OPTIONAL FORM NO. 10
5010-104
UNITED STATES GOVERNMENT

# *Memorandum*

2220

TO : Regional Forester

DATE: September 1, 1961

FROM : C. L. Clark, Forest Supervisor

SUBJECT: Management

We have been considering a trip by our rangers and assistants to see Hormay's Rest-Rotation grazing system at the Harvey Valley Experimental Range in California, but because of the travel time involved and the fact that our regular work has suffered as a result of the many fires we have had this year, we suggest asking Hormay to visit this forest and advise us as to the efficacy of his system on two particular allotments.

If this can be done, we recommend that he be invited to spend two days with us some time in September or October.

4210
September 5, 1961
A. L. Hormay

REPORT
Regions 1, 2 and 4
EXTENSION REST-ROTATION GRAZING

Since July 1960, and more objectively since July 1961, I visited several forest range allotments in regions 1, 2, 4, 5, and 6, upon invitations from the regions, for the purpose of:

1. Getting better acquainted with ranges and range problems throughout the West.

2. Appraising the applicability and the practicability of applying rest-rotation grazing to these ranges.

3. Explaining the principles of rest-rotation grazing to the men in the field so they may have a better understanding of the system.

4. Answering questions on the application of rest-rotation grazing and related management practices on specific allotments.

The allotments

The present report covers the trips made this year in regions 1, 2 and 4 during the period July 5 - August 29. Twenty-eight forest range allotments - all grazed by cattle - were visited as follows:

Rest-Rotation Grazing Extension Schedule 1961

| Stop No. | Date | National Forest | Region | Ranger District | Allotment |
|---|---|---|---|---|---|
| | July | | | | |
| 1 | 5 | St. Joe | 1 | Palouse | Potlatch Corral Creek #35 |
| 2 | 6 | Colville | 1 | Colville | Smackout |
| 3 | 7 | Kaniksu | 1 | Priest Lake | Hughs Meadow |
| 4 | 10 | Lewis & Clark | 1 | Judith | South Fork (Judith River) |
| 5 | 11 | Lewis & Clark | 1 | White Sulphur Spgs | Flagstaff |
| 6 | 12 | Helena | 1 | Townsend | North Crow Creek |
| 7 | 13 | Deer Lodge | 1 | Boulder Creek | Elkhorn |
| 8 | 14 | Beaverhead | 1 | Jackson | Bull Creek |

Rest-Rotation Grazing Extension Schedule 1961 (Continued)

| Stop No. | Date | National Forest | Region | Ranger District | Allotment |
|---|---|---|---|---|---|
| | July | | | | |
| 9 | 17 | Cache | 4 | Logan | Logan Canyon (Mud Flat Unit) |
| 10 | 18,19 | Ashley | 4 | Vernal | Brush Creek Mt. |
| 11 | 20 | Fishlake | 4 | Monroe | Kingston |
| 12 | 21 | Fishlake | 4 | Monroe | Glenwood |
| 13 | 24 | Caribou | 4 | Malad | Dry Creek |
| 14 | 25 | Caribou | 4 | Soda Springs | Bridge Creek |
| 15 | 26 | Challis | 4 | Mackay | Copper Basin |
| 16 | 27 | Challis | 4 | Stanley | Stanley Basin |
| 17 | 28 | Sawtooth | 4 | Fairfield | Gooding |
| | August | | | | |
| 18 | 7 | Roosevelt | 2 | Pawnee Nat'l Grassland | Main |
| 19 | 8 | Medicine Bow | 2 | | Beacon |
| 20 | 9 | Bighorn | 2 | Goose | Little Goose |
| 21 | 10 | Black Hills | 2 | Elk Mt. | Crowsnest - Upper Beaver |
| 22 | 11 | Nebraska | 2 | Niobrara | Powderhorn |
| 23 | 15 | Rio Grande | 2 | Saquache | Saquache Park |
| 24 | 15 | Gunnison | 2 | Cebolla | Monchego |
| 25 | 16 | Gunnison | 2 | Muddy | Mule Park |
| 26 | 17 | Umcompahgre | 2 | Magill | Sheep Creek |
| 27 | 18 | Umcompahgre | 2 | Northend | Smith Point |
| 28 | 19 | Routt | 2 | Hahns Peak | Big Creek |

These ranges vary in character from boggy wet meadows to comparatively dry bunchgrass types. They range in size from 165 acres (Hugh's Meadow) to 91,523 acres (Copper Basin). The topography on some is flat and rolling and on others steep and rugged. Soils vary from comparatively stable ones to highly erosible ones.

