UNIVERSAL GOVERNMENT

Memorandum

Forest Service, Region 3
Albuquerque, New Mexico

TO: Director, Pacific Southwest Forest and Range Experiment Station

DATE: January 7, 1963

FROM: Fred H. Kennedy, Regional Forester, Py

Your reference: 12/28/62

SUBJECT: Meetings
Management

Your memorandum refers to the New Mexico Cattlegrowers' meeting on March 31. Actually, Mr. Hormay's talk is scheduled for March 24. We would appreciate having Gus spend the week of March 18-24 in Region 3 to present talks on rest-rotation grazing on the New Mexico forests. We will make final arrangements after we hear from you again.

A formal invitation for Mr. Hormay to appear on the program of the New Mexico Cattlegrowers will probably be issued this week.

Jane E. Smith

This is a Sunday.
SPEED-MEMO

TO: T. J. Woolfolk, B.W. redding
FROM: Jack D. Reynolds, B.W. Reynolds

SUBJECT: Muenchmann Project Conference

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

Attached is a copy of our December meeting. I sent you a copy. I am trying to see some of the problem analysts that were mentioned when you were here, as being good examples. I have the one by Waldmeier and one by Adams. I couldn't locate any more than a line project description by Doug Bog. Could you direct me or send me a copy of Bog's Motion analysis?

I would like to write both Dean Hunt and Botumell for their reports that would like more information as what their subject was and the type of publication as I can ask them for a copy in a clear manner. Can you fill me in on both of these papers? We will try to have an outline and scope of the analysis before we see you in January so we can ask some additional questions.

One more question. Ray wondered if we were to take anything (ourselves included) to Redding. Also we perhaps should plan some review at the Chico meeting of Harvey Valleyevents since the last meeting and our plans for research at Harvey Valley in the near future—right? Jack
Report of Bunchgrass Project Conference
Susanville, California
December 17 - 19, 1962

Those present: E. J. Woolfolk, M. J. Reed, Jack Reppert, Ray Ratliff, Dick Hubbard, Reed Sanderson, Lyle Brown, Don Neal.

Action Planned:

1. Prepare a problem analysis for the bunchgrass project.
   a. Review 1943 problem analysis by Hormay.
   b. Review other analyses by people like Hurt, Rummell, Roy, Adams, and Mueggler.
   c. Decide on the scope of the analyses, make an outline and cost estimate of preparing the final analysis. Do this by January 18, 1963.
   d. Have the analysis finished to a rough form by July 1, 1963 and in final form by September 1, 1963.

2. Submit an operation budget for next fiscal year by April 1, 1963.
   a. Include everything except permanent salaries.
   b. Remember such things as temporary field help, statistical help. Record both on a man-time basis and a total cost basis. This way changes in the man hour pay scale can be easily put into the budget at a later date.
   c. Include IBM service (it is free if we are willing to wait in line but costs for a hurry up punching job), publication reprints, travel to meetings, and travel for both Harvey Valley research and other activities such as trips to Berkeley and travel associated with the problem analysis.

3. Continue to evaluate rest-rotation grazing at Harvey Valley.
   a. Continue with present satisfactory methods, but making improvements that will increase efficiency.
      (1) Weigh 60% of the heifers at the start of the season, weighing them all at mid season and moving half of them to the unit getting heavy use the second half of the season, and reweighing them all at the end of the season. Actual stocking data will continue to be collected.
      (2) Continue to make "initial" measurements for ground cover on established transects using the line intercept on uplands and inclined pins on the meadows. Continue toward rapid evaluation of 1961-62 techniques study


involving intensity of sampling and placement of sampling and placement of sample units upon these transects. Plan trips to Berkeley as needed to get this job finished well before field season.

These methods being established now, although a few years late, may be in time to evaluate any changes caused by rest-rotation grazing because of the fact that, although in operation for 9 years the range condition and grazing capacity is not considered much better or worse than it was at the start of the demonstration. Therefore if much potential for upward change exists it has yet to be expressed. It is possible that drought has been the largest force active in holding back the rate of response expected from the system. It is also likely that, relative to outside season-long allotments, Harvey Valley, while holding its own, is in better shape because of possible downward trends in outside allotments during the same cycle of drought. These are all opinions but are important considerations.

(3) Review the method of making and reporting utilization estimates with an aim toward giving estimates on more meaningful terms. This may involve reporting range site utilization of areas grazed and the area of range unit grazed and ungrazed. It may also involve study of plant size classes and their relative importance in the percent of plants grazed method.

b. Attempt to terminate, as soon as possible, the burden of tying back to early difficult vegetation records on permanent transects.

(1) Use of early method called "bud influence on 2-inch squares" will not be used as a comparison.

(2) Use of a latter method called "bud influence on 50 inch lines" may have some value as a tie back to early condition. The method is still difficult to learn and some question exists as to its repeatability. An effort will be made to try to develop a correction term that will give a tie between this method and the line intercept method so that a prediction can be made of the vegetation conditions in terms of bud influence on 50 inch lines from line intercept data. In this way an estimate of early change will be available followed by more precise estimates from 1962 to termination of evaluation. Development of this correction term (perhaps a simple ratio) will receive considerable priority so that upon its acceptance sampling of transects by two methods can be discontinued.
c. Look for other evidence to indicate the relative change in range condition in Harvey Valley since the start of rest-rotation grazing. This evidence will depend on three assumptions:

First: study plots located inside Harvey Valley can be paired with study plots located outside Harvey Valley as to site potential and characteristics.

