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*Providing Leadership for the Stewardship of Rangelands
Based on Sound Ecological Principles*



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President's Notes



**Jerry Payne
President, TSSRM**

Things around the Payne household have been a little hectic the past couple of months. Obligations with our Section, our church, our family, our business, and our PUPPIES! If you really want to change things up and add a little excitement to your life, try nurse maiding and puppy setting eight rambunctious Vizsla puppies. Add a very spoiled, moody four year old Vizsla mother and you've got your hands full. But what FUN!

Our Section is often like these puppies. We whine, we growl, we cry, we demand attention, we play, and (hopefully) we learn. We must always be aware that too much whining, growling, and crying will eventually be ignored. We need to avoid yelling "WOLF" too often. We need to pick our battles. If we will remember what our mission is and how we can best promote our profession, we will be able to advance our goals. When we sincerely and unselfishly promote our Society and Section we will grow and prosper. Then, we can be like the pup that loves to play.

My PLAY for the last couple of months have included meeting with the Red River Authority Advisory Committee, a Hello Neighbor Tour in Clay County, the 2nd Annual Clay County Turkey Fest and Expo, Brush Management field day, the Area B Regional Water Planning Group, a Farm Safety Day for third graders, to Lubbock to meet Dr. John Burns (new Dean of Ag for Texas Tech U.), and the GLCI tour of the Gary Prince 77 Ranch at Blooming Grove. I trust each of you is using these and other opportunities to promote TSSRM.

The most gratifying thing I've worked at is soliciting and visiting with a couple of ranchers to encourage them to write a short, descriptive essay of their ranches. These will show us as a Society what we need to be about to help and assist these ranchers. Thanks to Jeff Goodwin, newsletter editor, this issue of our GRASS ROOTS is rancher focused with their perspectives and observations.

Jerry Payne

The Inside Story...

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TSSRM New Members

Let us welcome our new members to the Section.

Thank you for your continued support for rangeland stewardship.

Anna S. Lund Corpus Christi, TX
Casey Mattke Rhome, TX

2008 TSSRM Annual Meeting

The Fredonia Hotel and Conference Center in Nacogdoches, Texas will host the 2008 Texas Section Society for Range Management Annual Meeting.

**The hotel is taking
room reservations now.**

Contact Information:

**The Fredonia Hotel
and Conference Center**
22 North Fredonia
Nacogdoches, TX 75961
936-564-1234
1-800-594-5323

**Don't wait!
Reserve
your room
today!**

TSSRM Website Update

Bruce S. Healy, TSSRM Secretary

Hello to all TSSRM members. I hope things are going well for you.

At the April Board of Directors meeting, Jeff Goodwin and myself updated the board on the current state of our website/webhost, and the information regarding hosting the website on the SRM server. After thorough discussion, the Board voted to approve changing our Section's website from its current location to the SRM server. When complete, *OUR* website will have a new location and name: <http://www.texas.rangelands.org/>. After the move is complete, the old <http://www.tssrm.org/> will be deactivated. SRM has also recreated the ability for Jeff and/or myself to send flash emails and the newsletter to everyone. For those who don't have email, the hard copy distribution will remain the same.

The change-over work has already started with SRM. Thus, anything new for posting will be sent direct for posting on the new server, not the old one. Sorry, I can't give you a specific time frame on when it will be "live." If you have worked on a committee recently, Jeff and myself would ask if you would please go to the website, review it for accuracy, and send us a note.

Also, of note - Natalie Wolff, NRCS RMS in Granbury, has volunteered to serve as website contact in the future, especially once the move is complete.

THANK YOU, Natalie!

If you have any questions, let Jeff or myself know.

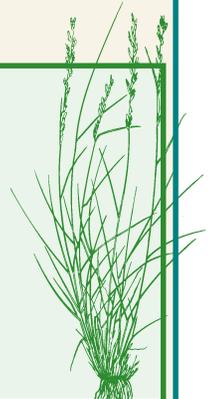
Thank you for your patience in this process!!!

