

# Are You Ready for a Grazing System?

Scott Penfield

So you want to try one of those new-fangled grazing systems? The government man said they cure over-grazing, thin cows, poor calf crop, sterile bulls and the thin billfold. Sounds great, sign me up! I'm ready, you say. . . . Why; why not? Before considering a grazing system, you should know what it is, what it does and doesn't do. A number of factors will either make a grazing system a success or the biggest headache you ever enjoyed. So let us examine what grazing systems are all about before you install one on your ranch.

**First, what is it?** By definition, a grazing system is a systematic utilization of the grazing resource by utilizing fences and/or natural boundaries and periodically resting and grazing the resource to permit maximum production and utilization. There are many grazing systems, but the best type is the one that works. Each producer is different; his requirements are different; his outlook different. In Florida there are such famous grazing systems as the "Joe Murdock grazing system." It is an offshoot of a short duration system, but applicable only to *his* ranch, *his* situation, *his* goals. A grazing system is *yours*, especially since it is going to suit your ranch, your situation, your goals. Consider the basic grazing systems only as jump-off points around which you develop your own program.

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Before you get involved with the planning of your grazing system, determine where you are right now. Develop a perspective and understanding of the current situation. Inventory your ranch or range resources, balance the books, ask yourself if your resources are as productive as they can be. Are you getting the maximum returns year after year? Are things getting better . . . or worse? Find out if the bank is loaning you money, or are you loaning it to the bank? As an example, a producer had diversified into a number of agricultural commodities. It was a profitable operation overall, but he had never evaluated the operators individually. For a Range Society Field Day he was asked for an economic breakdown of his operation. He discovered that he was losing money. The ranch was a model operation, using tame and native pastures, but not bringing in the dollars. This progressive operator had been following good management practices and thought that because he had lots of grass, fat cows and a reasonable calf crop, he was getting a return from his investment. There may very well be a relationship between good management practices and profit, . . . and there may not. Don't assume anything. Your perspective should be based on a balance sheet, not perceived values.

Having developed the perspective and inventoried your resource it is time to think about goals. Develop specific objectives and a sense of direction. Decide what you want



"But the plan sez you can't move for another month."

your ranch to do for you. Once you start making changes, this initial process will give you something to measure your program with. Evaluate the program annually with a very critical eye—is it really doing what I initially wanted it to do?

**How much does a grazing system cost?** Before planning a new program, project some best-guess costs. Figure fencing, cattle guards, stock ponds, etc., yourself. Remember, labor costs are higher with a grazing system. During the growing season in Florida, working cattle is required about every 60 days. The pastures are smaller, but the frequency of roundups means more expense and, probably, time.

Expenses need to be balanced against benefits; what are the benefits of a grazing system? The system should increase carrying capacity. In Florida, under continuous grazing, a producer can stock one cow to 30–40 acres on a typical (South Florida pine flatwoods) site. On wetter sites, such as marshes, continuous grazing may allow a producer to stock one cow to 15–20 acres per year. With systematic utilization and rest, a marsh will support one cow on five acres per year, and a flatwoods 12 or 15 acres per year.

A grazing system should improve your cattle's health. Systems implemented in Florida quickly produce a marked improvement in herd health and condition. Good condition cows usually mean an increased calf crop and in Florida the calf is king. A producer once said he had met a lot of cowmen, but not very many cattlemen. This wise sage meant that a lot of people feed cows but not all produce cattle. The difference between sustaining a cow and producing calves is considerable. The requirements are quite different, as are the production outcomes.

Grazing systems tend to minimize adverse weather conditions. Grass grown before the drought can be harvested during the drought. Healthy plants produce more during stress than unhealthy ones. Small adverse weather conditions tend to be diminished under a good grazing system. All of these benefits need to be measured against costs.

**So, you are still interested . . .** what's next? What specific objectives should your grazing system achieve? First, you can expect the grazing system to grow more grass than your present practices. If it doesn't it is not giving you what you paid for. Secondly, it should obtain better or more uniform utilization of the grass resource. Cattle are lazy creatures of habit. They travel from that shade tree or watering hole only as far as it takes to fill their bellies. You determine utilization, not your cattle. A grazing system should dictate where your cattle will graze.

The third objective of your grazing system would be improvement of the range resource. There should be more production of the desired grasses through a better range resource condition. In Florida improvement in range condition can sometimes be obtained the first year after implementation of a grazing system. All situations, however, do not reflect the grazing system changes as quickly. Anything that impacts the community, such as adverse climatic conditions, brush control practices or burning, tends to change plant community response times.

Now that we have considered some of the important objectives, let's start developing your grazing system. Grazing systems in Florida tend to trade quality for quantity. To produce enough grass to carry a herd through winter (it gets cold in Florida), forage needs to be produced during the growing season. This tends to lower quality but gives quantity. Supplementation of essential nutrients balances the quality problem, allowing for the increased carrying capacity

and utilization of roughage.

