Table 4. Winter survival data for 5 wheat varieties at 3 locations in Quebec, Canada.

<table>
<thead>
<tr>
<th>Percent winter survival</th>
<th>Kharkov 22 MC</th>
<th>Rideau</th>
<th>Richmond</th>
<th>Geneseo</th>
<th>Cornell 508</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macdonald College-2 yrs.</td>
<td>90</td>
<td>84</td>
<td>80</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>East Farhman-3 yrs.</td>
<td>86</td>
<td>87</td>
<td>80</td>
<td>64</td>
<td>58</td>
</tr>
<tr>
<td>Des Moines-1 yrs.</td>
<td>98</td>
<td>92</td>
<td>82</td>
<td>88</td>
<td>70</td>
</tr>
</tbody>
</table>

Kharkov 22 MC is susceptible to bunt, leaf rust and stem rust, but resistant to post-harvest sprouting. Milling quality is fair to good. This variety does not yield as well as other commonly grown varieties (Tables 1 and 2), but is superior to most other varieties in its ability to survive winter conditions (Tables 3 and 4). The latter characteristic makes Kharkov 22 MC a useful variety for expanding the areas of winter wheat production and as parental material in breeding for winter hardiness.

Breeder seed is maintained by the Agronomy Department, Macdonald College, Quebec.

REGISTRATION OF COLFAX OATS

(Reg. No. 181)

LeRoy McCurdy and Carl Koehler

'Colfax' (Avena sativa L.), C.I. 7595, (McCurdy M623) 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 1951 of [(Columbia × Clinton) × Landhafer] × (Santa Fe × Mo. 0-200). The Santa Fe and Landhafer varieties were obtained from H. C. Murphy, Iowa State University; Mo. 0-200 from J. M. Poehlman, University of Missouri; Columbia from a commercial lot; and Clinton from certified seed obtained from Iowa State University. Columbia and Clinton were first crossed and then an F2 plant from this cross was crossed with Landhafer. At the same time a cross was made between Mo. 0-200 and Santa Fe. Then in 1951, the final cross was made between (Columbia × Clinton) × Landhafer (F2 plant selection) and Mo. 0-200 × Santa Fe (F2 plant selection). The final F2 plant selection was made in 1953. It was increased in a 5-foot row in 1954. In 1955, both yield testing and increase were initiated, and it has been tested every year to date.

Colfax has given a very good yield performance in Iowa and Minnesota for the past four years. It has shown good crown rust resistance when compared to many of the widely grown varieties during that period. This variety is awnless and has a medium white, plump grain with good test weight. The attractive pinkish-ivory kernels are thick and plump. It has some tolerance to yellow dwarf, as well as to the prevalent races of stem and crown rusts.

In the McCurdy replicated oat yield trials conducted at Fremont, Iowa, Dassel, Minnesota, and Spring Valley, Minnesota, during 1959-62, Colfax yielded an average of 84 bushels with a test weight of 34.0 pounds compared with 62.5 bushels and 33.8 pounds for Cherokee, the most widely planted variety in Iowa, and 69 bushels and 34.2 pounds for Newton. Comparative performance data for Colfax are given in an extension article for Colfax.

1 Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the Agronomy Department, Macdonald College-2 yrs. 86 87 80 64 58

REGISTRATION OF GOLDCREST OATS

(Reg. No. 182)

LeRoy McCurdy and Carl Koehler

'Goldcrest' (Avena sativa L.), C.I. 7595, (McCurdy M623) was developed by workers of the W. O. McCurdy & Sons Seed Company, Fremont, Iowa. It originated as a cross made in 1950 of [(Columbia × Clinton) × Landhafer] × (Santa Fe × Mo. 0-200). The Santa Fe and Gopher varieties were obtained from H. C. Murphy, Iowa State University; Clinton was obtained as a commercial lot; and Columbia and Gopher were from commercial sources. Columbia and Clinton were first crossed. Then an F1 plant selection from this cross was crossed with Santa Fe. One of the better plant selections from this cross was then crossed with Landhafer. Then the final F2 plant selection was made and grown in a single row in 1953. Yield and performance data for Goldcrest are given in Tables 1 and 2.

Goldcrest has a good yield record in southern Minnesota when compared to locally grown varieties, awnless, short maturity variety with an average, or slightly below, in standing ability. Goldcrest is outstanding for high bushel weight. The attractive pinkish-ivory kernels are thick and plump. It has some tolerance to yellow dwarf, as well as to the prevalent races of stem and crown rusts.

In the McCurdy replicated oat yield trials conducted at Fremont, Iowa, Dassel, Minnesota, and Spring Valley, Minnesota, during 1959-62, Colfax yielded an average of 84 bushels with a test weight of 34.0 pounds compared with 62.5 bushels and 33.8 pounds for Cherokee, the most widely planted variety in Iowa, and 69 bushels and 34.2 pounds for Newton. Comparative performance data for Colfax are given in an extension article for Colfax.

1 Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the Agronomy Department, Macdonald College, Received Nov. 1, 1963.
2 Agronomist and Plant Breeder, respectively, W. O. McCurdy & Sons Seed Company, Fremont, Iowa.

REGISTRATION OF GOLDFIELD OATS

(Reg. No. 183)

LeRoy McCurdy and Carl Koehler

'Goldfield' (Avena sativa L.), C.I. 7595, (McCurdy M623) was developed by workers of the W. O. McCurdy & Sons Seed Company, Fremont, Iowa. It originated as a cross made in 1950 of [(Columbia × Clinton) × Landhafer] × (Santa Fe × Mo. 0-200). The Santa Fe and Gopher varieties were obtained from H. C. Murphy, Iowa State University; Clinton was obtained as a commercial lot; and Columbia and Gopher were from commercial sources. Columbia and Clinton were first crossed. Then an F1 plant selection from this cross was crossed with Santa Fe. One of the better plant selections from this cross was then crossed with Landhafer. Then the final F2 plant selection was made and grown in a single row in 1953. Yield and performance data for Goldcrest are given in Tables 1 and 2.

Goldfield has been outstanding for yield, as well as for good bushel weight.