Upcoming Events

July 2008
Red Buffalo Prescribed Burn School
Junction, TX

Oct. 8-10, 2008
TSSRM ANNUAL MEETING
Nacogdoches

October 7-9, 2009
TSSRM ANNUAL MEETING
Beaumont



Small Cattle Operators Can Be Profitable, Too

By Gary R. Farmer, Farmer Cattle Company, Bardwell, Texas



Gary Farmer, Farmer Cattle Co. Owner/Manager

In the late 1800's, when the Roach family came from Tennessee and settled in the Blacklands Prairie of Ellis County, their main concern was to find rich soil that would be good for farming. They settled on a rolling plot of ground which would later be the birthplace of a small country town now known as Bardwell, Texas. Not really knowing how "rich" the soil would be, they found that the black clay soils in this area would produce a large amount of cotton. Sometime later, Ellis County would be known as King Cotton country. There was so much cotton grown in the area that the Roach family built a cotton gin on their property in about 1883. This land stayed in the Roach family until the death of the last heir in 1984. At that time, my family bought the place. I was born and raised in this community and have been here all my life. I am a fourth generation farmer and rancher.

The biggest problem we see today is that people think they know how to manage their grasses. Yet, it is very clear that most do not. It seems to be the thinking of many operators today, that if they have a lot of grass that they need more cows. Of course, if you run more cows, you can make more money, right? Finally, when they run out of grass, they buy or bale more hay...if it is even out there. We realized years ago, as a very small operation, that this way of thinking was certainly not profitable. In 1996 we came out of winter into spring very dry with little to no green forage at all. We made the decision to cull cows and sell down. We went through the rest of the year and into 1997 with forage we saved by selling cows. In 1997, moisture was good and many operator's stocking rates went right back up. Then came 1998! As we moved into 1998, we had a duplication of 1996 on our hands. After 1998, we had some seasonable years of rain fall. Right up until 2006, then we had another drought to deal with. In the years that we had sufficient rain fall, we let our grasses come back strong. As a result, we slowly moved our stocking rates back up near to where they were prior to 1996. We have rocked along with a very conservative stocking rate and did not completely restock until 2007. Now, even with drought conditions, we tend to have plenty of forage. We have some native grasses and some introduced grasses. In Bardwell, Texas, you can have plenty of moisture and in two weeks be in a drought condition again. When you have several good moisture months or years, it can be deceiving.

Another move we made about 5 years ago was to change our cattle. We went from a 6 frame 1400 lb cow to a 4 frame 1200 lb cow. These cows have the ability to utilize forage more efficiently and are less dependent on "store bought" feed. These smaller framed cows still wean the same amount of weight, but with less investment on our part. At the same time, we did not increase our stocking rate. We also choose to be in the purebred business. This allows us to increase the value of our offspring over that which we would receive if selling feeder calves. Our primary product to sell is low-input, calving ease bulls that people can use with confidence on their virgin heifers. We strongly believe in the fundamentals of the cow/calf business. Things like fleshing ability on forage and calving ease top our list of critical functions in our cowherd.

In the future, we want to continue to improve our forages. The thing we have to remember is...the days of cheap fuel and grain are over! We want to improve our native forage base by using proper grazing management. As for the introduced grasses, we are exploring the use of lime to build soil organic matter, improve water holding capacity, and bring back the earthworms. We also intend to incorporate legumes and cool-season grasses into our existing warm-season forages for a longer and stronger grazing season. Furthermore, the legumes will aid in the natural fertilization of our existing introduced forages.

One of the differences between a large operator and a small operator is the amount of profit that can be made, based on sheer volume of product sold. However, the small operator can be very profitable when you control the cost per cow unit and have more valuable offspring to sell. The control of costs should start with the way we manage our forages and our natural resources. When I was asked by our County SWCD board to represent Ellis County as a director on the Blackland Prairie GLCI Board, it was an easy yes! I thank them for their trust in me. We have had one meeting, and there has been one field day. The point is, there is a lot of information and assistance available to us. This information and assistance can help us to be better producers and caretakers of the land. All we need to do is utilize those resources.



