Memorandum

TO : A. L. Hormay
Pacific Southwest Forest and Range
Experiment Station

FROM : Fred H. Kennedy, Regional Forester, By

DATE: March 1, 1963

SUBJECT: Range Management

Attached is an extended and revised itinerary for your trip to Region 3.

We will be looking forward to your arrival on March 13. Please advise us if you want us to make hotel reservations for you.
Mr. Elvin A. Bessey  
Route 4, Box 4862  
Chico, California  

March 5, 1963  

Dear Elvin:  

Reference is made to your February 12, 1963 letter to Bernie. I am sorry  
that we were unable to provide an earlier reply.  

The corrections indicated in your letter have been incorporated into our  
copy of the minutes. We will also acquaint others that received copies  
of the minutes with your corrections.  

Regarding Item 4, I believe this was adequately explained by Mr. DelRio  
at our Las Vegas meeting. Rest-rotation management has shown very promis-  
ing results in a number of instances elsewhere in the country. Supple-  
ment #167 merely itemizes and briefly describes several management systems.  
The rest-rotation management reference (Item 3) could possibly be mis-  
interpreted. However, the attempt was made to indicate that all grazing  
lands do not lend themselves to this system of management. We have no  
current record of R-5 Supplement No. 13 to FSH 2211.1 & 2211.32. Conceiv-  
ably, you may be referring to outdated material.  

Your "escape clause" reference in Item 7 has been noted. However, we feel  
this provision is necessary since all our programs hinge upon the avail-  
ability of funds. Obviously, we are not in a position to obligate funds  
that Congress has not appropriated.  

Thank you for your interest and comments. The Forest will be in contact  
with you before the grazing season to finalize management details.  

Sincerely yours,  

E. B. Boman  
Assistant Regional Forester
ITINERARY
for A. L. Hormay's Trip
March 14 - 24, 1963

Thursday - 14th
7:30 A.M. - Drive from Albuquerque to Canjilon Ranger Station
Inspect Mesa Viejas. (See memorandum)
Drive to Taos for night

Friday - 15th
8:00 A.M. - Meeting with Carson Range Resource field personnel
Drive to Santa Fe for night

Saturday - 16th
8:00 A.M. - Inspect the Valle Grande (See memorandum)
Return to Albuquerque

Monday - 18th
8:00 A.M. - Drive to Santa Fe
10:00 A.M. - Meeting with Santa Fe Range Resource personnel
Return to Albuquerque

Tuesday - 19th
7:00 A.M. - Drive to Continental Divide Training Center
9:30 A.M. - 12:00 - Meet with Cibola - Rangers meeting
1:00 P.M. - 2:30 P.M. - meeting continued
Return to Albuquerque

Wednesday - 20th
7:30 A.M. - Drive to Capitan, New Mexico - Smokey Bear Ranger Dist.
Meet Hud Reynolds (RMFRES, Tempe) and John Hall
11:00 A.M. - Inspect several small allotments which need to be
combined into a management unit
Drive to Alamogordo - Spend the night there

Thursday - 21st
8:00 A.M. - Meet with Lincoln - (probably 15 in attendance)
Drive to Silver City - Spend the night

Friday - 22nd
8:00 A.M. - Meet with Gila - (probably 14 in attendance)
Return to Albuquerque after meeting or on Saturday morning

Sunday - 24th
Evening - New Mexico Cattlemen's Convention
Forest Service, San Francisco II, California

Forest Supervisor, Lassen N. F.

4000 (2210)
March 5, 1963

E. R. Doman, Assistant Regional Forester

Studies, Administrative - Harvey Valley Demonstration Allotment

Reference to the two copies of Mr. Woolfolk's memorandum of February 6, 1963 to Mr. Doman which have been sent to you.

We believe that Joe's suggestions are reasonable and would like to have you consider them thoroughly with the Horsey's when you meet with them to work out the 1963 plan of use for the Harvey Valley Allotment.

E. R. Doman

Copy sent to 3/8/63
Office Memorandum • UNITED STATES GOVERNMENT

TO: E. J. Woolfolk, Assistant Director - R-W

FROM: Jack N. Reppert, R-W - Susanville

SUBJECT: Research, Perennial Range Research

Reference to your memo of February 5, 1963 concerning future research in Harvey Valley and Keith Arnold's memo of February 13, 1963 concerning the March 25 review of next year's proposed project budgets.

These remarks are in anticipation of a proposed letter you mentioned in your February 5 memo and as a result our notes may pass enroute making this one a bit premature. Nevertheless, in order to have next year's budget estimate in before March 25 I want to make certain we agree on the general course of the goodship Bunchgrass.

Last Wednesday we received a copy of E. R. Doman's memo of February 6, to the Lassen National Forest telling briefly of the decisions made at the meeting in your office February 1. Points 1, 2, 5, and 6 of Doman's memo are most critical to us and are discussed more clearly by you in your February 5 memo.

Assuming the directions given by you in your February 5 memo still holds, a few questions need answers.

1. If we are going to make a Harvey Valley re-evaluation 10 years after the present evaluation we need to continue the work started by Ratliff last year (e.g. establish an improved base of measurement and repeat the best "original" measurements). The only way that the four remaining units can be evaluated in the next two years will be to give Ray two summer assistants plus some help from me. (If a correction term is developed this can be shortened.) I am going to submit the budget with this 2 year evaluation as a goal. With this in mind, are there any changes or reallocation of funds that I may use or is the allocation of $3430 (re your memo of December 12, 1962) the final word at present? This is important because if we are not going to make a re-evaluation 10 years hence there is no need to establish a new base of measurement; only repeat the best original measurement. This can be done by Ray and one summer helper in 1 1/2 field seasons.

