

dear Sue:

I am trying it again
with a little different slant,

Ann Rathner just arrived
back from the winter in
Mexico.

Best regards,

Alan

R/ May 27/86

RANGE MANAGEMENT

by Daniel S. Healy, Worland, Wyoming, May 1986

INTRODUCTION

My son Mike, and several Bureau of Land Management people, have asked me to write down my ideas on Range Management. Since I only want to write a short article and not a textbook, I will discuss just a few ideas, mostly in areas where I disagree with Federal land management policies.

I am about 71 years old and have been a western ranch owner and operator just about all of my life, as was my father and grandfather before me. We have run both sheep and cattle, often together. I ranched on the plains of southeastern Montana for several years, and I have ranched with the L.U. ranch out of Worland, Wyoming for 33 years. The L. U. ranch consists of desert, foothill, and mountain rangelands, with the land ownership being about 60% B.L.M. Public Domain, 10% U.S. Forest, 10% State, and 20% Private.

Over the years I have worked closely with a number of Federal land managers. Most of them are likable, but know little or nothing about livestock or ranching. I have tried to help the younger ones learn, and I have tried to learn from some of the best of the older land managers. I have gained a lot of knowledge from the University Extension Services, Federal research personnel, and other ranchers.

Before writing this article I decided to re-examine some excellent textbooks, not only to confirm my own observations, but to add authority to what I say. Quotations from these books are noted, with the notes at the end of this article. These textbooks represent up to a century of research by large University research staffs covering thousands of research projects. If elsewhere there is some isolated research which may disagree with these well-researched conclusions, the weight of the evidence would still rest with these textbooks, which are:

- Range Management, by Stoddart and Smith, 1955
- Range Management, by Stoddart, Smith, & Box, 1975
- Feeds and Feeding, by Morrison, 1956
- Feeds & Nutrition, by Ensminger & Olentine, 1978

In addition, I was fortunate to have attended five outstanding Range Workshops conducted by A. L. "Gus" Hormay. It is too bad that his excellent government bulletins on the Principles of Rest Rotation are out of print. These bulletins contain excellent information on how plants grow, how to restore plant vigor, how to revegetate, and how to get the best cattle gains. I have the greatest respect for Mr. Hormay and the above authors.

At the Wharton Business School, University of Pennsylvania, I was taught that 90% of all businesses fail. Recently, a banker told me that their national bank association's figure showed a 94.7% rate of failure. Either figure would indicate how terrible the odds are against all businesses including ranchers. Knowing and practicing good Range Management is absolutely vital to the ranching industry and to the nation.

6. Exactly how will the livestock production, the livestock carrying capacity, the vegetation, and the soil retention be improved enough, as established by research FACTS, to pay for the expense of creating such a grazing system. Without such information, any discussion of such a proposal lacks common sense.

I have no faith in official Federal range surveys. My experience has been that they usually show the range condition to be much worse than it really is. These surveys are too complicated, too time-consuming, and too easily manipulated against the rancher.

I am convinced that the systems for Federal range surveys have been designed in Washington, D.C., and are designed to be political rather than scientific. They want to show massive overgrazing so that Congress will appropriate huge sums of money to correct the situation. Unfortunately, very little of this money ever gets back to the land because it is eaten up by administration before it ever gets to the land itself.

The forage diets of sheep and cattle differ, with sheep preferring the finer grasses and browse, and cattle preferring all grasses including coarser bunchgrasses. To keep a range well-balanced with all types of vegetation, both sheep and cattle should be grazed in our area.

Up until recently the L.U. ran both sheep and cattle, but we had to sell the sheep because we were losing one-third of our lambs to predators, principally coyotes and mountain lions, with some loss to bears. The Government has eliminated any effective predator control, and thereby has eliminated practically all of the many thousands of sheep from our Shoshone National Forest. Is this in the best interests of our nation?

GOOD WATER--THE FIRST PRIORITY

It is too often overlooked that good water deserves first consideration. Animals can do without feed far longer than they can do without water.