A Managed Rotational Grazing Plan As Practiced on the Birdwell & Clark Ranch

By Deborah Clark, Birdwell-Clark Ranch, Clay County, Texas



The Perch. That's where it ends most evenings. Emry sitting on The Perch with a handful of English pointers, usually his special girl, Ellie in his lap. Both gaze intently towards the horizon. This is not a leisurely, happy hour, relaxed gaze, rather it is a studied, focused, concentrated gaze. A gaze that includes plans for the next day, studies changes in the landscape, watches the pattern of grazing if the herd happens to be in the adjacent paddock, and contemplates the impact of daily decisions about range management and herd health. It is a look that underscores the blessing and responsibility of having the opportunity of a lifetime to own this ranch, to understand the consequences of

how it is used, to fully live life as a dedicated rancher and land manager.

This is not an essay about my husband, Emry Birdwell and his eager band of pointers. It is an essay about a way of life and a range management approach that works at the Birdwell & Clark Ranch in Clay County, Texas. We purchased this ranch on January 30, 2004. I contemplated a gradual transition. Not Emry. On the morning of January 30th, he loaded up every horse, saddle, trailer, and pair of jeans, underwear, boots, and shirts he owned and headed north to Henrietta, Texas daring me to be late for the 1:00 closing. He carried with him his computer and mapping program already showing the planned work of adding 150 miles of electric fence dividing up 14,000 acres of open pastures into three primary cell systems and approximately 150 paddocks. Not a single day would be lost in idle thought and musing.

Yes, a managed rotational grazing plan is fully implemented at the Birdwell & Clark Ranch. Influenced by the work of Alan Savory, Emry began refining grazing techniques on ranches in North Central Texas in the 1980's primarily in stocker operations. During

the months leading up to the closing, Emry studied the existing range conditions, fencing, terrain, water availability, and impact of the lessee's cow/calf operation. Areas of overgrazing were apparent due in part to limited water access and impact of the previous year of drought conditions. Broomweed and ragweed dominated certain parts of the range, more evidence of the impact of continuous grazing. Tight clay bottoms showed scant evidence of native grass production or forb viability. Yet, the existence of native stands of little bluestem, Indian grass, sideoats grama, switchgrass, big bluestem, knotroot bristlegrass, and various other grasses provided a foundation and opportunity to improve the native prairie rangeland through sound grazing practices.

Today, we operate a 4,000 head commercial stocker operation. Yearling steers arrive at the ranch from sale barns between December and March and promptly enter into a health protocol regime including vaccinations, temping, and a minimum of twice daily evaluation. Sick cattle are doctored, tagged and segregated. Designated



pens of cattle are left in the preconditioning lots for a period of three weeks on medicated feed. At specified intervals based on date of arrival, the new cattle are moved into the first cell system and introduced to the practice of routine moves. Additional cattle are placed in the base herd until the number of cattle totals 1,200-1,500 head. Cattle remain on grass and rotate through the cell systems until they are sold usually between July and October. Then outside cattle, 1,000 – 2,000 Mexican steers, are brought in during the period between August and December and rotated through the cell systems. This managed grazing plan lends itself to supervision, interaction, and monitoring of large numbers of cattle on a daily basis. Four hands including Emry and me comprise the total ranch personnel. During the preconditioning phase, there are no breaks. Once herd health is established and all cattle are incorporated in a routine grazing plan, one person can handle the daily moves in the three cell systems.

Two primary factors influence the decision to move herds in this managed grazing practice: 1) Herd impact and 2) Rest or deferment of paddock use.

