Preventing damage is easier than repairing. But once damaged, the sooner repair begins these likely we are to lose some of the pieces.

There are many things you can do to enhance the pleasure of country living. Much satisfaction can come from taking care of the land, wildlife, water, plants, livestock. It can be fun learning about what you have in your care and becoming a responsible steward of the land. One of the greatest treasures you can leave for the next generation is the land, nurtured and healthy.

Enjoy the land, neighbors, slow pace, relaxed environment, evening showers, and **learn from nature - a great teacher.**

First Things First

The Making of a Solution

Principle 1: Know all you can about your land. Understand the natural and artificial systems operating on your property. Identify and inventory all resources (natural, introduced, mechanical and human).

Principle 2: Many options exist with respect to land management. Some practices are very intensive while others are less so. Some practices give quick results but may be rather expensive to apply. Others take time or require waiting for the right weather event, but may eventually give equally impressive results.

Principle 3. Apply a logical system to define your goals. Know what you want to do and plan how you are going to do it. The better you develop your goals and plan, the greater will be your likelihood of success.

Principle 4: Locate resources that can help you achieve your plans for your land. There are governmental agencies and volunteer groups in every county in Texas. The Texas Agricultural Extension Service can provide information and direct you to a number of other resources.

Learn who your neighbors are .

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For security and down home county sociality - meet your neighbors, learn their vehicles and common interests - make a list of phone numbers or start a neighborhood watch program.

Principle 5: Monitor your results as you implement your plan, making changes as appropriate. Continue to study and observe changes in weather, wildlife, habitat and range condition and make adjustments when needed.

Watershed Management

Everyone lives on a watershed, runoff water goes some place. We all influence what happens on our watershed, good or bad, by how we treat the natural resources - the soil,

What is a watershed?

It's the land that water flows across or under on its way to a stream, river, or lake.

water, air, plants, and animals. What happens in your small watershed also affects the larger watershed downstream. There are many things you and your watershed community can do to keep your watershed healthy and productive. Learn more about caring for yours.

Rainwater Collection or Well

Many rural homes do not have access to a cooperative water supply, and must rely on wells or rainwater collection. Learn about your aquifer, its quantity and quality before making a decision on drilling a well. Cisterns and rainwater has supplied families with water for centuries. With new technology, it may be worth considering. A booklet titled "**Texas Guide to Rainwater Harvesting**" can provide lots of answers.

Can You Burn Brush?

Contact your County Fire Marshall to see if a burn ban is in force. Wild fires are very dangerous. Prescribed burns are becoming an alternative to other methods of brush control and rangeland management.

10,000 Springs and Belly High Grass

Texas used to be the home of 10,000 flowing springs. Today only about 60% of them still flow. The loss of these springs is due to

1) Domestic, industrial and irrigation water use; 2) Brush encroachment because fires no longer sculpt the rangeland. Cedar (ashe juniper) prevents aquifer recharge and; 3) Overgrazing has reduced water infiltration, increased water runoff, increased erosion and reduced the number of animals the land will support..

Much of this area was once covered by prairie grasses including little bluestem, big bluestem, indiagrass, switchgrass, sideoats grama and others. Cedar, which was easily killed by fire, was limited to the canyon

**Olmstead (1857) writes of his travels after crossing the Blanco River west of Austin:
"We pitched our tent at night in a live-oak grove . . . Behind us were the continuous wooded heights, with a thick screen of cedars; before us, very beautiful prairies, rolling off far to the southward, with the smooth grassed surface, varied here and there by herds of cattle, and little belts, mottes and groups of liveoak."**

areas. Liveoaks were restricted to smaller mottes, re-sprouting following burns.

THE SOLUTION:

Good range management enhances plant and wildlife diversity and replenishes thousands of gallons of water per acre to the aquifers. To do this one can:

1. Manage woody plants and restrict cedar by using the technique called "brush sculpting" to increase forage for livestock, benefit wildlife, care for endangered species, protect riparian areas and reduce soil erosion. But remember that **cedar has always been present and does provide food, shelter, cover, nesting sites and windbreak for wildlife and livestock.**

2. **Reduce livestock numbers and rotate livestock** among pastures and develop a good range management plan. Use the rule of thumb of "grazing half and leaving half" when it comes to forage and provide an extended period of rest to allow plants time to mature and strengthen reserves.

3. **Be wise water users.** Xeriscape landscaping will reduce water and pesticide usage, reduce the size of manicured lawns in the landscape and increase natural or "wildscape" areas, and conserve water usage in and outside the home.

4. **Teach others** to be wise water users and good stewards of our natural resources. The next generation looks at us as examples and at the things we do with this

invaluable heritage and resource. **It takes 500 years to rebuild 1" of top soil** so the things we do will have a long and lasting effect.

