REGISTRATION OF DAWN OATS

(Reg. No. 216)

David C. Ebeltoft

'DAWN,' (Avena sativa L.) C.I. 7892, N.D. Sel. NDO-64-13, was developed at North Dakota State University from a cross of 'Ajax' X 'Ransom' X 'Roxton' X R.L. 1276 2X Ajax X R.L. 1276 made in 1956. The last plant selection, F6 generation, was increased in Mexico in 1962-63 and 1963-64 through cooperation with the Crop Quality Council.

Dawn is a very early, tall variety with excellent crown and stem rust resistance and high bushel weight. It ranked near the top in earliness and resistance to crown and stem rust in the 1964 and 1965 Uniform Midseason Oat Performance Nurseries. Dawn carries the ABE genes for stem rust resistance. Reaction to smut, yellow dwarf, and halo blight is similar to that of 'Garry.' It is more resistant to lodging than Garry in North Dakota. Dawn yields slightly less than other varieties of similar maturity.

The panicles of Dawn are equilateral, erect, and large; branches arise at normal rachis nodes; kernels are yellow to brown, plump, with a good groat to hull ratio; awns are absent; and culms are mid sized. The entire plant is a distinct beige when ripe.

Dawn was released because of its extreme earliness, combined with resistance to crown and stem rust. Dawn is recommended only for the southeastern portion of the State where the rusts are most important.

Dawn was named and released in 1966, and foundation seed was made available to other States. Breeder seed will be maintained by North Dakota State University.

REGISTRATION OF WYNDMERE OATS

(Reg. No. 217)

David C. Ebeltoft

'WYNDMERE,' (Avena sativa L.) C.I. 7552, N.D. Sel. NDO-60-3, was derived from an F5 plant row in 1957 from a cross of 'Ajax' X 'Ransom' made in 1955 at North Dakota State University. It was tested until 1959 at North Dakota State University and then entered in the U.S. Department of Agriculture cooperative trials from 1960-63. Information on Wyndmere was reported by Ebeltoft and Lund.

Wyndmere is a tall, early, high-yielding oat, with a somewhat slender, white kernel. In the North Central States, it heads about 8 days earlier than 'Garry;' has slightly weaker straw; and averages about 3 pounds heavier in bushel weight. Wyndmere possesses the AB genes for stem rust resistance. It is similar to Garry for both stem and crown rust reaction but is more susceptible to smut than Garry.

The culms of Wyndmere are relatively small in diameter with narrow leaves; panicles are equilateral, erect, mid sized in length; branches arise at normal rachis nodes; awns are few; and kernels have a high groat to hull ratio.

Wyndmere was released because of good yielding ability and high grain quality, combined with earliness and rust resistance, which is needed in southeastern North Dakota. It is not adapted to the drier areas.

Wyndmere was named and released in 1966, and foundation seed made available to other States. Certified seed will be produced by farmers in 1967. Breeder seed will be maintained by North Dakota State University.

REGISTRATION OF JAYCEE OATS

(Reg. No. 218)

C. M. Brown and H. Jedlnski

'JAYCEE' oats (Avena sativa L.), C.I. 7971, III. 30840, was selected at Urbana, Ill., in 1960 from the F6 generation of the cross 'Clintland' X 'Garry' X 'Fawkeye' X 'Victoria' X 'Putnam.' It was developed and released cooperatively by the Illinois Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture. The final cross that led to the development of Jaycee was made in 1956. Putnam was the male parent, while an unselected selection from the cross Clintland X 'Garry' X 'Fawkeye' X 'Victoria' was the female parent. Increases of foundation seed were made in several North-Central States in 1966, and seed was distributed to certified seed growers in 1967.

Jaycee has been tested widely in Illinois for 5 years and included in one or more of the regional uniform tests for 4 years. Table 1 presents comparative yields of Jaycee and two other varieties of similar maturity in Illinois tests.

Table 1. Mean yields of Jaycee and two other oat varieties of similar maturity in Illinois at three locations from 1963-66.

<table>
<thead>
<tr>
<th>Location</th>
<th>1963-66 yields, kg/ha</th>
<th>1966 yields, kg/ha</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeKalb</td>
<td>2010</td>
<td>1740</td>
</tr>
<tr>
<td>Urbana</td>
<td>2342</td>
<td>2140</td>
</tr>
<tr>
<td>Brownstown</td>
<td>2412</td>
<td>2350</td>
</tr>
</tbody>
</table>

Table 2. Mean yields of Jaycee and two other oat varieties of similar maturity in Illinois at three locations from 1963-66.

Test data indicate that Jaycee is a relatively high-yielding variety that is well adapted for growing in Illinois. It matures early and has shorter straw than other varieties currently recommended in Illinois. Test weight has been high, but Jaycee has somewhat thicker hulls than several other varieties. The kernels are white, medium to large, and plump in appearance. Its short, stiff straw and early maturity should add to its resistance to lodging. Jaycee has a high degree of tolerance to barley yellow dwarf virus (BYDV), being superior to any other variety currently grown in Illinois. Comparative yields with two other varieties of similar maturity under rather severe BYDV epiphytotics at Brownstown and Urbana, Ill., in 1966 are present- ed in Table 1. Jaycee is resistant to races 6, 7, 7A, and 8 of stem rust and races 203 and 216 of crown rust, but susceptible to Landhafer-attacking races of crown rust. Its early maturity should be of additional value in the years when rust and BYDV arrive late. Jaycee has shown resistance to the Clinton-attacking races of smut that have appeared in Illinois in recent years. Breeder seed will be maintained by the Illinois Agricultural Experiment Station.

REGISTRATION OF ESKI SAINFOIN

(Reg. No. 7)

R. F. Esliek, A. E. Carleton, and G. P. Hartman

'Eski' sainfoin, Onobrychis vicicifolia Scop., is the progeny of an introduction from Eskisehir, Turkey. The seed was brought to the United States in the spring of 1952 by Burl Winchester of the Montana Agricultural Extension Service. It was planted at the Eastern Montana Branch Station at Sidney in June 1954. Seed was harvested in 1956 following the 1955-56 winter which

3 Registered by the Crop Science Society of America. Published with approval of the Director of the Montana Agricultural Experiment Station as paper No. 794, Journal Series. Received April 27, 1967.
4 Professor, Assistant Professor, and Branch Station Superinten- dent, respectively, Montana Agricultural Experiment Station, Plant and Soil Science Department, Montana State University, Bozeman.