2. Both your memo of February 5 and Doman's of February 6 indicate the need for saying both concisely and accurately what we are up to. I interpret this to mean that we should make it clear we are evaluating what happened at Harvey Valley without any interpolation as to what bearing this might have on the case for rest-rotation versus conventional management. Is this correct?
The importance of this carries over into the scope of our publications. Don't you think we can now talk about the Roney proposal when it comes up? The Lassen people of course have been informed about its acceptance and I suppose that Roney knows about it or soon will as it is about time for him to make his yearly application.

3. If groups show interest in Harvey Valley tours, as Phil Lord reports some people from Oregon did recently, shall we decline and/or refer a reply to you during this 2 year evaluation? Shall we accept established college tours?

4. We plan that additional or new studies regarding the influence of the rest-rotation system on range plants (e.g. vigor, seedling establishments, etc.) will be planned probably no earlier than this coming fiscal year and started probably no earlier than the 1964 field season depending on the need for them as brought out in the problem analysis. Does this sound like the best speed and approach?

5. Over the long haul we have some less pressing questions. Do you think we are already involved in the demonstration of range improvement practices and the collection of cattle weight information after this two year evaluation (re Doman's memo February 6, point 3) or are Lassen people to handle this?

6. The Lassen has hired a rider by the name of Vern Ely. There is something that disturbs me about the situation where we are trying to demonstrate the advantages of a system of grazing but handicap that demonstration with a rider on call for fire with the range job held as a second priority. There is a way of getting around this in the future. Tell me what you think of it. If we could find a dual purpose man (range riding and range sampling) we could get the permittee to pay part of his salary and the Station the other part. Cattle work would always have first priority over range sampling work and still we would get the expected help on our sampling jobs to say nothing of the proper amount of range riding at the proper time. Fire would be a factor only in cases of fire on the allotment. I realize most cowboys would shun the range sampling chores. There are men like Westfall, however who might be glad to take such a summer detail as it would represent more riding and less sampling than usual, making a very attractive job. In this case his experience might be a little short, however with his interest at a high level this might tide him over till he picked up that experience. Besides Run could train him for such a job if he knew far enough ahead.

This is just an idea and my mention of Stan is for an example (the only one I know of). I certainly wouldn't want him unless all parties agreed that it was a good arrangement. We are of course set up for a rider this year and we will not interfere with that.

Jack
Regional Forester, R-3
Attention: C. E. McDuff

E. J. Woolfolk, Assistant Director

Management

Mr. Horney will arrive in Albuquerque about 6:23 PM, March 13 (Wednesday), on TWA flight 22. He would appreciate your making a hotel reservation for him.

ALH:gws

E. J. Woolfolk
Jack N. Reppert, Susanville

E. J. Woolfolk, Assistant Director

Research (Harvey Valley)

In reply to your March 6 memorandum concerning the work to be done in Harvey Valley this year, I must confess that I did not write the follow-up letter mentioned in my memo of February 5. However, a note did go to you Wednesday and perhaps this one will preclude the necessity of backing up to the promised note.

For the sake of charity and to save time, these comments will coincide with your numbered paragraphs.

1. I think we are obligated to make a re-evaluation of what has happened in Harvey Valley not later than 10 years after the first planned evaluation is completed. Therefore, I agree that we should have the best possible base for that second evaluation. As to the number of helpers which you and Ray have during the summer, I think that your estimate of two is low. We should have at least three working all the time with Ratliff, thus making two, two-man crews in the kind of sampling which I visualize you will be doing. Crews of this size can work more effectively than single individuals. This need is being made known to the Washington office and we are proposing that at least two of these three additional men be detailed from one or more of the range analysis crews now working on the national forests in central and northern California. If this is impossible, then the only other way to secure additional seasonal help is by way of an allocation of money from Delio’s office in Washington. There will be no increases in our appropriations and, therefore, individual budgets for fiscal year 1964 will be the same as in 1963.

2. You are completely correct in your interpretation of my February 5 statement. The evaluation will be of what has happened in Harvey Valley since 1952 without any explanation or assignment of cause. Since both the forest and the permittees have now been notified of the decision concerning the proposed change in grazing administration in Harvey Valley, I see no reason why you should not discuss the change with the people concerned.

3. The handling of visiting groups in Harvey Valley will continue to be the responsibility of the forest. They should receive and reply to all inquiries and schedule the visits as they see fit. You and Ray
should help as you are able and as requested by the forest. Student groups from colleges will largely fall into your lot because of their different interest in the work.

4. I think we will have to get into a full-scale effort on the evaluation of happenings in Harvey Valley as early as possible this field season. If the whole job is to be done in two field seasons, even with a five-man crew it will be necessary to start at an early date.

5. The collection of data in Harvey Valley, whether animal or vegetation, will continue to be our responsibility. I think for an indefinite number of years we should expect to specify the number of animals to be weighed and go ahead with the collection of weight information at the beginning and end of each grazing season. The forest cannot be expected to do this kind of work. On the question of range improvement practices and their application on the allotment, we can look to an increase in such activities as funds become available. These activities are entirely up to the forest and should not concern us from the standpoint of how they get done, when or where.

6. I think that regardless of how the range rider is paid he will always be subject to fire call. The best we can do, I believe, is to minimize the amount of time he spends on fire by working with the district ranger and the forest to emphasize the control of the cattle throughout the grazing season. I wouldn't like to see us share the salary of this rider with the permittee and the forest unless he could be entirely our man and even then, he would be subject to fire call the same as you and all the others are, at least in extreme situations. Even if you could work out the financing, I doubt that you could get Westfall outside of the San Joaquin setup.

We can discuss these suggestions and any others that you wish when you and Ray come to Berkeley.

EJWoolfolk:etr
Chief

Keith Arnold, Director, By

Management

Mr. DeNio's letter of February 21 failed to transmit the memorandum referred to in the last paragraph.

