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The Ashburton survey area included parts of the localities of Methven, Lyndhurst, Lauriston, Winchmore, and Rakaia. This view southward from Methven includes some of the farms in the survey.

little grass farming. However, apart from the settling down to one of the standard types, the main trend in rotations during the period of the survey has been a tendency for an increase in the number of crops sown in the first or second year after grass. The principal rotation patterns and the percentage of fields in each were:—

Rotation	Fields in the rotation as a percentage of all fields in survey
1. Grass, grass, wheat .. .. .	9
2. Grass, potatoes, wheat .. .. .	14
3. Grass, other crop, wheat .. .. .	15
4. Any crop, cereal crop, wheat .. .. .	12
5. Cereal crop, peas, wheat .. .. .	7
6. Any crop, potatoes, wheat .. .. .	14
7. Any crop not a cereal, peas, wheat .. .. .	10
8. Fallow in either year, wheat .. .. .	9
9. Any crop, fed-off crop, wheat .. .. .	9

The "other crop" in rotation 3 was mostly peas, sometimes rape, and occasionally chou moellier or linseed. The above rotations do not account for quite all the crops surveyed, but little useful information can be obtained from study of the odd crops.

The wide variety of rotation patterns probably arises because the area is very near the marketing centre of Christchurch and farmers may frequently alter rotation plans to take advantage of special market conditions.

The effect on yield of rotation pattern was not obtained very accurately, because with the large number of patterns there were not very many crops in each one and allowances had to be made for variations in other factors such as variety. However, it could clearly be seen that when wheat was grown as the second crop after grass the yield, compared with that from wheat in fields which had been cropped for 2 years, was higher by 2.6 bushels per acre. The best yields

were obtained from wheat after grass, and the poorest from wheat after another cereal crop, the difference between these two extremes being 7.4 bushels per acre. Though these differences do not seem large, they are the average differences for all crops in the rotation and include some very good and some very poor crops. Other differences in yield between rotations were smaller. These main results, comparing rotation 1 with 4, and

rotations 2 and 3 with all others except 1, may be set out thus:—

Rotation	Difference from general average yield Bushels per acre
General average yield .. .. .	41.6
1. Grass, grass, wheat .. .. .	+3.3
4. Any crop, cereal crop, wheat .. .. .	-4.1
2 and 3. Grass, any crop, wheat .. .. .	+1.5
All others except 1. Any crop, any crop, wheat .. .. .	-1.1



Cross 7 wheat was the dominant variety on the surveyed farms.