Greater Carrying Capacity Through Forage Improvement in Southern Idaho

The following described ranching operation has been both sound and practical, not only because it has made money, but the profits have been converted to methods of increasing the carrying capacity; livestock numbers have been increased during a period when livestock prices were low, and climatic conditions were below normal.

The Rice ranching operations are located in Gooding and Camas counties of southern Idaho on what is commonly known as the Snake River Plains. The operation consists of approximately 7,200 acres of deeded land with 2,700 acres of leased lands, in three separate ranches referred to as the Tuttle, Hole-in-the-Wall, and the Perkins Ranches. Average annual precipitation varies from 9 inches at the winter headquarters on the Tuttle Ranch to 15 inches on the summer range at the Perkins Ranch, which is located above 5,000 feet elevation. The Hole-in-the-Wall is intermediate range, used spring and fall along with public domain grazing privileges.

Carrying capacity of the operation, prior to introduction of an intensive range forage production program in 1951, was 450 animal units of cattle. Cattle numbers have been increased to 700, and the goal in the future is for 1,000 head of breeding stock plus the calves and yearlings. The increase in livestock numbers can be attributed to trial, experience, and a constant effort to increase the forage production on the ranches.

Livestock Management

The breeding herd consists of about 700 head of commercial cows. The better heifer calves are held for replacement from these cows. The remainder of these calves are held over and sold as grass fat yearlings during the fall months. Generally 50 to 100 yearling steers are purchased each spring in addition to those raised from the cows; these are also sold as grass fat animals in the fall.

This method of operation has a twofold advantage. All animals are sold when they are prime for market, and at the same time a margin of safety is retained through buying only the number of calves in the spring that can be safely carried on the summer ranges without overstocking them. One of the greatest advantages is flexibility in total numbers to cope with the price range conditions without disturbing the size of the breeding herd, which has been carefully developed through several years.

General marketing procedure of the livestock has been that of selling the non-replacement calves and yearlings from the Perkins Ranch summer range in October. The calves generally weigh out around 500 to 600 pounds, while the yearlings come off pasture at 800 pounds or better.

It is generally agreed that building a top quality cow herd and selling fat stock therefrom begins with the selection of proper bulls. Through selection of top quality bulls and keeping only the best heifer calves for replacement cows, the calf crop has increased in quality and weight each succeeding year. It has been determined that the yearlings from this type of program have gone into winter quarters in better condition and have

Leo Rice, Gooding, Idaho, by the use of sound management principles and through the application of a planned forage improvement program, has raised the carrying capacity of his ranching operation by 55 percent, since 1951, and has set an ultimate goal of over 100 percent increase in carrying capacity. This article tells the story of how Leo Rice accomplished this feat, and how he is providing a constantly better supply of forage for his increasing herd.
wintered much better than those from the older stock from which this breeding program originated. Calving generally starts in early February, with the first calf heifers (nearly three years old) and the aged cows following. Usually more than 75 percent of the breeding stock are calved prior to April. The entire cow herd is calved within a period of two and one-half months with the exception of a few which are bred late while running on public domain lands in common with other cattle. The majority of the suckling calves are branded and vaccinated for shipping fever and blackleg prior to April 15. The heifer calves are vaccinated for Bang’s disease at the same time they are weaned. All calves are weaned not later than the first of October, prior to going to winter headquarters.

The early weaning has proved very successful in that the calves recover from weaning prior to cold weather and the mothers have an opportunity to gain in flesh. This weaning program has the advantage of reducing the amount of supplement necessary for wintering, and the animals maintain a better condition for calving time.

Feeding Program

The feeding seasons are divided into summer and winter operations. The length of the seasons vary somewhat annually due to weather conditions and the rotation system of different pastures on the three ranchsteads. The winter feeding season generally extends for a period of four months, from December through March, while the summer grazing season fills out the balance of the year.

