

May 30, 1937

PROGRESS REPORT  
Burgess Spring Experimental Range  
May 17 to June 1, 1937

The past two weeks have been spent laying the foundation for part of the season's work. Little scientific information was collected and this was of a general nature. All effort was directed towards having the early-season systematic observations in progress before the arrival of the cattle in early June. The new men were given their first glance at the experimental set-up as well as first-hand experience in organizing the field work.

Climate

The weather has been subject to marked changes, fluctuating abruptly from clear warm days to days of rain, snow and hail. No condition existed over more than two or three consecutive days and consequently had little adverse effect on plant growth. There was little wind until the last few days, which were characterized by almost constant drying winds. Precipitation during the last two weeks totaled approximately .3 inch. The surface soil on the drained slopes is dry and finely pulverized. Most of the meadows are still soggy.

Only part of the weather instruments are installed at Burgess. The remainder, including the evaporation trough fenced against deer, will be in operation during the first week in June, prior to entry of cattle.

Copy for MWT

## Vegetation

The vegetation has developed rapidly during this period and is now characterized by flowering of many annuals and the two sunflower-like herbs, Balsamorhiza and Wyethia, as well as the start of seed stalks on most perennial grasses. In the average year it is probably more developed at this time - the beginning of the grazing season.

The appearance of the meadows has changed markedly in the last week and they are now dark green and show appreciable height, contrasted to a short light-colored growth present two weeks ago. The soil is still too wet in many places for grazing. The few cattle now in this part of the Forest seem to prefer the sagebrush slopes.

A preliminary phenological examination made on the Burgess Spring area May 28 indicated the following condition for some of the important perennial species:

Practically all perennial grasses are in the boot, with the exception of Festuca idahoensis, which has only leaves.

Seventy percent of the Carex rosea has seed in the milk.

Almost all of Lupinus calcaratus has the inflorescence 1-50% expanded.

Wyethia mollis is about 20% in flower and Balsamorhiza nearly 100%.

Parshis tridentata is beginning to flower on some of the open slopes.

Balsamorhiza was in bloom when we arrived. C. prostratus was in full flower. Annuals, such as Viola, Phlox and Collinsia, were starting to bloom then but have not yet reached their expected maximum height growth.

## Livestock

Kelly Trough of the Lassen Forest has arranged for the experimental cattle to be furnished by Roy Owens or the Cone Cattle Company. They expect to arrive in Harvey Valley about June 5.

There will be sixteen animals in the experimental herd this year, divided in the following manner:

<u>Class</u>	<u>No. of Animals</u>
Yearling Heifers	4
" Steers	4
Three-year-old dry Cows	4
" " " Steers	4

The cattle will be kept in the 550 acre Pasture I and handled in the same manner as last year. It is planned to make more frequent observations of "choice-of-species", probably three times a week.

It would be desirable to have the selection of animals made by a competent livestock judge; however, it is difficult to arrange an exact date for this due to the uncertainty of arrival of the herd from Red Bluff. An attempt will be made to select individuals as nearly uniform as possible in grade, conformation and temperament.

## Pine seedlings

There does not appear to be a very heavy crop of pine seedlings this year, either from natural catch or planting. Germination is not yet complete and it is still possible that there may be enough seedlings present on the Burgess Spring quadrats for a satisfactory test of cattle damage this year.

On May 27, Gardner made a preliminary examination of 114 quadrats seeded last fall and found the following:

No. of quadrats on which seedlings were found	39
Total number of seedlings	117
No. of quadrats upon which there were unmistakable evidences of rodent activity since seeding	25

The first examination, including mapping location of seedlings on quadrats, will begin June 1. At least part of the 1936 seedlings will be observed during their second year.

### Wildlife

Deer and antelope have been observed in most localities from Halls Flat to Harvey Mountain. No large herds were seen by the range research group. Several deer have been "jumped" in the area and a few fresh deer tracks are present at Cone Grouches nearly every morning. Grazing seems about as last year, the species most heavily grazed being Crepis spp. and Leptotaenia dissecta.

### Construction

No major construction work has been done. Red River Lumber Company has the contract for the shelter house lumber and should deliver immediately. A 25-man CCC crew was on the area one day putting up part of the fences. This will be finished the first of the week.

### Personnel

Gardner and Bentley, technicians now full-time on this project,

arrived May 17. Both have been working on plans, preliminary observations, and installation of equipment.

Reiman and Cogdell, Jr., Ass't., Technicians on this project since April 1, also arrived the 17th. Both have worked on checking equipment and instruments. Reiman will take over most of the construction type of work, operation of the salt-water gadgets, and the climatic station with very little supervision. Cogdell will assist in field examinations and compilation and as a side-line is keeping a check on the condition of the pick-ups.

Gansberg, student assistant, arrived on May 24 and will be of much assistance in continuance of last year's examinations with which he is already familiar. He will probably take over the job of keeping the seedling records up to date.

Jay R. Bentley

Jr. Range Examiner