I recently went on a range tour over a Forest Permit. The Forest Ranger said that the range management plan was developed a number of years ago and the necessary fences were built by the ranchers. At a later time, the water was planned and developed. Now they find that the fences are in the wrong places and the management plan is not working. This is an example of what can and does happen.

I certainly agree with Stoddart, Smith, & Box, on page 283, where they state, "Poor water distribution is probably the chief cause of poor distribution of livestock on the range."

Yet the B.L.M. 1982 Grass Creek Grazing Environmental Impact Statement, on page 11, under Management Plan Recommendations, states: "Do not allow livestock waters to be developed in crucial elk, deer and antelope winter areas." This restriction could affect our whole ranch area.

The B.L.M. in their 1982 Grass Creek Grazing E.I.S., on page 7, under Management Framework Plan Recommendations, for "C" category allotments which cover a very large area, state:

"RM 2.1

2. No livestock will be permitted during the period May 1 to August 31 except as outline in RM 2.2-1"

"RM 2.2

1. As an alternative to RM 2.1 the livestock permittees could develop a grazing system whereby livestock grazing could be continued during the period May 1 to August 31. Such grazing systems will conform to the following restraints:

- a. No livestock grazing could occur prior to range readiness.
- b. No grazing could occur prior to seed ripe on key plant species two years out of three.
- c. No grazing would occur prior to seed ripe on key species until the grazing system is developed and until all needed livestock management facilities are installed.
- d. The permittee is responsible for funding and implementing the necessary management facilities.
- e. The grazing system must have BLM approval."

This B.L.M. Management plan goes on to give Range Readiness dates which are much too late and too close to seed ripe time. Good Range Management should seek maximum livestock production. This plan seeks the minimum livestock production. This plan will put a lot of ranchers out of business because they cannot spend money to get little or nothing.

Here is another important chart from Hormay, 1970, page 14:

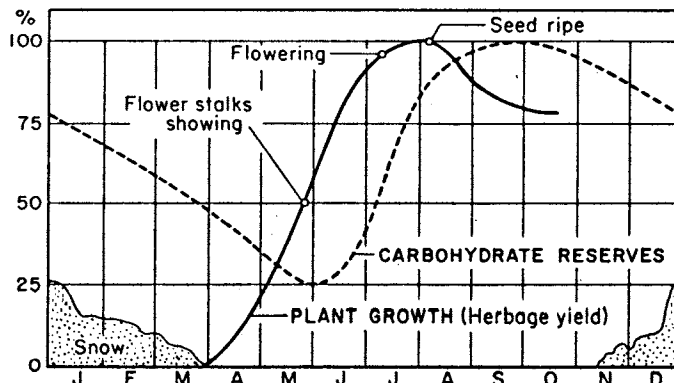


Figure 2.—Trend in carbohydrate reserves in relation to shoot growth. Shoot growth of Idaho fescue and based on data by Hormay and Talbot (1961). Carbohydrate curve, based on data by McCarty and Price (1951), is related to curve of Idaho fescue by plant growth stages.

Grass plants must grow, and store food (carbohydrate reserves) in their roots for the plants to live on during the winter and to start growth the next spring. Plants continue to grow during the spring and summer by having their

4. Provide at least one rest pasture in allotments located in important big game areas."

I should note here that a rested pasture is one which is not grazed for one whole year. We have big game over our whole ranch. This B.L.M. recommendation would cut our L.U. ranch and other ranches in this area to shreds.

There are questions which must be asked about these B.L.M. Management Recommendations. Is this good Range Management? Will they create maximum livestock production and maintain wildlife numbers? Or is it a sham with the purpose of running the ranchers off of the range?

The Taylor Grazing Act was passed by Congress in 1934. One of its three objectives was "to stabilize the livestock industry dependent upon the public range." Every B.L.M. Grazing Regulation published during the past 35 years repeats this same phrase. This 1982 B.L.M. Grass Creek Grazing E.I.S. is certainly not stabilizing the livestock industry in our area, and it is against the will of Congress and the law.