Rest-rotation grazing is applicable to all these ranges and others of similar character. This grazing system was designed specifically to solve the problems of diverse ranges but works equally well on uniform ranges.

Probably the most complex range encountered was the Sheep Creek allotment on the Umcompahgre. It encompasses over 20,000 acres in three elevational zones grading from juniper-pinyon type, upward through oak-pine and into aspen-spruce. The terrain is rolling to steep and rugged and the cover types so dense that gathering and moving stock between units within

elevational zones during the season is impractical. Yet, I'm sure a good form of rest-rotation grazing can be applied here. The forest is taking the first important step of dividing the range into elevational zones.

All the ranges visited are somewhat wetter ecologically than those in northeastern California. This is reflected in a denser vegetation cover and other characteristics. Everything considered ranges in northeastern California pose more formidable problems of range rehabilitation than any seen to date in regions 1, 2 and 4.

Goals and progress

The forests are planning or practicing some form of fenced rotation grazing on each of the 28 allotments. Most of the allotments are planned to serve as demonstration ranges. Cooperation and participation of stockmen in the development of these ranges is being obtained by regional office and forest personnel through directed effort fortified by rather strong conviction that fenced management of livestock (cattle in particular) is the way to improve national forest ranges. The energy and speed with which regions 1, 2 and 4 are moving in this program and the encouraging results obtained to date leave no doubt in my mind that the Service has entered a new area in range management. Results obtained under rest-rotation grazing on the Bull Creek allotment on the Beaverhead Forest and the Crowsnest - Upper Beaver allotment on the Black Hills Forest in just 4 or 5 years and indications of the effectiveness of resting on other allotments like Logan Canyon, Bridge Creek, Main Powderhorn and Smith Point makes me feel more positive than ever that rest-rotation grazing, properly applied, will produce the results desired.

At the present time seven of the 28 allotments are in the planning stage and 13 are in various stages of development. Eight are practically completed and are being managed - six under rest-rotation grazing and two under straight rotation grazing.

Reports

A brief report was prepared on each of the 28 allotments. Each includes a description of the allotment, its problems and suggestions on the form of rest-rotation grazing that may be applied. In each case an ideal plan of rest-rotation grazing, suited to the vegetation and site, is presented. In addition, where sufficient information was available and it was felt justified a second compromise plan, tailored to local conditions, including fences now on the ground, is also outlined. This compromise plan is but one of several specific plans that could be written for the allotment and is offered simply to stimulate thinking on possible ways of managing the allotment.

These reports are based on spotty data, estimates, opinions and a brief (2 to 4 hour) look at the range so they should not be taken literally. They are designed mainly to direct thinking along the lines of rest-rotation grazing. Specific figures and statements are used to carry this thought. More thorough analyses are needed for an action program.

Grazing management suggestions in these reports have been limited to rest-rotation grazing because I believe this system will give better results and be equally or more practical to apply than any other system employing the same number of range units.

Multiple use

Effective planning of intensified range management necessitates having a clear picture of the extent and kind of land that will be used for livestock grazing for a considerable time ahead. This calls for firm multiple use plans. Such things as the location of fences, water-developments, cultural treatments and even the over all form of management to be used on the range are all effected by the multiple use picture. The Beacon allotment on the Medicine Bow is an example.