Landscaping

Landscape Water Conservation

...Xeriscape...

In urban areas of Texas, about 25 percent of the water supply is used for landscape and garden watering. Much of this water is used to maintain traditionally high water-demanding landscapes, or it is simply applied inefficiently.

When planning to add new landscaping or redesigning existing landscapes, the following suggestions could save as much as half of the water needed to maintain a traditional landscape.

Xeriscape(zir-i-skap) - quality landscaping that conserves water and protects the environment.

By incorporating these 7 principles, you can help preserve our most precious natural resource - water.

Xeriscaping landscaping incorporates 7 basic principles which lead to saving water:

Planning and design

Soil Analysis

Appropriate plant selection

Practical turf grass

Efficient irrigation

Use of mulches

Appropriate maintenance

Call the Extension Service for information on xeriscaping and adapted trees and shrubs, the Texas Parks and Wildlife Department on Wildscaping and visit the Lady Bird Johnson Wildflower Center for terrific ideas.

Oak Wilt Management

Oak wilt is a major disease problem in live oaks, Shumard oaks, Spanish oaks, water oaks, black jack oaks and other members of the red oak family. The Forest Service and Extension Service can provide information and assistance. To prevent the initial outbreak of the disease, avoid pruning trees from February 1 through June. **Treat all wounds or cuts** greater than ½ inch diameter immediately after wounding regardless of season. Handle oak firewood cautiously, infected wood can spread oak wilt. Learn oak symptoms and encourage others to care for their trees properly. Oak wilt can kill a live oak or red oak in less than a month.

Water Efficiently

Plant native and adapted vegetation.

* Water grass only when needed. If grass springs up after being walked on, it does not need watering.

*Soak grass long enough for water to reach the roots. *Water slowly and deep.

*Water during the cool, early morning hours

*Avoid watering on windy days.

*Use drip irrigation systems for plantings

*Do not cut the grass too short.

*Do not waste water

Use rainwater when possible

Landscaping Tips:

***Don't try to grow a lawn over your entire acreage.** Only put in the amount of lawn you need. Make the rest of the acreage a more natural landscape. Use ground cover plants in these areas; there are many good ones to select from.

Don't line walks and driveways with unnecessary plantings or place foundation plants so close to the house that they can't be maintained.

Do select plants carefully, considering their ultimate size (height and width).

Mulching is one of the simplest and most beneficial practices you can use in the yard and garden. Mulching **enriches and protects soil**, helping provide a better growing environment. Don't use fast growing plants which will require constant pruning.

Do use mowing strips or edges along walks, flower beds, and around trees and shrubs. These will reduce mowing and edging problems and create a much neater landscape.

Creating A Wildscape Landscape

1. Native plant species that produce seed, nuts and berries are best for attracting wildlife. To appeal to a variety of wildlife, arrange plants in varying layers.

2. Water is a vital ingredient to any wildscape. If you have enough space, ponds are great, but pools, birdbaths or even an inverted trash can lid works well too.

3. Bird feeders are great additions to supplement natural food sources and nestboxes are a good way to enhance habitat. 4. Rock walls, brick pile or stacked wood provide homes for insects, reptiles and small mammals. Use rock in landscapes. Even firewood piles make great cover!

Adapted Grasses for the Hill Country

The selection of a turf grass will determine landscape beauty, durability, water and fertilizer requirements, disease and insect susceptibility.

	1
Bermuda grass	G
*Buffalo grass	E
St. Augustine	F
Zoysia	G
Ryegrass	P

Note: 1 - Drought Tolerance rating (Excellent, good, fair, poor)

2 - Mowing height (inches) clearance (10 - most tolerant)

3 - Shade Tolerance (10 - most tolerant)

4 - Nitrogen required - lbs/1,000 sq.ft.

a - spring b - fall *

if not mowed gets about "6" tall

Gardening Can Be Fun/Rewarding

A wide variety of vegetables grow in this area of Texas. **The average last freeze date is around March 10 and the first killing frost is around December 1.** This allows for both a spring and fall growing season. Most get spring fever and work hard with spring gardens that may play out during the heat of July. But with the fortitude to start in August, the fall garden is often most productive and enjoyable. Planting dates, varieties and production brochures are available at your Extension Office.

Farm Animals

Determining what type of livestock to utilize on small acreages can be challenging. Livestock are frequently the enterprise of choice for maintaining or obtaining ad valorem tax exemption.

Beef Cattle: Beef cattle production is not well suited to the small acreage land owner. A typical stocking rate for

much of this area is one animal unit per 25 or more acres. Therefore, 100 acres may support 4, 1 000 pound cows, assuming all 100 acres are producing forage and are grazable. Land owners must also consider the expense associated with maintaining fences, pens, stock trailers and other equipment needed in a beef cattle operation.

