Blue
3.2621

August 30, 1946

DIGEST OF RANGE IMPROVEMENT PRACTICES FOR EL DORADO COUNTY

In October, 1939, Burle Jones was assisted in planting two range nurseries in the county on cultivated land with the standard varities. The following Fall some of the rows were replanted to other varities. One plot was planted on shallow Phase Aiken Clay Loam in the Cool district on a north slope. The stand on this was very poor and the plot was abandoned. The other plot was on the same soil type south of Shingle Springs with a West slope and proved reasonabily satisfactory. Inspection on May 28, 1946, showed the following:

1. Chrested Wheat Grass, one plant.
13. Domestic Rye Grass looked the best of our rye grasses and is spreading from the origional row.
14. Prennial Rye Grass, only two origional plants remain. These show some spread.
28. Harding Grass, very good stand of origional plants and some reseeding.
56, 97, 98. Subterranean Clover. All three are surviving and spreading with midseason looking the best.

None of the other varities could be identified on the above date.

In the latter part of September, 1939, four plantings were made on freshly burned-over land. One was on a Shallow Phase Aiken southwest of Pilot Hill in a draw, where no stand was obtained. One was on Aiken Clay Loam with no plants surviving beyound three years. The third was on a Rough Mountain canyon with no stand. The other on Aiken Stony Clay Loam near Shingle Springs showed the following on May 28, 1946.

6. Tall Oat Grass, a few plants.
13. Domestic Rye Grass, good stand.
14. Premmial Rye Grass, fair stand.
28. Harding Grass, a good scattering of plants.
30. Burnett, still a number of plants but stand seems to be thinning.
97. Subterranean Clover, spreading where native grass is not too tall.

There are several Brome grasses, but identification could not be made.

SPECIES RECOMMENDED: (General)

Domestic Rye Grass.
Burr Clover.
Subterranean Clover where Burr Clover does not grow.
Burnett.
Nodding Stipa.

SPECIES RECOMMENDED:(For special conditions)

On deeper soils add alfalfa to mixture.

RECOMMENDED SEEDING DATES:

In the fall.

ACREAGE SEEDING:

According to AAA, 20 cooperators seeded approximately 200 acres where brush was removed by bulldozing. Management by mowing first spring, if needed, to control weeds. No grazing until seed formation.

BRUSH REMOVAL:

According to AAA 2,500 acres will be bulldozed this year bringing to approximately 6,000 acres bulldozed in the last several years. Only one small piece was cleared this year by burning under permit. In general, natural vegetation is good for first or second year after bulldozing. Areas grow back to brush in a few years, unless seedings and suckers are controlled the second and third years. Only a small percent of cleared land is seeded artificially. Tests have not justified as yet an active campaign on artificial reseeding.

GRAZING MANAGEMENT:

AAA has 70 cooperators in this program. The main supervision is inspection at the end of the season to see if ground has been overgrazed.

RANGE FERTILIZATION:

Two small plots were fertilized in 1939 using superphosphate, ammonium sulfate and a mixture of the two. No costs were kept and no yields secured in either plots. Notrogen showed increased growth of all plants and superphosphate showed increase in legumes. In one plot the mixture gave better growth than either alone. Individuals should run tests before large scale application is made.

RANGE RESEARCH:

Only a small amount has been carried out in this county. Further tests are needed on species for various soil types and slopes and on large scale fertilization, recording cost of material and application as against increased gain in animals over check plots. Tests have indicated a carry over into the second year.

RECORDS:

An easily accessible reference file seems desirable. This should contain a summary of each years results and observations under proper headings.

A herbarium containing desirable native plants and introduced plants as well as the more common weeds would seem desirable.

No meetings or tours are shceduled for 1946. Being a one man county a considerable amount of help will be needed to carry on an adequate range improvement program.

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El Dorado Co

3.21 Eldorado Co Burners

W. M. RUMSEY
724 SUTTER ST. PHONE: YUkon 5-2082
FOLSOM, CALIF.

May 22 , 1957

Mr. Charles E. M. Carlson
Department of Natural Resourses
2022 Del Paso Boulevard
North Sacramento 15, California.

I hereby submit the following information regarding the controlled burn, seeding and spraying of 80 acres Section 12, Township 10 N. Range 8 E, Salmon Falls District, Eldorado County.

As exposure warranted, fire trail from 20 to 25 feet was made by bulldozer. The all brush was railed down by dragging two sixteen foot 125 pound railroad rails. This operation was completed August 12, 1955

Tractor Cost $450.00

Burn was started about 7:30 P.M. August 22nd., 9 men were on fire line for about 4 hours at which time control was assured. Three men were on patrol for the balance of the night, beling relieved early in the morning by four men who patrolled until 6:30 P.M. August 23rd.