U.S. FOREST SERVICE RANGE SURVEYS

I don't want to pick on just the B.L.M. When I arrived on the L.U. ranch in 1952, we had five sheep permits on the Shoshone National Forest on an extended upper limit, with four permits of 1,000 head and one of 1,200 head, totaling 5,200 head. We had a good history on two of these permits, which indicated that the permits were originally for 1700 sheep for a much longer period of time. I can assume that the other permits had been similarly and properly reduced. These permits were mostly Alpine, above timberline, with rocky peaks, shallow, granitic soils, and naturally less dense and different vegetation from lower elevations and deeper soils.

In 1952 the maps of our permits showed a Range Condition of about equally Poor and Fair. For over 20 years every new Ranger, and we had a lot of them, complained vigorously about the range condition of these permits. We tried several things. We replaced a small permit with a larger and better one. We cut numbers down and ran four bands for a shorter period of time. We rotated on each permit, and we rested one permit completely. Still, every new Ranger complained about the range condition, and the range condition as reported never changed for the better.

In about 1973, the L.U. Manager rode over three permits with a new Assistant Ranger, who reported the range in much better condition than the official records indicated. That information gave me food for thought.

In 1976, the L.U. had retained the excellent Range Consultant, so he and I went over to a District Ranger's office to meet with the new but experienced Ranger. What an honest man! I told him that the Forest Service records showed that our permits were in terrible condition, with only a Poor to Fair rating. I wanted him to ride with the Range Consultant and me, over the permits, to see what we could do to put them in Good to Excellent condition.

capacity." (7)

Stoddart in May 1965, in the Journal of Range Management stated, "The old idea of preserving resources by non-use is no longer acceptable to modern schools of range land management. Anyone who manages land in a negative way by preventing its use is living in the past."

For years at the B.L.M. I have heard "Take half and leave half." And, "We don't want more than 50% utilization." I have questioned two Chiefs of Range of the B.L.M. in Washington and they both told me that there is no such B.L.M. policy.

The B.L.M. is always working on studies. The currently popular one is (forage) Utilization. Utilization cages are going up all over the range, with or without rancher participation. These cages are often placed and read to the rancher's disadvantage, which is easy to do. They are placed by visual guesswork, and are usually read by visual guesswork because actual clipping of the forage is too time-consuming.

What does Stoddart, Smith, and Box, have to say?

Page 203, "Raw utilization data have little utility in range management."

Pages 262, "Unfortunately, range forage can be neither weighed nor measured accurately.....It is unfortunate that there exists no precise measuring stick for determining full range use."

Page 274, "The many experiments on intensity of grazing are inconclusive because (1) they did not sample sufficient levels of grazing intensity, (2) they were not continued long enough to determine vegetation and soil responses, and (3) they were not analyzed in terms of true economic effect upon the operator or sociological costs to the nation."

Page 263, "Good judgment on the part of the experienced manager is still indispensable to good range management."

Some Suggestions for Better Range Management

1. Ranchers should honestly try to comply with their agreements with the government land managers.

2. Everyone should avoid playing the numbers game, the fancy names game, the fancy grazing systems game. What is important is conserving the vegetation, soil, and so on, while maximizing livestock production, reducing livestock expenses. You must understand what you are doing and why you are doing it.

3. Government land managers should always try to work with the rancher. They should try to meet on the range as much as possible rather than in an intimidating government office. Remember too, the rancher is on the range every day and is in a far better position to protect the range than a

Conditions and plants vary.

12. Early spring use by livestock is the most critical time for the grass plant because the plant is growing by using its reserves in the root. At the L.U. we try to graze such early spring areas and get off of them early so that the plant can grow to restore vigor, replace reserves, and produce vegetation which will again be used early the following year. This practice will improve these ranges, if correctly done. It will also give other, later spring ranges time to grow and be ahead of the livestock when they arrive. By that time the grass plants are growing so rapidly that the properly stocked livestock numbers are literally overwhelmed with grass to eat and the plants are well on their way restoring vigor and reserves.