Management of grazing

The foundation of range improvement and maintenance is proper management of grazing. Because of lack of experience relatively little is known yet of what can be accomplished with a good system of grazing management alone. Observations on the allotments indicate that a lot more can be realized than generally thought. In general it seems desirable to observe what can be accomplished with grazing management before resorting to cultural practices, or adjustments in stocking or grazing season. The need for the latter may be found to be considerably less than anticipated or even unnecessary.

Such an observation period is possible under rest-rotation grazing. For within the framework of a proper unit design rest-rotation grazing may be started even on a range that is considerably over stocked.

I am suggesting that rest-rotation grazing of the proper design be started on the allotments where overstocking under present management and even under rest-rotation grazing appears evident at the present time. Within a comparatively short period of one to five years degree of overstocking and other problems should become relatively clear and needed follow-up action can be taken then. Nothing will be lost and everything gained. If the range has carried present numbers for a period of time it can carry them for another 1 to 5 years without disasterous consequences and a basis will then be available for planning a sound grazing design within the fences already on the ground and applying appropriate cultural treatments on areas justifying them. All of this hinges on determination of the proper number of units to be used ultimately in the grazing system.

Game - wildlife

Deer graze on practically all of the allotments visited but little if anything is known of the amount of vegetation eaten by them or the degree of conflict with livestock grazing. Generally the deer grazing problem is considered negligible by the man on the ground. Problems of this magnitude can probably be solved--certainly minimized--by proper management of livestock grazing.

Elk grazing and concentrations loom as serious problems on a few ranges. In these cases the range is used both summer and winter especially the latter. The Saguache Park allotment on the Rio Grande is an example. It is estimated that some 1,200 elk winter in the main park on this allotment. Without decimating the elk population, this problem can probably be solved only by fenced control of elk as well as livestock under a rest-rotation grazing system. It seems inevitable to me that deer and elk will have to be managed with fences on critical problem areas if maximum production of game as well as other products and values is the goal of management.

Chemical spraying

There is little question that chemical control of undesirable plants is one of the quickest, easiest and cheapest ways to get additional grazing capacity. Spraying is being planned or has been employed on most of the allotments. This management tool could be made even more effective by development of spray formulations and timing of spraying to control several species at one time. To date spraying has been directed mainly at one or two species, like sagebrush, or wyethia in any given project. Many other undesirable species, especially forbs, have not been affected on the sprayed areas in most cases and remain to provide serious competition to grass. On many of the allotments forbs constitute the major spray target yet relatively little is known of methods for their control. There is real need for information on ways and means of controlling several undesirable species simultaneously in one spraying. This is a job for research.

Poisonous plants

Tall larkspur is causing cattle losses on some allotments and is a threat on many. Poisonous plant problems are bound to become more serious under management systems that restrict the animals to smaller areas and call for greater utilization of available forage.

Larkspur poisoning looms as an important range problem and it is somewhat surprising to learn that practical chemical or other control methods have not been developed for it yet. This problem justifies more attention by research than it is receiving now. Much can be done to minimize livestock losses in particular cases through judicious management - particularly through proper location of fences and timing of grazing.

Further training

It was revealing to get the reaction of the men to my brief review of rest-rotation grazing at each stop. Without exception they said they did not quite understand the system the way they did after it was discussed in terms of local conditions. Even men who had been to Harvey Valley and had heard the story several times saw rest-rotation grazing in a different light. All indicated a desire to learn more about the system so they would be in a better position to decide where and how it could be effectively applied. Immediate further training in rest-rotation grazing is essential to rapid further progress. The training is needed by all personnel concerned with range from the ranger on up.

OPTIONAL FORM NO. 10
5019-104

UNITED STATES GOVERNMENT

# *Memorandum*

U. S. FOREST SERVICE
P. O. BOX 4137
PORTLAND 8, OREGON

1310 (2200-4200)

TO : Keith Arnold, Director, Pacific Southwest Experiment Station, P. O. Box 245, Berkeley 1, California

DATE: September 6, 1961

FROM : J. Herbert Stone, Regional Forester, By

SUBJECT: Planning

We have received the attached request from the Ochoco National Forest. Would it be possible at this late date for Mr. Hormay to arrange to make this proposed trip this year? He will recall that last year he was on the Ochoco on October 14 and discussed the rest-rotation system. The forest is interested in learning more detailed information if possible.

