Rancher Boosts Grazing on Large Ranch Fenced in Cells

Elmer Kelton

Bill Maltsberger ranches near Cotulla, Texas, located in the heart of the South Texas brush country between San Antonio and Laredo. Since he began building new fences in 1979, Maltsberger has put his entire 12,262-acre ranch into a cell grazing program that calls for moving the cattle 3 times a week during the spring and summer growing season. They are moved less rapidly during winter.

Despite some periods of very short rainfall, Bill says he has been amazed at the grass and forb improvement in pastures in the program long enough to begin registering a change.

This is despite his raising the stocking rate to about 800 animal units from its previous 500.

The ranch is long, thin, and somewhat triangular, like a shamelessly gerrymandered political district. That complicated its division into nine cells and 48 individual pastures. The rotation of cattle is in a clockwise pattern using the entire ranch rather than each cell as an individual unit. Most of the year the cattle are divided into three basic herds for rotation purposes.

The herd is Santa Gertrudis, subject to registration but run on a commercial basis.

Maltsberger's is a cattle ranch, not an oil ranch. It is fairly typical South Texas brush country, having a heavy cover of mesquite, blackbrush, guajillo, and other brushy species. Grass was scarce when he began the program, the bare ground packed hard and stubbornly resisting rainfall penetration.

He became interested in reports he had read about the Rhodesian cell grazing method, based on concentrating large numbers of livestock for very short grazing periods, followed by very long rest.

He received some advice and encouragement from South Africans to whom he sold Santa Gertrudis bulls.

It all sounded logical to Maltsberger, especially in the light of his own experience with a trap where he had concentrated large numbers of bulls and burned prickly pear several winters. The trap originally had been the poorest site on the ranch, ground virtually bare of grass, brush so thick he had to cut pathways or "senderas" to bring in a jackass-drawn pear-burning rig.

Heavily used in winter, the pasture was vacated the rest of the year. Over a period of time it changed complexion, grass and weed cover improving, blackbrush declining, mesquite thinning as certain trees matured and those around them died. It became the best pasture instead of the worst.

Maltsberger sees a similar pattern emerging on his cell pastures fenced first and in the rotation program longest.

During the spring and summer growing period he moves the cattle Mondays, Wednesdays, and Fridays. It might be better said that they move themselves. They quickly learn to look forward to a move. When the partition gates are opened and the horn blows, it is a little like the traditional image of the boarding house crowd as the dinner bell rings. It is not wise to stand in the gate.

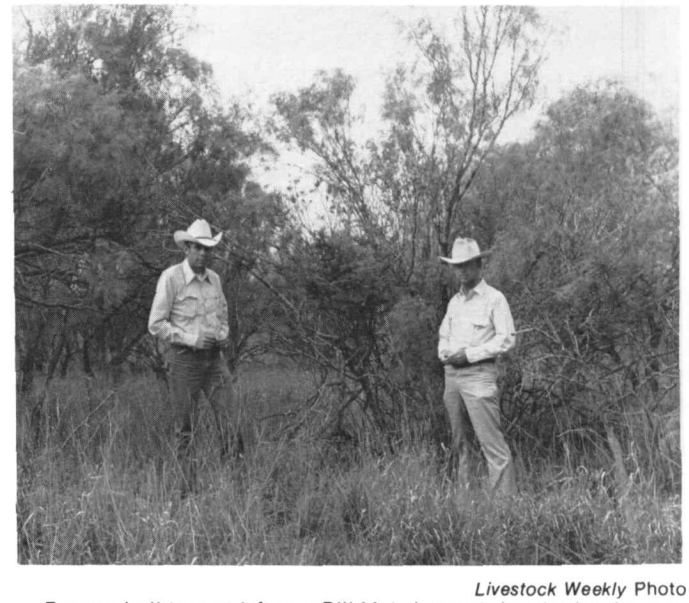
As cattle move out of a pasture, the effect of hoof action is obvious. Because of the high temporary rate, hardly a square foot of ground does not show a fresh hoofprint. The surface crust is broken. Each hoofprint is a miniature rain catcher, a potential seedbed for grass.

The existing grass has been cropped down but by no means grubbed out. The brush has been browsed heavily, even mesquite leaves.

