

milling-tests agree as closely as can reasonably be expected (within 0.2 per cent.). This being so, it seems that the amount of flour obtained, being constant, is in effect a real measure of the flour available in the grain by milling processes under rigorously maintained conditions.

(2.) In answer to the second question it may be said that in every case where a flour was tested the bread in the samples above a certain strength has been of good texture when cut, and has possessed a colour as good as that of the commercial "baker's" flour which was baked with each series. The question of colour is interesting from a practical point of view, because in this Laboratory the mill is provided with nothing corresponding to the elaborate machines for cleaning the grain which form so indispensable and prominent a part of most modern mills; all cleaning is done here by hand, and at best must be imperfect.

The palatability of the strong samples has been as good as, and often better than, that of ordinary baker's bread. Externally the loaves were of a pleasing colour and well crusted; their texture was always found to be good with strong flours, decreasing in quality as the protein content became less, until finally the poorest sample might be said to have had no texture at all.

(3.) As regards comparison with samples of known and accepted good strength in other countries, the information in the left half of the following table was obtained from Bulletin 177 (1911) of the Kansas State Agricultural College Station. Kansas, it may be mentioned, is one of the leading wheat States of America.

No.	Strong Wheats tested in Kansas.			New Zealand Wheats.			
	Variety.	Protein.	Loaf-volume.	No.	Variety.	Protein.	Loaf-volume.
		Per Cent.	c.c.			Per Cent.	c.c.
58	Malakoff ..	15.65	1,330	O 815	Burbank's Super ..	14.44	1,452
65	Fife ..	12.24	1,290	P 308	College Hunters ..	12.19	1,292
67	Minnesota..	12.62	1,310	P 290	Velvet ..	13.19	1,326
68	Bearded Fife	10.68	1,300	P 429	Marquis..	11.44	1,332
70	Minnesota..	12.22	1,260	P 431	Thew ..	12.50	1,200
76	Turkey Red	11.15	1,140	P 259	Dreadnought ..	10.94	1,200

It will be seen that, judged by loaf-volume, strong and medium-strong New Zealand wheats lose nothing when compared with typical Kansas wheats of the same classes. For purposes of comparison the local figures are calculated on the same amount of flour that was used in the American experiments.

(4.) The method of experimental baking is the method of the baker, and does not differ from his except in special cases to be mentioned. It is essential for purposes of comparison that the tests should give the measure of the strength of the flour and thus reveal differences of quality. Really comparative tests are attained, then, only by very exact control of all the processes and of temperature, no one flour being favoured more than another. A skilled baker no doubt adapts his methods to suit the different flours he uses, and by the processes of kneading and fermenting improves a weak flour. But this does not prevent that flour from being essentially a weak flour,