Registration of Improved Flax Varieties VII

J. O. Culbertson

NEW flax varieties have been described in the Agronomy Journal as follows: Biwing and Redson, September 1943 (35:823–824); Crystal and Royal, May 1944 (36:454–457); Arrow, Renew, and Koto, August 1945 (37:646–648); Dakota and Minerva, November 1949 (41:534–535); Sheyenne and Redwood, March 1952 (44:153–154); and Marine, July 1953 (45:317–318).

RAJA (Reg. No. 13)

Raja (C.I. 1483) was selected from a cross of Arg. Sel. 1025 × J.W.S.153B9 at the Cereal Division, Central Experimental Farm, Ottawa, Ontario, Canada. The cross was made in 1942 and the final selection in 1952.

The acreage sown to Raja has been increasing since its release. In 1956 over 3% of the acreage in Manitoba was sown to this variety, and its use in Saskatchewan and Alberta is increasing. It has recently been introduced into the United States and is gaining in popularity in the Dakotas and Minnesota.

Raja matures early, usually ripening as soon as Marine or Redwing. This is a desirable characteristic for the areas where late sowing is practiced to permit delayed working of the seedbed to control weeds.

The straw of Raja is slightly shorter than that of Redwood or Marine when sown early, but is as tall when sown late. Fiber quality of the straw is fair.

Flowers are medium to large in size; some are funnel-form with flat blue petals. Blue anthers are borne on colorless filaments. The style is blue; the stigma mauve. Raja has a semi-dehiscent boll with few septa.

Seeds of Raja are usually considered large, but considerably larger than those of Marine.

The oil content and iodine number of Raja as an average of 47 trials in the uniform region, 1954–1956, Raja, Redwood, and Marine had 38.3, and 38.0% oil, respectively. Corresponding values of the oil were 178, 185, and 189.

Raja is resistant to wilt and races of rust in North America, but as is true of most flax varieties it is susceptible to pasmo.

Yield data for Raja, Redwood, and Marine over the period 1954–1956 at 8 locations and 2 sowing dates are given in Table 1. While all three varieties yield well when sown late, Raja and Marine suffered least.

ROCKET (Reg. No. 14)

Rocket (C.I. 1133) was selected by the Cereal Division, Central Experimental Farm, Ottawa, Ontario, from a cross of Argentine 8C × Redwing. The variety was first distributed in 1947.

In 1956, Rocket was grown on over 10% of the acreage in the Prairie Provinces of Canada. It is grown to a limited extent in the North Central States.

Flowers of Rocket are medium to large in size, funnel-form, the petal flat and dark blue in color.

---

Table 1.—Yield of Raja flax compared with the check varieties Redwood and Marine at 8 locations and 2 dates of sowing in the North Central States and Prairie Provinces for the 3-year period 1954–1956.

<table>
<thead>
<tr>
<th>Variety</th>
<th>Saskatoon Early</th>
<th>Indian Head Early</th>
<th>Winnipeg Early</th>
<th>Park River Early</th>
<th>Fargo Early</th>
<th>Crookston Early</th>
<th>Morris Early</th>
<th>Brookings Early</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bu./A.</td>
<td>bu./A.</td>
<td>bu./A.</td>
<td>bu./A.</td>
<td>bu./A.</td>
<td>bu./A.</td>
<td>bu./A.</td>
<td>bu./A.</td>
</tr>
<tr>
<td>Raja (new)</td>
<td>12.0</td>
<td>10.0</td>
<td>18.8</td>
<td>18.3</td>
<td>21.6</td>
<td>30.9</td>
<td>21.3</td>
<td>6.1</td>
</tr>
<tr>
<td>Redwood</td>
<td>16.8</td>
<td>15.7</td>
<td>19.2</td>
<td>15.6</td>
<td>20.6</td>
<td>14.2</td>
<td>24.8</td>
<td>3.2</td>
</tr>
<tr>
<td>Marine</td>
<td>12.6</td>
<td>16.9</td>
<td>15.7</td>
<td>15.1</td>
<td>24.9</td>
<td>25.4</td>
<td>23.4</td>
<td>7.3</td>
</tr>
</tbody>
</table>