13. Livestock eat the leaves of grass in preference to the seed head stems which are tougher. Such ungrazed seed heads are available to help revegetate. After seed ripe time the plant has restored about all of the food reserves that it is going to store, so I don't worry about how much of the plant is grazed after this time--through the fall, winter, and up to early spring.

14. Properly stocked ranges will leave plenty of feed to maintain wildlife numbers.

the carbohydrates, although not a true carbohydrate, has a very low digestibility, even by ruminants or horses, and other animals can digest practically none of it. Its nutritive value is therefore much less than that of cellulose. The digestibility of older plants is also reduced because the cell walls, especially of the stems, become lignified, or encrusted with lignin. This decreases the digestibility of the nutrients which are enclosed within the cell walls."

"Grass is generally rich in protein, on the dry basis, and otherwise of high nutritive value, as long as it is kept growing actively and is prevented from heading out."

Feeds and Nutrition, by Ensminger & Olentine, 1978, The Western Range, Range Nutrient Deficiencies, on pages 231 & 232, state:

"Energy Deficiencies--Hunger, due to lack of feed, is the most common deficiency of range livestock. The most important requirement is sufficient feed for body maintenance. Over and above this, surplus energy is used for growth or fattening."

"With bulky, low quality roughages--such as range grass cured on the stalk, animals cannot consume sufficient quantities to meet their energy needs. The younger the animal, the more acute the problem. Under these circumstances, the low-energy intake is met by breaking down of body tissues. This results in loss of weight and condition and lack of growth."

"In breeding animals, low-energy intake affects reproduction. Cows take longer to come in heat and require more services per conception, thus reducing the calf crop. Also, calves born from energy-deficient cows are lightweight at birth...."

"Protein Deficiencies--The protein intake of beef cattle must be adequate to develop muscle (meat) and replace worn body tissues. The protein need is most critical in young calves and gestating-lactating cows."

"Mature, weathered native range plants are almost always deficient in protein--sometimes containing as little as 2 percent. A deficiency of protein results in depressed appetite, poor growth, loss of weight, reduced milk production, irregular heat periods, and lowered calf crops."

(3) Stoddart, Smith, and Box, page 128 states, "The life span of a range plant varies from a few weeks in annuals to 50 years or more in shrubs and, possibly, in perennial grasses also. Perennials reproduce intermittently, each 5 or 10 years, when a sequence of ideal weather conditions results in free pollination of flowers and formation of seeds followed by a year favorable for seedling establishment."

(4) Grazing Systems. Stoddart, Smith, and Box, in Chapter 9, list several different grazing systems:

A. Continuous Grazing. Either yearlong or throughout the grazing season.

(7) Stoddart, Smith, & Box, pages 333 and 334

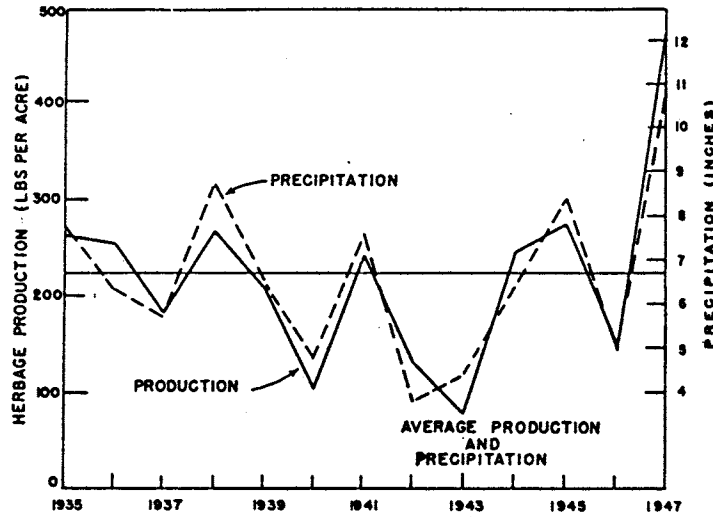


Fig. 10.7 Average herbage production measured in October as correlated with precipitation during the preceding 12-month period at the U.S. Forest Service Desert Experimental Range, a salt-desert winter sheep range located in southwestern Utah. (After Hutchings and Stewart, 1953.)