Stocking rate is: the area of land allotted per animal-unit for the entire grazable period of the year. However, the stocking rate is proper only when the number of animals grazed on a given area results in maintaining or improving the range resource consistent with the conservation of other natural resources.

Stocker Cattle: Stocker cattle (weaned calves) may be an option for some small landowners. When grass is available, grazing can be leased to someone who owns stockers and is willing to pay for the right to graze them on your property. Selling grass usually requires less risk than buying cattle.

For all farm animals a **permanent perimeter fence** is recommended. Minimum specifications call for at least 5 barbed wires with the top wire at least 50" above the ground. Seven barbed wires or a 48" net wire with two barbed wires above it would be preferred. Barbed wires above the net should be either close together (spaced less than 2" apart) or far apart (at least 8" apart) to avoid catching the leg of a jumping deer. Electric fencing is suitable for internal partition fences but is not recommended as a perimeter fence.

Meat Goats: Goats are an excellent option for the small acreage landowner. Their small size makes them better suited to small acreage than cattle. Goats prefer browse (woody plants), therefore they are the species of choice for managing or sculpting woody plants. Unfortunately, plants like juniper and mesquite are very low on a goat's list of preferred plants. Consequently, the "undesirable" plants are the least grazed and the least affected by grazing. Do not expect goat browsing to kill juniper or mesquite. A breeding herd of 8-10 does and a buck can be purchased for less than \$1000. The gestation period for goats is 150 days. Two kid crops a year are possible. 3 kid crops in a 24 month period are quite likely with a continuous mating system (buck is with does continuously). Kids (young goats) can be marketed through commission companies (located in Fredericksburg, Junction, Goldthwaite, Seguin or Uvalde), flea markets, road-side vendors or sold direct to the consumer.

Predators pose the single largest deterrent to goat or sheep production in Central Texas. As development of the rural areas continues, the threat from bobcats and fox will likely fade. However, the problems associated with coyotes and feral or unconfined dogs will continue to increase. Barbed wire is not suitable for goat or sheep production in Central Texas. Perimeter fencing should be 39-48" net wire with smooth or barbed wire above the net. Fences in handling or working pens should be at least 48" tall.

Hair Sheep: Most of the sheep in Texas grow wool and must be shorn at least once a year. Securing an experienced shearing crew and marketing small quantities of wool are difficult chores for the small producer. Sheep prefer forbs (weeds) and grass and therefore may be the most suitable animal to serve as a "Biological Weed Eater". Some weeds are not palatable (ex. ragweed, nightshades, doveweed) and consequently are not controlled by grazing. In addition, some weeds are toxic and if consumed in significant quantity can cause illness or death of the grazing animal.

Cow (1,000 - lb) with calf	1.0 A/U
Dry Cow	0.77
Bull (1,500 - lb)	1.5
Horse (1,100 - lb, 3-yr & older) . .	1.65
Ewe (130 lb)	0.18
Goat -Nanny (70 -lb)	0.17
Whitetail Deer	0.17

Horses are a true symbol of rural life. They too will over graze land and can destroy desirable vegetation. If there is not enough forage to support a horse (usually 15 to 35 acres), they should be penned up and turned out to exercise and graze on occasion only. Miniature horses, donkeys, cattle, llamas, dogs, cats, chickens and other farm animals can be enjoyable projects. All animal caretakers must act responsibly for the health and well being of these animals. While huge profits are not likely, some animal husbandry skills are needed to make the farm animals enjoyable and rewarding.

Animal health is of paramount importance to any livestock operation. There are a number of diseases that livestock need to be vaccinated for to build immunity. Also there are internal and external parasites that need to be treated as well. Herd health guides are available for producers and your local veterinarian is an excellent

source of information and help.

Wildlife

One reason people purchase land and move to the country is **to enjoy the wildlife**. The first thing new landowners must realize about these animals is that they are wild. Second, they roam freely and may or may not stay on your place, depending on their home range size. The size of a wild animal's home range varies greatly. For instance, a whitetail deer's home range size ranges from 60-800 acres; whereas a fox squirrel's may only be ½ acre.

There are four essential elements all animals require: water, food, cover, and space. Many species can co-exist in the same environment if managed properly. One must understand the **habitat needs** of all desired species. In addition, realize nature is never standing still. Therefore, the caretaker must manage the land using various tools to reach goals or objectives.

