REGISTRATION OF VARIETIES

recommended feed types. Compared with Parkland, Conquest is two days earlier maturing and more resistant to lodging.

The principal spike and grain characteristics are given below:

Spike  —  Six-rowed; mid-long; lax, lateral kernels overlapping almost completely on upper 1/4 to 1/3 of spike; emerges 2-6 in.; seminodding to semierect; lemma awn long, smooth; glume awn three to four times the length of the glume; glume hairs long, numerous, generally confined to a broad band; rachis edges with numerous fine hairs.

Grain  —  Kernels mid-size, hull smooth to slightly wrinkled; aleurone blue; rachilla mid-long with numerous long hairs; lateral veins with a medium number of fine bars; basal marking varies from a horshoe to an incomplete horshoe depression.

REGISTRATION OF CATSKILL BARLEY1
(Reg. No. 85)

N. F. Jensen2

‘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’ X ‘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, awned 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 Rhynchosporium 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>Seed wt., %</th>
<th>Survival, %</th>
<th>Height, in.</th>
<th>Lodging, %</th>
<th>Date headed, May 1</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>15 N.Y. tests</td>
<td>42 U.S. tests</td>
<td>64 tests</td>
<td>58 tests</td>
<td>57 tests</td>
<td>42 tests</td>
</tr>
<tr>
<td>Catskill</td>
<td>59.8</td>
<td>46.0</td>
<td>46.3</td>
<td>62.7</td>
<td>36.9</td>
<td>15.2</td>
</tr>
<tr>
<td>Wong</td>
<td>53.4</td>
<td>45.2</td>
<td>44.7</td>
<td>58.6</td>
<td>35.8</td>
<td>28.2</td>
</tr>
<tr>
<td>Hudson</td>
<td>73.0</td>
<td>57.9</td>
<td>48.3</td>
<td>47.7</td>
<td>34.6</td>
<td>23.3</td>
</tr>
<tr>
<td>‘Dutchess’</td>
<td>66.8</td>
<td>48.9</td>
<td>45.4</td>
<td>60.5</td>
<td>30.0</td>
<td>12.9</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 TOGA OATST
(Reg. No. 87)

T. M. Starling and C. W. Roane

‘TOGA’ (Avena sativa L.), C.I. 7524, is a six-rowed spring barley of medium height, suitable for hand harvest. It is a pure line selection from the hybrid of ‘‘Vermont’’ X ‘‘Bolivar’’. The cross was made at the Tetonia Branch Experiment Station.

Toga has been released in 1963 by the Idaho Agricultural Experiment Station. Breeder seed is being maintained by the University of Idaho at the Tetonia Branch Experiment Station.

REGISTRATION OF JAMES BARLEY1
(Reg. No. 87)

T. M. Starling and C. W. Roane

‘JAMES’ (Hordeum vulgare L., emend. Lam.), C.I. 10659, is a six-rowed, awned variety of winter barley. It was developed by the University of Idaho at the Tetonia Branch Experiment Station. The cross was made at the North Carolina Agricultural Experiment Station by G. K. Middleton and coworkers. Bulk F2 plants were 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 University of Idaho at the Tetonia Branch Experiment Station.

REGISTRATION OF KOROL BARLEY1
(Reg. No. 86)

Frank C. Petr and Harland Stevens2

‘KOROL’ (Hordeum distichum L. emend. Lam.), C.I. 6800, is a two-rowed, feed type, spring barley adapted to production in the moist areas of southeastern Idaho. Korol was developed at the Idaho Agricultural Experiment Station by Frank C. Petr and Harland Stevens-°

Korol was released in 1961 by the Idaho Agricultural Experiment Station. It is a pure line selection from the hybrid of Bey Korol, Istanbul, Turkey, with numerous 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 1937, under PI No. 124988. Korol was grown at the Tetonia Branch Experiment Station.

Korol has an erect early habit of growth, long straw and a moderately plump, white kernel weighing 40 and 45 mg. In approximately half of the kernels, the kernel nerves have teeth or projections, but the lamina marginal nerves of the lemma and glumes have smooth lateral nerves. The kernels are without hairs. There is a transverse moon-shaped crease at the base of the kernel. The rachis is tough and is hairy along the margin. There is a transverse moon-shaped crease at the base of most kernels. The rachis is long, tough, has hairs on the edges, and the rachis internodes are from 2 to 3 mm long. The glumes are approximately 1/2 the length of the lemma and have rough awns which are 2 to 3 mm long. Numerous teeth occur on the marginal nerves of the lemma and the rachilla. The immature spikelets of James are grey-green while those of Korol 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 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 X Boliviar from which James was made at the North Carolina Agricultural Experiment Station by G. K. Middleton and coworkers. Bulk F2 plants were 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 University of Idaho at the Tetonia Branch Experiment Station.

3 Registered by the Crops Science Society of America. Received Jan. 24, 1966.
4 Professor of Agronomy and Associate Professor of Plant Breeding, Cornell University, Ithaca, New York.

5 Professor of Plant Breeding, Cornell University, Ithaca, New York.