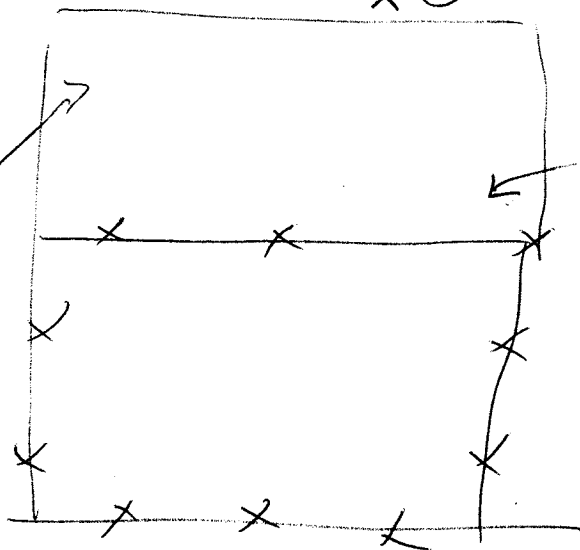


August 5/61

Lynn

Please package and send these
little brush paint sections to Raydon
Correspondence attached. Send correspondence
and my transmittal letter to Berkeley.
Thanks.

If one of these men can find the time
please help him pin ~~the~~ down the
cages over the little brush plates outside
the blocks not enclosure. There are
about 30 cages out. Each is identified
with a numbered tag attached to
top. The numbers ^{in the series} start here
and
End
here



(18)

W. B. ...

I believe one number is missing from the series.

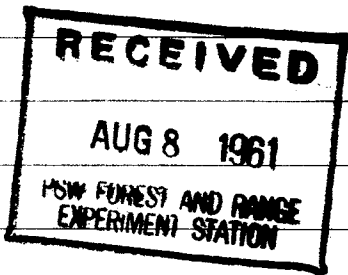
Six or 8 of the cages have been tipped over and the plant under each grazed. I replaced all the cages in position.

At the time the cages are secured please make a record by cage number whether or not the bulble plant under each had been grazed. Only the ungrazed plants will do me much good. I'll leave to you to figure out how to fasten the cages. This is the hardest part of the job. Thanks again.

Gus

P.S. I expect to be back in Leesonsville August 21

INTER-OFFICE MEMO



TO	M. J. Reed	OFFICE	Berkeley
FROM	Lynn Rader	OFFICE	Susanville
SUBJECT			DATE Aug. 7, 1961

MESSAGE:

Mert:

Attached is a copy of proposed measurements to be made at Harvey Valley following our talk last week.

If you have time, would you look it over and see if this is what you had in mind. By the time I got around to looking at my notes, things were a little hazy. Basically, I think this is about what we discussed.

MJR

Lynn

SIGNED

REPLY:

DATE	SIGNED
------	--------

B-675

ORIGINATOR SEND PARTS 1 AND 3 INTACT — RECIPIENT RETURN PART 3 WITH REPLY

PART (1)

PROPOSED MEASUREMENT TECHNIQUES

Harvey Valley - 1961

I. Measurements to be made on temporary 100 foot transects

1. Using 10 foot intervals along transects
 2. A minimum of 10 transects per vegetation type
 3. Select 3 types - Meadow, Sage, Timber - or - Meadow and two quite different Sage types
- This will give a total of 30 transects.

in stages -
10 if possible - first a
minimum of

II. Kinds of measurements to be made at each 10 foot interval

1. For Timber and/or Sage types

- (1) Line intercept - 50 inch lines, measured to 1/100 inch, using the same form as for Condition and Trend transects
- (2) Point Centered Quarter -
Procedure (point centered quarter)
 - a. Select two or three major species - grasses, forbes or shrubs
 - b. Group remainder of plants in meaningful groups, ie, other grasses, other broadleaves, grasslike, other shrubs. These species and groupings to be determined.
 - c. Measure distance to closest plant of each species or group in each quarter
 - d. Record diameter of each plant measured
 - e. For at least two transects per type - measure distance to second closest plant of each species or group

2. For Meadow types

- (1) Substitute points for line intercept method
- (2) Point Centered Quarter, same measurements as for Sage and timber types above

Procedure in Using Points -

- a. Slanted frame - 45 degrees - 10 points to cover 50 inch line
- b. Centered on same point as point centered quarter
- c. Readings -
 - (a) Basal hits
 - (b) Closest plant, if no hit
 - (c) Ground conditions, soil, litter, rock, etc.

III. Preliminary Data for Height-Weight Relationships

1. Collect Plants - at least one species

Idaho Fescue or *Sitanion hystrix*, both if time permits

- (1) Lift plants with shovel - to get all of root crown
- (2) Wrap in newspaper and tie or put in sacks
Record diameter and height on sack (these can be collected in a suitable size cardboard box in the field)
- (3) Obtain a good array of size classes, both diameter and height
(minimum of 100 plants each species collected)

2. Plan to weigh for weight by diameter and height this winter Segment to get height-weight relationships

IV. Utilization Survey

To be made on the same basis as in 1960. Copy of standards attached.