The basic tools used in wildlife management have changed only slightly in the last 150 years, and have become a bit more sophisticated. **If used improperly, these tools can destroy a habitat.** With many wildlife species' home range covering a number of landowners, it is difficult to manage for a particular species. As a result, groups of small acreage landowners may join together to manage their properties as one. The cooperative management efforts can return great rewards. These so-called "wildlife co-ops" have sprung up everywhere and encompass hundreds thousands of acreage today. If you don't have a co-op in your area (or subdivision), talk to your neighbors, county agent, and/or your area Texas Parks and Wildlife biologist about starting one.

The State of Texas in 1995 passed Proposition 11 and H.B.1358 which made wildlife management a land use that qualifies the land for Ad Valorem tax evaluation. Land currently appraised agricultural can be managed for indigenous wildlife species and keep the same tax structure as managing for any other commodity. A brochure is available from the appraisal office that discusses this plan more thoroughly.

"We of the industrial age boast of our control over nature . . . there is no force in earth or sky which we will not shortly harness to build 'the good life' for ourselves. But what is the good life? . . . We stand guard over works of art, but species representing the work of aeons are stolen from under our noses . . . game can be restored by the creative use of the same tools which have heretofore destroyed it - axe, plow, cow, fire, and gun."

Aldo Leopold 1933

White-tailed Deer: Texas has a wide variety of wildlife. One of the most popular is the whitetail deer. Water is the most crucial nutrient for deer. A good deer habitat contains accessible, well-distributed, reliable, clean sources of water.

Deer eat mostly browse (leaves, twigs, young shoots of woody plants and vines) and forbs (weeds and other broad-leafed flowering plants). They eat some grass, but only when it is green and succulent. Implement a grazing system that provides spring rest to all pastures over a period of several years or reserve certain pastures for wildlife only.

Deer need cover where they can hide and escape from predators and be protected from the elements. Fortunately, the same browse species that provide deer with a stable food supply can also serve as cover. Hiding cover is especially important during fawning season, when does leave their fawns hidden while they go off to forage for themselves.

Too many deer is often the case in the Hill Country. Efforts need to be made to keep numbers low enough to prevent destruction of plants, starvation of fawns and adults. This can only be done by removing deer by harvesting. When man took the place of other predators, he then had to assume their roll. We are responsible for their care and that of all other plant and animal species.

"The number one threat to wildlife in Texas is land fragmentation"
Dr. Bob Brown, TAMU Wildlife and Fisheries Dept. Head

Song birds are enjoyed by most people. The addition of a bird bath and feeder will attract many types of birds. Also many migrate through going north or south depending on the season. Hummingbirds also provide enjoyment. **The greatest threat to birds nesting in our area is feral cats.** Cats destroy many nests in the wild. Wild dogs, feral hogs and other exotic animals and plants released or escaping into the wild are doing a lot to destroy native wildlife habitat - think before you act.

Other small animal species need a variety of places for cover, types of food and amount of water. Providing supplemental water at ground level will help many small critters. The sound of dripping water is often very inviting. Providing "natural" spaces in tall native grasses, understory and mid story plants, brush piles, rock piles, and an old hollow log may be excellent habitat for wildlife. Learn all you can about the species you enjoy most and provide for their benefit.

Deer resistant plants. There are plants that are not eaten and others less preferred by deer. But when deer are hungry, most plants may be on their diet. A list is available of plants least preferred by deer.

Wanted/Unwanted Guests

When you move to the country you are moving in with a host of outdoor life - not all invited. Spiders, scorpions, snakes, weeds, thorns and a bunch of mammals think you are building a home and planting food for them. Armadillos and fire ants appreciate your watered yard and lots of critters like the rock piles, shops and stacks of stuff. Learn about the beneficial aspect of these critters, tolerate some, appreciate others - before you call for help.

Suggested Additional References

Grazing Management

- "Stocking Rate Decisions." TAEX B-5036
- "Range Condition, Key to Sustained Ranch Productivity." TAEX, B-5024
- "Balancing Forage Demand with Forage Supply." TAEX, B-1606
- "How Much Forage Do You Have?" TAEX, B-1646
- "Grazing Systems for Profitable Ranching." TAEX, L-2211

Rangeland Weed and Brush Control

- "Brush Management Methods." TAEX, B-5004
- "Chemical Weed and Brush Control - Suggestions for Rangeland," TAEX, B-1466
- "Prescribed Range Burning in Texas." TAEX, B-1310
- "Planning a Prescribed Burn." TAEX, L-2461

Seeding Rangeland

- "Seeding Rangeland." TAEX, B-1379

Web Sites:

<http://aggie-horticulture.tamu.edu/plantanswers> - This site is good for all horticulture questions

<http://cnrit.tamu.edu/cgrm> - Center for Grazinglands and Ranch Management

<http://texaserc.tamu.edu> - Extension Resource Center - Catalog of Extension publications