Herd impact is optimized by large numbers of cattle placed in small acreage paddocks. Rest of a paddock is defined as no less than 45 days but no more than 120 days. The combination of these two factors generally translates into a move of each herd on a 1 – 2 day basis. It is convenient to conclude that herds are moved daily in a rotational grazing system. In reality, skill, observation, evaluation of range conditions, and experience are involved in making the decision to move a set of cattle. Diverse opinions in both lay and scientific publications as noted in recent articles including one published in the January 2008 issue of *Rangeland Ecology*



& Management by Briske et al and informal commentary by Rollins in the January 31, 2008 issue of *Livestock Weekly* argue that rotational grazing systems are overrated and stories of success are anecdotal. After more than two decades practicing and refining a managed rotational grazing plan and experiencing the results on both cattle and the landscape, the successes experienced at the Birdwell & Clark Ranch are far from anecdotal.

The benefits of this managed grazing plan are evident in several ways. Stands of bluestem are now abundant in once overgrazed pastures. Forbs including Illinois bundleflower, prairie acacia, sensitive briar, and croton flourish along with adequate samplings of broomweed and ragweed. Those tight clay bottoms are now “haired over” with buffalo and grama grass, one step leading to more favorable prairie grasses. The critical factor in the comeback success of these bottoms is that they received twice as much rest as adjacent paddocks in the first two years of the plan. Now they are incorporated into the routine grazing plan. Important to note, three of the last five growing seasons experienced below normal rainfall. In August 2006, we found it necessary to sell all the cattle on the ranch due to drought - **not** because we ran out of forage and grass but because we ran out of water. With the help of the NRCS and other incentive programs, five new tanks were built and seven tanks cleaned out. Miles of permanent fence were removed and paddocks were re-arranged to maximize use of the new water sources. These two improvements facilitated the creation of additional paddocks and larger herds. Since last November, we received only 8” of rain. Yet the current condition of the pastures and the now available water sources indicate the ranch could accommodate a total herd size totaling 4,500 – 5,000 stockers plus outside cattle.

Importantly, this is a grazing method that works for us and may not be for everyone. It does underscore every decision made at the ranch that involves the landscape, cattle, wildlife, personnel, use of time, and yes those pointers. It’s a way of life and a land management philosophy that are subject to continued evaluation and reflection.....up on The Perch.

Emry wanted to be able to “see” the ranch. Deborah had The Perch, an elevated platform, built and given to Emry for Christmas 2005.

Rangeland Challenges — A Rancher's Perspective

By Scotty Petty, Petty Ranches, Hondo, Texas

Ranchers are as varied as their operations, and being a rancher can have many different meanings along with many different problems to overcome. With our operations in South Texas and the Hill Country we are constantly dealing with various problems. Some of these can be complicated, such as dealing with oil and gas companies drilling operations, and some can be simple, such as placement of water troughs. Also, this year we have dealt with the risk of fire as have many people across the state. Each challenge has been met with different solutions and each challenge is constantly evolving. We are always learning and that is what makes participating in the management of these lands so rewarding.

The first example, and one that has been a great education for me, is dealing with the increase in oil and gas production. Oil and gas production has had a tremendous impact on our rangelands in South Texas. Our ranch has gone from great expanses of native range left undisturbed, to a patchwork of well sites and roads crisscrossing the ranch. Oil and gas employees generally have no vested interest in what is on top of the minerals and can treat the land with disregard and ignorance. A landowner who does not also own the minerals can have a hard time dealing with the oil and gas companies and limiting their impact on the land. A feeling of helplessness can



Drilling activity on the Petty Ranch's South Texas Division



Mesas on the Dos Hermanos Ranch

overcome you as you watch them build roads into areas of the ranch where there was never a road before. Places where you sat on a bluff and watched deer respond to your grandfathers 'rattling' of antlers and your fathers 'rattling' of antlers and your own 'rattling' of antlers for your son, are now getting inundated with roads and well sites. Many times these new roads can change the course of water runoff and create erosion problems where none were before. Leaking pipes and other oilfield equipment can also be devastating to the plant communities along with threatening the water sources on the ranch. Proper grazing management becomes difficult as oil field workers leave gates open no matter how many times you have told them to leave a gate as they