We should have this memo as a guide to the development of the management systems brochure and the training program.

f. j. woolfolk

EjWoolfolk:etr
Subject: Perennial Range Research (Harvey Valley)

A meeting was held with Elwin Roney, March 12, 1962 at the time Phil Lord and Fred Alberico accepted his application for grazing this summer. We learned of his herd composition and planned movement of different classes of cattle thru the various range units. This information is attached to this memo. We realize that we are at a point mid-way in the demonstration of rest rotation at Harvey Valley and will shortly finish a determination of what has happened to this point. Of even more importance, is the fact that besides the evaluation of the past 10 years we are laying a base for future evaluation at the end of the next 5 to 10 years. We plan that the new base will be an improvement where possible. As concerns cattle data a deficiency in the past has been the fact that no one class of cattle has been available to give a consistent measure of animal response each year. This is in no way a criticism of anyone, but simply the fact that must occur when herd composition must be changeable to meet changing economic considerations of a cooperating permittee. This known by all of us and we bring it up at this time for only one reason. That is to try to take some of this inconsistency out of the next several years cattle data by some sober thought now on two points: (1) What sort of cattle data the researchers want and, (2) What the permittee predicts the herd composition tendency will be over the next several years.

To get down to cases let's consider the proposal for this year's cattle data collection arrived at with Elwin Roney. Keep in mind that as researchers we are interested in collecting two broad types of data: (1) The performance of the saleable crop (yearlings and calves this year). (2) The performance of young cattle to reflect the effect of the system for the entire season. As you read this plan for this year's data collection we would direct a question, first to Joe Woolfolk. From your experience with cattle data do you think that the classes of cattle we propose to weigh are satisfactory from a research standpoint? This is in full realization that this is a departure from what might be the most desirable data if the permittee's interests were not considered (re. appendix 3 of Ratliff and Reppert's evaluation of the Roney proposal for change in 1963, January 28, 1963). A second question goes to Elwin Roney. Do you, as near as you can predict, feel that these same classes can be weighed in future years without taking away the flexibility you need to operate? Can you forecast a future herd composition, different than the one that follows, which will be much less likely to change?
1963 Proposed Weighing Plan  
(A function of 1963 herd composition)

<table>
<thead>
<tr>
<th>Number, Class and Breed</th>
<th>Sex</th>
<th>Shrink</th>
<th>Weighing</th>
<th>Type of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hereford yearlings(open)</td>
<td>(heifers</td>
<td>None)</td>
<td>Weigh all 250 on June 1 and off Aug.15, in practical but consistent sized groups up to about 6 head.</td>
<td>gain by saleable crop</td>
</tr>
<tr>
<td></td>
<td>(steers</td>
<td>None)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hereford calves (will wean Aug.15)</td>
<td>(heifers</td>
<td>None)</td>
<td>Weigh all (60 to 90) on June 1 and off Aug.15 in practical but consistent sized groups up to about 6 head.</td>
<td>gain by saleable crop</td>
</tr>
<tr>
<td></td>
<td>(bulls</td>
<td>None)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angus replacement yearlings (exposed to bull from Feb.15 to May 15 less than 70% bred)</td>
<td>(heifers</td>
<td>Overnight</td>
<td>Weigh all 60 individually on June 1, Aug.15, Oct.1 and Nov.1.</td>
<td>effect of the system on cattle for 1st half, second half and supplement period.</td>
</tr>
<tr>
<td></td>
<td>(bred)</td>
<td>Shrink</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(heifers</td>
<td>Overnight</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(open)</td>
<td>Shrink</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hereford replacement yearlings</td>
<td>(heifers</td>
<td>Overnight</td>
<td>Weigh all 10 individually on June 1, Aug.15, Oct.1 and Nov.1.</td>
<td>effect of system on cattle for 1st half, second half and supplement period.</td>
</tr>
<tr>
<td></td>
<td>(bred)</td>
<td>Shrink</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1/ In the March 12 talk with Elwin Roney we talked of weighing only 30 to 50 head of yearlings on June 1, however since all will be weighed August 15 we think it best to take a complete weight on June 1.

2/ In the March 12 talk with Elwin Roney no mention was made of this group of 10 bred Hereford heifers. Since this is the breed we are most interested in we would like to weigh them the same way the 60 Angus are weighed. Note too, that they will give an indication of response to first half moderate grazing (unit 5) and second half heavy grazing (unit 1). We wish we had 10 more of them. Could the group 5A₁ (presently 5 yearlings) be changed to B (bred Hereford heifers)?

Please consider these questions and reply to Susanville so Ray and I can evaluate them. We hope to make a trip to Berkeley before too long which will give us a chance to see both of you and resolve any perplexities that may still exist concerning cattle weights.

Jack

cc: Elwin Roney, Harvey Valley Permittee
1963 Planned Herd Composition - Harvey Valley

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Class and Breed</th>
<th>Location - range unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>June 1</td>
</tr>
<tr>
<td>A</td>
<td>250 yearlings (sell Aug 15) (Herefords)</td>
<td>4</td>
</tr>
<tr>
<td>A₁</td>
<td>5 yearlings (may or may not sell) (added to make total of 515)</td>
<td>5</td>
</tr>
<tr>
<td>a</td>
<td>60 to 90 Hereford calves</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>10 bred Hereford replacement yearling heifers</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>60 bred Angus replacement yearling heifers</td>
<td>4</td>
</tr>
<tr>
<td>D</td>
<td>100 head dry cows mixed breeds 2 to 4 years old (assume exposed to bull)</td>
<td>5</td>
</tr>
<tr>
<td>E</td>
<td>90 head Hereford cows with calves(a) (calves to sell Aug. 15)</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>515 &quot;counters plus 60 to 90 calves</td>
<td></td>
</tr>
</tbody>
</table>
ESTIMATED "FLOW CHART" OF CATTLE MOVEMENTS AND UTILIZATION

