DESCRIPTION OF DUTIES

Job number 1

Field assistant - Silviculture

Duties

Measurement of:

A. Timber plots (method of cutting, reproduction, yield.)
   Survey, mapping and plot control - transit and tape.
   Plane table mapping - tree and vegetation.
   Tree measurements - height, diameter, age-diameter
   tape, hypsometer, increment borer.

B. Reproduction quadrats
   Survey, mapping and quadrat control - transit and
   tape.
   Mapping, all species and objects - ocular, free hand.
   Records, tree seedlings - growth, survival, injury.

C. Climatic records
   Rain gage
   Anemometer
   Hygrothermograph
   Maximum and minimum thermometers
   Soil thermograph
   Dendograph (tree growth)

Tree planting and care of tree nursery

Field planting of conifer seedlings.
Field records of seedlings planted - survival, injury, etc.
Sowing, transplanting, removing from soil, pruning,
packing and shipping of conifer seedlings.
Preparation of seed beds - old and new.
General caretaker, Feather River Branch Station.

Job number 2

Technical assistant - Silviculture
(Work temporary - accomplished during school terms)

Duties

Compilation of field data pertaining to volume and growth
of trees.
Inking of field maps of plots and quadrats.
Job number 3 -- Range reconnaissance

Job number 4

Field assistant - Range Investigations

Duties

Plot work

Composition write-ups of vegetation - ocular.
Quadrat charting of vegetation - chartograph.
Measurement of forage, growth and yield
  Shrubs  )  linear measurements
  Grasses  )  clipped weights
  Herbs  )  moisture content

Phenology

Measurement of growth and stage of development of forage species.
Special growth studies in grasses (Poaceae).
Botanical collection.

Soil sampling

Soil moisture including sampling, weighing, drying, and calculation of moisture content.

Reseeding

Actual reseeding.
Measurement of results of previous sowings.

Plant utilization (by cattle)

Climatology

Kept records on a full set of climatological instruments including porous cup anemometers and tipping bucket rain gages.

Erosion-streamflow

Kept records of water run-off from experimental pastures - records automatic and continuous.

Job number 5

Field assistant - Erosion-streamflow

Duties

Measurement of vegetation plots

Composition and density, and height of individual species.
Establishment of plots and quadrats and measurement of data

Undisturbed vegetation
Burned vegetation
Demuded areas - erosion

Plant identification

Job number 6

Junior Range Examiner - Range Research

Duties

Plot and quadrat measurements (foothill and pine type vegetation)

Composition, density, height, utilization as affected by climate, grazing, fire. On foothill plots measurements made through all stages of plant growth from germination to maturity. Ocular and chartograph measurements made.

Taxonomic study - annual grass and forb seedlings

Location and establishment of experimental range in the Lassen National Forest (in charge of Pine Range subproject)

Area 1,280 acres in pine type
Drew up working plan
Conducted preliminary surveys on area

Topographic map
Timber cruise
Vegetation and tree reproduction map

Directed physical development of experimental range

Fences
Corrals
Wells, windmills, troughs, etc.
Livestock scales

Directed experimental attack on problems
Gathered preliminary data to test development of technique of measuring responses of vegetation to environmental factors - climate, grazing, fire, soil, vegetation, etc.

Compilation and analysis

San Joaquin Survey data
Foothill plots 1931-34
Pine Ranges data
Survey Black's Mountain
Inventory Burgess Spring
Plot work
Surveys (field chief)

San Joaquin Valley and foothills (13,000,000 acres)

Data secured - forage, erosion, rodents, economic

Reports

Public domain 1932 ) Participated in collecting field
Range Report 1935 ) data and in writing subject matter

Administration

Job number 7

Assistant Forest Ecologist - Range Research

Duties

Directly responsible for planning and conducting all present
range research of the Experiment Station in the Eastside
Pine Region of California.
With technical assistants (3) conduct all field work and
compile, analyze and report on findings.
Supervise all construction connected with the setting up of
experimental facilities.
Assist the project leader in planning all research undertakings
in the range project at the Experiment Station.

Scope of work

Pine Ranges subproject

Present efforts are being concentrated on grazing capacity
problems and problems concerned with forest regeneration
as affected by livestock grazing.
Measurements this year are being made on
Climatic factors
Water and salt consumption by cattle
Amount and character of forage growth
Utilization of forage species by cattle and deer -
kind and amount
Injury to tree reproduction by cattle
Response of livestock to forage as indicated by periodic
weightings of animals
Chemical analyses of forage species.
Job number 8

Assistant Forest Ecologist - Range Research

Duties

Directly responsible for planning and conducting all present range research of the Experiment Station in the Eastside Pine Region of California.

With technical assistants (3) conduct all field work and compile, analyze and report on findings.

Supervise all construction connected with the setting up of experimental facilities.

Assist the project leader in planning all research undertakings in the range project at the Experiment Station.

Responsible for the planning and carrying out of the technical phases of the Cooperative Western Range Survey Project in California. More specifically:

To prepare and assemble all materials and equipment needed in the conduct of the field survey work.

To prepare instructions on how the survey will be conducted and to see that the work is carried out according to technically satisfactory standards.

To organize the technical, clerical, and office force required for the assembly, analysis, correlation, mapping and other presentation of data as received.

To assist in the preparation of the final report.

Scope of work

Pine Ranges subproject

Present efforts are being concentrated on grazing capacity problems and problems concerned with forest regeneration as affected by livestock grazing.

Measurements this year are being made on Climatic factors
Wate and salt consumption by cattle
Amount and character of forage growth
Utilization of forage species by cattle and deer - kind and amount
Injury to tree reproduction by cattle
Response of livestock to forage as indicated by periodic weighings of animals
Chemical analyses of forage species.

Yoothill Ranges subproject

Technical advisor in all research efforts initiated.
Cooperative Western Range Survey

To determine the location, extent, type and composition of plant cover and grazing capacity of range lands.
To assemble on maps existing information and information to be obtained in the field work on

a. Vegetation types and subtypes, and acreages and grazing capacity figures for these types.
b. Crop land areas.
c. Fences, buildings, roads, and other cultural features existing and recommended to be built.
d. Areas requiring artificial reseeding, deferred grazing, water development, rodent and poisonous plant control, special management attention to conserve the range resources.

To present on maps and in tabular form the results of the survey.