Second: Treatment inside and outside was the same season long use before 1952-54, the same approximate intensity, and range condition was similar.

Third: Treatment since 1952-54 has been as intended by rest rotation on Harvey Valley and season long on the outside plots.

(1) Differences between inside and outside will be attributed to the system. It will be improper to say what the real trend has been, only the relative trend (Harvey Valley relative to outside allotments). This assumes that had Harvey Valley been grazed season-long, rather than by rest-rotation management, comparable sites there would be in about the same condition as on the adjoining allotments, which have been grazed on a season-long basis.

(2) Factors that may be included to establish "paired study areas are: soil classification, aspect, drainage depth, texture.

(3) Factors that may be considered in evaluation of the paired areas are: herbage production and composition (weight, foliar, basal), ground cover, soil surface conditions, height of leaves and seed stalks, plant size distribution, soil structure and infiltration.

d. Start investigations of "mechanisms" of rest rotation grazing--the chain of vegetation and soil events started and continued by the grazing treatment--to determine how well the hoped for vegetation improvement is being encouraged by the system. These data may point the way to improvement in the system of rest rotation as being applied.

Study plans for some or all of the following need to be written with priorities set of their relative importance and cost: plant vigor, seed production and viability, planting by cattle, seeding establishment, herbage yield, soil properties, distribution of grazing use, etc.
e. Consider the importance and effect of cultural improvement in any studies now in progress or in studies planned. The fact that improvement in native range condition in Unit 1 may be caused by either (or both) rest rotation grazing or the cultural improvement of a significant area, cannot be lightly considered. This may be reason for making future evaluations of rest-rotation alone, in units like 5, and the combination of the system plus cultural improvement in units like 1. Units 5 and 2 with little improvement and 4 with only 3.2% of its capacity made up of reseeded areas might be considered essentially "native". Units 1 and 3 with 19.5% and 14.0% of their estimated capacity made up of improved areas must be considered as combined "native-improved" range units. The possibility of making additional cultural improvements in range units now partially improved (1 and 3) should not be entirely discounted because of past agreement to end all improvement. If preceded and later followed by proper observation and study, such area improvement may yield important new knowledge about the value of partial range unit improvement.

f. Keep the mind receptive to new "species" of the "genus" rest-rotation grazing. Especially as concerns the likely combination of scattered, culturally improved areas within significant areas still classified as native range. This condition appears to be a common problem of increasing importance as more and more improvements are made on National Forest allotments. Research approaches to problem solution for these native-improved ranges should also be considered.


This meeting touched only briefly on this type of critical review in the area of ground cover and utilization measurements. Further review is needed on a continuing basis and will be handled largely by those assigned to the bunchgrass project with possible review by others at some future date.
New Mexico Cattle Growers' Association, Inc.

OFFICE: ROOM 204 HILTON HOTEL
P. O. BOX 617
ALBUQUERQUE, NEW MEXICO

January 10, 1963

Mr. Gus Hormay
Range Conservationist
Pacific Southwest Forest and Range Experiment Station
P. O. Box 245
Berkeley 1, California

Dear Mr. Hormay:

We in New Mexico have heard a great deal about your research in rest-rotation management systems and understand that you have developed an illustrated talk around this subject. We would very much like to have you make this presentation at our annual convention in March. The most appropriate time for your appearance would probably be about 8:00 P.M. Sunday, March 24. We are purposely putting you at the end of the program so there will be plenty of time for questions.

We sincerely hope you will be able to accept this invitation and would, of course, like for you to be with us throughout our entire convention which starts with an evening session March 24, and concludes the afternoon of March 26. The Hilton Hotel will be our headquarters and we will send you further information concerning the meetings and social events as soon as our program is complete.

We will look forward to hearing from you.

Sincerely yours,

NEW MEXICO CATTLE GROWERS ASSOCIATION

Will Orndorff, President

cc: Mr. C. E. McDuff

P.S.

To help us in advance publicity, if you find you can be with us we would appreciate your sending the office in Albuquerque a glossy photograph of yourself, a little biographical information and either the text or a few excerpts from your talk.

WO
J. N. Reppert  
January 11, 1963

E. J. Woolfolk, Assistant Director

Range and Wildlife Habitat Programs

Your report of the program conference looks to me like a good record. I would like to go a little further into the project at an early date as a project review which is due this FY. Perhaps you and Ray could come to Chico on Monday, January 21 in time for a 2-3 hour conference in the evening. Mert and I will travel from here and plan to meet you there in late afternoon. How about meeting at the ranger station, say 5:00 to 5:30 p.m., then selecting a suitable place for lodging?