Harvey Valley 1963 Grazing Season

Range Unit No. | June 1 to July 15 | July 15 to Aug 15 | Aug 15 to Nov 1 | Total
---|---|---|---|---
4 | C + A = 310 hd. | C + 40D = 100 hd. | C + 40-D = 100 hd. | 815
| = 465 AUM | = 100 AUM | = 250AUM |
5 | (Ea)+D+6+5-A1 = 205hd. | 17(Ea)+60-D+B3 | 17(Ea)+60-D+B3 | 400
| = 308AUM | +5A1 = 92 hd. | +5A1 = 92AUM |
1 | A+73(Ea) = 323 hd. | B+60D+B+5A1 =165hd. | 17(Ea)+60-D+B3 | 736
| = 323 AUM | =413AUM |

sell A + 2 =250 hd. (Aug 15) + 90 calves

Note: Refer to page 4 for meaning of letter symbols.
TO  
E. J. Woolfolk, Assistant Director

FROM  
Jack H. Rappeh

DATE  
March 14, 1963

MESSAGE  
(Write concise message. Sign and forward parts 1 and 2 to addressee. Retain part 3)

This memo brings you up to date on the status of Harvey Valley plans for this year and future years as to cattle data. We are asking for your advice on the plan as it now stands. We are being forced into writing Angus yearlings (bulls) by the nature of the herd composition. This is too bad, but I can't see a way around it unless we go to groups D or E (page 4) which are older cows (some are Herefords in group D). Can you see a solution? I think the herd composition will change in future years to more yearlings for market. Elkin has a copy of this too and will have some comments too. We realize that page 5 is only an estimate of the move however the movement of H, Ea and D are rather certain.

SIGNATURE  
Jack

REPLY  
(Use this space for reply. Sign and date. Return part 1 to sender. Retain part two)

P.S. Red float a blue line review the evaluation of the Range proposal for change by Patliff and myself, Jan. 25, 1963.

Snowing in Harvey Valley today. Total precip to date is 22.1.

John declined the review because decision had already been made. He reviewed as requested and wrote an opinion if attached. Am writing a separate memo on the gathering of cattle data.
Range and Wildlife Habitat Programs (Harvey Valley)

In reply to your March 13 memorandum and concerning the collection of cattle-weight data in Harvey Valley, a couple of points should be clearly recognized.

By weighing grazing animals we want to determine two things primarily: (1) the performance of different classes of cattle on perennial bunchgrass ranges, and (2) the response of those animals to the kind of grazing management applied to the allotment. To satisfy both of these desires it makes little difference the class or kind of cattle observed. The reason, of course, is that very little cattle-weight information is available for these ranges. Therefore, any new information which we gather will be of interest to cattle producers generally and will have value to us in the management of bunchgrass ranges. Also, one class of animals, save possibly calves, will reflect the grazing treatment about as well as any other class of animals.

It is not reasonable to expect that the permittee will have the same class of animals available for observation year to year. I think we would not want this from a research standpoint even if it were possible. For example, if we were to weigh cows with calves year after year, someone would want to know then how yearlings perform on such ranges. You too would want to have this kind of information. So, I believe it is better all around to weigh various classes of cattle over the years. I am not proposing that we change classes of animals every year, but that over a 10-year period, for example, we gather some information about all of the classes that use the Harvey Valley allotment. In view of this, my answer to your direct question is in the affirmative and I think I have also answered the question that you put to Elvin Roney. He simply cannot run an operation with sufficient stability to give you the same kind and number of animals for weigh purposes year after year indefinitely.

Coming to your plans for 1963, I see no particular harm in weighing 60 head of Angus replacement heifers throughout the grazing season. The fact that part of them may be bred is a little undesirable from a research standpoint, but nevertheless a very practical situation that frequently must be met. Another possibility for this year appears to me to be rather favorable. Out of the 100 head of dry cows, it might be possible to segregate 50 or 60
rather uniform as to breed and age that would be held through the season. It wouldn't hurt these cows to weigh them individually and I doubt that there would be any objection on Elwin's part. This would give you good information on at least two classes of cattle this year and I would think that this amount of effort to gather cattle information would suffice for any one season.

A copy of this memo is going to Elwin for his information.

cc: Elwin Roney
EJWoolfolk:etr

E. J. Woolfolk
Chief
Attention: R. M. DeHio

Keith Arnold, Director, By

Range and Wildlife Habitat Program (Harvey Valley)

Both Mr. DeHio and K. W. Parker will be interested to know that the proposed change in grazing management on the Harvey Valley allotment of the Lassen National Forest has been accepted by the Forest and this Station and will be put into effect this year. Also, plans are well along for starting, with the melting of the snow and opening up of the ranges this spring, the evaluation of what has happened in Harvey Valley over the past 10 years. This will be a rather intensive effort on our part and one that will require a good deal more manpower than is available presently or can be obtained with the level of financing which we expect.

Our level of operation on the bunchgrass project at Susanville is two full-time scientists and one summer field assistant for about four months annually. One of these scientists is project leader and during the next year, at least, will be fully occupied with a problem analysis, research selection and program development. This leaves one two-man crew for the appraisal effort. It is our conservative estimate that 16 man-months of field work will be required both this year and in 1964 to effectively appraise vegetation and soil changes which have occurred on the allotment itself and in comparison with adjoining allotments which have been treated somewhat differently. A good deal of this estimated manpower will be given to a comparison of situations along fence lines which separate the Harvey Valley allotment from adjacent ones. There are many opportunities around the boundary of the allotment to compare the present kinds and number of plants, size of plants, total density of vegetation, and other characteristics of range types on comparable sites. This technique is necessary in some cases because of the lack of adequate base records in Harvey Valley which can now be referred to for measuring change. A good deal of effort the last three or four years has gone into the improvement of this base record on the allotment and some additional work of this sort is planned for the next two years. At best, however, other information will be needed to give us a sound appraisal of the changes that have occurred in Harvey Valley.