Winter Operation

The winter operation consists of 3,000 acres, of which nearly 2,000 acres are cheatgrass. Two hundred acres are irrigated, and these acres provide 300 tons of corn silage and a major portion of the 1,000 tons of hay fed during this season. The remaining 800 acres is dry land sage-grass which has been improved by removal of brush and seeding to crested wheatgrass. The remainder of the hay necessary for winter feed is produced from former dry-farm land at the Perkins Ranch, which is being converted to pastures. The winter operation generally runs from November 15 through March 31, varying some each year, however.

Prior to calving time the aged cows are on pastures consisting of cheatgrass and crested wheatgrass, supplemented with cottonseed cake, which is generally increased as the season lengthens. The younger cows and heifers begin the winter on irrigated pastures and stubble fields, then are put on hay and corn silage. The hay and silage give the younger cattle an opportunity to gain weight and make additional growth, developing into larger cows.

The hold-over weaned calves go on feed early, generally at weaning time. Their ration consists of corn silage, hay, and mixed grains. It usually takes 1,000 pounds of silage, 500 pounds of alfalfa hay, and 200 pounds of mixed grain for the four-month winter period. While this feeding program may not appear elaborate, it has been economical, and there have not been any nutritional deficiencies. Death losses due to other than natural causes have been less than 1 percent per year. The annual average calf crop has been 92 percent at weaning time.

Summer Operation

The summer season is generally from April 1, through late fall or to November 15. These seasons fluctuate with climatic conditions and are quite flexible.

The cows and calves are pastured for about one month on private lands at the Tuttle Ranch in the early spring. The replacement heifers are kept in separate pastures until bred, then placed with the cow herd when they are moved to the Hole-in-the-Wall ranch, utilizing the grazing privilege on public domain lands while enroute. This period is generally from April 15 through May 15. The Hole-in-the-Wall ranch, being completely surrounded by federal lands and being located between the early spring and early summer range, has been a convenient place to brand and vaccinate late born calves.

The early summer range, June 15 to July 31, on public domain consists primarily of native perennial grasses, and while not fenced, because of its location, is virtually an individual allotment. This range
lies between the Hole-in-the-Wall ranch and the Perkins ranch to the north. The cattle naturally drift to the north thus reducing the amount of riding necessary to gather the cattle from the public domain lands the latter part of July.

The Perkins ranch consists of about seven sections of land fenced into pastures ranging in size from 80 to 200 acres, depending on the amount and location of the water supply. Since 1951, there have been 17 water developments, including wells, springs, and reservoirs, to provide more water and to aid in livestock distribution.

When the cows and calves leave the public domain at the end of July, they are put on the Perkins Ranch pastures which are managed on a deferred rotation basis. Records are kept of the number placed in each pasture and the length of time they are grazed. Through these records it can be determined how much feed is produced each year and how much improvement has been made in condition and trend on each pasture of the ranch.

The yearling steers and heifers are pastured separately from the cows throughout the grazing season on rotated pastures at the Perkins Ranch. They are moved directly from the Tuttle Ranch to the summer ranges and do not graze on the public domain. They are sold as grass fat yearlings weighing 800 to 900 pounds in September and October before fall grazing for a period of three to five years and removal of sagebrush has restored the native grasses, which were inconspicuous prior to deforestation.

In order to attain the desired livestock distribution and uniform grazing, more than 40 miles of fence has been constructed, along with many water developments. By placing salt between watering facilities rather than near them and away from paths of least resistance, the livestock are induced to graze areas they would otherwise go around. Through these methods of getting distribution, sites which previously appeared untouched are now being utilized uniformly with surrounding areas.

Through careful management, planning, and forage and water development, it is believed that the three ranches will eventually maintain 1,000 head of brood cows. The livestock numbers increase only as fast as a generous year-long forage supply can be attained. The range improvements on the three ranches have been developed concurrently. This appears to be the best method to efficiently and economically increase the pounds of beef produced, which is the desired final result.

In past years stockmen have generally supplemented their deteriorated ranges with additional pastures or ranges. The time has arrived when it has become uneconomical to purchase more land, as lands are becoming more scarce and the value has increased to prohibitive prices. Livestockmen have found themselves pondering upon some methods of improvement and this operation has paid its way for improvement while livestock prices were low and climatic conditions were below normal.