



Proposed extension
of Study area
+ 95 Acres

Existing Ranchita
Range Study
+ 180 Acres

MAIN
RIDGE

LAND GRANT BDY.

Rancho Arroyo Grande Land Grant

Ranchita Cattle Company
Ranch

Scale 4" equals 1 mile

Sections 23, 24; T31S, R13E MDB&M and
a portion of the Rancho Arroyo Grande Land Grant

CHECK LIST OF PLANTS NATIVE TO THE RANCHITA RANGE STUDY

<u>Scientific Name</u>	<u>Common Name</u>
	TREES:
Quercus agrifolia	Coast live oak
Quercus lobata	Valley oak
	SHRUBS:
Adenostoma fasciculatum	Chamise
Cercocarpus betuloides	Mountain mahogany
Rhus diversaloba	Poison oak
Ceanothus cuneatus	Wedge-leaf ceanothus
Rhamnus crocea	Small-leaf coffee berry
Malvastrum sp.	Bush mallow
Pickeringia montana	Chararral pea
Leptodactylon californicum	Prickly phlox
Ceanothus leucodermis	White thorn
Salvia melifera	Black sage (Button sage)
Salvia spathacea	Crimson sage
Eriogonum californicum	California buckwheat
Artemisia californica	Coastal sagebrush
Solanum umbelliferum	Blue witch
Lotus scoparius	Deer weed
Berberis pinnata	Calif. barberry - Skinny-leaf mahonia
	HERBS:
Astragalus douglasii	Rattleweed
Chlorogalum pomeridianum	Soap plant
Erodium cicutarium	Cut-leaf filaree
Phacelia brachyloba	Fiddlenecks
Salvia cardusacea	Thistle sage
Plagiobothrys sp.	Popcorn flower
Zygadenus fremontii	Fremont death camas
Diplacus longiflorus	Southern monkey flower
	GRASSES:
Stipa pulchra	Purple stipa
Stipa comata	Foothill stipa
Muhlenbergia rigens	Deer grass
Elymus glauca	Blue wild-rye
Bromus mollis	Soft chess
Bromus rigidus	Ripgut
Bromus rubens	Red brome
Festuca megulura	Foxtail fescue
Festuca octoflora	Foxtail fescue

CHECK LIST OF SPECIES PLANTED ON THE RANCHITA RANGE STUDY

Phalaris tuberosa	Hardinggrass
Oryzopsis miliacea	Smilo
Vicia dasycarpa	Lana vetch
Medicago hispida	Bur clover
Trifolium hirtum	Rose clover

RANCHITA RANGE STUDY

Seed Mixtures

	Seed	Pounds per acre
<u>Plot 1 and 2</u> (November 1960) (December 1961)	Hardinggrass Perennial ryegrass Smilo	3.2 1.1 0.7 <hr/> 5.0 pounds
	Lana vetch Bur clover	4.0 4.0 <hr/> 8.0 pounds
<u>Plot 3</u> (November 1965)	Hardinggrass Smilo Lana vetch Rose clover	4.0 0.5 4.0 2.0 <hr/> 10.5 pounds
<u>Plot 4</u> (November 1966) (crushed area) (January 1967) (disked area-grass- legume mixture) (January 1967) (annual legume mixture)	Barley Wimmera ryegrass Lana vetch	24 5 5 <hr/> 34 pounds
	Blando Brome Wimmera ryegrass Lana vetch Rose clover	1.0 5.0 4.0 2.0 <hr/> 12.0 pounds
	Rose clover Crimson clover Sub clover (Dwalganup and Woogenellup)	4 4 2 <hr/> 10 pounds