We believe that an effective, worthwhile way of obtaining this necessary assistance this year in Harvey Valley would be by detail of two young range conservationists from one or more California forests for the summer
period. We could even use two pairs of such detailers in sequence rather than one pair throughout the summer. It would hardly be worthwhile, however, to assign men for a shorter period than two months. Such an arrangement would provide the help which we need to do this evaluation job and would furnish a good deal of on-the-job training for promising young men who may be headed into a range career in the Forest Service. Should this kind of an arrangement prove not to be feasible or impossible for unknown reasons, it is estimated that about $3,500 for salaries alone, and which we do not expect to receive by regular appropriation this year, would be necessary to accomplish the work that is planned. It will be somewhat embarrassing, at least, if we fail for lack of help to get this job done as already promised.

We would be glad to have Mr. DeKie's consideration of this proposal and some word from him at an early date concerning the possibility of working this thing out.

cc: E. R. Duman

EJWOOLFOLK: gws
TO : Director, PSW

FROM : R. M. DeNio, Director, Division of Range Management

DATE: March 21, 1963

SUBJECT: Management (Range and Wildlife Habitat Programs)

This memorandum is intended to outline objectives and procedures and to serve as a guideline for coordination of Mr. Hormay's work. It is based on the discussions between Mr. DeNio, Mr. Smith, Mr. Parker, Mr. Woolfolk and Mr. Hormay, on February 1 and February 4, in Mr. Woolfolk's office.

Training Program

Objectives: To familiarize Forest Service field personnel having range management responsibilities with the ecological, physiological and soil-plant relationships which exist and must be coordinated with livestock management requirements in National Forest and National Grasslands range management planning.

Scope: The tentative training course outline as prepared by Mr. Hormay March 9 is generally adequate. The following items should be considered in revision of the outline:

Under II - Character of western range lands. This should not be held primarily to bunchgrass type, though this is admittedly the most important single type.

Under IV - The range management problem. Correlation and co-ordination with other uses should be introduced in this section.

Under V - Vegetation production.

C. Rest-rotation grazing system. This title should be broadened to Grazing Systems and the outline used in parallel for all systems - deferred-rotation, seasonal-deferred, etc.

Under VI - Livestock production. This section should not be limited to rest-rotation grazing alone, but should include all recognized systems.

Method

The initial training in which Hormay will serve as instructor will be directed to the top range management technicians in the Regions. This will be on an individual Region basis entirely as a lecture program; field trips are not planned. The course outline, training aids, illustrations, etc., should be of such a nature that they can be duplicated.
and used by the Regional technicians to train field personnel on the Forest and District level. This may and very likely will entail separate handout and illustrative material for the different Regions because of wide differences in range types, topography and climate.

**Timing**

Hormay estimates he can have the training materials and program ready for presentation by September 15, 1963. It is hoped that the initial training for the western regions will be completed by June 1964.

**Management Systems Brochure**

This brochure is to be used for answering inquiries regarding management systems in use on the National Forests. It will be used as an I&E tool, generally with people of limited technical knowledge in range management. It should be relatively short, and depend primarily upon photographs, and simple tables and charts, with explanatory material held to a minimum.

The brochure should define the more common management systems now in use on the National Forests -- rest-rotation, deferred-rotation, season-long, etc. Illustrate these by sketches and photographs as necessary. It should also include limitations and advantages on a comparative basis of the various systems, using photos for examples of good and bad features. Necessity for range improvements with all intensive use systems should be illustrated.

It is hoped the initial outline can be completed by January 1964, with publication by this office early in F.Y. 1965.

It was agreed that the most effective use of Mr. Hormay's time and skills would be for him to concentrate on the training program and brochure in F.Y. 64. Therefore, the Regions will be informed that Mr. Hormay will not be available in F.Y. 64 for the extension type work he has been doing for the past two years.

cc: RMR
Memorandum

TO: Director, PSW

FROM: R. M. DeNio, Director, Division of Range Management

DATE: March 28, 1963

SUBJECT: Management

Enclosed are copies of correspondence received from BLM for your consideration.

This request fits in to a degree with our conversation in your office February 4. You will recall it was mentioned that possibly BLM would be interested in the management training program to the extent of contributing financing. This has not been discussed with Mr. Nadeau by anyone in this office. So far as we know he is not aware of our present plans for a training program. If you consider it desirable, Mr. DeNio and Mr. Parker could discuss the program informally with Mr. Nadeau and ascertain his thinking on a cooperative training program.

We will not take action on this until we have your thoughts on the matter.

Enclosures
March 21, 1963

Chief, Forest Service
United States Department of Agriculture
Washington 25, D. C.

Dear Sir:

Attached is a copy of a memorandum from Bureau of Land Management State Director Ed Rowland, Billings, Montana, which is self-explanatory. It is understood that arrangements for Mr. Hormay's services are to be made with your Washington office. If Mr. Hormay's travel will be subject to reimbursement by the Bureau of Land Management, it would be desirable to have his schedule arranged for him to visit Montana after July 1, 1963. Also, should it be possible for him to visit the Malta District, the State Director might wish to have him visit other districts in Montana also. Please let us know whether there is a possibility that Mr. Hormay may visit Montana. If so, we will take steps to firm up a schedule within the time he will be available.

Sincerely yours,

[Signature]

Chief, Division of Range Management

Enclosure
MEMORANDUM

To: Director

From: State Director - Montana

Subject: Grazing systems -- request for assistance (6.04c)

While attending the Range Society meeting in Rapid City, the Malta District Manager had occasion to talk with Messrs. Woolfolk and Bellio, U. S. Forest Service, concerning "rest rotation" grazing and the work of Mr. August Horsey in this system.

