Registration of Crop Varieties

WILL BARLEY
(Reg. No. 61)

Ben R. Jackson and A. M. Schlehuber

‘WILL’ barley, (Hordeum vulgare L., emend. Lam.), CI 11652 (Stillwater 571820 and Stillwater 571823) was named in honor of the late Oklahoma humorist, Will Rogers. It is the result of a cross between ‘Rogers’ (CI 9174) and ‘Kearney’ (CI 7580) made at the Oklahoma Agricultural Experiment Station in 1952. Descriptions of Rogers and Kearney have been published.

Will originated from two head selections made from a bulk F₁ population at Stillwater, Oklahoma, in 1956. The 2 selections were grown separately in state and regional tests under the CI numbers 10879 and 10880 from 1961 to 1963. Their similarity in appearance and performance under the wide range of conditions prompted the decision to composite them as one variety under the CI number designation 11652.

The outstanding characteristics of Will are tolerance to greenbug, high yield potential, powdery mildew resistance, and good winterhardiness.

Will is a six-rowed, rough-awned, facultative winter barley that is midtiland and midseason to late in maturity. Early growth is semi-prostrate with long, narrow drooping leaves. Spikes are lax to dense, parallel, midlong, and slightly inclined when ripe. Occasional nodding types may be present. Kernels are covered, midlong, and white to light blue in color. Rachilla hairs are short.

During the period 1960 to 1963, Will averaged 9.4 bushels per acre or 22% more than Rogers and 16.8 bushels or 40% more than Harbine in the 17 station-years experiment station tests. Similar results were obtained during the same period from 26 station-years in the state-wide tests. A part of Will’s yield advantage over the other two varieties can be attributed to its higher level of winterhardiness which has averaged 30% greater than Rogers in Oklahoma tests. However, Will has also outyielded Rogers in years when winterkilling did not occur.

Will is similar to Rogers in lodging and disease resistance. Will has averaged approximately one pound lower in test weight than Rogers and more nearly resembles Harbine in this respect. Approximately 1,000 bushels of foundation seed were distributed to certified seed growers in Oklahoma and neighboring states in the fall of 1963.

On the basis of its performance in Oklahoma and regional tests, Will is adapted to all areas of Oklahoma and should make winter barley a more competitive crop in the state.

KEYSTONE, PARKLAND, AND VANTAGE BARLEYS
(Reg. Nos. 63, 64, and 65)

W. H. Johnston

‘KEYSTONE’ barley (Hordeum vulgare L., emend. Lain.), CI 10877, was developed at the Canada Department of Agriculture Experimental Farm, Brandon, Manitoba, by D. R. Metcalfe, from the cross ‘Vantage’ X ‘Jet’ 2x, and ‘Velvon 11’ at Moscou, Idaho, under subhumid and at Aberdeen, Idaho, under irrigation.

Keystone is grown as feed barley in Idaho and adjacent areas. It is well adapted to the subhumid areas of the Pacific Northwest and to the central and northern Idaho and eastern Washington. In 1962 Keystone was grown on 14% of the barley acreage in Idaho, and on 9% of the barley in Washington. It does well under irrigation in the northern part of Idaho and on the drylands of the southern part due to its early maturity.

Table 1. Comparative yields of Gem, Trebi, and ‘Velvon 11’ grown at Moscou and Aberdeen, Idaho, for the years indicated.

<table>
<thead>
<tr>
<th>Testing stations</th>
<th>Variety</th>
<th>1943</th>
<th>1944</th>
<th>1945</th>
<th>1946</th>
<th>1947</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moscou</td>
<td>Trebi</td>
<td>62.2</td>
<td>52.8</td>
<td>36.5</td>
<td>91.0</td>
<td>69.9</td>
</tr>
<tr>
<td></td>
<td>Gem</td>
<td>62.3</td>
<td>52.1</td>
<td>36.4</td>
<td>97.5</td>
<td>69.9</td>
</tr>
<tr>
<td></td>
<td>Hannchen</td>
<td>55.2</td>
<td>48.7</td>
<td>38.2</td>
<td>98.2</td>
<td>65.0</td>
</tr>
<tr>
<td>Aberdeen</td>
<td>Trebi</td>
<td>112.6</td>
<td>112.2</td>
<td>104.2</td>
<td>104.2</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>Gem</td>
<td>110.1</td>
<td>111.1</td>
<td>111.4</td>
<td>111.4</td>
<td>111.4</td>
</tr>
<tr>
<td></td>
<td>Velvon 11</td>
<td>110.1</td>
<td>111.1</td>
<td>111.4</td>
<td>111.4</td>
<td>111.4</td>
</tr>
</tbody>
</table>

GEM BARLEY
(Reg. No. 62)