REGISTRATION OF VARIETIES

303

REGISTRATION OF CATSKILL BARLEY

(Reg. No. 85)

N. F. Jensen

'CATSKILL' (Hordeum vulgare L., emend. Lam.), C.I. 10889, was developed by the Cornell University Agricultural Experiment Station. It is a pure line selection from the hybrid of 'Hudson' 2X 'Kentucky No. 1' × 'Wong'. The cross was made at Ithaca in 1951 by N. F. Jensen. Catskill was approved for release in 1961 and seed supplies increased from Breeder through Foundation, Registered and Certified Seed, with first commercial sale taking place for the fall planting of 1964. The Cornell University Agricultural Experiment Station will maintain Breeder seed.

Catskill is a 6-rowed, awnleted winter barley that has shown better general adaptation to New York conditions than Wong. It is higher yielding, more winter hardy, has heavier test weight and stronger straw and is more resistant to the commonly occurring loose smuts than Wong. Catskill is resistant to Rhyzopus oryzae scald. Undesirable features are later maturity than Wong or Hudson and longer straw than other varieties recommended for New York. The relative performance record of Catskill is shown in Table 1.

Table 1. Performance record of Catskill barley, 1957-1964.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Yield, bu/acre</th>
<th>Test wt., lb/bu</th>
<th>Survival, %</th>
<th>Height, in.</th>
<th>Lodging</th>
<th>Date of heading, May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catskill</td>
<td>67.3</td>
<td>46.8</td>
<td>63.7</td>
<td>37.3</td>
<td>12.2</td>
<td>36.5</td>
</tr>
<tr>
<td>Wong</td>
<td>55.4</td>
<td>47.7</td>
<td>56.6</td>
<td>36.0</td>
<td>13.0</td>
<td>32.2</td>
</tr>
<tr>
<td>Hudson</td>
<td>67.0</td>
<td>46.8</td>
<td>67.7</td>
<td>34.6</td>
<td>12.3</td>
<td>18.5</td>
</tr>
</tbody>
</table>

1 Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Received Jan. 28, 1966.

2 Professor of Plant Breeding, Cornell University, Ithaca, N.Y.

REGISTRATION OF KOROL BARLEY

(Reg. No. 86)

Frank C. Petr and Harland Stevens

'KOROL' (Hordeum distichum L., emend. Lam.), C.I. 6500, is a two-rowed, flake type, spring barley adapted to production in nonirrigated areas of southeastern Idaho. It is especially well suited to the more arid locations where it grows taller than other adapted two-rowed varieties and produces good quality grain under such conditions. Korol was introduced by the U.S. Department of Agriculture from Bey Korol, Istanbul, Turkey, in October 1937, under PI No. 124988. Korol was grown at Aberdeen, Idaho, along with other plant introductions by Harland Stevens, who noted that it possessed characteristics suitable for some of Idaho's more arid dryland areas. Korol was tested at 3 dryland locations for about 10 years prior to its cooperative release in 1960 by the Idaho Agricultural Experiment Station and the Agricultural Research Station of the U.S. Department of Agriculture. When compared to other recommended varieties in southeastern Idaho, Korol was equal in yield to Munising and outyielded 'Soda Springs Smyrna' by approximately 3 bushels per acre. Korol is equal to Munising in test weight and kernel weight. Korol outyielded the six-rowed varieties, 'Gem' and 'Trebi', in dryland plantings and was superior to them in test weight.

Korol has an erect early habit of growth, has long, rough awns and a moderately plump, white kernel weighing between 40 and 45 mg. In approximately half the kernels, the lateral nerves have teeth or projections, but the lemmas of the remaining kernels have smooth lateral nerves. The rachis is long with short hairs. The glumes are about one-half the length of the lemma, with glume awns equal to the length of the glume. There is a transverse moon-shaped crease at the base of most kernels. The rachis is tough and is hairy along the margin. Korol is considered midearly in maturity with a heading date about 2 days later than Munising.

Korol is currently grown on 12% of the barley acreage in the area of southeastern Idaho where it is recommended, and constitutes about 1% of the acreage in other areas of the state. Breeder seed will be maintained by the University of Idaho at the Teton Branch Experiment Station.

REGISTRATION OF JAMES BARLEY

(Reg. No. 87)

T. M. Starling and C. W. Roane

'JAMES' (Hordeum vulgare L., emend. Lam.), C.I. 10659, is a six-rowed, awnleted variety of winter barley. Short, rough awns occur primarily on the central rows. The spike is dense, short to midlong, parallel, waxy, and erect to inclined. The rachis is tough, has hairs on the edges, and the rachis internodes are from 2 to 3 in. long. The glumes are approximately half the length of the lemma and have rough awns which are 2 to 3 times the length of the glume. Numerous teeth occur on the lateral and marginal nerves of the lemma and the rachis is long-haired. Leaves are long, wide, and drooping. James is similar in appearance to 'Wong' — one of its parents, but is slightly taller, slightly earlier in maturity, and slightly less winter hardy than Wong. The immature spikelets of James are grey-green while those of Wong are yellow-green. James is resistant to powdery mildew and leaf rust and is moderately resistant to scald under field conditions in Virginia. It is stiff strawed and tends to resist lodging better than Wong. These two varieties have been compared in more than 50 tests conducted at 8 locations in Virginia from 1958 through 1965. The average yields of James and Wong have been 56.6 and 55.9 bushels per acre, respectively, with test weights of 43.1 and 43.5 pounds per bushel.

The cross of Wong × 'Bolivia' from which James was selected, was made at the North Carolina Agricultural Experiment Station by G. K. Middleton and coworkers. Bulk F2 seed from awnleted F2 plants was sent to the Virginia Agricultural Experiment Station in 1949. James was developed by the authors from an individual plant selection made in the F2 generation and was released in 1961 by the Virginia Agricultural Experiment Station. Breeder seed is being maintained by the Virginia Agricultural Experiment Station.

REGISTRATION OF TIoga OATS

(Reg. No. 197)

N. F. Jensen

'TIoga' (Avena sativa L.), C.I. 7524, N. Y. Sel. 5217al-2B-39, was bred and developed at the Cornell University Agricultural Experiment Station from the cross, C.I. 6389 2X Goldin ×...