Mr. Horsey of the U. S. Forest Service, Susanville, California has provided advice to the various National Forest and BLM offices on the use of the system as well as to lecture on the subject.

District Manager Liman suggested that Mr. Horsey could provide a great deal of advice on the adaptability of ranges in the Malta District to a "rest rotation" system. We believe that Mr. Horsey's expert observations and help in this system of intensified management would be very beneficial to our range program in Montana.

It is suggested that the proposed visit be for a period of about two weeks, preferably in June, which would include a general meeting of interested range users and land managers in the immediate area where Mr. Horsey could explain and discuss the "rest rotation" grazing system.

If you approve this proposal, please convey our request through appropriate channels.

cc:
District Manager, Malta
Memorandum

To: State Director, Montana
From: District Manager, Malta District Office
Subject: "Rest Rotation" Grazing - Visit to Malta by Mr. August Hormay

As we near the end of our adjudication program, we are making plans for setting up intensive management on the various ranges and pastures within this district. We feel, after some study, that Mr. Hormay's 'rest rotation' grazing system would be applicable to this area. Mr. Hormay's principle duties for the next few years have been to advise the various National Forest and Bureau of Land Management offices on the use of the system, as well as to lecture on the subject.

At the recent Range Society meeting in Rapid City, I asked Mr. Joe Moololf of the Pacific Southwest Forest and Range Department Station and Mr. Reg DeRito, the Director of Range Management for the Forest Service in Washington, if it would be possible for Mr. Hormay to visit this district during the coming field season for a period of about two weeks in order to look over the country and give us advice and help in a general way, and specifically on one or two pastures. Toward the end of his stay here, I would propose a general meeting of all interested ranchers and land managers in the immediate area where Mr. Hormay could discuss and explain the 'rest rotation' grazing system. Both Mr. Moololf and Mr. DeRito thought that there would be no problem in scheduling such a trip in Malta this summer. They did request that I submit in writing a request for this visit.

The purpose of this memorandum is to ask you to forward such request through the proper channels to Mr. DeRito in Washington.

We will be most happy to see Mr. Hormay at any time which his trip can be scheduled, however due to the growing season we feel that the best time for him to see the area would be during the last two weeks of June.

/s/ James M. Lima

cc:
Mr. Joe Moololf, Berkeley, California
Mr. Reg DeRito, Washington, D.C.
January 22, 1963
Elwin A. Roney

HARVEY VALLEY REPORT
1963

History
1934-1945 about 700 cattle were grazed.
1935 The May 16 on date was changed to June 1.
1946-1947 615 head were grazed.
1948 515 head were allowed.
1949 The Oct. 15 off date was changed to Sept. 30.

1933 Survey gave 3,506 CM on 20,424 usable acres.(Lassen Forest)
1961 Survey gave 4,750 CM on 21,463 usable acres.(Lassen Forest)

Summary
The CM's have increased 1,244 or 16% in 28 years.
The usable acres have increased 1,039 in 28 years.
The permitted cattle no. has decreased 185 head or 16.5%.
30 days in the grazing season or 20% in seasonal total was decreased.
Note—IIn 1948-1949 Gus Horman made his field map of Harvey and
also developed the Management Plan.
In 1948-1949 the grazing season was shortened 15 days and the
number of head decreased 100 making a total decrease of 707 CMs.
1947 615 head for 4½ months = 2,767 CM
1948-1949 515 head for 4 months= 2060 CM
1946 700 head for 4½ months = 3,150 CM
1946 to 1949 there was a decrease of 1290 CM, reducing permitted no. 272
1933 --3,506 CM --3,500 CM used) 41% decrease
1961 --4,750 CM -- 2,060 CM used)

Experiment or Demonstration
The rest-rotation system has not been proven in Harvey Valley, therefore it is still an experiment.

I. Range management plan has to be completed before accurate results can be obtained.
   A. Water developments have not been completed according to plan.
      1. Livestock have lost use of several water developments and springs.
         a. Helicopter landing in Unit 2.
         b. Logging trucks use spring water. They need separate wells.
         c. Much more development of water in field 2 is necessary for last of season use.
   B. Labor Range rider is key to success—extremely hard to hire rider to qualify all places, maintenance, cattle, comprehension of experiment etc.
   C. Fences Expensive and have to be exceptionally strong due to water and bush feed just thru the fence and demanded forced feeding on their side.
   D. Economically proven cultural practices necessary to
make this expensive system of management feasible. In modern farming fertilizer and insecticides proven to be economically feasible are essential for net income.

In conclusion, I would like to request a progress report from the Research Center so as to judge the effectiveness of rest-rotation grazing. Also, I would like a progress report from the Forest on the Harvey Valley allotment, the adjoining ranges, Grey Valley and Poison Lake to compare the trend and condition.

Cattle Economics In a Rest Rotation System

Page 7 --- Rest-rotation Grazing by A. L. Hormay and A. B. Evanko
"The season that best fits a given situation is often determined not only by the livestock production potentialities of the season, but by such considerations as when the range can be used to best advantage in relation to the whole ranching operation"

I. The condition of cattle on adjoining ranges should be watched more closely as I did this year for the first time. The Poison Lake and Gray Valley allotments produced bloomier calves and a far superior salable product than did Harvey Valley. I consider the quality of cattle on these three ranges comparable.

II. Nutrition of plants is not always the same. Consideration should be given to forage according to T.D.N. value. Therefore the only way the desired "forced feeding" can work into a cattle management plan is to use protein supplement feed and use the low T.D.N. forage plant for roughage.