found it. It can be hard to explain to the oil and gas companies how land that to them looks inhospitable and barren, is actually beautiful and diverse with different plants and animals that thrive in these harsh environment. Explaining how fragile these rangelands are, and how they require tremendous care when making decisions that impact them and how bad decisions can take years and sometimes a generation to correct, can be a daunting task. These problems can seem depressing at first glance, but fortunately for our operations, we have several things going for us. The first is a sense of responsibility for the health of these lands. Generations of my family have stood on these lands and passed on the ability to see beauty in some of the harshest rangelands. We have also been able to realize that cooperation is by far the best method for dealing with these problems. Even though the oil and gas companies may not at first see or understand the landowners love of the land, a little education and open communication can be very helpful in coming to some agreements that lessen the impact of their operations. Even on places where we own no minerals we have been able to go in and work together with the companies to

pick well locations that do minimal damage to the rangeland. We must start with an understanding that we cannot stop them from drilling and putting in roads and pipelines, but they also have to understand that it is much easier to work with us on putting everything in a more logical and environmentally friendly place. We are now able to get possible well location information from them before they drill. This allows us to put the locations in our GIS mapping system and look at the impacts the site may have. We can then go out on the ground and suggest



Sunset on the Dos Hermanos Ranch

alternative sites that may not cause as much erosion and scarring of the land. Many times moving the site just a few hundred feet can have a considerably less impact on the land. Things don't always go our way but at least we have more influence than before. We are also looking into choosing better grass mixes to reclaim the areas disturbed by drilling. While it can still be hard to look at the oil and gas companies operations and not feel a little depressed, we have at least developed a method of minimizing the impact so that future generations can enjoy a healthy rangeland.

The next problem that we have been dealing with more than ever this year is the risk of fire. The main method of grazing our South Texas ranches has been to use stocker steers in the spring and summer months and then remove them in the fall. This allows pastures to rest in the winter and early spring, allowing for the land to recover and for us to analyze the potential grazing for the next year. If we get a year with little rainfall we can then make a decision to not stock as heavily or even to not stock any cattle at all if there has been little to no recovery. We had left a considerable amount of forage on the ground from the year before due to heavy summer rains in 2007 and a low stocking rate. This last fall, winter and spring we basically got no rainfall on our ranch. This set the stage for an abundance of wild fires. Some of these were natural, some were accidents and some were prescribed burns that got out of control. We had wanted to perform a prescribed burn ourselves, but with little to no soil moisture and conditions that were never optimal, we could not. We felt like we had to do something to minimize the fire danger so we decided to start our grazing significantly early this year. Usually, I would not like to graze in the early spring if we have no soil moisture. The plants have not completely recovered from the previous year and there would be little regrowth after more grazing with the low soil moisture. With only dry grass from the year before in the pastures, the cattle would graze the forbs heavily at this time of year, and these are an important source of nutrition for the native whitetail. With all of this taken into consideration we decided to go ahead with the grazing. We stocked the ranch and took a risk that if it did not rain in the spring then we would have to come up with 'plan B'. It is now the end of May and we have been able to minimize a lot of the fire risk but we have had little rain. We will continue to move cattle through the ranch and monitor the range conditions so that if we need to, we can move the cattle off of the ranch before any damage is done. Hopefully more rains will come and we can graze through the summer.

These are just a couple of items that have impacted our rangeland this year and I am sure they will continue to come up in future years. I am always amazed at the different ways that we interact with the land and how every decision we make can have an effect that we might not initially be able to see or predict. Our most important asset for Petty Ranches has been the ability to pass on an appreciation for the land beyond what the eye initially can see. These lands are filled with our past, our present and our future. We will do our best to pass on a healthy ranch for the benefit of everyone.