Please advise if he can make the trip this fall. The nearest airport to Prineville is Redmond, Oregon.

Attachment

cc: A. L. Hormay w/attachment
W.O., DeNio, Div of RM w/attachment

Russell P. McKay

STANDARD FORM NO. 64 CHIPPEWA NATIONAL FOREST Cass Lake, Minnesota

# *Office Memorandum* • UNITED STATES GOVERNMENT

4210 (2220)

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

DATE: September 6, 1961

FROM : JOHN VON BARGEN, Forest Supervisor

SUBJECT: Management, A. L. Hormay

Reference is made to your memorandum of August 31, 1961.

We have secured a room for Mr. Hormay at the Graver Hotel, Fargo, North Dakota, for the night of September 10.

Ranger Fredrickson, Sheyenne, will pick Mr. Hormay up at the hotel in the morning on September 11 about 9:00 A.M.

John von Bargen

4210
September 8, 1961
A. L. Hormay

# GENERAL REPORT ON REST-ROTATION GRAZING EXTENSION PROGRAM JULY 1, 1960 TO SEPTEMBER 1, 1961

The following statement is in reply to Mr. De Nio's request of January 20 (approximately) 1961 for a brief summary report on rest-rotation grazing extension work for fiscal year 1961. Also included however, are impressions from trips in regions 1, 2 and 4 in July and August 1961. A separate statement on the latter trips is attached.

The areas visited and the time spent on the ground are covered in the specific reports. Since July 1960 approximately 6 weeks time has been spent in preparing for trips, writing reports and carrying on related work.

## Range problems

All the ranges visted are deteriorated to some extent and the objective of management is to improve, maintain and make good use of the available forage resources in keeping with other uses of the land. The suboptimum condition of these ranges is reflected in one or more of the following:

1. Below optimum plant vigor.
2. Undesirable plant composition.
3. Below optimum forage density.
4. Soil erosion.

In all cases some areas on the range are in poor condition and other areas are in better condition grading up to good or even excellent. Rehabilitation of these ranges is being carried out by cultural treatments like artificial reseeding, chemical spraying, etc., where applicable, and through management of grazing. Management of grazing is paramount because it determines the maintenance and efficient use of the range and in most cases a major part of its improvement.

Uneven utilization of the range resulting in sore spots on the one hand and waste of usable forage on the other is the universal grazing problem on these ranges. It varies only in degree from range to range. Efforts to solve this problem - that is to rehabilitate the sore spots and improve the range generally while making reasonably full use of all available forage on the range by management practices employed till recently has not been entirely satisfactory.

Rest-rotation grazing originated because of this problem and is designed to solve it. This system provides positively for increase in plant vigor, forage density and change in plant composition on sore spots and all other grazed areas and for efficient use of all available forage on the range.

This solution to the uneven use problem either solves or minimizes many other problems - for example, the establishment and management of artificially reseeded stands and sprayed areas, the production and maintenance of forage for game and other forms of wildlife and the management of vegetation for watershed and recreation.

Main recommendation

Full understanding of rest-rotation grazing by men concerned with management of the range is vital to effect use of this management tool. Further immediate training of personnel in rest-rotation grazing is the most important step that can be taken at the present time to reap full benefits from the grazing system. Knowledge of the system and its requirements is particularly important in planning management of any given area.

Follow-up contacts

Many suggestions were made on the management of specific allotments during the course of the last 14 months, on the ground and in the present and earlier reports, largely in terms of rest-rotation grazing principles. Many of these suggestions probably are not clearly understood because the men are not as fully informed on rest-rotation grazing as they might be. For this reason there is need to follow-up on further forest activity to keep developments in line with rest-rotation grazing requirements in more cases at least where rest-rotation grazing management is contemplated. Some of this follow-up can be handled by correspondence and some by further field contact. The forests visited are in a position now to indicate the type of assistance needed if any.