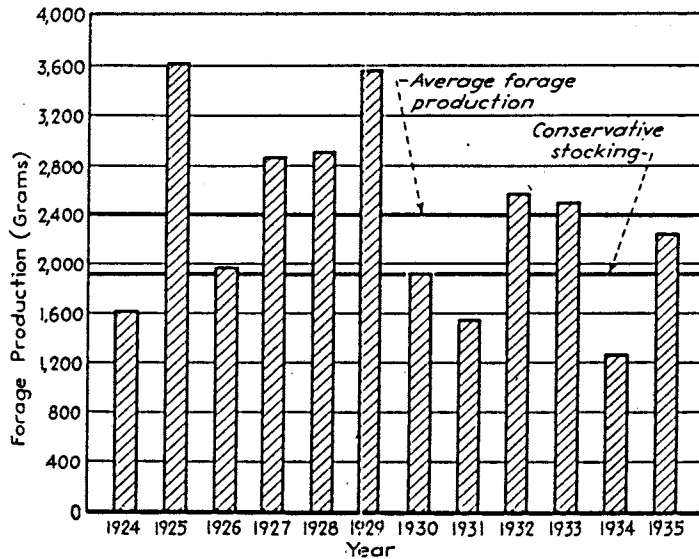


Fig. 10.6 Production of mixed perennial grasses in central Utah fluctuates greatly from year to year, and conservative stocking must be 20 percent or more below average production to furnish adequate forage in all but the lowest years. (From Campbell, 1936.)

for you

**Montana Department of
Fish, Wildlife & Parks**

Office Memorandum

Received May 31, 1986

TO : Tom Greenwood

DATE: May 12, 1986

FROM : Don Malmberg

SUBJECT: Don Taylor - TBM Ranch Lease Agreement Renewal

I met with Mr. and/or Mrs. Don Taylor on April 22, 29 and May 6, 1986 regarding their renewal of lease agreement for 1986 and grazing and hay harvest in 1985.

The Taylors agreed to renew the lease as provided in the 1985 agreement with a modification of lease agreement (see suggested renewal and modification of lease agreement, attached).

1985

Hay Harvest: 85 tons x 2.5 AUM x \$10.56/AUM = \$2244

Pasture: Cow = \$10.56/AUM, Bull = \$13.20/AUM, Yearling = \$7.92/AUM

Pasturing Area No.*

17 & 18	34 yrlds. x \$7.92 x (18 ÷ 30)	=	\$161.50
" "	1 bull x \$13.20 x (18 ÷ 30)	=	7.92
" "	233 cows x 10.56 x (6 ÷ 30)	=	491.63
" "	6 bulls x 13.20 x (6 ÷ 30)	=	15.84
" "	233 cows x 10.56 x (9 ÷ 30)	=	738.61
16 lower	34 yrlds. x 7.92 x (14 ÷ 30)	=	126.48
" "	1 bull x 13.20 x (14 ÷ 30)	=	6.20
" "	34 cows x 10.56 x (1 ÷ 30)	=	10.88
" "	233 cows x 10.56 x (2 ÷ 30)	=	172.42
" "	10 bulls x 13.20 x (2 ÷ 30)	=	9.20
" "	233 cows x 10.56 x (7 ÷ 30)	=	566.19
15 & 16 upper	34 yrlds x 7.92 x (5½ ÷ 30)	=	48.62
" "	1 bull x 13.20 x (5½ ÷ 30)	=	2.38
" "	34 cows x 10.56 x (4 ÷ 30)	=	46.58
" "	1 bull x 13.20 x (4 ÷ 30)	=	1.72
" "	233 yrlds x 7.92 x (2 ÷ 30)	=	128.15
" "	11 bulls x 13.20 x (2 ÷ 30)	=	10.12
" "	233 cows x 10.56 x (2 ÷ 30)	=	172.42
11 & 13	34 yrlds x 7.92 x (16 ÷ 30)	=	142.80
" "	1 bull x 13.20 x (16 ÷ 30)	=	7.00
" "	34 cows x 10.56 x (16 ÷ 30)	=	190.40
" "	46 cows x 10.56 x (15 ÷ 30)	=	242.88

Tom Greenwood
Page Two
May 12, 1986

Pasturing Area No.* (cont.)