Maltsberger says the tendency of cattle turned into a fresh pasture is to head for the far side first—longest distance is 1 3/4 miles—then gradually graze back toward the water. Small calves drop out along the way and are picked up by their mothers as they work their way back. Cattle utilize the entire pasture.

He finds his young cattle adapt easily. Even older cows get onto the system by the time they have made a full round of the ranch. They are always eager for the next move.

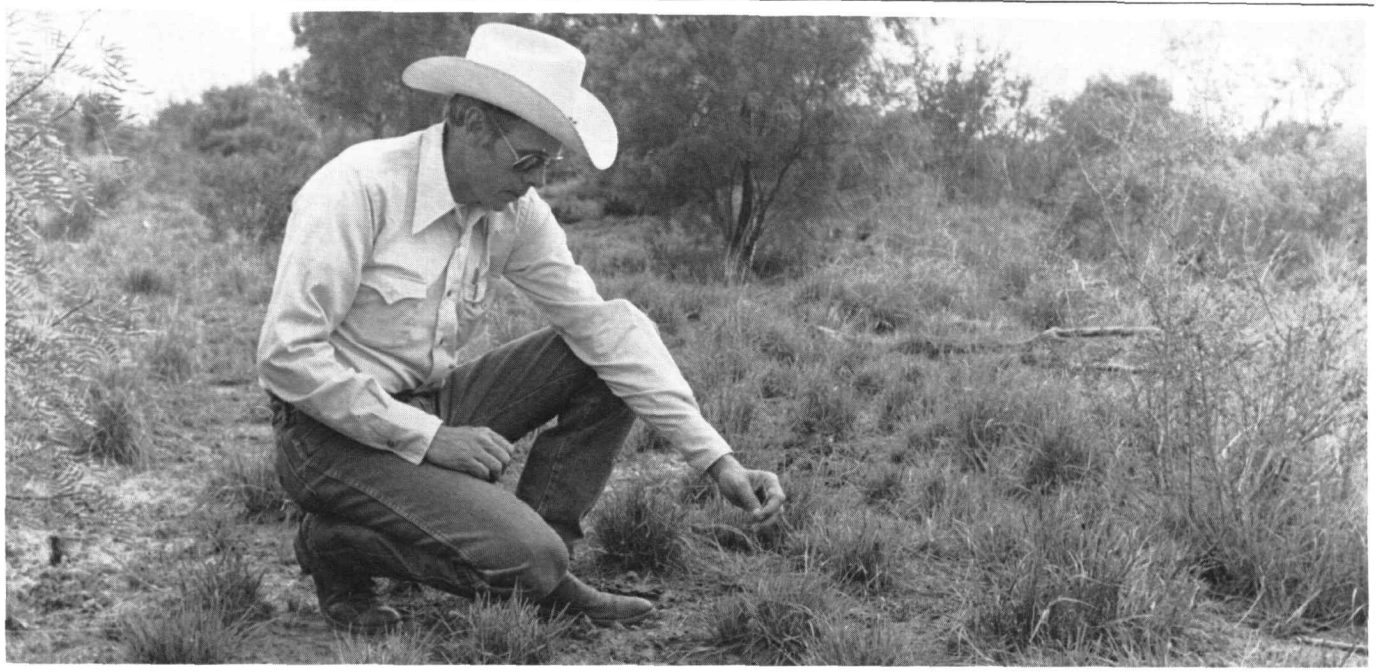
Bill figures one effect of the dense stocking is a rapid fouling of the pasture by urine and manure. "The cattle are wanting to get away from themselves by the end of a couple of days," he remarks. This fertilizing effect is beneficial to the pasture, whether the cattle like it or not. By the time the cattle



Livestock Weekly Photo

Former bull trap at left was Bill Maltsberger's inspiration for putting his whole ranch into a cell system. Under short-term intensive use and long rest, the grass thickened and the brush thinned.

The author is associate editor, *Livestock Weekly*, San Angelo, Texas.