As to problem analyses, I am sending, herewith, a blueline recently distributed from the Director's office. The first two pages were drawn almost intact from the manual. Also enclosed are a copy of the 1940 and 1942 problem analysis by Horney and others and Doug Roy's Miscellaneous Paper #24. Hurtle's analysis was entitled "The Problem of the Plains," but I can't be sure now that it was published. I have a popular version from the Hereford Journal which would do you no good but think I had this confused with a USDA circular on drought by Hurtle which I largely prepared for him. His address is 541 Evans, Missoula and his initials L. C. The analysis by Rummel is SE Station paper #71, October 1956, entitled "Range Management Research in South Florida." There is a copy here but it has been bound with other papers so cannot be sent to you. This is a very good analysis in my opinion. Rummel, as you know, is in the Washington Office now.

You will need nothing but your wits at Redding. Hope you have disregarded my last note by this time. I had forgotten that the Redding meeting followed closely the Romey get-together. On the latter point, we will need to line-up a few signals on the evening of the 21st.

Enclosures

E. J. Woolfolk

EJWOOLFOLK/gws
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 CMs 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—In 1948-1949 Gus Horsey 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 1090 CM, reducing permitted: no. 272
1933 --3,506 CM -- 3,500 CM used
1961 --4,750 CM -- 2,060 CM used) 41½ decrease

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 hard to be exceptionally strong
due to water and lush feed just thru the fence and
demand for forced feeding on their side.
   n. 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 form 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 other 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 bloomer 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.
   A. 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 from Station and Forest

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

**Permittee's Grazing Plan**

<table>
<thead>
<tr>
<th>Field</th>
<th>450 Ct (Avail)</th>
<th>350 Ct</th>
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<tbody>
<tr>
<td>Field IV</td>
<td>300 head June 1 to July 15</td>
<td>450 Ct</td>
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<td></td>
<td>100 head July 15 to Nov. 1</td>
<td>350 Ct</td>
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<tr>
<td>Total</td>
<td>800 Ct</td>
<td>682</td>
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<tr>
<td>Field V</td>
<td>200 head June 1 to July 15</td>
<td>300 Ct</td>
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<tr>
<td></td>
<td>100 head July 15 to Aug. 15</td>
<td>100 Ct</td>
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<tr>
<td>Total</td>
<td>400 Ct</td>
<td>593</td>
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<tr>
<td>Field I</td>
<td>15 head full June 1 to Nov. 1</td>
<td>75 Ct</td>
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<tr>
<td></td>
<td>200 head from IV July 15 to Aug. 15</td>
<td>200 Ct</td>
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<td>100 head from V July 15 to Aug. 15</td>
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<td></td>
<td>150 head Aug. 15 to Nov 15</td>
<td>375 Ct</td>
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<tr>
<td>Total</td>
<td>750 Ct</td>
<td>812</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>Formula</th>
<th>Result</th>
</tr>
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<tbody>
<tr>
<td>IV</td>
<td>682 + 3633 = 19% × 4,750 = 902.5 Ct</td>
<td></td>
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<tr>
<td>I</td>
<td>812 + 3633 = 22% × 4,750 = 1,045 Ct</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>593 + 3633 = 16% × 4,750 = 760 Ct</td>
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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: Files

DATE: January 24, 1963

FROM: L. L. Bernhard

SUBJECT: Management (Harvey Valley)

A meeting was called to order at 9:15 a.m., Tuesday, January 22, 1963 at the Ranger's office in Chico, California. Present at the meeting were permittees George, Emily, and Elvis Roney - Issac Forest Officers Bosworth, Lord and Alberico - Station people Woolfolk, Redd, Ruppert and Ratliff - and myself from the Regional Office.

1. Elvis Roney acted as spokesman.

2. History of Harvey Valley.

1933 - 1945 - 700 cattle permitted 5/16-10/15 - 3,500 C.M.
1949 - season end changed -9/30 - 3,150 C.M.
1955 - season start changed 6/1 - 2,800 C.M.
1946 - a decrease of 383 C.M.
1947 - Roney red season 701 C.M.
1,090 C.M. decrease in 2 years

3. Statements by Roney.

(a) Range analysis allotment management plan not yet completed.

(b) Range improvement construction not up to Gus Hormay's plan.

(c) Field #2 needs more water.

(d) Have had 4 years of below normal precipitation at Harvey Valley.

(e) The livestock used at Burgess spring study were yearlings and not cows with calves.

(f) The rider is badly needed and we should continue to employ him.

(g) Rest rotation management has not been proven as a good system or practical system for saleable cattle.

(h) Maintenance costs high because of heavy cattle pressure for lush feed on other side of fence when cattle are in the field to be grazed "heavy."

(i) Other allotments with "free choice" of feed produce heavier yearlings and calves than does Harvey Valley with a rest rotation system of grazing.
(j) Harvey Valley yearlings weigh less because they lose weight when put in the pasture to be grazed "heavy" because they are forced to feed on secondary species of forage of low nutrient value and do not have free choice.

(k) For 1962 yearling weights were 54 lbs. heavier in Eagle Lake Allotment and 27 lbs. heavier in Poison Lake Allotment than in Harvey Valley. Honeys claim the weight difference on other years was estimated at up to 80 lbs.

(l) Facts and costs compiled by Honeys indicate the rest rotation system of range management is only applicable to maintenance of livestock (drys and replacement heifers) and is not practical for saleable cattle (cows with calves-under- and yearlings).

(m) Capital outlay for the rest rotation system of grazing is too great if saleable cattle are grazed.

4. Challenges

The Honeys challenge National Forest policy on two points.