**There are four essential elements** that constrain a grazing system and around which a system is developed. First, it is impossible to change the topography of the land, the highways, the streams, or lakes. The plan must consider the obvious constraints of these elements. Secondly, pasture layouts should follow the overriding consideration of "like grass—like pasture." Converting the front 40 acres to tame pasture and leaving the back 40 in native will necessitate a fence in order to obtain maximum benefit from both. Likewise, the same is true in many native pasture situations. Generally, wet sites should be segregated from drier sites, thus similar plant communities will be in the same pasture. The third factor to consider when laying out your system, is to balance carrying capacities in each pasture. This will greatly simplify your utilization system. The simpler the system, the better chance of success it has. Remember you're balancing carrying capacity, not acreages. A fourth consideration is access to the pasture. Ideally every pasture should be equally accessible to all others. This isn't always possible, but consider it during the developmental stage. Equal accessibility provides greater flexibility in cattle movements. A system will work fairly well without complete access, but it does detract from the number of options available to you under some situations. Coordinating these many factors should be the basis for creating your own grazing system.

So you developed your system. Now how are you going to use it? You need to develop both a long-range plan and annual grazing plan. Now, consider some factors in these plans, such as the growing season. Resting the grass after the growing season really doesn't improve the resource. Understand the growth cycle of your grass community and plan around it. In Florida there are critical months in which the grass must be rested in order to produce the quantity desired. The general growing season is 1 March until 1 November. The critical months are April, May, June, July, and August. To do anything positive for the resource, rest it periodically sometime during this critical period. Consider in your utilization plan the growth cycle of the desirable grasses. If the key species in one pasture has a growth cycle of 90 days, consider that in the grazing system. Needed rest periods and proper grazing use of the desirable grasses is essential in maximizing production.

**Plan to balance the quantity of grass** with the quality. Try to maximize quantity, considering that usually quality is cheaper to buy. It is better to build up an excessive forage account than to overdraw and starve your animals. Know the quality of forages, plan for proper supplementation of nutrients and be prepared to provide them when needed.

If your grazing system is ever going to achieve a measurement of success, you must work your herd into a controlled breeding season. With an uncontrolled breeding program, you are going to suddenly realize that day-old calves do not round up very well. With a controlled program you can plan on all of your calves dropping in one place and can work your rotation around the calving season.

The last element of your grazing plan is the consideration of range modifications such as brush control and burning. As a general rule, wait until the system has been implemented to apply these range improvement practices. This allows you to discover how much grass the system itself produces. One producer found that the system alone produced more grass than he could ever utilize. It was pointless to worry about brush control since he didn't need the extra

grass.

If you feel you need to apply these practices to your system, they have to be planned well in advance in order to provide the essential element of rest to these areas. Without rest, any dollars spent towards these improvements can be lost. A cattleman once remarked that brush control and burning were like planting a field new—you don't put the cows in to eat the seeds; wait until they can eat the grass.

Finally, in order to measure the effectiveness of the grazing system it will be necessary to keep records. These need to include the number of animals in a given pasture for a given length of time, costs involved in establishing and main-

taining the pasture, and anything else relevant to the program. The evaluation of a system is only as good as the records that are kept. Remember perceived improvement and actual improvement may not be one or/and the same. The only accurate measurement will be careful and meticulous records.

So, there you have it. Still want to try one of those new-fangled grazing systems? Remember, the most important element in a grazing system involves a commitment by you to make it work. It can be extremely rewarding to the producer that has the perseverance to make his system a success.

# Managing Rangelands for Mule Deer

Jerry L. Holechek

Mule deer (*Odocoileus hemionus*) are the most important big game animal in the eleven contiguous western states of the United States. The first part of their name comes from the fact they have large ears which resemble those of a mule. Today mule deer exist in greater numbers in many localities than under pristine conditions. They inhabit practically all the rangeland of western North America from the desert country of central Mexico to the woodlands of northern British Columbia and Alberta.

In the United States mule deer range extends eastward as far as central South Dakota and westward to the Pacific Ocean. Highest densities of mule deer occur in the juniper brushland zones of Oregon, Idaho, Utah, Wyoming and Colorado. Black-tailed deer, found along the Pacific coast from central California to Alaska, are similar enough to mule deer to be included as part of the species. Black-tailed deer are smaller and occupy a somewhat different habitat than mule deer, which justifies their different common names.

Every year over two million Americans hunt mule deer and harvest approximately a half million animals. Total meat harvested on a dressed carcass basis is about 50 million pounds. Mule deer hunters annually spend about 300 dollars each on their sport contributing a total of 600 million dollars to the economy. These figures tell nothing of the pleasure derived from the viewing of mule deer by the non-hunting segment of society.

It is now recognized that range and wildlife management are inseparable. Range management practices such as brush control, predator control, water development, burning, fertilization, reseeding and controlled livestock grazing all have the potential to harm or benefit mule deer. The intent of this paper is to discuss how these practices can be applied for mule deer enhancement.

## The Historical Perspective

Estimates by Ernest Thompson Seton, William T. Horna-

day, and others indicate about four million mule deer occurred in the western United States just prior to the arrival of white man in large numbers in the early 1800's. Mule deer numbers in the United States reached a low of less than one-half million around 1910 primarily due to unrestricted



*Mule deer spending the summer on ranges with an abundance of perennial such as the buck shown in the photo are able to build up fat reserves for winter use when forage is less available (photo courtesy of Chris Allison).*

hunting. This was a time when populations of most other big game species in the United States were also at an all time low. Between 1910 and the early 1960's mule deer populations rapidly increased as a result of restrictive (bucks only) hunting regulations that were first applied in 1910's, habitat change, and possibly predator control. The mule deer population peaked about 1963 when numbers were estimated between six and seven million. In 1981 there were about 4.5

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