Firecracker is well adapted to the coastal plain section of North Carolina. In 3 years of tests in that region, Firecracker exceeded the yield of Carolee and 'Coker 225'. Because of early maturity, Firecracker is suited for double cropping. It is not recommended for piedmont and mountain production areas because of insufficient winterhardiness. Firecracker has a short straw and a very distinctive compact panicle type. It produces large numbers of seeds per panicle and has excellent potential for seed production. Firecracker is 3 to 4 days earlier in maturity than Carolee. It is moderately resistant to powdery mildew [Erysiphe graminis DC. f. sp.avenae Eriks & E. Henn.], but susceptible to common rust [Puccinia coronata Cda. f. sp.avenae Eriks & E. Henn.]. It has good test weight (comparable to Carolee).

Firecracker has semiprostrate juvenile plant growth and medium-sized yellow stems with glabrous internodes. Head in 1973 was medium in width and leaf margins and sheaths of primary leaves are equilibrated, erect, compact, and ovate to oval; the crease is midwide and mid-deep with rounded tips. Plant height is straight and branches are ascending. Spikes are by fracture and floret separation by heterospecifics. Firecracker has straight, short, and glabrous spikellets and kernels are 23%.

The second floret rachilla segment is short and white. Basal hairs are few to absent and awns are absent.

Breeder seed of Firecracker will be maintained at the North Carolina Agricultural Experiment Station, Raleigh, N.C. 27607.

REGISTRATION OF TICONDEROGA WHEAT

(Reg. No. 581)
Neal F. Jensen

'TICONDEROGA' wheat (Triticum aestivum L.) No. 17290, is a soft white winter wheat developed at the Cornell University Agricultural Experiment Station. Ticonderoga is a pure line selection (formerly NY 75166-17) from the 1957 hybrid made at Ithaca by the author: 'Genesee' × 'Brevor' × 'Norin 10' × 'Purdue No. 8' × 'Cornell Arrow' × 'TF1012'. Ticonderoga was released as 'Ticonderoga' in 1973. Ticonderoga has excellent test weight (comparable to Carolee) and produces large numbers of seeds per panicle and has very good yield potential.

The long head with white chaff is awnless and nodding. The long petiole separation by heterospecifics. Firecracker has straight, short, and glabrous spikellets and kernels are 23%.

The second floret rachilla segment is short and white. Basal hairs are few to absent and awns are absent.

The generation sequence of seed production will be Breeder, Foundation, and Certified. Ticonderoga was released in 1973 and 9 acres of seed were sown for 1974 harvest. Ticonderoga was approved for Foundation, and Certified. Ticonderoga was released in 1973 and 9 acres of seed were sown for 1974 harvest. Ticonderoga has superior straw strength.

Performance characteristics of Ticonderoga and four other Cornell varieties over a 10-year period at Ithaca are as follows:

<table>
<thead>
<tr>
<th>Variety</th>
<th>Yield (q/ha)</th>
<th>Test wt. (kg/q)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Genesee</td>
<td>33.8</td>
<td>73.6</td>
</tr>
<tr>
<td>Avon</td>
<td>39.2</td>
<td>74.7</td>
</tr>
<tr>
<td>Yorkstar</td>
<td>40.5</td>
<td>71.8</td>
</tr>
<tr>
<td>'Heine's VII'</td>
<td>42.1</td>
<td>72.3</td>
</tr>
<tr>
<td>'Purdue No. 8'</td>
<td>39.8</td>
<td>73.5</td>
</tr>
</tbody>
</table>
| 'Cawed' spring oat (Avena sativa L.) Lic. No. 1588 originated from the cross ('Beacon' × 'Laurel') × 'Glen' made at Lacombe, Alberta in 1961.

The segregating generations were advanced by the single seed descent procedure and 162 lines were tested in the Alberta Regional Trials in 1966. Three lines were entered in the Alberta Regional Trials in 1968 and in 1971 line 337-99 (Cavell) was advanced to the Western Canada Co-operative Oat Test where it was evaluated for 3 years as O.T. 719.

In the Regional Tests (1968-1975) Cavell yielded 3% more than 'Fraser' and 3% less than 'Random', while in the Western Canada Co-operative Test (1971-1975) the yield of Cavell was equal to that of Fraser and 6% less than Random. Cavell is an early maturing oat being 3 days earlier than Random and 6 days earlier than Fraser. It has good test weight (47.9 kg/ha), an average-sized kernel (31.4 g/1,000), and a light hull (23%). Cavell is a medium-tall cultivar, about 95 cm on the average, and has good lodging resistance. On the basis of 11 tests, Cavell averaged 15% protein which was 1.9 and 0.8% greater than that for Random and Fraser, respectively. Cavell has stem rust (Puccinia graminis Pers. f. sp.avenae Eriks & E. Henn.) "A" gene resistance, is susceptible to smut (Ustilago avenae (Pers.) U. kollerii Wille) and crown rust (P. coronata f. sp.avenae Eriks. & E. Henn.), but these diseases are not a problem in the area where it is intended for production.

This new cultivar should prove to be of value in areas where maturity and lodging resistance are important considerations. Breeder seed will be maintained at the Agriculture Canada Research Station, Lacombe, Alberta.

H. T. Allen and M. L. Kaufmann

'Cavell' spring oat (Avena sativa L.) Lic. No. 1588 originated from the cross ('Beacon' × 'Laurel') × 'Glen' made at Lacombe, Alberta in 1961. The segregating generations were advanced by the single seed descent procedure and 162 lines were tested in 1966. Three lines were entered in the Alberta Regional Trials in 1968 and in 1971 line 337-99 (Cavell) was advanced to the Western Canada Co-operative Oat Test where it was evaluated for 3 years as O.T. 719.

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