Ranching with Conservation in Mind

Leeray Ranch, Breckenridge, Texas

By Jeff Goodwin

The Leeray Ranch is 4460 acres, located in both Eastland and Stephens Counties. Leeray was an oil boom community formed in the 1920's, located mostly on the north east side of the ranch. The majority of the towns' population lived in tents and small frame houses. The population grew to 5,000 people, which later moved 5 miles north to the Gunsight community when drilling began in that region. The ranch has had several owners since that time, most of which leased the grazing and hunting rights. The ranch was severely overgrazed for many years, especially the riparian areas. In 2002, Kyle Yeates purchased the ranch and assigned Taylor Yeates as the ranch manager. Due to improper stocking rates, the ranch was in a poor range condition. Approximately 35% of the ranch was bare ground and approximately 50% of the ranch was covered with invasive brush.

Since 2002, Mr. Yeates has done an exceptional job of shifting the ranch from an unproductive and overgrazed property to an inspiration of conservation excellence through his ecologically and economically sound management decisions. Bare ground was the ranch's main concern from the start. In an effort to rehabilitate the over utilized ranch they deferred the ranch for two complete growing seasons to let the ranch heal. The lack of desirable forage species and the profusion of invasive brush forced the Yeates family to make some



Taylor Yeates, Leeray Ranch Manager

drastic conservation minded modifications. Mr. Yeates has initiated some unconventional treatment methods of brush suppression with brilliant results. Equipped with a dozer, a Lawson Aerator and a broadcast seeder Mr. Yeates began treating pastures with high densities of prickly pear, followed by a spring application of Grazon P+D. This method of suppression on prickly pear has decreased the density to manageable levels and increased forage production in those pastures by over 200%.



His range seeding and stocking rates are yielding positive forage responses.

on the surface of the soil to decompose and return organic matter to the soil they keep the cattle from grazing the grasses that grow under them. He has rehabilitated over 70% of the previous bare areas to vegetative cover by utilizing this method. Taylor describes his approach in his own words "When we shear we cut two out of every three mesquites and cut all the cedars that we see. We left the rocky hills alone and focused our efforts on the more productive soils. Ideally we want to have a 35% brush cover. Aeration has improved our forage yields 1.5 times, and has turned bare hard-pan into grassy areas".

With regard to weed control, the Leeray Ranch has sprayed 2800 acres in the last 2 years with Grazon P + D to help control the broadleaf weeds. Essentially, it took 3 years to get a stand of weeds to cover the bare ground areas. Now that they are killing the weeds, they are seeing cool season annual grasses and perennial grasses move in.

He has successfully initiated a comprehensive mesquite brush management plan as well, with a combination of grubbing and the cut-stump method based on the ecological site. By utilizing the cut-stump method on ecological sites with shallow soils and placing the cut mesquites on the bare areas. This not only helps the brush problems, but by leaving the trees

only helps the brush problems, but by leaving the trees

With respect to water quality and quantity, the ranch originally was watered by 19 stock tanks and 5 ½ miles of East Sandy Creek. The Yeates family built an additional 22 stock tanks to end up with 41 livestock water ponds on the ranch. They were very strategic with the placement of these new tanks. Many were built as silt tanks in alkali areas where the soil is commonly bare. Mr. Yeates philosophy is, "If it will not grow grass; then let's make it hold water."

With respect to grazing management, Mr. Yeates utilizes the 25% harvest efficiency method to determine his stock density and stocking rates. The following is Mr. Yeates' description of the Leeray Ranch's grazing management in his own words: "The ranch is divided into eleven pastures averaging 405 acres each. I run a one herd system, in which each pasture is grazed for 10-18 days and then it rests for six months. We try to take half of the grass we harvest when it is growing and come back and get the other half when it is dormant. This system has worked amazingly for us, and we began putting cattle on the ranch in 2004. In 2004, we ran one cow per 26 acres and we received 17.9 inches of rain. When we palpated cows in the fall I, decided not to buy any replacements. For 2005, we reduced to one cow per 32 acres, and we received only 19.9 inches of rain. The ranch was slowly improving, but I decided in December of 2006 that we would allow for 43 acres per cow to see if we could help the ranch improve faster. Basically I've spent the first five years getting the bare spots to grow weeds and cool season annual grasses. I'm going to spend the next five years transitioning from cool season annuals to warm season perennial grass. The herd consists of Brangus cows with Sim Angus bulls. The cows calve in the spring and we ship them in the fall".