RANCHITA RANGE STUDY

Time and Equipment Table

Treatment	Plot	Acres/Hour	Equipment
<u>Brush Removal</u>			
Pre-burn crushing	1 & 2	4 - 8	Two TD-16 tractors & anchor chains
Pre-burn crushing	4	1.5	Two D-6 tractors pulling railroad rails attached to cable
Fire line construction	1 & 2	600 ft./hr.	TD-16 tractor
Fire line construction	4	1,000 ft./hr.	TD-9
Disking - first time	3 & 4	.7 - .8	D-H & TD-20 tractors & 9' brush disk
Disking - second time	3 & 4	1 - 2	TD-20 & D-6 tractors, 9' brush disk, & 15' grainland disk
Oak tree removal		.14	D-6 with blade
<u>Seeding</u>			
Drill seeding	1	1.3	5' rangeland drill, TD-9
Drill seeding	3 & 4	2 - 3	10' rangeland drill, TD-14
Hand seeding	1 & 2	1.6	One man hour & hand seeder

RANCHITA RANGE STUDY

Per Acre Conversion Costs and Estimated Grazing Returns

1960-1967

	Plot 1 (45 ac.)	Plot 2 (50 ac.)	Plot 3 (25 ac.)	Plot 4 (50 ac.)
<u>CONVERSION COSTS</u>				
<u>Pre-Burn Treatment</u>				
Crushing	\$ 4.56	\$ 4.20	-----	\$10.51
Fire lines	1.78	1.92	2.52	.88
Tree removal	----	.30	----	16.65
Disking	----	----	39.04	17.08 ^{1/}
Pre-Burn Costs	\$ 6.34	\$ 6.42	\$41.56	\$45.12
Burning Operations	2.30	2.50	2.84	3.70
Seeding Operations	15.05	8.92	12.66	8.21
Herbicide Spraying	16.38	13.61	----	----
Fertilization	11.00	----	11.37	8.28
Erosion Control	2.40	.31	----	.88
Total Cost Per Acre	\$53.47	\$31.76	\$68.43	\$72.17
<u>ESTIMATED GRAZING VALUE</u> ^{2/}				
<u>Animal Unit Months</u>				
a. A.U.M.'s per acre	4.1	2.1	0.8	-----
b. Value at \$4/A.U.M.	\$18.00	\$ 8.40	\$ 3.20	
<u>Pounds of Beef Gained</u>				
a. Pounds of beef	319	178	144	
b. Value at \$25/cwt and includes a 3% shrink	\$77.25	\$43.25	\$35.00	

2107
45.12
66.19
72.17
66.19
5.98

1/ Actually 24 acres disked twice at a total of \$35.60 per acre.
2/ Grazed seasonally from 1962 up to May 2, 1967.

MANHATTAN RANGE STUDY

For each Conversion Costs and Estimated Grazing Returns

1960-1967

Plot A (50 ac.)	Plot B (50 ac.)	Plot C (50 ac.)	Plot D (50 ac.)	
				<u>CONVERSION COSTS</u>
				<u>Pre-Run Treatment</u>
\$10.51	----	\$ 4.20	\$ 4.58	Crushing
.88	2.52	1.92	1.78	Fire lines
18.62	----	.30	----	Tree removal
17.08 1/	38.04	----	----	Disking
\$42.11	\$41.58	\$ 6.42	\$ 6.36	Pre-Run Costs
3.70	2.84	2.70	2.30	Burnin Operations
8.21	12.66	8.92	12.02	Seeding Operations
----	----	12.61	10.38	Herbicide Spraying
8.28	11.37	----	11.00	Fertilization
.88	----	.31	2.40	Waxton Control
\$72.17	\$68.43	\$31.76	\$22.47	Total Cost Per Acre
				<u>ESTIMATED GRAZING VALUE 2/</u>
				<u>Animal Unit Months</u>
----	0.8	2.1	4.1	a. A.U.M.'s per acre
	\$ 2.20	\$ 8.40	\$18.00	b. Value at \$4/A.U.M.
				<u>Pounds of Beef Gained</u>
	144	178	319	a. Pounds of beef
				b. Value at \$25/cwt and includes a 3% shrink
	\$32.00	\$43.22	\$77.22	

1/ Actually 24 acres disked twice at a total of \$32.80 per acre.
 2/ Grazed seasonally from 1962 up to May 1, 1967.