

CEREALS AT RUAKURA.

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As stated in previous reports, barley and rye are cereals which admirably suit the soil and climate of the Waikato. They succeed where oats fail, and, by choosing a suitable strain, no difficulty should be experienced in obtaining a good crop. Neither of them are affected to any extent by rust, and they thrive under the most variable conditions. The old Chevalier, a standard variety, has this season given an excellent crop. It may be outclassed in weight by Maltster when threshing is done, but for a clean, even crop it is hard to beat. The two Swedish barleys, Primus and Henchen, are not as good as expected. Primus is by far the better of the two, but has not yielded equal to the crops produced by either Chevalier or Maltster. The Swedish types were also more affected by smut.

Excelsior barley, a six-rowed variety, yielded better than either Cape or Six-rowed Winter. The area sown was small, on account of a limited amount of seed, so that it will take another season to test its real value.

With rye, Emerald yields longer and heavier heads than ordinary rye-corn. The average height of the former is 6 ft., and the straw is of a superior quality.

Wheats have given better results this season, the plots clearly demonstrating what varieties will succeed in these soils and environment. The crop of Solid Straw Tuscan fills first place, followed by White and Red Straw Tuscan. Marshall's No. 3 also holds a high place. Amongst the bearded wheats, Rieti takes the lead, and some selections made from this variety this season give promise of greatly improving the yield of the variety.

Wherever possible, selections were made from successful varieties. Velvet, Pearl, and Grenadier were varieties which failed to give a crop worth harvesting.

The plots of oats did not give such good results as those of other cereals. *Helminthosporium graminum* attacked them badly early in the season, and later on rust appeared. The Swedish oats took rust far worse this year than last season, and prove unsuitable for this district. Black Bell is the best variety amongst them. This also led last year. Although twenty-five varieties of oats were under trial in the Ruakura Farm of Instruction plots, there were only two which could be relied on to yield payable crops—namely, Ruakura Rust-resisting and Algerian. Hative de Mesday is the best of the new oats, but it takes rust badly, and is rather weak in the straw.