

was probably the best all-round wheat, a conclusion that was arrived at from a consideration not only of the protein present, but also of its very good milling-properties. Its capacity for water was also higher than that of the other two. All three, however, were very good wheats. The three remaining samples were fairly good wheats and better than the average; O 814, however, was rather low in its milling-properties. Velvet, then, in 1922, was an all-round good variety. The absorption-of-water figure was always high, a fact of much interest and importance to the baker. This variety also gave a good average yield of flour per bushel. Lastly—and this is always important—the average protein content was good, and, when grown in some localities, excellent. In this respect it is interesting to note the very good sample of wheat from Dumbarton, and the high average of the three samples from the Upper Taieri, districts near the borders of the area of lowest rainfall in New Zealand. As a variety, Velvet would be classified in Australia as a "medium strong" wheat. There is no doubt that at least four individual samples among those now under discussion might with justification be classified as "strong" wheats.

Three samples of College Hunters were good wheats, and might be called medium strong; the fourth was a medium wheat with 9.54 per cent. protein. The best of these was from Dumbarton, with a yield of 73.6 per cent. flour, and containing 10.94 per cent. protein; its capacity for water and the ratio of wet to dry gluten were both good.

The best of three samples labelled Tuscan came from Malaghan's, Lake County, part of which is the driest district in the Dominion; this wheat milled well, with 72.6 flour, possessed a fair capacity for water, and contained a good amount of protein—quite a good all-round wheat. Two samples of White Tuscan and two samples of Solid-straw Tuscan contained moderate amounts of protein. A Purple-straw Tuscan was rather better in this respect. It will be remembered that the samples of Victor gave generally very good yields of flour. In 1922, however, they appeared in most cases to be lacking in strength, but P 322, from Domett, Cheviot, was a sample above the average for this variety.

The "Miscellaneous" samples gave some interesting results. It is true that usually only one sample of each was received; nevertheless the information obtained is sufficient to warrant further investigation of these lesser-grown varieties. One of the outstanding samples milled in 1922 was the Burbank's Super, grown at Flaxton, Eyre. It is said that this variety compares favourably with other wheats in yield per acre, and that its chief characteristic is early maturity. This particular sample milled rather poorly, with 70 per cent. of flour; but it more than made up for this deficiency by its protein content, which was as high as 14.44 per cent. This is nearly 1 per cent. higher than the average of the strong red wheats exhibited during recent years at the New South Wales Royal Agricultural Society's show at Sydney (9). The absorption figure was very good, and, although the ratio of wet to dry gluten was unexpected, it was observed that the physical condition of the extracted gluten was better than is usually the case. One cannot, of course, judge a variety by one sample, but the figures undoubtedly show that the adaptability of the variety to local conditions is well worth looking into.