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Central Experimental Farm, Ottawa, Canada, January 23rd, 1934.

Dr. Seager Wheeler, Maple Grove Farm, Rosthern, Saskatchewan.

Dear Sir,-

We have your letter of January 9th in which you are making enquiries concerning our report of the milling and baking tests on the wheat varieties grown at Rosthern, Sask., in 1932. We have noted your correction for milling sample No. 602.

In regard to the milling and baking qualities of wheat varieties, you are correct in assuming that varieties grown in different localities or in different years do not behave the same. That is, samples of the same variety vary in baking strength. This makes it imperative that in order to compare the baking strength of different varieties it is necessary that these be grown under as near comparable conditions as possible. Until we have tested a variety at a number of locations and over a period of years we do not feel that we can give a final judgment unless it shows that it has some marked inferior quality. For instance, a poor milling wheat no matter under what conditions it is grown will show its inferior characteristics. None of your selections can be considered markedly inferior in quality. They all milled freely and, while we indicated the percentage of straight grade flour we obtained from each, this cannot be considered very seriously especially since the samples available for milling , were very small. In the report I would place most of the emphasis on the test weight per bushel, the crude protein in the wheat, the loaf volume, crumb texture and crumb colour.

The baking score figure is an attempt to sum up the baking characteristics of the sample into a single figure but this is not always very reliable for the reason that it is most sensitive to loaf volume measurements. For instance, the loaf volume may be very large but the texture quite open and the crumb colour yellow. The baking score in this case would be high but the sample would not be considered the best in baking characteristics. On the basis of the tests, your selections might be arranged in descending order of value as follows:-

Test Weight per Bushel	Protein	Loaf Volume	Crumb Texture	Crumb Colour
597 598	596	605 602	600 (597)	(595) (598) (601)
599 601 596 602	(598) (603) (605)	599 (601) (595)	(598) (602) (604)	(594) (597) (599)
(594)	(594) (595) 593	594 598 597	(594) (601) (605)	(600) (602) (603)
595 604 603	(597) (602)	604 603 600	(593) (595)	(596) (605)
(605)	599 600	596 593	(596) (603) 599	(593) (604)
1	(601) (604)		222	

Considering all data it would indicate that numbers 596, 600, 604, 603 and 593 are less desirable than the others.

Re the selections I wished you to send us for baking test, etc., we will be very glad to have these and any others you think merit special consideration. It may be some time, however, before we can do them.

Reciprocating your kind Season's Greetings, I remain

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Yours very truly,