(1) They challenge R-5 Supplement §167 to FSH 2221.3 because it instructs rangers to install a rest rotation system of range management on "suitable" areas when possible, at a time when the system has not yet been proven.

(2) They challenge the sending of Gus Honeys around western U. S. preaching the rest rotation system of grazing when it is not yet proven. They state that this is embarrassing the Honeys because other cattlemen talk to them and write to them for their support and recommendation of the rest rotation system of range management as a practical one, when they do not think it is practical for saleable cattle. They state their figures show forced feeding of saleable cattle will not compete with other range management systems built on the principle of "free choice."

5. Recommend a revised system of range management for Harvey Valley for 1963.

This system would (a) produce about the same cow months grazing use on the units and allotments, (b) would provide for removing saleable cattle on August 15, but (c) would necessitate a longer season of grazing in the fall.

For 1963

| Field #4 | 300 cattle | 6/1-7/15 | 450 C.M. |
|         | 100 cattle | 7/16-10/31 | 350 C.M. |
|         | Total      |          | 800 C.M. |

| Field #5 | 200 cattle | 6/1-7/15 | 300 C.M. |
|         | 100 cattle | 7/16-8/15 | 100 C.M. |
|         | Total      |          | 400 C.M. |

| Field #1 | 15 cattle  | 6/1-10/31 | 75 C.M. |
|         | 200 cattle from field #4 | 7/16-8/15 | 200 C.M. |
|         | 100 cattle from field #5 | 7/16-8/15 | 100 C.M. |
|         | 150 cattle  | 8/16-10/32 | 375 C.M. |
|         | Total      |          | 750 C.M. |
Good Points

(a) This system allows sale of 250 yearlings on 8/15 which takes advantage of contacts with buyers, and high beef prices.

(b) Saleable cattle are not force fed on "heavy" grazed area.

(c) Saleable cattle weights are up because of (b).

Poor Points

(a) Maintenance cattle remain on "heavy" grazed unit until 10/31.

(b) Roneys challenge that fields 4 & 5 have the capacity shown.

6. Roneys recommend the following:

(1) Closer cooperation between permittee-Station-and administration. Let's come to agreement on objectives and not sell rest rotation as a system of range management until proven.

(2) Complete construction of the range improvements needed (as shown in Gus Holway's plan).

(3) Forest Service make an economic study to prove that the rest rotation system of grazing is practical.

(4) The Forest and Station to prepare progress reports on what has been done--needs--trends--and accomplishment.

(5) Prepare a range management plan for grazing Harvey Valley in 1963 consistent with the Roney Ranch operation (like the one recommended).

7. Conclusions

(a) I committed the Division of Range & Wildlife Mgt. to provide $1,500 towards the Harvey Valley rider's salary for 1963 if funds are available.

(b) The Forest and Station promised to provide progress reports.

(c) Woolfolk explained that the Station and administrators would need to contact the Washington Office regarding Roney's proposals on management in 1963 because of the interregional and national significance of the Harvey Valley study.

(d) We agreed to have an answer if possible by April 1 for the Roneys regarding their 5 recommendations and their proposed management plan for Harvey Valley for 1963.

(e) Woolfolk explained the difference involved regarding answers to the Harvey Valley demonstration study under the proposition of need for answers within 2 years vs the need for answers in 5 to 10 years.
There was no attitude of ill will at the meeting, but rather it was a business-like discussion of objectives—proposals—and accomplishment.

Lloyd L. Bernhard
Mr. August L. Hormay  
Pacific SW Forest & Range Exp. Sta.  
Box 245  
Berkley, California  

Dear Gus:

In the article in the Range Journal I noticed that Antennaria was one of the species within the sprayed area.

We have an area where this forb is a major part of the composition and are considering a revegetation project. I have been able to find no information regarding its susceptibility to chemicals.

Did you get any amount of kill on the Antennaria within the area that you sprayed?

You may be interested to know that prospects appear to be quite good that we will get started on the first year of the rest rotation plan for the Elkhorn. Enough fencing is completed to rest the Mad Springs unit. If we do that, we expect to do some sagebrush eradication there and at Lupien Park. The unit would be rested this year and deferred until mid-season next year.

We have proposed to the permittees that they take a 20% non-use during the initial period while we are getting the plan off the ground. I think that they will go for it.

We are being subjected to a series of small storms with the weather alternating between -20 and -30 and about the same amount above 0. It surely makes you appreciate the summer when it does come.

Yours sincerely,

A. R. Graesser  
District Forest Ranger
UNITED STATES DEPARTMENT OF AGRICULTURE--FOREST SERVICE
PACIFIC SOUTHWEST FOREST AND RANGE EXPERIMENT STATION
PERFORMANCE RATING SHEET AND NOTICE TO EMPLOYEE

Name: August L. Hormey  
Rating Period: 1/1/63 to 12/31/63

Title and Grade: Range Conservationist (Res.) GS-1?  
Unit: R-W, Berkeley

A. Your rating is based on task numbers below (See your Task and Performance Requirements sheet.)

Check the following responsibilities which were considered in making this performance rating:

(a) Organizing and training subordinates. Maintaining high morale.
(b) Gaining the understanding, confidence, and cooperation of the community and its leaders in all aspects of the Forest Service program.
(c) Gaining cooperation and support of fellow workers.
(d) Practicing safety.
(e) Observing hours of work, rules of conduct, punctuality, industry, dependability, and loyalty.
(f) Caring for motorized and other equipment and facilities for which responsible.

