Notes

RANGE RESEEDING ON THE TONTO NATIONAL FOREST
IN ARIZONA

DURING the past few years the range lands of most of the West have greatly declined in carrying capacity. Even when grazing is curtailed recovery is often slow and other means must be considered, including artificial reseeding. It is the purpose of this paper to present the results of reseeding experiments on the Tonto National Forest located in central Arizona.

Three principal planting areas, each representative of a major climatic and ecological type characteristic of the Tonto National Forest, were investigated. Each area contained four separate plots, two of which were enclosed by a 10-foot fence and the other two were left open. A mulch of desert foxtail, wheat straw, and brush cuttings was applied to each plot prior to seeding.

Table 1.—The average number and height of plants in two belt transects 1 foot wide of the cattle exclosure and open plots under mulch only, Black Hill, 1947.

<table>
<thead>
<tr>
<th>Species</th>
<th>Av. No. plants per transect</th>
<th>Height, in.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cattle Exclosures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eragrostis lehmanniana</td>
<td>229</td>
<td>24</td>
</tr>
<tr>
<td>Eragrostis chloromelas</td>
<td>121</td>
<td>20</td>
</tr>
<tr>
<td>Muhlenbergia porteri</td>
<td>Few scattered</td>
<td></td>
</tr>
<tr>
<td>Chloris cucullata</td>
<td>Few scattered</td>
<td></td>
</tr>
<tr>
<td><strong>Open Plots</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eragrostis lehmanniana</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Eragrostis chloromelas</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Muhlenbergia porteri</td>
<td>Few scattered</td>
<td></td>
</tr>
<tr>
<td>Chloris cucullata</td>
<td>Few scattered</td>
<td></td>
</tr>
</tbody>
</table>

Table 2.—Average number of plants of two belt transects 1 foot wide on mulched and unmulched portions of plots on the Buckhead Mesa, 1947.

<table>
<thead>
<tr>
<th>Species</th>
<th>Average number of plants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mulched plots</td>
</tr>
<tr>
<td><strong>Agrimony cristatum</strong></td>
<td>36</td>
</tr>
<tr>
<td><strong>Agrimony smithii</strong></td>
<td>20</td>
</tr>
<tr>
<td><strong>Andropogon ischaemum</strong></td>
<td>49</td>
</tr>
<tr>
<td><strong>Andropogon scoparius</strong></td>
<td>72</td>
</tr>
<tr>
<td><strong>Eragrostis curvula</strong></td>
<td>55</td>
</tr>
</tbody>
</table>

1Data for this publication were obtained while the author was working for the U. S. Forest Service, Tonto National Forest, Phoenix, Ariz.
2The Tonto National Forest has an area of 2,410,567 acres. It includes the Sierra Ancha, Mazatzal, and Superstition mountain ranges, as well as parts of the watershed basin of the Salt River. This drainage basin is largely included in the Tonto Basin, the upper edge of which is formed by a natural barrier known as the Mogollon Rim. While much of the mountain country on the forest supports a valuable stand of western yellow pine, Douglas fir, and white fir timber, there has been included a large area of brush or grass covered foothills reaching down into semidesert country. This more open country was made a part of the Tonto Forest at the request of the U. S. Reclamation Service as a means of protecting the watersheds of the Salt River reservoirs which are used in connection with the Salt River Valley irrigation project.