

Restake caches in 1980  
in the following order

Germination year	Plot	Stake Color	Number of stakes
1978	check plot	white	585
1978	Enclosure	"	107
1978	(A)	"	75
1978	(B)	"	12
1978	(C)	"	66
1978	(D)	"	26
1966-65 & earlier	check plot	Yellow	114
" "	Enclosure	"	244
1941	" "	Orange	44
Caged I	check	white	28
" II	"	black	30
" III	"	white	75
Pruned	Enclosure	Red	100
Mowed	"	white	36
Checks	"	orange	25
		Gray	25
			<hr/>
		Total stakes	1467

June 30 1980

### New states for Pt caches

Year of germination strips state Nos Total No  
 (Exam yr underlined in red) of states

#### Exclosure Plot

<u>1966</u> , 1965 → 1936	○ → 15-16	1-244	244
<u>1978</u>	○ → 17A	400-506	<u>107</u>
		Total	351

#### Check Plot

<u>1966</u> , 1965 → 1936	○ → 17-18	1-114	114
<u>1978</u>	○ → 17A	1-382	382
<u>1978</u> missed	○ → 17A	383-586	<u>203</u>
		Total	699

#### Plot (A)

1978 ○ → 17-18 101-175 (7) 25

#### Plot (B)

1978 129  
 ○ → 17-18 201-212 (3) 12

#### (C)

1978 109  
 ○ → 17-18 301-366 (7) 66

#### D

1978 ○ → 17-18 400-425 26  
 Total 129

# BMT Bitterbrush Reproduction Studies

To do — 1980

Study and germination

year

1978

Plots → Enclosure, Check and A B C D

Measure all caches

Numbers Total, live

Size L, W Sq "

Live and dead size

Cause of mortality

Site - competition - weather

Veg competition

Pn Ps

Pine - Needle fall, shade

Sg Si

Shrubs Shade Open (interspace)

Grass Shade Open "

Soil cover

b

Bare

N1 Nd.

Needle litter Light, deep

Grazing

Cattle

Deer

Antelope

Rodent

Digging

## Stake colors

Cache or study year	Color		
	Body	Top bar	Under bar
	<u>check Plot</u>		
1978	White	—	—
1966	Yellow	—	—
1965	"	Red	—
Caged Series			
I	Green	Red	
II	"	Orange	
III	"	White	

### ~~Exclusion Plot~~

✓ 1978	White	—	—
1966	Yellow	—	—
1965	"	Red	
check plants	Gray		
✓ 1941	Orange		

## Stake colors

Pruned

Series

I  
II  
III  
IV

Color

Red - white

Black - "

Green - "

Orange - "

Mowed

Series

I  
II  
III

Red - Green

Black - "

Orange - "

Caged

Series

I  
II  
III

Red Yellow

Green "

Orange "

## Stake color symbols

W White

B Black

R Red

O Orange

Y Yellow

Rw W Raw wood

Gr Gray

Definitions of terms and symbols used in BMT Pt Form designated Hormay Sept. 1, 1979.

The definitions are listed below in order by lines and columns on the page starting with the heading (line 1)

No	Line Symbol or Term	Definition
1	Pt	Purshig tridentata. Bitterbrush
4	A, B, C, D	These letters are plot designations
6	B or A	These letters refer to the A and B treatments in a 3-treatment rest-rotation grazing formula

No	Symbol or Term	Column Defination
1	No	Number
2	N	North
"	Ft	Feet
3	E	East
"	Ins	Inches
4-6	Whole Crown	Includes live and dead areas of the crown
4	Dia	Diameter
5	Ht	Height
6	Perc't	Par
7-9	Live Crown	Green or live area of crown
9	Sq "	Square inches
10	dd	Dead
"	S	Summer (time died)
"	W	Winter ( " " )

No	Symbol or Term	Column Defination
13	Columns	
	In this column enter symbols of causes	
	Comp.	Competition (by plants)
	W	Weather
	Insct	Insect
	Cgr.	Cattle grazing
	Ctr	Cattle trampling
	Dr	Deer (grazing)
	Ante	Antelope (grazing)
	Mtr	Man Trampling
	Unk	Unknown
16	Enter amount: O none, L Light, M Moderate, H Heavy.	
17	Site	Here enter the kind of vegetation or "soil" condition that influence the growth of the plant
	Pine	Pine trees
	Grass	Grass or herbaceous plants
	Shrub	(indicate species)
	Pt	Bitterbrush
	ART	Big sagebrush
	CHRYb	Bloomers rabbitbrush
	Rock	

Sept. 9 1980  
Hormay

## Pt Site Descriptions

Code No	<u>Plant species providing competition</u>
1	Pine. Needle fall, shade area. Grass
1a	Pine " " " " shrubs
1b	Pine South exposure Grass
1c	Pine " " " " Shrubs
1d	Pine Deep, Needle litter.
2	Grass <u>Pi</u> , <u>SH</u> <u>So</u>
3	Shrub Pt
3a	" Pt ART
3b	" Pt CHRYb
3c	" Pt, CHRYb, ART
3d	" " " " " . Pine (small)

## Causes of mortality

1. Competition, weather
2. Grazing livestock (cattle)
3. " " deer, antelope
4. Rodents seed mining
5. " " clipping
6. Insects
7. Trampling cattle
8. " " deer antelope
9. " " man
- 10



Notes June 24 1980

BMT Pt Plot D.

No germination of seedlings in 1980

Pt Phenology

Developing fruit just apparent

Appreciable flowering but looks like  
light seed set. Fruit not developing

F<sub>1</sub> Flower stalks 75% grown

Soil moisture high to surface of

ground. Weather cool. Season

2 to 3 weeks late.