5 & 6	34 yrigs x 7.92 x (15 + 30)	=	\$134.64
" "	1 bull x 13.20 x (15 + 30)	=	6.60
" "	80 cows x 10.56 x (15 + 30)	=	422.40
" "	1 bull x 13.20 x (15 + 30)	=	6.60
" "	34 yrigs x 7.92 x (19 + 30)	=	169.66
" "	37 cows x 10.56 x (19 + 30)	=	246.05
" "	284 cows x 10.56 x (14 + 30)	=	<u>1408.64</u>
	Subtotal		\$5694.53
	Total due FWP		\$7938.53

* See attached map showing pasture area numbers for grazing in 1985, provided by the game management division (ref. memo "Grazing Plan for Aunt Molly FAS", April 30, 1985).

Also included is a suggested renewal and Modification of Lease Agreement.

DM/vm
enc.

cc: Don Malisani
Jim Ford
Joe Egan ✓
Don Taylor

Renewal and Modification of Lease Agreement

The lease executed October 5, 1959, by and between the Department of Fish, Wildlife and Parks and the TBM Ranch, Inc., is renewed for the term of one year from the date of execution with the following modification:

- 1.) The parties acknowledge that, by mutual agreement, the rental for the leased property shall be based upon a rate of \$10.56/AUM/cow or cow w/calf, \$13.20/AUM/bull, \$7.92/AUM/yearling, and one ton of hay harvested will equal 2.5 AUM at \$10.56/AUM.
- 2.) A portion of the lessee's property and lessor's property, as indicated on the attached map "B" will be grazed under the rest-rotation grazing practice as outlined in the Rest-Rotation Grazing Management Plan for Aunt Molly Fishing Access Site, April 1986. Said map "B" will take priority over the map on page 28 of the management plan.
- 3.) Section 1 of the lease agreement, titled: Term and Option to Renew is modified in the first sentence as follows: The term of this lease shall be from December 1, 1985 to November 30, 1986.
- 4.) Section 2 of the lease agreement titled: Rent is modified as follows in Paragraph 3: The parties acknowledge that by mutual agreement, they have determined the AUM's for the past grazing season, and that the rental therefor computed in accordance with the foregoing provision is payable on or about November 30 of each year.

