

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE

R
Pine Ranges
Report No. 5
Burgess Spring

March 5, 1936

GENERAL PROGRESS REPORT, 1934 AND 1935
INCLUDING PREDICTED NEEDS FOR 1936

BURGESS SPRING EXPERIMENTAL RANGE
Lassen National Forest

By

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Introduction

The Burgess Spring Experimental Range was established in the summer of 1934, and on August 15 of that year boundary location and construction work got under way with the aid of CCC labor. The remainder of the season and the 1935 field season were devoted to surveys, physical improvement work, and a limited amount of experimental work. Details of these are outlined below.

The location and general shape of the Range can be best obtained by referring to the accompanying maps. Pasture I, which is 551 acres in size, lies wholly in R 9 E, and pasture II, which is 597 acres, in R 8 E. The area of the entire Range is 1148 acres.

The experimental work (see Work Plan 1935, Pine Range Report No. 4) at Burgess Spring was designed and planned for cut-over land. To date, however, only pasture I has been logged (1934), but there is every reason to believe that pasture II will be cut during the summer of 1936. The area is being logged with tractors and arches by the Fruit Growers Supply Company of Susanville.

Work Status

Inventories and maps

Timber A 100 percent cruise by tree classes of the timber on the Experimental Range was completed

in section 24, T 33 N., R 8 E. The range in section 25, T 33 N., R 8 E and that lying in R 9 E have not yet been cruised.

Forage A vegetation type map on a scale 8" x 1 mile has been prepared for the area on which timber was cruised.

Tree reproduction An attempt was made to make a map showing the distribution of tree reproduction less than 3.6" in diameter. Both density in terms of number of trees per acre and height in feet were entered for each mapped tree group. Since both of these values depended on ocular estimates and since the type boundaries were at times defined with difficulty, the map which was prepared for section 24 had many weaknesses and may not be acceptable. Similar work has not been conducted elsewhere on the Burgess Spring Range.

Topography A topographic map on a scale of 8" x 1 mile has been made for the whole Range.

Soil No soil survey work has been conducted so far. Pasture I will be mapped in the summer of 1936 if time and funds allow.

Improvements

Fences	Pasture I has been completely enclosed with a four-strand barb-wire fence made with heartwood cedar posts spaced 12 feet apart. Although plans called for the construction of 3 cattle guards, none were put in.
Corral and livestock scales	A 60-foot-square corral and a livestock scale for experimental handling and weighing of stock were erected.
Water system	A 12-foot well yielding about 1600 gallons of water a day was dug and cased. A 30-foot windmill tower with an 8-foot mill and a suction pump was erected for the purpose of supplying water for livestock. A 2000-gallon storage tank which supplies water to 3 sixteen-foot metal troughs is ready for use.
Roads	In spite of the great need for road improvements on and to the Range from headquarters at Hall's Flat, none have been accomplished so far. Every effort will be made to get some of this work done during 1936.
Telephone	No telephone line work has been done. Plans call for the construction of about one mile.

Experimental plots, quadrats, work, etc.

A. Forage changes following logging disturbance.

Six, 2 1/2 x 5 chain plots were located on unlogged land

in pasture II (see map) for the purpose of studying the effects of logging on forage yield. Quadrats on these plots were staked and examined, and tied by survey to surrounding trees for the purpose of permitting relocation should all stakes on some quadrats be destroyed by logging. Following cutting in 1936, the quadrats will be reexamined (1937 advisable) and changes in forage recorded. See Pine Range Report No. 7 for details.

B. Damage to reproduction and grazing capacity studies.

A total of 895 quadrats were established for this study. Only one livestock enclosure has been constructed. During 1936 it is planned to erect 400 sixteen-foot-square stock enclosures consisting simply of four well-set corner posts and four strands of removable barbed wire to enclose 400 of the 895 quadrats. In addition, one game and rodent enclosure will also be erected.

See Pine Range Report No. 6^{and 7} for details.

C. Methodology

See Pine Range Report No. 7, "Development of Range Research Methods."

Cooperation

Final arrangements have not yet been made with a cooperator for the use of cattle for experimentation. This is expected to take place in March or April. Through oral agreement last December with Roy Owens, Manager of the Gano Ranch Company of Red Bluff on whose allotment the Experimental Range is located, use of livestock is virtually assured. The details of responsibility of handling the animals need mutual discussion and agreement.

Outline Summary

1. Start of study	August 12, 1934
2. Type	Timber, cut-over ponderosa and jeffrey pine
3. Area	Pasture I .871 acres Pasture II .597 " Total 1.468 "

4. Work status

	Approximate % completed by 1935	Remarks	
5. Pasture I (logged 1934)			
Inventories and maps			
Timber cruise	0	To be undertaken after 1936	
Vegetation type map	0	To be made, 1936	
Tree reproduction map	90	?	
Soil map	0	To be made in 1936 if possible	
Topographic map	100		
Improvements			
Fence -- boundary	100		
Corral and stock scales	99)	To be completed 1936	
Water system	99)		
Roads	0	Some work on in 1936	
Telephone lines	0	To be built 1936	
Experimental work			
Enclosures			
Livestock	0	400 needed	1936
Game	0	1 contemplated	1936
Rodent	0	1 "	1936
Quadrats	100	835 established	

<u>b. Pasture II (to be logged 1936)</u>	<u>Approximate I completed by 1935</u>	<u>Remarks</u>
Inventories and maps		
Timber cruise	85	To be completed after 1936
Vegetation type map	85	Unsatisfactory
Tree reproduction map	85	"
Soil map	0	To be made after 1936
Topographic map	100	
Improvements		
Posses -- boundary	8	3 miles more to be con- structed during or after 1936
Corral and stock scales)		
Water system)		See pasture I. These items are covered there for pastures I and II
Roads)		
Telephone lines)		
Experimental work		
Quadrats	100	200 established and first examinations made

5. Cooperation

For use of experimental cattle

Final arrangements to be
made in March or April,
1936.