Livestock Weekly Photo

Ken Sparks shows the crust-breaking of hoof action in a pasture just vacated after 2 days of grazing with a herd of 255 cows. Most grasses are grazed but not damaged.

come around to the same pasture on the next cycle it has freshened up. Even in long periods when no rain falls between cycles, he sees a freshening effect his pastures never had under continuous grazing.

Before he went into this plan the ranch had just 4 pastures, 1500 to 2945 acres each plus traps. He was unable to rotate, so grazing was year-around. Cattle spot-grazed. Some areas were rarely touched, while "sacrifice" areas were constantly overused.

Many palatable South Texas plants are what Maltsberger terms "opportunistic." They come up when and if it rains, and they may have done their do in 30 days. If an animal doesn't come along and graze them during that period, they're gone. Under the old big-pasture system, a substantial percentage of such potential grazing was lost because cattle simply didn't work the whole area.

At the time Maltsberger started his fencing program the Soil Conservation Service recommended 400 animal units for continuous grazing. That would have been a 100 unit cut from what he had. In effect, his present stocking rate is twice that original SCS recommendation, given through the Dos Rios Soil and Water Conservation District.

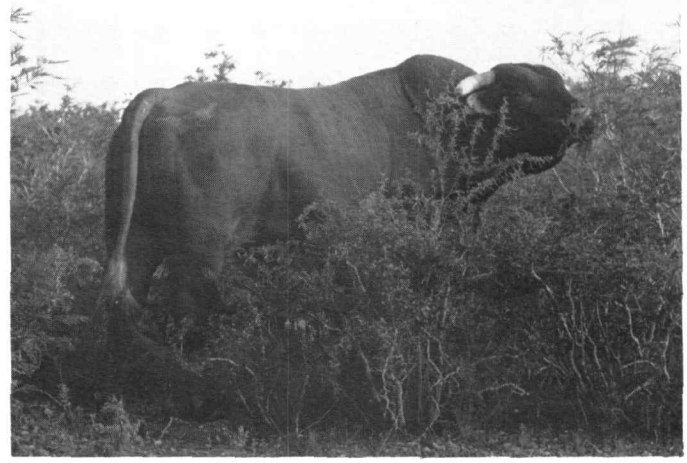
He figures he was able to do this at least partly through a far better utilization of existing feed on the cell program because cattle cover the pastures more uniformly and utilize plants they used to pass by. Grazing plants are freshened by regrowth instead of becoming rank and unpalatable. The cattle utilize brush more than before.

One striking change is in guajillo, a high-protein South Texas browse plant important most of the year to both cattle and deer. Under continuous use the guajillo had been browsed to a high canopy deer fawns could not reach. Under intensive stocking, cattle break down much of the guajillo brush in reaching for the high leaves. The broken plant puts out new growth far down on the stems, lowering the guajillo canopy almost to ground level and making it much more useful to the deer.

Cattle are breaking down unproductive blackbrush in the cell pastures just as the bulls did in the pear-burning trap years ago. Blackbrush is thinning noticeably, and grass is coming in its place.

Maltsberger says he sees evidence in early pastures that mesquite also will follow the thinning pattern he observed in the bull trap: the crown lifting, some trees maturing, others dying out. He says he does not fully understand the reason, but he sees it happening.

Though most people going into cell programs use low-cost fencing, often electrified, Maltsberger decided to build strong permanent fences throughout. Once in place, he figures, they won't require a lot of maintenance time and expense. Tax considerations such as investment credit, depreciation, etc. trim the net investment.



Livestock Weekly Photo

Santa Gertrudis bull browses a guajillo plant. Cattle break down the guajillo and cause it to leaf out afresh, lowering the canopy for deer.

He figures he won't have to worry about a set of green cattle stampeding some night and wiping out a cell. He says the ranch's old improvements had deteriorated to a point of needing replacement; and he had a lot of fence to build whether he went into a cell layout or not. He used 1 existing windmill and 1 large surface tank for the cells, and drilled 7 new wells to give 9 watering places on the ranch.

He found calves gettting through his first 3-wire interior fences and not easily getting back. This caused him to go to the conventional 4 and 5-wire fences, adding a strand to his early 3-wire installations.

