

Range Management on the U Ranch near Carlsbad, New Mexico

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The development of a program of range management on a Southwestern ranch is described by the manager and part-owner. The discussion was presented at the April 1953 meeting of the New Mexico Section.

The U Ranch is located at an elevation of 3,400 feet in the extreme southeast portion of New Mexico, about 35 miles southeast of Carlsbad. Longtime average rainfall for the region is 13.5 inches. Since 1941, however, the maximum yearly rainfall recorded has been 11.2 inches. About two-thirds of the total ranch area is variably sandy, ranging from a light sand condition to small pockets of deep blow sand. The sandy area is well covered with grasses, shinnery and sand sagebrush. Black grama and several kinds of aristida grasses predominate on the sandy lands with a scattering of blue grama and little bluestem. Hard land areas of the ranch are characterized principally by black grama. Substantial amounts of forage are provided by annual plants, principally weeds of various kinds. These annuals require frequent showers to provide much feed. Mesquite is a considerable problem. The infestation of mesquite is increasing slowly and some work will need to be done when methods have been proven effective

and the cost of control has been reduced.

The ranch has been under the present ownership and management since May, 1946. During the first year it was operated as a cow and yearling combination, the next three years as a straight calf and yearling growing ranch, and the past two and one-half years as a cow and calf ranch with yearlings held or purchased to utilize any excess forage production.

Wells are generally from 450 to 750 feet deep, the one exception being the well at the headquarters which is only 70 feet in depth. At the time the ranch was acquired by the present ownership there were three permanent waterings and three cross fences on the ranch. Six permanent water facilities are now available and the ranch has been divided into nine pastures and two holding traps.

A mixture of cottonseed meal, salt and mineral of our own specifications is the principal feeding supplement. This supplement is used when necessary in winter or summer.

Our Management Program

There are two reasons for range conservation and management which are equally important; each

of the reasons must be tempered with consideration for the importance of the other. The first of these reasons is to conserve the facilities for forage production. Forage production comes primarily from native plants which are slow to reestablish themselves if abused out of existence. Range conservation and management also provides a better and more dependable income for the owner. Both of these objectives can be accomplished by good management that leans neither too far to sole consideration of grass nor to sole consideration of immediate profit.

Rotation and deferment practices were made necessary by the nature of our forage. During the bud and early leaf stage of its growth our shinnery is poisonous to cattle and we are forced to confine all cattle in pastures free of any shinnery. This period lasts from 30 to 60 days depending on the season and so it is necessary for these pastures to carry a considerable number of cattle for a relatively short time. We always saved these pastures all year except for the shinnery time and found that rest during the growing season and heavy use for a short period contributed to good growth and uniform use.

Our program of range management has fallen into several separate steps. The first of these was development of water, distributed over the ranch in such a way that all of the ranch was within practical limits of travel to water.

The second step consisted of

cross-fencing the ranch. Due consideration was given to the size of pastures so that they would not be so small as to be impractical nor so large that they could not be watched and worked with relative ease. With two exceptions all the pastures on the ranch have two or more permanent watering places and all the watering places serve two or more pastures without exception. Consideration was also given to terrain and types of forage to make uniform use more effective.

The third practice was deferment of pastures. During the first year one-fourth of the ranch was deferred throughout the growing season and was not grazed until the growing season of the next year. The growing season is generally considered as the months of July, August and September. By this time enough forage had been produced on the deferred area to support all the cattle on the ranch for the second growing season so that three-fourths of the ranch was allowed to rest during those same three months the second year. It is a little hard to believe such a plan is possible without trying it. However, it is reasonable to assume that the effects of all the cattle on one-fourth of the ranch for one-fourth of the year would not differ much from all the effects of cattle on the entire ranch throughout the year. A different portion of the ranch should be set aside each year for the three-month period of concentrated use during the growing season. We have found

that this heavy stocking for a short period has some benefits of its own. Heavy stocking causes the cattle to eat all the forage in the pasture uniformly, the less palatable grasses right along with the better ones. Short periods of heavy use keep the stock from going from place to place and constantly nipping the fresher and tastier grasses, giving them undue competition while the less desirable forage is left to grow unmolested. Stock will not make as good gains when concentrated on a small area for the growing season as if allowed full use of the range, but we feel that the benefit to the range is greater than the loss to the stock. This is one of the concessions that must be made to good, far-sighted range management. Grass, like domestic plants, needs an occasional period in which it is allowed to follow its natural cycle of development from beginning of growth to the mature seed without competition in order to maintain the vigor of the plant and root. Contrary to the belief of some, the root system of a grass plant is not increased by constant use of the plant above the ground. The vigor of the root system is directly proportionate to the vigor and growth of the topgrowth.

The fourth step has consisted of an annual estimate of the forage production and of the grazing period provided without the necessity of additional feed. Reserves of usable forage are a rancher's bank account, his life insurance, his security for credit. In fact, reserves are what

keep him in business when the going gets tough on account of the frequent drought periods common to this part of the country. Estimates are more easily and accurately made on pastures that have been grazed uniformly than on those which have not.

Balanced stocking is the fifth step in our management program. We feel that the best way is to make our cow herd, our permanent inventory, small enough to be well fed in any but extreme drought periods which extend through more than one or two years.

In normal or near-normal years the yearling cattle will be held over to use the forage not used by the cow herd. In exceptionally good years additional yearlings, or stock of some kind, will be bought or pastured to use any excess forage. The necessity for maintaining a safe reserve should always be kept in mind.

In 1951 we had 4.2 inches of precipitation at the ranch and in 1952 we had 4.5 inches as compared to a long-time average of 13.5 inches. Even under these severe conditions we have maintained our permanent inventory intact with a minimum of supplemental feed, and the stock is in good condition. We believe that 75% of the rated carrying capacity of the ranch is about the maximum safe permanent inventory with excess forage production being used by the flexible inventory.



NEW ADDRESSES FOR THE EXECUTIVE SECRETARY AND SOCIETY HEADQUARTERS

Membership dues, subscriptions to the *JOURNAL* and changes of address should be sent in promptly to W. T. White, Executive Secretary, at his new address, Box 7745, Albina Station, Portland 12, Oregon. The new location of the National Headquarters of the Society is 423 U. S. Court House, Portland 4, Oregon.

Members must pay their 1954 annual dues prior to February 15 to avoid delay in receipt of the *JOURNAL*.