

RISE OF BONANZA WHEAT FARMS . . .

Bonanza wheat farms, which depended largely on the export of their product, could not have developed without the extension of the railway system and the development which had taken place in the machinery to do the work—ploughs to turn the furrow and machines to facilitate the cutting and threshing of the grain.

There was another factor which had a direct influence on their rise. Up to the beginning of the 80's New Zealand depended to a large extent on one industry, the production of wool, but in 1879 the price for this commodity, which had been as high as 24d. a lb. following the Franco-Prussian War of 1870, fell to 4d. a lb. As a result of this fall and the continued low price, some farmers turned their attention to other sources of income, the production of grain being the major one.

The first railway line built in New Zealand was completed in 1863 from Christchurch to Ferrymede, a distance of 5 miles. By 1868 there were 30 miles of line in Canterbury and by 1875 180 miles, which was over 30 per cent. of the total railway mileage of the country. The main south railway reached to the north bank of the Rangitata River and served a considerable portion of the 70,000-acre wheat area of that time.

New Zealand farmers have always been quick to take advantage of any mechanical appliances; sometimes, of course, they have been forced into purchasing the equipment because of the difficulty of obtaining labour. Mrs. John Deans, sen., in a letter to the Canterbury A. and P. Association in 1882 mentioned the position in the 1850's. "Owing to the Australian gold diggings attracting labourers of all classes from New Zealand and elsewhere the first two years after my husband's death, the late Douglas Graham, manager of Riccarton farm, had great difficulty in securing the harvest of 1855-56, so that the trustees decided on importing a reaping machine. My brother-in-law, Mr. J. D. Deans, on making inquiries in the Old Country as to the best in those days, sent us a 'Bell's Improved.' It was so heavy two horses could push it for only two hours at a time, when they had to be replaced by others."

Sickle and Flail: 1850-1860

Development in the mechanisation of agriculture in Canterbury can be divided broadly into the following periods:—

- 1850-1860—Sickle and flail.
- 1860-1870—Reaping machines.
- 1870-1880—Double-furrow ploughs and wire binders.
- 1880-1890—Grain drills and twine binders.

As Mr. Studholme points out in his book "Te Waimate," the years 1850 to 1860 can generally be described as the manpower period, the main implements being spades, shovels, picks, hoes, sickles, and flails. However, single-furrow ploughs were fairly common, and by 1860 it is estimated that there were about 250 on the Canterbury Plains. There were also a few reaping machines and horse-driven threshing machines.

A favourite plough was the John Barrowman swing plough, which was successful in the first ploughing matches held at Christchurch, and one merchant at Lyttelton in 1855, when notifying clients of the expected arrival of this make, capitalised on this by stating that their superiority required no comment, as they had taken first prizes at ploughing matches at Christchurch for two years successively.

Bullocks were generally used in the ploughs, and the man who could take an even furrow across a field with the old Barrowman hitched to bullocks

was certainly well trained in hand and eye. As the bullocks crawled along chewing their cud his patience must have been tried, too, all his encouragement and punishment of the beasts doing little to make their pace smarter.

The grain was sown broadcast, the sower usually carrying half a bushel in a sack receptacle attached to a frame around the waist. A skilled man could sow 25 acres a day, and some men who sowed on contract have been known to sow as much as 1000 acres in a season; so skilful were the sowers that they could gauge accurately the amount to be sown per acre. By sowing broadcast on well-made furrows and giving one stroke of the harrows the wheat came up in rows as straight as those made today with a drill behind a tractor.

The cutting of the grain was generally done by sickles and scythes, but in a few cases reapers were used. The sheaves were tied by hand and the threshing done either by flails or small horse-driven threshing machines, a make used a little at this time being the "Kettle Drum Thresher," which comprised a small drum revolved by