Symbols: + for strong, √ for adequate, - for weak (explain minus rating on reverse side)

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B. This is your rating:

Outstanding

Performance generally meets or exceeds requirements. (Weak performance compensated by strong or adequate performance in other tasks.)

Satisfactory

Unsatisfactory

Minus on one or more underlined elements, not compensated by strong or adequate performance. (See Over)

C. Rating discussed 1-25-63 (Date)

D. Position No. PSW-9756 reviewed 1-25-63 (Date). Duties statement found 1(adequate 0 inadequate. (Check one.) If inadequate send redescription of duties, with SF-52, to Station Management within 30 days from date of review.

[Signatures]

Employee's Signature: [Signature]

Supervisor's Signature: [Signature]
Memorandum

TO: Director, Pacific Southwest Forest and Range Experiment Station

FROM: GEORGE S. JAMES, Regional Forester, By

SUBJECT: Management

DATE: January 29, 1963

Thanks for Russell K. LeBarron's memorandum of December 7, 1962 confirming Mr. Hormay's service trip to our Mark Twain National Forest during the week of August 12-16.

We think that a one week trip covering two or three allotments will be adequate, although we know it is going to be more difficult to get around and see conditions in Missouri than it was on Mr. Hormay's trip to the Sheyenne National Grasslands in North Dakota.

However, we would appreciate it if Mr. Hormay would plan to spend an additional two days on the Cedar Creek LU project in central Missouri. There we have about 5,000 acres of improved pastures. This project is handled by the Clark National Forest with offices at Rolla, Missouri. It now appears that we will retain these lands and initiate a much more intensive program of multiple use management with grazing as a key use.

Therefore, if Mr. Hormay could plan his schedule to include either the two days of August 8 and 9 or August 19 and 20, we will appreciate this additional service during his scheduled trip.

[Signature]
Office Memorandum  

United States Government

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

DATE: January 29, 1963

SUBJECT: Research, Harvey Valley, The "Roney" proposal.

This is our evaluation of the proposal for changes in Harvey Valley made by Elwin Roney January 22, 1963 in Chico. We will let the Lassen National Forest know of this report, but request that you decide whether it is best to make distribution to the Regional Office and to Roney's at this stage. We would also request that the opinions of M. J. Reed and A. L. Horney be obtained after they read this analysis. Their attention is especially requested to the point concerning 15-day earlier use on meadows in that unit in which grazing is held to the end of the season to encourage seed production. Of course, we want your consideration of these points too, Joe.

When all said and done we feel that this is essentially not a change in the five grazing treatments and will be satisfactory. It is a variation, of course, dictated by needs of a rancher to be flexible in meeting market demands. It is also true that it may be possible to accomplish what Roney wants with less deviation than his proposal (note plan 2 in appendix 2).

Perhaps there may be disagreement with our judgement that this is still the same breed of rest-rotation. This is why we want you and Gus to review this report. Certainly, if enough variation from old procedure is involved it would pass over into a new species of rest-rotation. This I think, we want to avoid at this time. If we are going so far as to change the system of grazing then we just as well go all the way and modify the entire study to meet our future research needs.

Jack

A copy of Elwin Roney’s Chico paper is also included. GMR

Any comments are, please, since the meeting here end before last. I believe the complications well come in acceptance of the system, rather than in the biological end. We’d.
EVALUATION OF THE RONEY PROPOSAL FOR CHANGE IN 1963

By

Raymond D. Ratliff and Jack N. Reppert, January 28, 1963

On January 22, 1963 a meeting between the Roney brothers (permittees on the Harvey Valley allotment, Lassen National Forest) the Region, and Station personnel was held at the Rangers office in Chico. Purpose of the meeting was to discuss the rest-rotation project at Harvey Valley.

During the meeting Elwin Roney proposed a modification in the grazing plan for Harvey Valley. It is the purpose of this report to discuss this proposed modification in terms of how it may affect the objectives of the present system and influence the research effort.

The proposed modification:

For comparison the present schedule planned for 1963 is compared in Table 1 with the proposed schedule. Examination of Table 1 will make clear the following points:

1. Cattle would be moved twice rather than once during the season. Two hundred head from unit 4 and one hundred head from unit 5 would be moved 15 days earlier than under the present system. One hundred head from unit 5 would be moved 15 days later than under the present system.

2. Fifteen head would be in unit 1 from the start of the season. Under the present system no cattle will be in unit 1 until August 1.

3. The grazing season is extended from 4 months to 5 months with the change being in the closing dates. Present closing date is September 31 while the proposed closing date is November 1.

4. On November 1st there would be 265 head on the allotment. Roneys plan to sell 250 head of feeder cattle on August 15.

5. There is no change in the AUM of grazing in the various units, except for a reduction of 50 AUM in the unit used fully the second half of the season under the present schedule.

