One hunting experience, and even results from one research project, do not give the absolute answers. The subject of fee access for hunting will remain controversial over much of the country. Advocates of free access will continue to complain about their rising costs of access and the perception of high profits made by the private landowner.

This fee information has been collected over a 10-year timespan from the same population of ranch operators. The results of this study indicate that real (inflation free) prices paid by the hunter have not increased, and may have decreased slightly in Val Verde County. Nor has the ranchers' real gross income per acre or per hunter increased between 1978 and 1988. Once fee access hunting is accepted and established, real market prices for the right to hunt appear to become established over time.

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Short Duration Grazing—Southern Style

Jack R. Cutshall

Wintering cattle in the deep South should be a piece of cake. Instead, it is a major cost and management concern for livestock producers.

Most of the forages used for tame pasture, and many native pastures, are low growing, sod forming grasses with poor winter roughage quality. Common bermudagrass and carpetgrass pastures are prime examples. They are "naturalized" components of many native ecosystems, as well as, agronomically managed for tame pasture. Planning a grazing program around the fast growing sod farmers requires producers to evaluate many alternative management systems.

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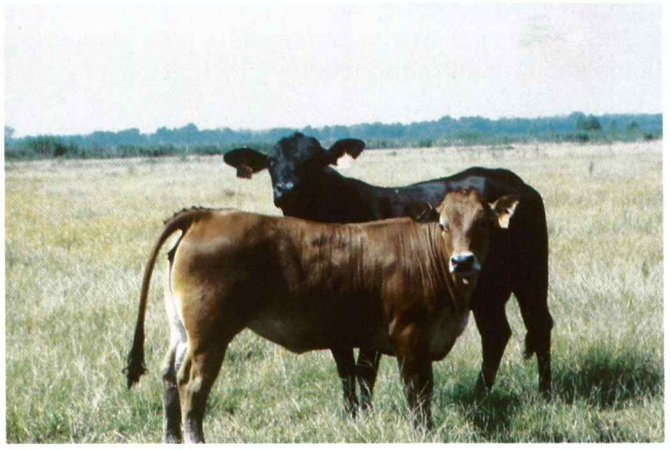
Brood cow herd on native pasture.



Brahman × Angus cows crossed with Limousin bulls produce calves that catch everyone's eyes.

Rotations allow ample time for forage regrowth.

Bob Prentice, a Houma, Louisiana rancher, converted a sugarcane farm to a 500-cow beef cattle operation. Decisions had to be made about forage types and management strategies. Initially, the ranch had common bermudagrass managed as a fertilized tame pasture. Annual ryegrass was planted for winter pasture. Hybrid bermudagrasses were intensively managed for hay on another tract of land. In 1981, Prentice re-evaluated his operation, and with technical assistance from the Soil Conservation Service (SCS), initiated a comprehensive grazing management plan which included a short duration grazing system. Two large pastures were subdivided into several grazing units with electric fences. These pastures were overseeded with annual ryegrass for winter grazing. Cattle were allowed to rotationally graze these smaller pastures for three hours, three times a week. The remainder of the week they grazed pasture stubble and hay. The in-and-out grazing on ryegrass took the place of providing protein supplementation with concentrates.

Prentice found that giving his brood cows three hours on ryegrass pasture three times a week provides the protein supplement needed for maintenance and lactation. In order to meet Prentice's weight gain objectives, stocker calves need a three hour grazing period on the fast growing annuals every day. Ranch manager Gene Clement said, "At first I was concerned about getting the cattle to move. After they got used to moving, it was just a matter of opening and closing the gates. They just about move themselves." As additional pastures were subdivided, grazing management took the place of cash inputs for fertilizer. Excess forage produced on the "native" bermudagrass pastures is now cut for hay. Because of better forage utilization, Prentice now has a 500-head stocker operation in addition to his brood cow herd on the same acreage.

The short duration grazing system is being managed by plant and animal indicators rather than a calendar. Prentice, Clement, and SCS personnel developed three practical indicators to determine when livestock should be moved. During the growing season, cattle are moved when any one of the three indicators comes into play. These are (1) stubble height of the management plant—when 50%, by weight, is utilized—move cattle; (2) social behavior of livestock—if cattle are walking fences or balling up at the gates, they aren't getting what they want—move cattle, and (3) manure pile—as long as the forages are high quality and low in fiber the manure will "splatter" when it hits the ground. If it's "stacking up" up the forage is over mature—move cattle.

Temporary electric crossfencing allowed time to determine the location of permanent fences.

Operating the short duration grazing system for 8 years has resulted in refining management alternatives to meet ranch objectives. These objectives include reducing labor and equipment costs, and re-occurring cash inputs. Temporary electric fences have been replaced by permanent cross fences. A fall and spring calving season allows bulls to be used on two herds and provides calves for a winter and summer stocker operation. Supplemental pastures, which include summer and winter annual grasses and legumes, are drill planted into the existing bermuda-

grass sod. Leaving the sod intact helps minimize livestock trafficability problems on wet natured soils.

The basic management program carried out by Prentice has been adapted to cattle operations with over 2,000 brood cows and those as small as 25 head. This program is designed to maximize management inputs and minimize cash inputs, at the same time, optimizing forage and livestock production.

Wyoming's Land Managers

Jim Schwartz

Brush burning for improved elk habitat and livestock grazing.

Wyoming encompasses nearly 62 million acres, of which 50 million are native grazing land. Of the 50 million acres of native grazing land, 42 percent is under private ownership. This rangeland is a valuable resource for livestock production, wildlife habitat, outdoor recreation, and watershed protection. Nearly $500 million is generated annually by livestock production, including 1.3 million cattle and 750,000 sheep.

Some conservation practices installed by private landowners, though local conservation districts and with technical assistance from the Soil Conservation Service, include water development, grazing systems, prescribed burning, and reseeding. These practices improve the management and condition of the native grazing land and directly benefit the wildlife and livestock. Also, Wyoming's rangeland is conserved for the use of generations to come.

Federal, state, and private land managers have all been responsible for the improvement in range conditions. One example emerged from the national concern regarding riparian management over the last few years. Wyoming land managers analyzed the situation and Wyoming is now one of the few states that have formed a "Riparian Association" in which environmentalists, agriculture producers, and professional societies assemble and work toward positive alternatives to make the riparian areas productive while still preserving their integrity.

A balance between wildlife management and natural resource management is responsible for the major increase in big game trends in Wyoming over the past six decades. The Wyoming Game and Fish Department in cooperation with federal, state, and local agencies, have shown farmers and ranchers how to significantly increase wildlife numbers. Most of the increase in elk, deer, and pronghorn antelope comes from the improvement of crit-

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Wildlife Population Number (state totals)