III. "Forced feeding" of plants results in low gains or weight loss—therefore you cannot afford to "force feed" cattle you plan to sell. Comparing Eagle Lake and Harvey Valley calf weights in 1962 with cows receiving exactly the same treatment during winter and spring, the Eagle Lake steer calves weighed 54# per head more and heifer calves 27# a head more than the Harvey calves. This is the nearest Harvey calves have come to the Eagle Lake weights because the calves that went to Harvey were in better shape when they came to the mountains than were the Eagle Lake calves this year.

B. The salable product of the range whether yearlings or calves must be taken from the allotment before "forced feeding" is started. The average time according to the gain curve of Gus Hormay, should be Aug. 15 or before.

IV. Animal behavior should be considered to a greater degree.

We believe an economic study of Harvey Valley should be completed to be sure this system is economically sound. An animal unit can only support a limited amount of capitol outlay in any ranch operation.
Solution

1. Closer co-operation between agencies and permittee so we can understand the figures, progress and make management decisions.

2. Complete the plan especially water development

3. Economic Study

4. Progress report form Station and Forest

5. Our plan for 1963 to fit range operation, cattle economics and research rest-rotation plan.

**Permittee's Grazing Plan**

<table>
<thead>
<tr>
<th>Field</th>
<th>Head</th>
<th>From</th>
<th>To</th>
<th>CM</th>
<th>Expt.</th>
<th>AU avail.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>300</td>
<td>June 1</td>
<td>July 15</td>
<td></td>
<td>450</td>
<td>682</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>July 15</td>
<td>Nov. 1</td>
<td></td>
<td>350</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>800</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>200</td>
<td>June 1</td>
<td>July 15</td>
<td></td>
<td>300</td>
<td>593</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>July 15</td>
<td>Aug. 15</td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>June 1</td>
<td>Nov. 1</td>
<td></td>
<td>75</td>
<td>812</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>From IV</td>
<td>July 15</td>
<td></td>
<td>200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>From V</td>
<td>July 15</td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td>150</td>
<td>Aug. 15</td>
<td>Nov. 1</td>
<td></td>
<td>375</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>750</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sell 250 from I on Aug. 15.

Do you have this many CM s available in these three fields?

<table>
<thead>
<tr>
<th>Field</th>
<th>CMs</th>
<th>Equation</th>
<th>CM</th>
<th>Expt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>682</td>
<td>3633 x 19%</td>
<td>4,750 = 902.5 CM</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td>812</td>
<td>3633 x 22%</td>
<td>4,750 = 1,045 CM</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>593</td>
<td>3633 x 16%</td>
<td>4,750 = 760 CM</td>
<td></td>
</tr>
</tbody>
</table>

Forest 1961 CM figure converted from Ray Ratliff adjusted field capacity Dec. 26, 1961. I've used Ray's figures to determine the carrying capacity of Harvey these three fields possess. Then apply this % factor to the Forest CM for their carrying capacity.
TO:  E. J. Woolfolk, Assistant Director - R-W        DATE: March 30, 1963

FROM:  Jack N. Reppert - Susanville

SUBJECT:  Research, Management bunchgrass ranges, Harvey Valley cattle weights.

Attached is a revised plan of weighing. To get an idea of the size of the job, look at the table on page 3. Remember that the August 15 weighing is the one required by Roney in selling his market animals.

From my talks to date with range staff men, I can say that the problem analysis is going to lend some importance to the question of how well the saleable livestock crop performs under rest rotation management. We can (and should) get this information with only the "extra" work of group weighing the yearlings and calves in June.

I will agree with you that it would be good to get weights from various classes over the years. I also think it would be good to try to get some "thread" of continuity as to class from year to year. Such a record would give us some indication of the effect of different weather years and a measure of range condition change on a constant livestock "gauge". We can increase our chances of having the same class appear in most of the next 10 years of data by weighing both bred heifers and dry cows this year and perhaps two classes the next several years. We could look back in ensuing years and pick one class because it was one of the same classes weighed in 1963, at the start of the second 10 years. The other class might be different from past classes. In this way both aims can be met by taking only 100 to 150 more weights each season.

Elwin Roney has a copy of this plan.

Jack N. Reppert
Office Memorandum • UNITED STATES GOVERNMENT

TO : E. J. Woolfolk, Assistant Director - R-W
FROM : R. D. Ratliff and J.N. Reppert, Susanville
DATE: March 28, 1963

SUBJECT: 1963 Cattle Weighing Plan - Harvey Valley

Revised 1963 Proposed Weighing Plan for Harvey Valley:

<table>
<thead>
<tr>
<th>Class &amp; Breed</th>
<th>Number</th>
<th>Sex</th>
<th>Shrink</th>
<th>Weighing</th>
<th>Type of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearlings-</td>
<td>250</td>
<td>Heifers &amp; Steers</td>
<td>None</td>
<td>Weigh on June 1 and on sale date in practical but consistent sized groups up to about 6 head.</td>
<td></td>
</tr>
<tr>
<td>Hereford(open)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gain by saleable crop.</td>
</tr>
<tr>
<td>Calves-</td>
<td>60-90</td>
<td>Heifers &amp; Bulls</td>
<td>None</td>
<td>Weigh on June 1 and on sale date in practical but consistent sized groups up to about 6 head.</td>
<td></td>
</tr>
<tr>
<td>Hereford</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Gain by saleable crop.</td>
</tr>
<tr>
<td>(will wean Aug.15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1/ For the saleable crops weigh sexes separately.
<table>
<thead>
<tr>
<th>Class &amp; Breed</th>
<th>Number</th>
<th>Sex</th>
<th>Shrink</th>
<th>Weighing</th>
<th>Type of Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heifers -</td>
<td>60</td>
<td>-</td>
<td>overnight</td>
<td>Weigh individually on June 1 and Nov.1</td>
<td>Effect of the system on season-long</td>
</tr>
<tr>
<td>Angus Replacement</td>
<td></td>
<td></td>
<td></td>
<td>Weigh individually stocked</td>
<td>in fully</td>
</tr>
<tr>
<td>yearlings (exposed to</td>
<td></td>
<td></td>
<td></td>
<td>a sample of 25 on Oct.1.</td>
<td>suplement period.</td>
</tr>
<tr>
<td>bull from Feb.15 to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 15, less than 70% bred)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cows -</td>
<td>50</td>
<td>-</td>
<td>overnight</td>
<td>(A) Divide into two groups of 25 each. Weigh individually on June 1 and put all into Unit #5.</td>
<td>Effect of cattle grazed on moderately stocked unit for 1.5 and 2.5 months and then moved to fully stocked unit. Also effect of supplement period.</td>
</tr>
<tr>
<td>Hereford (dry 2-year-olds)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(B) Move one group to Unit #4 on July 15. Move other group to Unit #1 on Aug.15.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(C) Weigh individually on Oct.1 and Nov.1</td>
<td></td>
</tr>
</tbody>
</table>
Proposed Weighing Schedule for 1963 - Harvey Valley:

<table>
<thead>
<tr>
<th>Date</th>
<th>Class</th>
<th>Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 1</td>
<td>Yearlings (market animals)</td>
<td>250 in groups</td>
</tr>
<tr>
<td></td>
<td>Calves (market animals)</td>
<td>60 - 90 in groups</td>
</tr>
<tr>
<td></td>
<td>Heifers (replacement Angus)</td>
<td>60 individually</td>
</tr>
<tr>
<td></td>
<td>Cows (dry)</td>
<td>50 individually</td>
</tr>
<tr>
<td>Aug. 15</td>
<td>Yearlings (market animals)</td>
<td>250 in groups</td>
</tr>
<tr>
<td></td>
<td>Calves (market animals)</td>
<td>60 - 90 in groups</td>
</tr>
<tr>
<td>Oct. 1</td>
<td>Heifers (replacement, Angus)</td>
<td>25 individually</td>
</tr>
<tr>
<td></td>
<td>Cows (dry)</td>
<td>50 individually</td>
</tr>
</tbody>
</table>

If Supplements are not to be given we will forego this weighing. However, if it is felt that supplements may be needed, even though they are not planned, we should make this weighing.

Nov. 1  | Heifers (replacement, Angus)          | 60 individually          |
|        | Cows (dry)                            | 50 individually          |

Sg: E. Roney

[Signature]
<table>
<thead>
<tr>
<th>Name</th>
<th>Forest</th>
<th>Position</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.H. Spaniering</td>
<td>Sitgreaves</td>
<td>Supervisor</td>
<td>1963</td>
</tr>
<tr>
<td>W.A. Hilding</td>
<td>Kaibab</td>
<td>Range Staff</td>
<td></td>
</tr>
<tr>
<td>W.E. Mc Graw</td>
<td>Kaibab</td>
<td>Range Staff Lead</td>
<td></td>
</tr>
<tr>
<td>W.L. Ford</td>
<td></td>
<td>Williams Dist. R.G.</td>
<td></td>
</tr>
<tr>
<td>Norman G. Anderson</td>
<td></td>
<td>D.R.</td>
<td></td>
</tr>
<tr>
<td>Bill Failey</td>
<td>Kaibab</td>
<td>Dist. Ranger, Big Springs R.D.</td>
<td></td>
</tr>
<tr>
<td>Robert M. Schmidt</td>
<td>Sitgreaves</td>
<td>Dist. Out. Ranger</td>
<td></td>
</tr>
<tr>
<td>Douglas G. Smith</td>
<td>Kaibab</td>
<td>Asst. Ranger, Chaleur</td>
<td></td>
</tr>
<tr>
<td>Jim Walker</td>
<td></td>
<td>Forester</td>
<td></td>
</tr>
<tr>
<td>Jim B. Dudge</td>
<td>Sitgreaves</td>
<td>A.D.R - Williams R.D.</td>
<td></td>
</tr>
<tr>
<td>Tom Legerie</td>
<td>Kaibab</td>
<td>District Ranger, Fabrique</td>
<td></td>
</tr>
<tr>
<td>Paul Fenning</td>
<td>Sitgreaves</td>
<td>R.M. Forest Home</td>
<td></td>
</tr>
<tr>
<td>RB Tipperdance</td>
<td>Kaibab</td>
<td>A.D.R. Tusayan</td>
<td></td>
</tr>
<tr>
<td>Dwane Brem</td>
<td></td>
<td>D.F.R. Breck</td>
<td></td>
</tr>
<tr>
<td>John Chambers</td>
<td>Sitgreaves</td>
<td>A.D.R. Pinecliffe</td>
<td></td>
</tr>
<tr>
<td>Bill Nelson</td>
<td></td>
<td>A.D.R. Chavelon</td>
<td></td>
</tr>
<tr>
<td>George Botfried</td>
<td>Kaibab</td>
<td>D.F.R. Tusayan</td>
<td></td>
</tr>
<tr>
<td>Henry A. Pearson</td>
<td>R.M. Exp. Sta.</td>
<td>Range</td>
<td></td>
</tr>
<tr>
<td>Verne A. Greco</td>
<td>Sitgreaves</td>
<td>D.F.R. - Heber</td>
<td></td>
</tr>
<tr>
<td>Jim Sweeney</td>
<td>Sitgreaves</td>
<td>A.D.R. - Heber</td>
<td></td>
</tr>
<tr>
<td>Bob Bennett</td>
<td></td>
<td>Range Analyst</td>
<td></td>
</tr>
<tr>
<td>Chester H. Olson</td>
<td>Sitgreaves</td>
<td>Range Staff</td>
<td></td>
</tr>
</tbody>
</table>