Questions posed by the modification:

A. Will the modification adversely affect the objective of improvement of range condition?

1. Will the 15 head put into the unit previously rested to mid-season adversely affect the objective of rest to permit seed production?
Table 1. Present and Proposed Grazing Schedules for Harvey Valley (1963)

<table>
<thead>
<tr>
<th>Unit No.</th>
<th>Present Schedule</th>
<th>Proposed Schedule 1/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>June 1</td>
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<tr>
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<td>AU</td>
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<tr>
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<td>100</td>
</tr>
<tr>
<td>5</td>
<td>200</td>
<td>Rest</td>
</tr>
</tbody>
</table>

1/ The grazing schedule for the next five years is given in appendix No. 1.

2/ Animal units in this report refers to any class of animal that is old enough to be considered a "counter" for administrative purposes.
2. Will putting an additional 300 head in the unit, presently rested to mid-season, 15 days early adversely affect the objective of rest to permit seed production?

3. Will removal of 250 head on August 15 from the unit grazed fully the second half of the season adversely affect the objective of getting seed worked into the soil by cattle?

4. Will removal of all 100 head on August 15 from the unit presently rested from August 1st adversely affect the object of aiding seedling establishment by rest the second half of the season?

5. Will the extension of the grazing season adversely affect the objective of range improvement?

6. Will the 15 day early removal of 200 head from the unit grazed season-long, even with the extended season, be of benefit to the range?

7. Will the greatly reduced numbers in the unit presently grazed fully the second half have a beneficial affect on the range even with the extension of the season?

8. Will removal of 100 head 15 days early from the unit presently grazed to mid-season offset any possible harmful affects of leaving 100 head on for 15 days longer?

B. Will the modification hinder our research activities?

1. What does the modification mean in terms of comparing future results to past results?

2. Can our work load be adjusted to fit in with the proposed modification?

3. Can we still obtain cattle records of the kind we have had the past few years?

C. Will the modification be of benefit to the permittee?
Discussion of the Questions:

A.1. The 15 head would be in the unit for 1-1/2 months from June 1st to July 15. Thus they will be grazing areas well in advance of seed production. Presumably most of this grazing would take place in the seeded and meadow areas. The animals will selectively graze certain preferred areas and certain preferred species within these areas. Thus, while seed production on the unit as a whole will not be greatly harmed, there will be some of the more desirable species in meadow and seeded areas which will produce little or no seed due to this early grazing. If possible we would prefer to have these 15 head put with the herd grazing the pasture scheduled for grazing the first half of the season under the present system. On July 15 instead of moving 100 head the permittee would move 115 head into the unit presently scheduled for full use the second half of the season.

A.2. Here again we can state that first the cattle will graze the preferred areas and species. Idaho fescue according to Hormay and Talbot (1961) usually matures seed about August 4th. It is true that the livestock will graze down the meadows before they move up to the areas of Idaho fescue. Thus under the present system where the cattle go into the unit on August 1st they probably do not graze much Idaho fescue for the first two weeks. Hence moving the cattle two weeks early would probably put the cattle on the fescue just about the time the seed was ripe. From this standpoint we can see no objection to the proposed modification. However, there may be some objection from the standpoint of other vegetation. Hormay and Talbot (1961) state the following regarding wet meadows. "Margins of wet meadow sites were usually grazed first in order of time; they were grazed more closely at the end of the grazing season than other meadow areas. The reason probably is that these areas usually support a large proportion of palatable grasses such as Nevada bluegrass and mat muhly, and forbs such as longstalk clover, but comparatively small amounts of the less palatable sedges and rushes." The indication from this is that the margins of the meadows are our most critical sites from the grazing management standpoint. According to Hormay and Talbot (1961) Nevada bluegrass will start to flower about July 11, mat muhly about July 12, longstalk clover about June 6, tufted hairgrass about July 20. Information available to us indicates that the first three will ripen seed about August 19, September 3, and July 25. We have no information of seed ripening date of tufted hairgrass. However, due to its late flowering date we can guess that it will ripen seed after the middle of August. From the

foregoing discussion it is indicated that under the present system we are grazing from two to three weeks early to assure seed production in these meadow margin sites. We know that some of our seeded areas are located on meadow margins and that their depleted condition was the reason for the seeding. If we are presently using the meadow margins too early perhaps grazing them two weeks earlier will make no difference. But if we can devise a workable system which will permit plants in these margins to ripen seed before grazing we should improve the chance of obtaining new plants. Such a system would provide also for seed production by the upland species. If such a system can be developed we feel this is preferable; if not we suggest that we permit the two weeks early grazing by 315 head but not the June 1 grazing by the 15 head.

A.3. Because the proposed modification extends the grazing season one month and provides for the use of most of the available AUM, we don't think this change will adversely affect the objective of getting seed worked into the soil.

A.4. Because the proposed modification requires removal of 100 head 15 days early as well as removal of 100 head 15 days late, we don't think the objective of aiding seedling establishment would be greatly affected. However, on certain areas we may presently be grazing early enough to prevent seedling establishment. The unit presently grazed the first half of the season is rested a full season before this to permit seedling establishment. Perhaps deferment for one month in the first part of the season would be more beneficial to seedlings than rest the second half. An alternate modification which considers this and the need for seed production mentioned under A.2., above in this section, is presented along with other possible modifications in appendix #2. If an acceptable system for seed production and aiding seedling establishment can be worked out we feel this is preferable. However, if such a system can't be developed we suggest putting 215 head into the unit on June 1st, moving 115 on July 15, and moving the other 100 as scheduled under the proposed modification.

