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Shoshoni--
A New Wheat

By B. J. Kolp
Shoshoni—A New Wheat

By B. J. Kolp
Associate Professor of Plant Breeding

Shoshoni is a hard red winter wheat that is recommended for dryland in the Great Plains area of Wyoming.

Yield

Shoshoni is higher in yield than Cheyenne or Nebred. Under dryland conditions in Wyoming during the past five years it yielded 7.5 percent more than Cheyenne and 11.0 percent more than Nebred.

Test Weight

Its test weight under dryland conditions has been good. The test weights of Shoshoni, Nebred, and Cheyenne were 61.1, 60.6, and 60.5 pounds per bushel, respectively.

Winter Hardiness

Shoshoni has good winter hardiness and is equal to Cheyenne in this respect.

Milling and Baking Qualities

Shoshoni is a bread-type wheat and is good in milling and baking qualities. From tests under Wyoming dryland conditions it produced a high protein wheat, high in gluten, with a long mixing time.
Disease Resistance

The disease reaction of this variety is similar to Cheyenne in that it is susceptible to bunt, loose smut, western wheat streak-mosaic, leaf rust, and stem rust. Bunt can be controlled with a recommended seed treatment if it should become a problem. Leaf and stem rust is generally not a problem as winter wheat in Wyoming usually escapes the disease. Western wheat streak-mosaic can be controlled to some extent by planting after September 10 and practicing a clean-fallow system.

Description

Shoshoni is medium in maturity; it is similar to Cheyenne and one to three days later than Nebred. It is short to medium tall in height and is awned with white stems and glumes.

Certification

Because of the close similarity of Shoshoni to Cheyenne, Shoshoni will be certified on a limited-generation basis. Certified seed can be produced only from Foundation or Registered seed. Certified seed cannot be used to produce certified seed. Seed not eligible for certification will not be recognized as being Shoshoni by the releasing Station.

Development

This variety was selected from the variety Cheyenne in 1955 by Dr. R. P. Pfeifer, at that time with the Wyoming Agricultural Experiment Station, and L. M. Powell. It was released by the Wyoming Agricultural Experiment Station in 1961.
### TABLE 1. Yield in bushels per acre and test weight in pounds per bushel of Shoshoni, Cheyenne, and Nebred.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Wheatland (4)*</th>
<th>Albin (5)</th>
<th>LaGrange (3)</th>
<th>Archer (3)</th>
<th>Gillette (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yield bu/A</td>
<td>Test wt. lbs/bu</td>
<td>Yield bu/A</td>
<td>Test wt. lbs/bu</td>
<td>Yield bu/A</td>
</tr>
<tr>
<td>Shoshoni</td>
<td>45.8</td>
<td>62.0</td>
<td>41.5</td>
<td>59.5</td>
<td>44.9</td>
</tr>
<tr>
<td>Cheyenne</td>
<td>39.3</td>
<td>61.2</td>
<td>37.9</td>
<td>58.1</td>
<td>43.3</td>
</tr>
<tr>
<td>Nebred</td>
<td>39.8</td>
<td>61.5</td>
<td>38.3</td>
<td>59.4</td>
<td>40.1</td>
</tr>
</tbody>
</table>

* The figure in parenthesis indicates the number of years tested at each location.

Acknowledgment is made to Mr. Wayne Weber, Wheatland; Mr. John Ecklund and Mr. O. L. Holgerson, Albin; Mr. Kirby Tremain, LaGrange; and Mr. Walt Pzinski, Jr., on whose farms the winter wheat yield nurseries were grown. Substation superintendents who cooperated are T. L. Birch, Archer; L. R. Landers, Gillette; and A. F. Gale, Sheridan.

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