HARVEY VALLEY GRAZING ALLOTMENT, FORAGE UTILIZATION SURVEY 1960

Standards used for forage utilization survey.

1. Sample points: Sampling points are located at 150-foot intervals along a paced transect line. On short transect lines (1/4 mile or less) the sampling points are located at 75-foot intervals in order to obtain an adequate sample of the forage species.
2. Sample area: The sample area is a circle with a 50-inch radius from the sampling point.
3. Vegetative sampling: ^{OF EACH KEY,} The closest forage species to the sampling point, within the sample plot, was observed ~~and~~ its condition, grazed or ungrazed, was recorded on the data sheet. A plant with a basal area of less than one square inch was not included in the sample.
4. Stubble height: The estimated most common height of the closest grazed plant was measured and recorded to the nearest one-half inch. If the closest plant was ungrazed, the stubble of the next closest plant was recorded. If there were no grazed plants in the sample plot, the stubble of the first grazed plant encountered along the transect line was recorded.
5. Recording the data: Three symbols are used on the data sheets to designate plant status. They are as follows:
 - + Plants that have 50 percent ^{of} ~~more of the herbage~~ above the basal area removed.
 - Plants that have less than 50 percent ^{of} ~~of the herbage~~ above the basal area removed.
 - 0 Plants that have not been grazed.

Each species, each step

6. Ungrazed plant heights: One hundred plants of each species observed in the survey were measured. The length of the longest basal leaf was measured and recorded to the nearest one-half inch. The plants observed in each vegetation type were measured in units 1, 2, 3, and 4.

7. Plant species observed in each unit by vegetation type: (*Key species*)

Unit No. 1

Sagebrush type: F1, S1h, Psp., Sep.

Timber type: F1, S1h, Sep., Cap.

Meadow type: Cap., Jap., F1, S1h, Psp., Sep., Dlc.

Reseeded areas: B1, A1n, F1, S1h, Sep.

Unit No. 2

Sagebrush type: F1, S1h, Psp., Sep., Cap.

Timber type: F1, S1h, Sep., Cap., Bear.

Meadow type: Cap., Jap., Psp., Dlc.

Unit No. 4

Sagebrush type: F1, S1h, Psp., Sep., Cap.

Timber type: F1, S1h, Sep., Cap.

Meadow type: Cap., Jap., F1, Psp., Dlc, Ba.

Reseeded areas: B1n, A1n, F1, S1h, Psp., Sep.

UNIVERSITY OF CALIFORNIA
SCHOOL OF FORESTRY
AGRICULTURAL EXPERIMENT STATION

BERKELEY 4, CALIFORNIA

August 8, 1961

Mr. Lynn Rader
U. S. Forest Service
Susanville, California

Dear Lynn:

Again our thanks to you for a very excellent presentation of the work at Harvey Valley and at the other plots to the Forestry students. It was most pleasant to be guests in your home and in your professional activities. Please pass the word to Pearl that Dave and I commented several times to each other about the excellent meal she gave us.

Our trip to Hopland was hot and uneventful. We arrived there about midnight. Saturday was a successful day, too.

We still haven't heard the whole story about the fire.

Sincerely yours,

Harold F. Heady
Associate Professor of Forestry

HFH:mg

cc: Dr. E.C. Stone
Mr. E.J. Woolfolk

Lynn Rader, *Susanville*

4210
August 9, 1961

Mert Reed

R&WH Programs-Measurement techniques, Harvey Valley, 1961

Reference your memorandum and attachment of August 7. Your outline seems essentially in agreement with our discussion. A few points are listed below--which probably are reconsiderations on my part or which might be of help. With August getting well under way, this program may prove to be a little ambitious when added to completion of the C&T transects and utilization surveys. You may well have to cut but such decisions and priorities can best be made by you and Ray.

The following refer to your items and sub-items, attachment to memorandum of August 7:

I, 2-10 ~~Transects~~ per type, if possible. I would, however, take this in steps, with first a minimum of 3-5, preferably 5. Once you determine the time requirement per transect, you will be in a better position to judge the number you will be able to do. You can come back to additional, new locations on a type and fill out your number. My feeling is that it is better to get some data on several diverse types, than more complete information on a single type. Three to 5, located quite widely apart or to sample the representative diversity within a type should give a minimum of data from which we can compute the effects of method on ~~distribution~~ of species or species group sampling-unit distribution, transect requirement per type, etc.

Record of starting and completing times for each method, each transect, on field sheets would be desirable for method/efficiency/information analysis--this is once you get the swing of using the techniques.

I, 3 - Would give meadow - wet or dry - which ever seems most complicated - the first priority.

II, 1, (1) Seems we could skip the 50" line here, with all the information available from the C&T transects. But since the 2 sample populations per type may be different, to be on the safe side for comparisons we better include-comparative time data will be valuable here. Would do last on each transect if you estimate that greatest damage to vegetation will result from the method.

II, 1, (2), d - should be average diameter or cross diameters of plant, not just in the longest or the shortest direction. Can be basal or aerial (crown) depending on what you want - basal cover or foliar cover. May want to use same standards as for 50" line - which I believe (?) for shrubs is crown spread, and for other plants, basal (?). ~~Same~~ standards should be used for all techniques for comparison sake.

