AGRICULTURAL EXTENSION SERVICE
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RANGE IMPROVEMENT

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The Resource

Rangeland occupies a great part of the area of the three counties of San Luis Obispo, Santa Barbara, and Ventura. The private lands only will be considered here, as there are few private improvement practices carried on within the public lands. However, there are grazing permits issued to ranchers by the U. S. Forest Service and some improvement practices are done in cooperation with the government.

At the present time indications are that the acreage of range, or grazing land, will remain fairly steady.

Types of Rangeland

There are three general types of rangeland in this area. The first is a grassland type generally characterized by rolling hills, scattered oak trees of varying densities, and a predominantly annual grass cover. There would be very little conversion work carried on in this situation. Some oak trees are utilized in the charcoal industry, but we do not find much interest in chemical tree control in this Tri-county area. Rangeland fertilization is beginning to be interesting to ranchers as the supply of rental land is decreasing.

The second type of rangeland that is characteristic in the area is the brushland type. Brush may or may not be thick enough to allow grass growth under it. It is this type of land that we would be most concerned with in a brush removal program. Soils on this type of land would be favorable for grass growth and grazing.

The third type of range is also a brushland, but is characterized by steep slopes, rocky outcroppings and thin soils. The amount of grass one could coax out of this type of land would not be very great, nor could we expect it to be good grazing land if the brush were removed. It is better to leave this type of land alone when considering a range improvement program.

Factors in Range Improvement

Brush range improvement programs have as their main objectives, the increasing of feed supplies for livestock and game, improving watersheds, and reducing wild fire hazards and suppression costs. However, the degree of improvement with respect to livestock carrying capacity varies considerably with soil type, moisture conditions, and conversion methods used.

It is seldom that a converted brushland is equal in carrying capacity to an open grassland type of range. Within any improved area it is possible that the only improvement may be increased water yield, increased deer browse, or reduced wildfire hazard. These may be important considerations, but might not add to the income of the ranch involved.

Successful brush range improvement is a combination of good site selection followed by the best known methods of maintenance. However, with our present knowledge, rangeland that has been converted from brush to pasture is not considered permanent. Brush return is usually very rapid unless there is some type of chemical follow-up to the conversion. However, it adds quite a bit to the conversion cost when chemicals are used.

It is often difficult to evaluate increase of carrying capacity on improved areas due to variations in the success of burning, reseeding and follow-up chemical control.

Types of Conversion Programs

There are three main types of conversion programs that might be used. They are controlled burning, mechanical clearing, and chemical.

The Controlled Burn

This is the most common and usually the cheapest method of converting brushland to grass. The accompanying cost data sheet shows some sample costs on an 800 acre conversion project. Notice should be taken that there is a very large range in costs for any particular operation. Topography and density of brush will affect the costs.

At the present time most ranchers burn and reseed. Chemical follow-up has not been very widely accepted. Most operators feel that they would rather reburn after a five to seven year wait. The reburn will probably be cheaper per acre than the original burn due to the fact that the fire lines and control roads are already in.

Mechanical Clearing

This method of converting brushland is more expensive than the control burn. Here also we find a great variation in costs due to the lay of the land and brush density. In addition there are different methods of doing the job. Various mechanical tools such as heavy brush discs and cutters have been used as well as a bulldozer blade. When the brush is piled into windrows we have encountered costs of $45.00 per acre. When discing, a cost of about $25.00 per acre could be expected. In high risk areas it is quite possible that the mechanical method might be the only way of converting brushland. This method is obviously not suited to areas that are too steep to get on.

Chemical Control

This method of clearing full grown brush of mixed varieties is quite expensive and results have been variable. It is better to use this method in connection with one of the other methods of clearing.

Associated Practices

It is quite possible that a rancher may wish to change old cropland to grazing land. One would expect that this kind of land would generally be a better quality for growing grass than some of the brush areas. Therefore he might be more inclined to combine reseeding with the use of fertilizer for better growth and chemicals for weed control.

Assistance Program Available to Ranchers

The Agricultural Stabilization and Conservation Service is charged with administering the government payment programs for crops and for the Agricultural Conservation Program, commonly called A.C.P. There are many range improvement practices that are eligible for A.C.P. payment. Some of these include reseeding stock water development, fertilization, chemical treatment, and access roads, to mention a few.

The resultant production and utilization of the land from an improved brushland range is governed by seasonal rainfall, both in amount and distribution, temperature, stock water availability, and topography. Range feed at today's prevailing prices is not cheap feed.

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