A.5. Certainly no simple answer can be given to this question. However, since the modification actually reduces the AUM of grazing the extension of the grazing season one month would probably not adversely affect the objective of improvement of range condition.

A.6. The unit would be grazed to the same intensity as under the present system; thus forage utilization should be the same. The only possible benefit would be to the upland areas and this only if meadow vegetation produced sufficient fall regrowth to maintain the livestock.
A.7. We think the answer to A.6. applies to this question as well.

A.8. The answer to A.4. applies to this question as well. Whether the one would completely offset the other can not be stated with certainty, but we expect that any difference, one way or the other, would be slight.

The answer to the main question appears to be that the modification will have at the worst only a mildly adverse affect on the objective of improved range condition. We do not expect that any downward trend in range condition will develop, and we expect that the speed of range improvement will be slowed but very slightly if at all by the activation of Roney's proposed modification.

B.1. We feel that as long as the system provides for the essentials of rest-rotation management we will be able to make valid comparisons of future results to past results. If one essential, say rest to permit seed production, is eliminated by the system then we have something completely new and comparisons cannot be made. As far as we can determine the proposed modification provides for the essentials of rest-rotation management.

B.2. We feel that the answer to this question is "yes".

B.3. This will depend upon the cooperation of the permittee. Our desires on this question are given in some detail in appendix #3.

C. As the modification was proposed by the permittee we have every reason to expect that the modification would be to his benefit.
## Appendix 1

"Roney Plan" Shown for the Next Five Years

<table>
<thead>
<tr>
<th>Year</th>
<th>Unit</th>
<th>June 1</th>
<th>July 15</th>
<th>Aug. 15</th>
<th>July 15</th>
<th>Nov. 1</th>
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<td>Mod. use aid seedling est.</td>
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1965

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1967

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<td>Rest</td>
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Appendix 2  Two 1/ Plan alternative plans to the "Roney Plan" with varying divergence from Hornay's Plan at Harvey Valley.

Plan 1. Given: 2,000 AUM allotment, Selling of 250 AU on August 15.
a 5-month season divided into 3 parts.
   a 1 month Part 1 (June 1 - July 1)
   a 1-1/2 month Part 2 (July 1 - Aug. 15)
   and a 2-1/2 month Part 3 (Aug 15 - Nov. 1)

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<th>Units involved in 1963, and their original treatment</th>
<th>June 1</th>
<th>July 1</th>
<th>Aug.15</th>
<th>Nov. 1</th>
<th>Total</th>
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<tr>
<td>Unit IV Season long heavy (June 1 - Oct.1) 800 AUM</td>
<td>300 hd.X 1 mo. = 300 AUM</td>
<td>235 hd.X 1.5 mo. = 352 AUM</td>
<td>59 hd.X 2.5 mo. = 148 AUM</td>
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<td>Unit V 1st half Moderate (June 1 - Aug.1) 400 AUM</td>
<td>280 hd.X 1.5 mo. = 420 AUM</td>
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<td>Unit I 2nd half Heavy (Aug.1-Oct.1) 800 AUM</td>
<td>215 hd.X 1 mo. = 215 AUM</td>
<td>206 hd.X 2.5 mo. = 515 AUM</td>
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<td>515 head 515AUM *515 head 772AUM</td>
<td>265 head 663AUM</td>
<td>1,950</td>
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1/ There are several alternative plans that may fill the requirements of 2,000 AUM and marketing 250 head August 15. These are just two examples.
Plan 2. Given: 2,000 AUM allotment, selling 250 AU on August 15.
a 5-month season divided into 2 parts.
a 1-1/2 month 1st part (June 1 - July 15)
and a 3-1/2 month 2nd part (July 15 - Nov. 1)

<table>
<thead>
<tr>
<th>Units involved in 1963, and their original treatment</th>
<th>Same Units showing divergence from original 4-month treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit IV Season long heavy (June 1 - Oct.1)</strong></td>
<td><strong>June 1</strong></td>
</tr>
<tr>
<td></td>
<td>259 hd. X 1.5mo. = 388 AUM</td>
</tr>
<tr>
<td><strong>Unit V 1st half Moderate (June 1 - Aug.1)</strong></td>
<td>267 hd. X 1.5mo. = 400 AUM</td>
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<tr>
<td><strong>Unit I 2nd half Heavy (Aug.1 - Oct.1)</strong></td>
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Appendix 3

Cattle Information desired

In order to determine whether the proposed modification is economical to the permittee we propose to:

1. Weigh in groups of 5 head all market animals on June 1st when they come on the allotment and when they are removed. Calves will be sold on July 15 and other market animals on August 15. We desire shrunk weights, but if this is not economical to the permittee we will accept the unshrunk weights both, on and off, as an estimate of gain.

2. Determine the average grade of the animals to be marketed both when they come on the allotment and when they are sold. This will require the cooperation of a person skilled in cattle grading.

3. Obtain the market price for the average grade and weight of the market cattle when they were put on the allotment and when they were sold. We do not propose to use the actual selling price, but rather the established average market price perhaps of San Francisco.