II, 1, (2), e---or 3 transects---and diameters as above, if time permits. If time requires cutting, might attempt this only - or first-on meadow type (?) or on type where contagion might be expected to be greatest (?)--use your feeling from reconnaissance in the field.

[General note: Once you get started with the distance measure techniques, if average amount of time required to get observations on a particular species or group seems unreasonable, change grouping by including within some meaningful species group. Groupings' should be the same for all techniques - or should permit summarization to such level.]

II, 2, (2), c, (a) - basal hits for shrubs (?) - what about other methods, crown, or basal?

The level for basal cover, should be the same for all techniques--and it seems, for all types. If line intercept observes basal at 1/2 or 1" level - this should be it for all. If, however, strictly ground or root crown level, fine. We should not penalize or give one type an advantage, which different levels could do. If essentially 1" height on line intercept; for the point technique, the first hit, per pin, 1 inch or down might be the standard you want.

III, 2 - weigh by diameter classes, or diameter-height classes--is average relation by class you want to test.

Utilization survey standards:

4. Stubble height - for each species being observe, at each location.
5. + = plants on which 50% or more of the basal area has been grazed - in other words 1/2 or more of the clump area grazed - would be the same essentially as 50% or more of the individual shoots or fascicles grazed to any level. This goes for even nipping of seed heads. Does not refer to percentage "volume" of herbage removed.

- = ditto, except less than 50% of area grazed.

- 1 - Sample points - on transect^d in timber type - the transect direction is zigged or zagged by the observer in the selected general direction as he progresses, to avoid tree thickets where forage plants generally do not grow, i.e., a sample mainly of openings and open timber.
3. If particular species not present in plot, indicate by dash, skip and go on.
6. Would be more efficient possibly if could be worked in during actual survey, and on actual unit being surveyed. This might not work on meadow types or drainage bottom - might have to go elsewhere.

INTER-OFFICE MEMO

TO *Gene H. Ormoy* OFFICE *Berkeley*
 FROM *Lyle Brown* OFFICE *Susunville*
 SUBJECT *Cages - at Black Mt. Exc.* DATE *8/11/61*
 MESSAGE: ⁽³⁾

Gene, I stacked down the cages with three wooden stakes per cage. It seemed to secure them fairly tight. Most of the plants under the cages had ~~had~~ current use, as you will notice on the attached forms.

I found a total of 28 cages, they were all numbered.

SIGNED *L. L. Brown*

REPLY:

DATE OFFICE SIGNED

B-675

ORIGINATOR SEND PARTS 1 AND 3 INTACT -- RECIPIENT RETURN PART 3 WITH REPLY

PART (1)

Blacks Mt. Enclosure

8/10/61
L. L. Brown

Cage Number	Utilization (Current Year)		Amount Grazed
	G = Grazed	U = Ungrazed	
122	G		Light
123	G		Extremely Heavy
124	G		Very Light
125	G		Very Light
126	G		Heavy
127	G		Very Light
128	G		Heavy
129	G		Extremely Heavy
130		U	Heavy
131	G		
132	G	U	Light - two distinct plants one is ungrazed
133	G		Heavy
134	G		Heavy
135		U	
136		U	
137		U	
138		U	
139	G		Heavy
140	G		Heavy
141	G		Heavy
142		U	
143	G		Heavy
144	G		Extremely Heavy
146		U	
147	G		Light
148		U	
149		U	
150	G		Heavy

28 Cages Total

UNITED STATES GOVERNMENT

Memorandum

2220 (4210)

TO : Pacific Southwest Forest and Range Exp. Sta. DATE: August 18, 1961
P. O. Box 245, Berkeley 1, California

FROM : H. A. SVENSEN, Assistant Regional Forester

SUBJECT: Management, A. L. Hormay

Reference is made to Mr. Offord's memo of June 14 and the copy of Mr. Svensen's letter of June 27 to the Chippewa National Forest which have already been furnished to you.

The arrangements outlined in our memo of June 27 to the Chippewa are confirmed. If you will advise us of Mr. Hormay's arrival time in Fargo, we will arrange to meet him there. Supervisor von Bargen and Staff Assistant Roberts of the Chippewa N. F. will participate during the first week.

xc-PSF&RES
2cc-Chippewa

H. A. Svensen

Supervisor, Chippewa National Forest

4210 (2220)
August 31, 1961

E. J. Woolfolk, Chief, Div. Range Mangt.
& Wildlife Hab. Res.

Management, A. L. Hormay

Reference is made to previous correspondence on Mr. Gus Hormay's visit to Region 9 on range matters.

Mr. Hormay will fly to Minneapolis by Western Airlines and on to Fargo, North Dakota by Northwest Airlines September 10 arriving at 9:15 p.m. Please arrange sleeping accommodations for the night of the 10th and advise us of arrangements as soon as possible.

Mr. Hormay plans to return to California on September 23 leaving Fargo by plane at 8:30 a.m.

E. J. Woolfolk

cc: Regional Forester, R-9

mm