The Leeray ranch deals with and prepares for drought, first and foremost, by setting conservative stocking rates from the beginning. The ranch is currently stocked at 43 Acres/Animal Unit which is roughly 75% of the allowable rate for a 25% harvest efficiency of the available forage produced. The range condition is then monitored throughout the growing season and adjustments are made based on that year's production. By stocking at a conservative rate, Taylor can utilize that remaining 25% with yearlings in above normal rainfall years. However, Taylor has yet to take that option because of his conservative nature and the fact that the ranch, he feels, is still in the healing stage. Due to these conservative stocking rates and sound grazing management decisions, the Leeray Ranch is seeing higher successional plants like switchgrass, indiangrass and eastern gammagrass establish in pastures previously dominated by King Ranch bluestem, silver bluestem, and perennial threeawn.

Sound management decisions have enabled the Leeray Ranch to provide quality wildlife habitat by producing sufficient forage with proper stocking rates, shelter by using brush sculpting techniques, and water by developing ponds strategically in pastures. In 2003, they constructed three miles of brush patterns across the ranch to aid in wildlife movement and travel. The ranch then enrolled in the Texas Managed Land Deer Program (TMLDP). This program provides yearly deer data and harvest recommendations to insure a healthy deer population is maintained.

The ranch does not lease hunting rights, or sell wildlife hunts; they in turn use this opportunity to teach local children about the importance of wildlife management, wildlife conservation, and hunter education. The Yeates family allows local deserving children to come out on supervised hunts to harvest the deer.

Mr. Yeates asserts "My goal as the ranch manager is simple; I want to be the best land steward that I can be of this ranch. I'm trying to balance our water quality, range management, livestock operations, and wildlife to their optimum levels without adversely affecting each other. Basically, we want to turn this ranch into a balanced operation".



Due to his land stewardship and grazing management, highly successional plants like Eastern gammagrass are beginning to come back.

Protecting and Enhancing Native Grasses On the Boddy Ranch

By Annie McClintock, Boddy Ranch, Clay County, Texas

Boddy Ranch, which sits on the Little Wichita River in Clay County, Texas, consists of several thousand acres of primarily native grasses. We have about 50% long grass prairies, 40% short grass and winter perennial bottom land, 5% cropland, and 5% improved pasture being Bermuda and WB Dahl bluestem.



All programs are designed to supplement and complement natives. Protecting and enhancing these grasses as we utilize them is our goal. We have three primary systems in place:

- 1) We rotate cows on long grass prairie from mid to late May through mid November or December depending on conditions. Cows are moved to short grass and winter perennials for winter. Buffalo grass cures out extremely well, and winter perennials get a head start, which does not happen with continuous grazing.
- 2) We also rotate cows on long grass prairies year round. We use this system where pastures have a significant growth of Texas Wintergrass. Utilization of this plant in our area requires rotation.
- 3) We utilize winter annuals and native grasses with yearlings or first-calf heifers, rotating them from wheat to long grass and back. Yearlings spend 40 to 50% of grazing on wheat and 50 to 60% on native pasture. We utilize part of the pastures with home-raised calves and part with purchased calves. First-calf heifers graze one third on wheat and two thirds on grass after calving.

Of course, the key to all phases of our operation is rainfall. Although we can do nothing about the event itself, we can hope to increase soil absorption across the range. We feel that is best accomplished with rotational grazing. This allows for more uniform utilization of forage across a wide variety of range sites. When extended dry periods occur, as we know they will, we ship yearlings early and then begin an orderly culling of cows. We always have cows that need culling. This just speeds up the process and makes our cow herd a little better and allows us to protect the root reserves so critical to the health of native grass.

