REGISTRATION OF VARIETIES

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In the McCurdy replicated oat yield trials conducted at Fremont, Iowa, Dassel, Minnesota, and Spring Valley, Minnesota, over a 3-year period, Goldfield had an average yield of 81.4 bushels with a test weight of 35.7 pounds compared with 62.5 bushels and 33.8 pounds for Cherokee, and 69 bushels and 34.2 pounds for Newton. Comparative performance data for Goldfield are given in Table 1 of the registration article for Colfax.

REGISTRATION OF JEWELL OATS1

(Reg. No. 184)

LeRoy McCurdy and Carl Koehler2

1JEWELL' (Avena sativa L.), C.I. 7598, (McCurdy 19-54) was developed by workers of the W. O. McCurdy & Sons Seed Company, Fremont, Iowa. It originated as an F2 plant selection from a cross made in 1950 between [(Clinton × Santa Fe) × Mo. 0-200] × Ajax. Santa Fe was obtained from H. C. Murphy, Iowa State University; Mo. 0-200 from J. M. Poelhman, University of Missouri; Clinton as certified seed from Iowa State University; and Ajax from a commercial lot. The Clinton and Santa Fe were first crossed and then an F2 selection from this cross was crossed with Mo. 0-200. One of the better F2 plants from the latter cross was then crossed with Ajax. The final cross was made in 1950 and an F2 selection made in 1952 was increased in 1953 with replicated yield testing and further increase initiated in 1954.

Jewell has been outstanding for yield in Minnesota and Iowa. It is an early variety with fast growth and early heading. The leaves and stems remain green as the panicles ripen. The culm is medium in size, of a willowy type that stands well under most conditions. The leaves are medium to narrow in width. Jewell has white, partly awned, medium-slimber kernels with slightly below average bushel weight. It performs well over a wide area from Missouri through Iowa into central Minnesota, giving high yields throughout the area. Its maturity is between Cherokee and Minnaha. Jewell has some tolerance to yellow dwarf and to the various races of stem and crown rusts prevalent in recent years.

In the McCurdy replicated oat yield trials conducted at Fremont, Iowa, Dassel, Minnesota, and Spring Valley, Minnesota, over a 3-year period, Jewell yielded an average of 83.6 bushels with a test weight of 32.7 pounds compared with 62.5 bushels and 33.8 pounds for Cherokee, and 69 bushels and 34.2 pounds for Newton. Comparative performance data for Jewell are given in Table 1 of the registration article for Colfax.

REGISTRATION OF MAHASKA OATS1

(Reg. No. 185)

LeRoy McCurdy and Carl Koehler2

'MAHASKA' (Avena sativa L.), C.I. 7599, (McCurdy M469) was developed by workers of the W. O. McCurdy & Sons Seed Company, Fremont, Iowa. It originated as an F3 plant selection from a cross made in 1951 of [(Clinton × Santa Fe) × Nemaha]. Nemaha was selected for its earliness, being earlier than Cherokee, Nemaha, and other commonly grown varieties in Iowa and Minnesota. Although it heads early, the plants stay green longer than other early varieties. It is medium in height and slightly -awned for height and maturity. The grain is awnless, plump, pinkish ivory in color, with high bushel weight. Mahaska has been consistently superior to Cherokee for yield and test weight. It has some tolerance to the races of stem and crown rusts prevalent in recent years.

In the McCurdy replicated oat yield trials conducted at Fremont, Iowa, Dassel, Minnesota, and Spring Valley, Minnesota, during 1959-62, Mahaska yielded an average of 64.4 bushels with a bushel weight of 34.7 pounds compared with 62.5 bushels and 33.8 pounds for Cherokee, the earliest commonly grown variety, and 69.0 bushels and 34.2 pounds for Newton. Comparative performance data for Mahaska are given in Table 1 of the registration article for Colfax.

REGISTRATION OF DUTCHESS BARLEY1

(Reg. No. 50)

N. F. Jensen2

'DUTCHESS' (Hordeum vulgare L., emend. Lam.), C.I. 10890, was developed by the Cornell University Agricultural Experiment Station. Dutchess was Cornell Sel. 5148B-2B-8 from the cross of 'Faysel' × CI 11347 × (CI 7372 × 'Hudson'). Faysel is a leaf rust resistant barley selected as a mixture from the 'Fayette' variety at Ithaca, N.Y. CI 7372 is a pure line bred barley strain made at Ithaca in 1951 by N. F. Jensen. Dutchess was introduced in 1961 at which time the first 5-acre Foundation Field was grown on the Richard Good farm, Cortland, N.Y. Commercial sale of seed to farmers began in the fall of 1962.

Table 1. Performance data for Dutchess, Hudson, and Wong winter barley, 1957-61.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Yield, bu./A.</th>
<th>Test wt., lb./bu.</th>
<th>Height, inches</th>
<th>Heading date, May</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutchess</td>
<td>69.7</td>
<td>44.8</td>
<td>38.1</td>
<td>29.5</td>
</tr>
<tr>
<td>Hudson</td>
<td>46.5</td>
<td>44.8</td>
<td>41.3</td>
<td>23.6</td>
</tr>
<tr>
<td>Wong</td>
<td>46.5</td>
<td>44.8</td>
<td>41.3</td>
<td>23.6</td>
</tr>
</tbody>
</table>

Dutchess is a midseason-to-late maturing, hardy, high yielding, 6-rowed, rough-awned winter variety. It is outstanding for short, strong straw. Yield is similar to Hudson with winter hardiness almost as good; test weight of grain is somewhat lower than that of top-rated Hudson. Dutchess is a feed barley with blue aleurone. It is mildew and scald resistant but moderately susceptible to loose smut and leaf rust. The outstanding characteristics of Dutchess are lodging resistance and improved plant type for combine harvesting. Comparative performance data for Dutchess, Hudson, and Wong from New York and USDA cooperative trials are given in Table 1. Additional information on Dutchess was reported by Jensen.3

1Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Received Nov. 1, 1963.
2Agronomist and Plant Breeder, respectively, W. O. McCurdy & Sons Seed Company, Fremont, Iowa.
3Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Received Nov. 1, 1963.
4Professor of Plant Breeding, Cornell University, Ithaca, N.Y.

REGISTRATION OF ERIE BARLEY1

(Reg. No. 51)

N. F. Jensen2

'ERIE' (Hordeum distichum L., emend. Lam.), C.I. 8080, was developed by the Cornell University Agricultural Experiment Station. It is a pure line selection from the hybrid of 'Goldfoil' × 'Alpha'. The cross was made by H. H. Love and W. T. Craig in 1931, mildew resistant pure lines were extracted in 1935, and Sel. 304426-6-3, which became Erie, was chosen for increase in 1947 by N. F. Jensen and H. H. Love. It was officially released in 1951 and became available in substantial quantities to growers in the spring of 1953.

Erie is a midseason, 2-rowed spring barley of medium height with long smooth awns on lax long spikes. It is considered a feed barley.

1Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Received Nov. 1, 1963.
2Professor of Plant Breeding, Cornell University, Ithaca, New York.