Range File

4210 (2220)
September 11, 1961

Chief, Forest Service
Attn: R. M. DeNio, Director, Division of
Range Management
Keith Arnold, Director, By

Range and Wildlife Habitat Programs (Extension rest-rotation grazing)

Attached, herewith, are two copies of a report on Hormay's range extension activities to date and individual reports on the 28 range allotments visited this year in Regions 1, 2 and 4. One copy of these reports is for the regions and forests visited should you care to send them.

At this writing Hormay is in Region 9. Reports of his activities there will be submitted later. Region 6 has requested Hormay to return to the Ochoco for further help on areas visited last year. This will complete his travel outside of Region 5 for the calendar year.

The attached reports were requested by DeNio on January 20, 1961.

Attachments

EJWolfolk:hlt

EJW

4210

J. Herbert Stone, Regional Forester
Pacific Northwest Region, Portland, Oregon

September 11, 1961

Keith Arnold, Director, By

Range and Wildlife Habitat Programs

Reference is made to Mr. Russell P. McRorey's memorandum of September 6, 1961.

Mr. Hormay will be free to visit the Ochoco Forest the first week in October. He is planning to spend October 3 and 4 on the ground. Please let us know if this time is convenient or if some other time that week would be better.

Mr. Hormay is out of town for the next two weeks. We will inform you of his destination and mode of travel to the Ochoco upon his return September 25 and after we hear from you.

cc: WO, Mr. DeNio

ALHormay:hlt

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

# *Memorandum*

PACIFIC SOUTHWEST
FOREST AND RANGE EXPERIMENT STATION
P. O. Box 245, Berkeley 1, California

4210

TO : E. J. Woolfolk, Chief
Division of Range Management and
Wildlife Habitat Research

DATE: September 11, 1961

FROM : A. L. Hormay, Range Conservationist

SUBJECT: Range and Wildlife Habitat Programs (Extension rest-rotation grazing)

Attached is a progress report on rest-rotation grazing activities since July 1960. It covers Reginald DeNio's request of January 20, 1961, and in addition write ups of trips made this year in regions 1, 2 and 4 during July and August 1961. The general narrative section covers all work to date.

The portion of the report covering this fiscal year's work includes a narrative section and 28 individual allotment reports. Two sets of reports have been prepared for forwarding to Washington. However, one set is intended for the forests concerned. Washington can forward if it sees fit. The forests are expecting the reports.

Attachment

A. L. Hormay

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

# *Memorandum*

U. S. FOREST SERVICE
P. O. BOX 4137
PORTLAND 8, OREGON

1310 (2200-4200)

TO : Keith Arnold, Director, Pacific Southwest Experiment Station, P. O. Box 245, Berkeley 1, California

DATE: September 13, 1961

FROM : J. Herbert Stone, Regional Forester, By

SUBJECT: Planning

This is to advise you that the dates of October 3 and 4 for Mr. Hormay's trip to the Ochoco are satisfactory.

We will be looking forward to his visit at that time. Please inform us of his destination and mode of travel to the Ochoco.

xc: Mr. Hormay
cc: Ochoco

Central File

4210 (2220)
September 20, 1961

J. Herbert Stone, Regional Forester
Portland, Oregon

Keith Arnold, Director, By

Range and Wildlife Habitat Programs

Mr. Hormay will travel to Prineville by automobile from Susanville, California on October 2. Will you please reserve hotel or motel accommodations for him for October 2, 3 and 4.

Attached are 4 sets of forms prepared by Mr. Hormay for use in analyzing the applicability of rest-rotation grazing and other management practices to range allotments. Will you please have the Ochoco fill out one set for each of the allotments they have lined up for consideration and have them ready for reference during Mr. Hormay's visit. The extra copies are for forest files. Mr. Hormay will keep the originals.

ALHormay:hlt

Attachment

A. S. ERICKSEN