To help utilize what rain does fall, competition must be addressed. My grandfather, and especially my father, were allergic to mesquite. Eradication was my dad's goal. Times have changed. Brush sculpting and brush suppression are key components of range maintenance on our ranch today. We spray mesquites and weeds in each pasture every four or five years using a swath and a half, the plane loaded for a quart rate on sixty foot centers and flying on ninety foot centers, using 2,4-D and some chemical (P+D, Weedmaster, or Cimmaron). As we began this program in 1979 my dad noted, "My God, Son, you could spend \$25 a calf on weed spray." Well, it turns out nearly thirty years later, that's exactly what it costs. \$25/calf for range maintenance (brush and weed suppression) is a great investment in my eyes.

Fire has also become part of range maintenance. Burning, combined with rest and sometimes chemical suppression, is especially beneficial in our river bottoms, which are our winter range areas. Fire, no longer something to be avoided at all cost, is now one more management tool to be utilized carefully, especially in

light of the cost of mechanical control in hardwoods.

Achieving a balance between livestock and wildlife needs are now essential. Wildlife is a vital component of native range. Part of this wildlife is utilized by hunters, who are also part of the economic picture on the ranch, and part is for us just to observe and enjoy. As a result, many areas are managed almost as much for wildlife as for livestock. On areas with significant wildlife populations, brush sculpting is our maintenance program of choice. This includes coordinating fire, brush busting (individual plant treatment), and spot grubbing with a track



hoe excavator or strip chopping with a Lawson aerator. All practices are carried out with significant advice from NRCS and Texas Parks and Wildlife. We try to keep range maintenance and improvement under \$40/calf net cost to the ranch, a level we feel is a very good investment.

Now my idea of improved pasture is that if you don't fertilize it, don't control the weeds, and don't manage the grazing then you are better off with needle grass. Well, seriously the improved pasture furnishes hay or allows the native to rest during the growing season. We try to feed hay to mature cows only when there is ice on the ground. We prefer to graze Bermuda in the growing season and use our natives as a standing hay crop supplemented with protein. Summer perennials are fertilized with 28-0-0-5 liquid with weed killer in spring. P and K are added in fall in accordance with soil tests and fertilizer cost. Phosphorus costs are a wild card this year, leaving questions about this fall's fertilizer program. Sometimes a lower yield might be an optimum yield. As I said, these forages are primarily used to rest native pasture and reduce the need for hay. They are stocked at 2000 pounds per acre for short intervals, grazed off, and allowed to recover. There are numerous old fields planted to KR bluestem that are managed as natives with the exception that they are grazed more heavily in summer and are less likely to be stockpiled for standing winter forage.

Winter annuals are fertilized according to soil tests. Once again, this year's Phosphorus costs are a wild card. This year we have planted two hundred more acres of cropland to summer perennials. These were smaller, more marginal fields that equipment costs dictated removing from the cropland mix. We are adding Alamo switchgrass to the planting this year, but it is too soon to evaluate this addition.

Our great grandfather was an Iowa corn farmer who came to Texas and broke out native rangeland into cropland. Over the next three generations around six thousand acres have been returned to native pasture. We are blessed with some of the best grassland in Texas and with family members who support us in its management. These cousins join us in range management practices (their cost is currently about \$2/acre/year for these practices) and have always accepted the boom and bust of cattle prices, drought, wildfire, etc. We have used a sliding-scale lease tied to the price of cattle and both parties subscribe to a drought clause in our leases. "Sell the cattle, reduce the lease." Keep the grass resource viable and improving for another one hundred years.

I mentioned my dad and my granddad earlier. My sister and I are the fourth generation to operate this ranch. While Dad might be surprised at the speed of some of the rotations and the heavy utilization of spring flush, especially very heavy use of less palatable species (in our case dropseeds and silver bluestem), the overall upward trend in succession would please him. We have all been charged with "Leave it better than you got it."