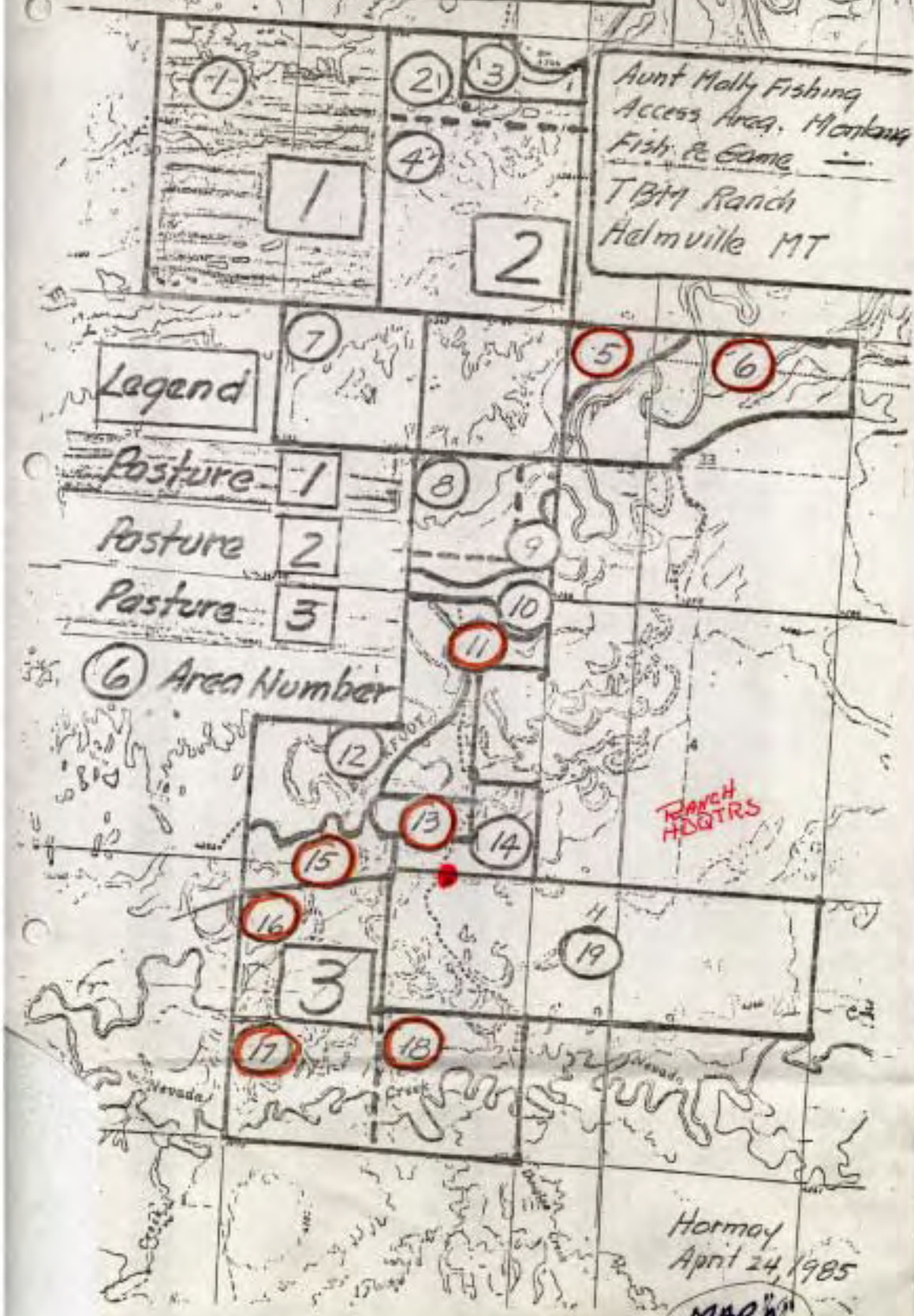
The parties agree that upon the renewal of this agreement in accordance with Paragraph 1 above, that there shall be a meeting in November between the parties for the purpose of determining what the AUM's were for the past grazing season on the property and the fee to be charged for the past grazing season, all of which shall be reduced to writing as an annual report. The time of payment during the renewal term shall remain the same as reflected above for the initial term of this lease agreement, absent, absent written agreement to the contrary, executed by the Lessor and Lessee.

- 5.) Section 7 of the lease agreement, titled Maintenance and Repairs is modified with the following addition:

The parties acknowledge that by mutual agreement, a fence to exclude a river access area, from the leased land, near the bridge in Sections 5 and 32, be constructed in 1986 or 1987 to specifications of the Lessor; said construction to be done by the Lessee with costs, not to exceed \$20.00 per rod, being deducted from the rental of the property. Thereafter, maintenance and repair of said fence shall be the responsibility of the Lessor.

- 6.) Section 10 of the lease is modified as follows: The lease is modified so that approximately 60 acres in the S $\frac{1}{2}$ NE $\frac{1}{4}$, Section 33 will be removed from this lease. Further, that portion of river access described in Paragraph 5 of this lease modification consisting of approximately 25 acres is removed from this lease. Map "C" showing these areas is attached.