In order to determine the effect of the system on cattle gains as has been done in the past we propose to:

1. Weigh all open replacement heifers individually when they come on the allotment, on July 15, on October 1 and on November 1. We would require a minimum of 60 Hereford heifers.

2. Divide the heifers in two groups and tag each animal for identification.

3. At the start of the season put both groups of heifers in the unit getting treatment A. (See appendix 1)

4. On July 15 move one group of the heifers to the unit getting treatment C.

Note: Weighing on October 1 and again on November 1 is important to the study in view of the possibility of the permittee feeding supplements in October.
Memorandum

TO: A. L. Hormay, through Director, Pacific Southwest Forest and Range Experiment Station
FROM: Fred H. Kennedy, Regional Forester, By

DATE: January 30, 1963

SUBJECT: Management

At the termination of your visit to Region 3 last September, you requested us to furnish you with certain information on several of the allotments which you inspected for further study and consideration. We regret the delay in getting this information to you but the last report was just received.

The reports are enclosed for the following allotments:

☑ Hall - Springerville Ranger District, Apache National Forest
☑ Council Rock - Magdalena Ranger District, Cibola National Forest
☑ Angell
☑ Cinder - Elden Ranger District, Coconino National Forest
☑ Turkey Tank
☑ Rio De Flag
☑ Blind Lake - Long Valley Ranger District, Coconino National Forest
☑ Turkey Mountain - Long Valley Ranger District, Coconino National Forest

The Supervisor on the Sitgreaves National Forest reports that Ranger Breon gave you the data on the Linden Allotment when you were on his district.

We will appreciate receiving any suggestions you may have that will aid in getting better management on these allotments.

Enclosures

[Signature]
I nearly overlooked the deadline on a reply to Merlin Bishop's letter of December 3, 1962, on the Fall Creek Basin cattle allotment. Hope it is in time.

I am not in a position to make as pointed suggestions on a management plan for this allotment as I'd like because of the lack of information, particularly on possibilities of handling livestock on the allotment.

I am assuming definite commitment to 5 units as outlined on a map of the allotment sent me by Bruce Reese, that the Upper Fall Creek unit has larkspur and cannot be grazed until about the middle of August, and that each of the other 4 units can be grazed anytime after about June 1 - that the range is ready and there is no difficulty placing stock into any one of these units at the beginning of the season.

The plan I visualise is outlined on the attached sheets. It is complicated some by the larkspur problem but should provide adequately for improvement and maintenance of the range and is in the interest of high livestock production.

Three out of the 5 units are grazed each year. Your utilisation figures indicate that you can just squeeze onto the allotment with 897 head using the feed in 3 units. Utilisation in each of the units will average about 77 percent.

The animals are placed into two units at the beginning of the season and grazed there until about September 1, then they are moved to a third unit and kept there the remainder of the season. This involves only one move of stock during the season. In short feed years - real emergencies - one or both of the rested fields may be used - first the unit receiving treatment F and then the one receiving treatment D.

The animals in the early grazed units need not be kept separate in the two units. They can be run in both fields with the gates between fields left open. Also, the stock need not be gathered for the move into the third field. Here too gates can be opened and the stock allowed to drift through on their own. In fact, during the last third of the season, the stock can run in all three fields.
In two years out of five it is necessary to graze units 2 and 3 off schedule as indicated in the table to get around larkspur in unit 3. This interferes with reproduction establishment in units 2 and 3 but is the price that must be paid to avoid larkspur poisoning.

From this distance it looks like this plan should produce good results. I hope these suggestions will be helpful to you.

Enclosures

A. L. Hormay

cc: Regional Forester, R-4

ALH:gws
Fall Creek Basin Cattle Allotment
MANAGEMENT PLAN
Caribou National Forest

Key type (name)  *Sagebrush-grass*  

Key species (name)  *Festuca idahoensis*  (date seed ripe) *August 10*  approx

Grazing Treatment Plan

Number of treatments and units  5

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<th>Year or unit</th>
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<tr>
<td>F</td>
<td>6</td>
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[Diagram showing grazing, resting, and emergent grazing periods]

Movement of livestock between units during a given season:
- **Grazing period**
- **Resting period**
- **Emergent grazing**

Planned use of forage:  On most closely grazed unit 77%; on allotment 46%

Grazing Schedule for a Grazing Cycle

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<thead>
<tr>
<th>Year</th>
<th>Units</th>
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</tr>
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<td>2</td>
<td>B C D A E</td>
</tr>
<tr>
<td>3</td>
<td>C D B E A</td>
</tr>
<tr>
<td>4</td>
<td>D E A B C</td>
</tr>
<tr>
<td>5</td>
<td>E A B C D</td>
</tr>
</tbody>
</table>

Planned stocking 4037 AUMs. Planned season (dates) June 1 to Oct. 15

A. Hormay
Jan 31/63
Rough diagram of Fall Ck Basin
Cattle allotment, Cariboo N.F. showing layout of units

1. June Ck.
2. Gibson Ck.
3. July Ridge
4. Fall Creek Basin
5. Upper Fall Ck

Note: The units can be numbered in four other ways.
Number 1 can be assigned to any unit, then the remaining numbers are assigned in order clockwise.

A. Hormay
Jan 31/63