Planting Procedures - bitterbrush and pine

General

Plant on a bitterbrush site.
Plant as soon as possible after snow leaves the ground while soil moisture is high.
Plant on an unprepared site.
Plant on an area grazed moderately or heavily by livestock (cattle preferably) or by big game (deer).
Plant all seeds about 3/4 inch deep.

Hand planting

Number of plots: One
Type of plot: Line transect
Length of plot: 400 feet (continuous or in segments)
Species to be planted: Bitterbrush and ponderosa pine

Stretch a tape on the ground to establish the transect.
Stake the ends of the transect and intermediate points if needed.
Cut a 1-inch deep furrow along side the tape to receive the seed.
Plant bitterbrush and pine alternately in spots at 2-foot intervals along the transect -- bitterbrush at the 2, 6, 10, etc. feet points and pine at the 4, 8, 12, etc. feet points.
Plant two seeds of each species in each spot.
Put soil back into the furrow and pack firmly over the seeds.

Drill planting

Number of plots: One (or more)
Type of plot: Belt transect
Size of plot: One drill width wide and as long as seed lasts
Species to be planted: Bitterbrush
Rate of planting: One-fourth pound per acre

Drill across as many different sites as possible.
Press soil firmly over the seeds.
Mark the center line and ends of the transect with stakes.
<table>
<thead>
<tr>
<th>Distance to planting spot (ft)</th>
<th>Distance from planted spot</th>
<th>Exam 1</th>
<th>Exam 2</th>
<th>Exam 3</th>
<th>Exam 4</th>
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**Remarks:**
- **Gr** = germinated
- **Lv** = living

Examine causes of mortality etc.
- Likely causes: weather, grazing, rodents, insects, plant competition.
Hormay pine and bitterbrush plantings
Spring 1972

Planting agency ________________________________

Name of planting area __________________________ Transect No. ______

Date of planting ________________________________

Date of this record (last examination) ________________

Examiners _______________________________________

Spring record, fall record (Circle one)

Vegetative type of planting site _______________________

Soil moisture at seed depth at planting time Wet, Moist, Dry (Circle one)

Germination and survival

<table>
<thead>
<tr>
<th>Seed spots planted Number</th>
<th>Seed spots germinated Number</th>
<th>Seed spots surviving Number</th>
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Species
Bitterbrush
Ponderosa pine

Was there evidence of rodents R, or birds B, mining out seeds?
Bitterbrush Yes R B No (Circle appropriate)
Ponderosa pine Yes R B No (Circle appropriate)

Probable causes of seedling mortality if any (Check under appropriate heading)

: Weather : Rodents : Insects : Big game : Livestock :
Bitterbrush : : : :
Ponderosa pine : : : :