Summer Pastures
Commercial Herd



Aunt Mally Fishing
Access Area, Montana
Fish & Game
TBM Ranch
Helmsville MT

Legend

Pasture 1

Pasture 2

Pasture 3

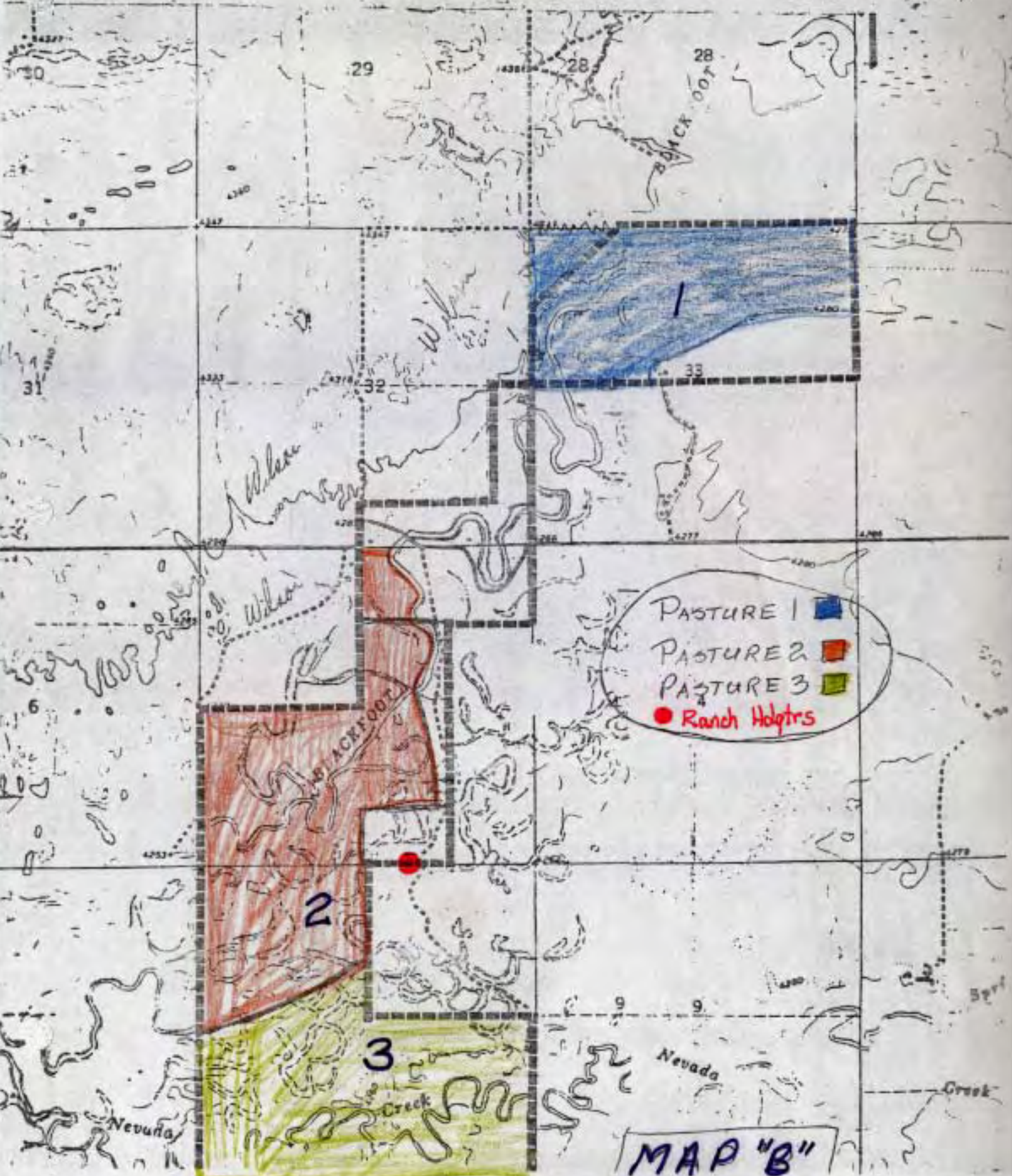
⑥ Area Number

RANCH HQTRS

Hormay
April 24, 1985

MAP A

Attachment 1986 Lease Renewal



MAP "B"



29

28

28

31

32

33

Wilson

Wilson

Wilson

BLACKFOOT

Nevada

Nevada

Creek

Creek

MAP "C"