

## ANTONIO MOUNTAIN RANCH - SEEDING HISTORY

J. L. (Bud) Nordyke, Colusa County rancher has converted over 360 acres of old farm land and brushland to productive pasture through a program of brush clearance, reseeding, and fertilization from 1959 to 1964.

Land preparation on the brushland consisted of removal of the brush, plus a few trees and rocks, with a D7 bulldozer. Nordyke then chiseled to 14 or 16 inches with the land dry. After the first fall rains he disced, applied the fertilizer and harrowed. He then drilled the seed and the final job was to roll the seed bed with a cultipacker.

The fertilizer on the brush cleared land was applied with an easy-flow type spreader.

The seed bed on the old barley land was prepared in the same way except no dozing was necessary and the fertilizer was applied in a band 3/4" under and 1/2" to one side of the seed.

Another practice used on the ranch was the killing of oak trees by the injection method. From 1959 to 1964 there were 180 acres killed. He used a mixture of 50% amine form of 2,4-D and 50% water in the early part of the program. Later he used 40% 2,4-D and 60% water and the results were still satisfactory - a 100% kill.

The brush clearing was done in the spring and summer. The seeding in the fall of the same year. He never put the seed into dry ground. In other words, the planting was always done after the first fall rains. He seeded as soon after November 1 as the weather permitted.

The grazing management has been to quit feeding hay about March 1 and put the cattle on the reseeded barley land for about a month. Then the cattle go onto the land where brush had been cleared and the reseeding done, and stay there for six or seven weeks. Then they go back into the reseeded farm fields and stay there until after the alfalfa seed is harvested.

Nordyke has 285 acres of dryland alfalfa that he harvests for seed. The cattle graze the alfalfa stubble from mid-September until it rains. He then starts feeding hay.

As a result of this program he has converted 362.5 acres of brushland and old cropland to productive pasture. He has done the same with 180 acres of range that had been producing primarily oak trees, but is now producing a lot of grass.

The results of the reseeding have been outstanding, particularly with the Hardinggrass and the Lana Vetch. Rose Clover was included in the first three years' seeding program but left out of the next two years. In the early plantings it didn't appear to be growing very well but the Rose Clover stands in those early plantings are now showing up a lot better and it would probably be included in future programs.

One problem did occur in the 1963 planting of 58 acres. When the cattle were turned in early to graze, during the first season, they pulled up the Hardinggrass plants, roots and all. Not just a few, but by the thousands. This apparently happened because the plants were growing in relatively light, loose soil.

In areas of the same field that had heavier soil this was not a problem. Under such conditions grazing should be deferred the first season.

The cost of this range improvement program was \$39 per acre on the brush covered rangeland. There was an A. S. C. payment of \$11, so the net cost to Nordyke was \$28 per acre.

On old cropland the cost was \$18 an acre less as no bulldozing was necessary.