108 Man hours, total cost. . $162.00

On August 29th., island burning
8 man hours, total cost . . $ 12.00

Seeded by airplane September 15th, with 450 lbs., of pasture grasses, Smilo, Big Blue Grass, Harding, Rye and Rose Clover of equal proportions

Cost of Sowing . . . . . $ 72.00
Cost of Seed $227.00

4.00

May 11, 1956 Total area was brush control sprayed by airplane

Airplane Cost. $240.00
Spray Cost $238.96

4.00

March 1957 Total area was sprayed by hand this to take care of growth from old roots and stumps

80 man hours $120.00
Spray Cost . . . . . $ 38.40

1.50

Total Costs to date $ 1,546.36

COST PER ACRE $ 19.33

Any further information you may desire will be gladly furnished upon request, and many thanks for your assistance in all of the above operation.

Very truly yours

W. M. Rumsey

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El Dorado Co
Doc Dekruiber ranch

May 22, 1957
Brush Control Tour

Total Acres Converted - 285

Burned standing.[52] Following winter,[53-54] the trees were pushed over and then reburned during the late summer.[54]

Area broadcast (chest-type seeders).[54 fuel] Heavy ash seeded separately with two pounds of Harding grass. Main area seeded to following mix:

Rose Clover - 2 pounds
Crimson - 2 pounds
Mt. Barker Sub. - 1 pound
L. Tallarook Sub. - 1 pound

COSTS

	Per Acre	Total Cost
Bulldozer	$ 4.46	$ 1,250.00 - 180 hours
To Burn Twice	1.41	400.00
Seed Cost	3.05	870.00
Spray Brush - 1st Year	4.00	1,140.00
Spray Brush - 2nd Year	3.00	855.00
Broadcast Seeding	1.00	285.00
Tractor Operation	1.26	360.00
	$18.18	$ 5,160.00

CARRYING CAPACITY

Before Burn - 35 head for 180 days
1 animal to 16 acres (approximately) - 12 month basis

After Burn - 159 head for 186 days
1 animal to 3.6 acres (approximately) - 12 month basis

Note: There are still 32 head of dry cows in the field that have not been used in these figures after this date. Also, there were 117 head on pasture from October 29th to December 1st.

3# 24D 1 gal oil up to 100 gal H_2O
Starter with Power sprayer shifts to Back sprayer

Write Joan Tilley need for seeding in burn - Denver plots

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FORESTRY

RANGE SOCIETY FIELD TRIP
August 12, 1950

Stop 2. Photos 13 & 14

THE SCHEIBER CONTROL BURN
Shingle Springs, El Dorado County

This was a cooperative burn of seven ranchers comprising an area of 1100 acres. It was burned in three sections of 115, 900 and 50 acres on July 19, 20, and 21 respectively. Humidity ranged from 24% to 16% and fuel moisture from 5.5% to 4.%. Humidity of 16% and a fuel moisture of 4% prevailed at 4 pm before the last burn of 50 acres on July 21. The fire was set at 5:30 pm and extreme difficulty was encountered in holding the fire due primarily to the excessive amount of fuel piled by the bulldozers along the control lines. Burning commenced at the NE corner and progressed slowly until 11 pm when the crews of ten and fourteen men met at the SE corner. At this point the fire took off and burned in a NE direction to the top of the ridge with extreme heat. The results are quite evident.

An estimated eighty acres only out of the 1100 burned as severely as the area shown. On most of the area only the dead and down material was consumed with resultant scorching of brush and trees.

Burns of this type serve mainly to open up the vegetation temporarily to live stock and to a man on horseback. It eases somewhat followup work with a bulldozer. Seeding following a burn then pushing down the snags is an effective means of "planting" the grass seed.

The area as a whole is typical of our grassland with a brush problem. Grassland with a brush problem, over half of which is found in the lower foothill zone, comprises woodland-grass where interior live oak is present and woodland-chaparral-grass in an area ration of two to one. More than 85% of this woodland-grass and about half of the woodland-chaparral-grass is found on non-timber sites. In the woodland-grass the principal cause of the brush problem is the presence of live oak, since this tree when cut for fuel or top-killed by fire, forms dense clumps of sprouts that effectively reduce the amount of herbaceous vegetation. In the woodland-chaparral-grass the chaparral constituents, principally whiteleaf manzanita and wedgeleaf ceanothus, crowd out much of the herbaceous vegetation. On much of our area live oak is one of the tree constituents and further complicates the brush problem.

From the ranchers' point of view the results were only moderately successful. Mostly, burns are not considered successful unless they result in the typical denuded appearance that you see. Better results may be obtained by pushing the brush over in place and burning during more favorable fire weather conditions one or two years later.

Only through follow-up work and proper management may these areas be converted from brush to grassland. From general observation it appears that most successful land clearing has been accomplished over a period of years by working small areas at any one time. This has been accomplished in the main by girdling and/or felling trees, then burning, followed by hand sprouting and goating. The result has more often than not been the establishment of a high percentage of undesirable weeds and grasses. A successful range clearing project cannot be accomplished without good grazing management.