Bill figures his total cell investment to date has averaged about $20 per acre in fencing and water development. That might look high, but not in relation to land prices in the area. A game ranch adjoining his is being priced at $700 an acre. Even at going lease rates, he figures 4 or 5 years would come to an equivalent cost if he had tried to lease extra land to increase his original stocking rate to its present level.

Figured another way, the cost was just over $300 for each present cow unit, or a little over $800 for each added cow unit.

Thirty years ago part of the ranch was rootplowed for mesquite control. Today, because of dense regrowth, brush is worse on the rootplowed ground than on areas never plowed.

Hoof action has created benefits he had not anticipated. He has a creek on which the banks had eroded so badly they were crossable only at certain points. In a creek pasture which went into cell grazing early, cattle movement has sloughed off the steep banks, making them crossable at most points, and grass is stabilizing them.

Maltsberger keeps close records on his cattle, on rotations, on the various soil types, etc. Nevertheless, he stays flexible.

He has split calving periods, 2 of about 60 days. If a cow or heifer has just calved, he does not force her to move with the rest when he vacates a pasture. He lets her stay behind until she is ready to bring the calf out of the brush on her own. To be safe, he leaves the gates open a day or 2 so a cow inadvertently cut off from her calf can get back to it. Waterings are available in every pasture for any animal left behind.

Though well pleased, Maltsberger doesn't try to talk other people into going into the same sort of system. He says he realizes it isn't for everybody. It is not a cure-all for every ill.

Just building the fences is not enough, he declares. To raise stocking rates drastically without having feed enough could be a shortcut to disaster. In his own case he started some of his cells on faith, supplementing cattle in central troughs until rains brought weeds and grass enough to maintain them.

Maltsberger's father, Jack, began putting the ranch together in the 1930's. He died 8 years ago. Asked what his father might think of the cell system, Bill says he probably would not have liked doing all that fencing, but he believes his father would be pleased to see the grass coming back as well as it is.

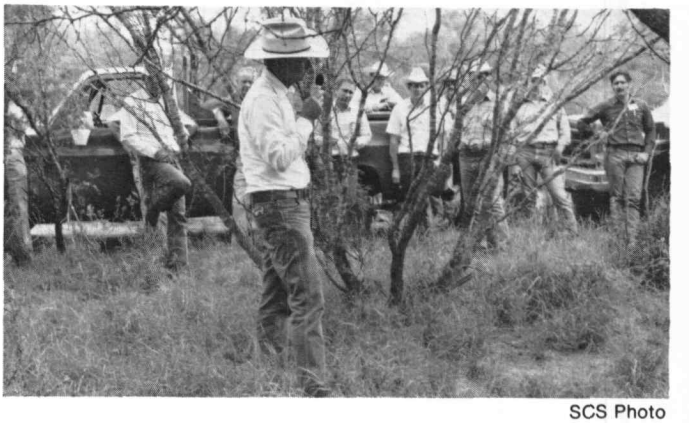
Added Remarks by Ken Sparks, SCS Range Conservationist, Uvalde, Texas

A short duration grazing symposium and ranch tour was held at Cotulla, Texas on May 12, 1982. The activities were co-sponsored by the Dos Rios Soil & Water Conservation District and the Texas Section, Society for Range Management. About 175 people attended including a large number of ranchers from South, West, and Central Texas. Ranchers came from as far away as Mexico, Colorado, and Louisiana.

The afternoon program included a tour of the Bill Maltsberger Ranch. So far, Bill has built about 60 miles of fence and is contemplating building additional cross fences in the future. In addition, there are 28 miles of boundary fence on the ranch. Twenty miles of the boundary fence is 8-foot deer-proof fence. He has been in an intensified trophy white tail deer management program for several years.

For those interested in scientific names: guajillo is, *Acacia berlandieri;* mesquite is *Prosopis glandulosa;* and blackbrush is *Acacia rigidula.*

Ken Sparks discussing range improvement on the Maltsberger's Ranch after 2 years of intensive short duration grazing.



SCS Photo

Bill Maltsberger tells how he grows grass under mesquite trees with intensive short duration grazing. Bill is an ardent supporter of range management and the Society for Range Management. On one of the stops on his ranch he said, "I strongly recommend that ranchers join the Society for Range Management and take advantage of the exchange of information the Society provides."