### Spray plots

**Date:** July 13, 1949

**Herbicide:**

<table>
<thead>
<tr>
<th>Species/Type</th>
<th>Action 1</th>
<th>Action 2</th>
<th>Action 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grass Valley Artemisia cana</strong></td>
<td>0% kill</td>
<td>100% kill</td>
<td>0% kill</td>
</tr>
<tr>
<td><strong>Dormant Navarretia (white)</strong></td>
<td>0.15 density</td>
<td>only plants on</td>
<td>0% kill</td>
</tr>
<tr>
<td><strong>Pp</strong></td>
<td>100% kill</td>
<td>100% kill</td>
<td>100% kill</td>
</tr>
</tbody>
</table>

**Plot 15:**

- **A cana**: 70% kill, 5% kill, 100% kill
- **Dormant C. (caps.)**: no effect
- **Pp**: no effect

1949
Spray Plot

2-4-D

Plot 172: cut over pine timber type
Species
Cr
K
Sp
No effect

Plot 171: uncut pine
H2SO4
No effect on any species

Win
80% reduction
vigor some killed

C.R.T.b
100% killed

C.R.
No effect

Halls Plot 2-4-D Timing: June 10/69
Only C.R.T.b killed

Win coming back from some crowns
Grasses, sedges vigorous
Seabush (Tr.) getting established
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Treatment</th>
<th>Plot</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2,4-D - 800 PPM 10 gal/sgrod</td>
<td>Plot 175</td>
<td>5-27-46</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Very effective on broad leaved perennials, <em>Rannun alismaefolia</em>, and others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Sulferic acid 1/4 lb/sgrod - little effect.</td>
<td>Plot 174</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>8 lbs Ammonium sulphamate 1/6 sgrod 10 gals water</td>
<td>Plot 173</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Killed almost everything soil practically bare.
<table>
<thead>
<tr>
<th>Vegetation type &amp; plant species</th>
<th>Plant growth stage when sprayed</th>
<th>Concentration of 2,4-D</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sagebrush type</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big sagebrush</td>
<td>1948</td>
<td>1000PPM</td>
<td>20% dead</td>
</tr>
<tr>
<td></td>
<td>1949</td>
<td>800PPM</td>
<td>70% dead</td>
</tr>
<tr>
<td></td>
<td>1961</td>
<td>700PPM</td>
<td>95% dead</td>
</tr>
<tr>
<td>Black sagebrush</td>
<td>1948</td>
<td>1000PPM</td>
<td>10% dead</td>
</tr>
<tr>
<td></td>
<td>1949</td>
<td>800PPM</td>
<td>50% dead</td>
</tr>
<tr>
<td></td>
<td>1961</td>
<td>700PPM</td>
<td>90% dead</td>
</tr>
<tr>
<td>Silver sagebrush</td>
<td>1948</td>
<td>1000PPM</td>
<td>X plots completely removed with sagebrush</td>
</tr>
<tr>
<td></td>
<td>1949</td>
<td>800PPM</td>
<td>30% dead</td>
</tr>
<tr>
<td></td>
<td>1961</td>
<td>700PPM</td>
<td>90% dead</td>
</tr>
<tr>
<td><strong>Pine type</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woody make ears</td>
<td>1948</td>
<td>1000PPM</td>
<td>100% dead</td>
</tr>
<tr>
<td></td>
<td>1949</td>
<td>800PPM</td>
<td>90% dead</td>
</tr>
<tr>
<td></td>
<td>1961</td>
<td>700PPM</td>
<td>100% dead</td>
</tr>
<tr>
<td>Bunch's rabbitbrush</td>
<td>1948</td>
<td>1000PPM</td>
<td>All alive</td>
</tr>
<tr>
<td></td>
<td>1949</td>
<td>800PPM</td>
<td>All alive</td>
</tr>
<tr>
<td></td>
<td>1961</td>
<td>700PPM</td>
<td>All alive</td>
</tr>
<tr>
<td>Meadow foxtail</td>
<td>1948</td>
<td>1000PPM</td>
<td>Some dead</td>
</tr>
<tr>
<td>Rosy foxtail</td>
<td>1949</td>
<td>800PPM</td>
<td>All alive</td>
</tr>
<tr>
<td>Yarrow</td>
<td>1961</td>
<td>700PPM</td>
<td>All alive</td>
</tr>
<tr>
<td>Perennial turf butter (up.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mustard (Greas.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rendelmann</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Pr, Pb, Ke, So,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36, 36, 36)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perennisis Erit + An. and alps</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GRASS VALLEY -- 1947  
136 acres

Spring ground preparation – $5.40 per acre

Moline wheatland plow and Dixie drag

RD-7 and TD-14

Drilled to crested wheat and smooth brome fall of 1947 – 10 lbs. per acre. Some broadcast on rocky ground.

No accurate costs available.

GRASS VALLEY -- 1949  
316 acres

Ground preparation $4.60 per acre (contract)

Towner disk and Dixie drag

Rolled and drilled to smooth brome and crested wheat – 8 lbs. per acre.

Cost of seeding and fencing – $15,06 per acre. (Includes fencing for CF&RES area plus new set of disks for Towner; transportation of Towner disk from Modoc Forest and considerable repair work).

PLANNED USE

Area will be opened to outside range late in season of 1951, Ultimate plan calls for fencing entire Grass Valley and using as a unit of the Poison Lake Allotment.
316 acres - 1949
Towner disk ground preparation, Dixie drag on rock areas

136 acres - 1947
Wheatland plow ground preparation, Dixie drag on rocky areas

Enclosure put in by A. Hormay

Sagebrush spraying area
1950 - 97½ acres

GRASS VALLEY RESEEDING & SAGEBRUSH SPRAYING AREA
Diagrammatic - not to scale
1947

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Towner disk ground preparation, Dixie drag on rock areas

136 acres - 1947
Wheatland plow ground preparation, Dixie drag on rocky areas

Enclosure put in by A. Hormay

Sagebrush spraying area
1950 - 97 1/2 acres

GRASS VALLEY RESEEDING & SAGEBRUSH SPRAYING AREA

Diagrammatic - not to scale
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## Spray Projects

1951
- **750 acres in units 1 and 2**
- **Date:** June 11 - 16
- **Plant growth stage:** New twigs 2.5 inches long
- **Method of application:** Airplane
- **Cost per acre:**
  - Chemical $2.65
  - Application $0.35
  - **Total** $3.00

1954
- **100 acres in unit 4**
- **Date:** June 22
- **Plant growth stage:** New twigs 2.5 inches long
- **Method of application:** Turbine sprayer
- **Cost per acre:**
  - Chemical $2.65
  - Application $1.40
  - **Total** $4.05

1958
- **580 acres in units 1, 2, 4, and 5**
- **Date:** June 24 - July 3
- **Plant growth stage:** New twigs 3.5 inches long
- **Method of application:** Airplane
- **Cost:** About $5.50 per acre

## DRAINAGE IMPROVEMENT AND EROSION CONTROL

<table>
<thead>
<tr>
<th>Type of Work</th>
<th>Plan</th>
<th>Completed by 1959</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage improvement (units 3 and 5)</td>
<td>500 acres</td>
<td>300 acres</td>
</tr>
<tr>
<td>Gully erosion control (units 3 and 4)</td>
<td>1 mile</td>
<td>1 mile</td>
</tr>
</tbody>
</table>