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

<table>
<thead>
<tr>
<th>Variety</th>
<th>Percent winter survival</th>
<th>Macdonald College - 2 yrs.</th>
<th>Hideno</th>
<th>Richmond</th>
<th>Gosspe</th>
<th>Cornell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kharkov 22 MC</td>
<td>90</td>
<td>94</td>
<td>97</td>
<td>83</td>
<td>84</td>
<td>64</td>
</tr>
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</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 hardness.

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 M625) 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 x Clinton) x Landhafer] x (Santa Fe x Mo. 0-200). The Santa Fe and Landhafer varieties were obtained from H. C. Murphy, Iowa State University; 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 Santa Fe and Clinton. Then in 1951, the final cross was made between (Columbia x Clinton) x Landhafer (F2 plant selection) and Mo. 0-200 x Santa Fe (F1 plant selection). The final F2 plant selections were made in 1953. It was increased in a 3-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. Under some environmental conditions the grain may take on a gray color. The straw is similar to that of Mo. 0-205 being only average, or slightly below, in standing ability. Colfax is of medium maturity being similar to Clintland 60. It seems to have fair 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 73 bushels with a test weight of 34.6 pounds compared with 62.5 bushels and 34.2 pounds for Newton. Comparative performance data for Colfax are given in Table 1 of the registration article for Colfax.

REGISTRATION OF GOLDFIELD OATS

(Reg. No. 183)

LeRoy McCurdy and Carl Koehler

'Goldfield' (Avena sativa L.), C.I. 7597, (McCurdy M532) was developed by workers of the W. O. McCurdy & Sons Seed Company, Fremont, Iowa. It originated as an F2 plant selection from a cross of [(Clinton x Santa Fe) x Mo. 0-200] x Ajax made in 1951. Santa Fe was obtained from H. C. Murphy, Iowa State University; Clinton from Mo. 0-200 x M. Poehlman, University of Missouri; and Ajax from H. C. Murphy, Iowa State University. An F3 plant of Clinton was crossed with Mo. 0-200 and one of the better plant selections from this cross was then crossed with Ajax. The final cross was made in 1951 and the F2 plant selection was made in 1953. The F2 selection was increased in a 5-foot row in 1954. Replicated yield testing and increase of seed were initiated in 1954.

Goldfield has been outstanding for yield in Iowa and southern Minnesota for the past few years. It has attractive, white, medium-plump kernels with a few awns. The plant is attractive with medium-large culms, wide leaves, and heavy foliage. It has a stiff straw which may lodge under some conditions when premature ripening occurs. Goldfield is best adapted to the northern two-thirds of Iowa and southern half of Minnesota. It is of medium maturity being approximately the same as Clinton. Goldfield has some tolerance to yellow dwarf and to the various races of stem and crown rusts that have been prevalent: in recent years.

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1 Registered under a memorandum of understanding between the Crops Research Division, ARS, USDA, and the American Society of Agronomy. Received Nov. 1, 1963.

2 Agronomist and Plant Breeders, respectively, W. O. McCurdy & Sons Seed Company, Fremont, Iowa.