

## FARMING IN WESTLAND

has been strong, and during the process all plant foods have been removed and iron and humus have gradually accumulated in the subsoil, cementing a layer of stones into an impervious pan. This pan is an effective bar to drainage, and the soil overlying it is almost continuously waterlogged.

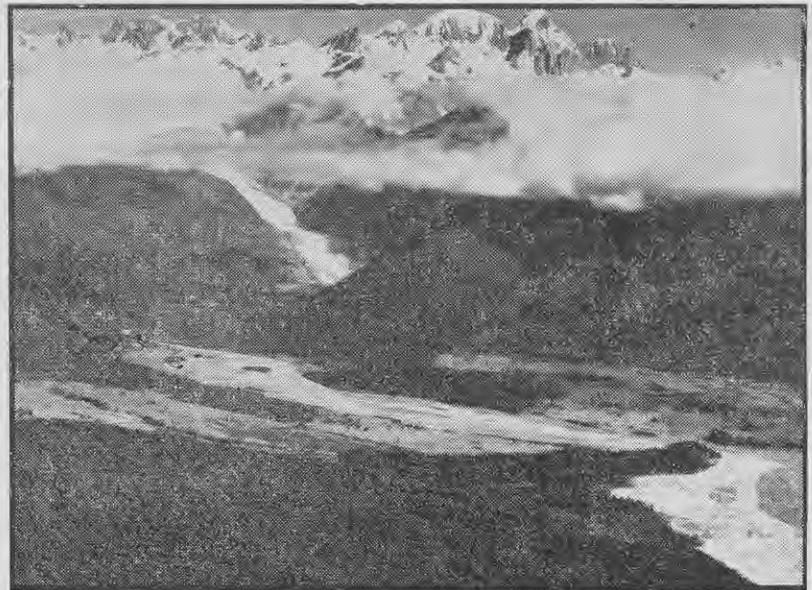
Because of a considerable variation in the depth of soil above the pan, these soils fall into two categories, but in general one type exists on the ridges and terraces (Waiuta loams) and the other on the flatter land (Kumara and Okarito loams). Vegetation varies from gorse and manuka to rimu, miro, and kamahi timber on the higher levels; scattered depressions are covered by umbrella fern, moss, and sedges, with numerous silver pine roots underground, but are devoid of living timber on the surface.

The popular term "pakihi" is very loosely applied to a wide range of soil types of low fertility, whereas it should refer only to those soils devoid of forest and plant nutrients, as the Maori word "pakihi" means "clearing in the bush." These soils are extremely low in calcium and phosphate; if these are applied in sufficient quantity, quite good pastures can be established, but their utilisation is confined to dry-weather grazing. To date none of the soils has been converted into good farming land.

The pakihi soils around Westport have been derived from quartz grits and sands as well as from granite gravels. They are poorer and more difficult to develop than those described and are fully dealt with in Bulletin 71, "Soil Survey of Westport District," of the Department of Scientific and Industrial Research.

### Lower Ranges

Practically all the steep hill land of Westland is still covered by native bush, and nowhere have farms been established on this class of land. The soils are very shallow, and if the present ground cover were removed, erosion would result because of lack of soil stability and increased water run-off. These soils consist mainly of freshly-weathered soil and disintegrat-



[V. C. Browne photo.]

Westland is a rugged region of three levels—the steep mountain ranges, the terraces and lower ranges, and the narrow coastal plain of varying width.

ing rock fragments and are classified as skeletal. This class of land is unlikely ever to be of any use for farming.

### Land Utilisation

Of a total area of about 5,690,000 acres in the district some 1,170,000 acres are occupied; the unoccupied area of 4,520,000 acres comprises mainly native forest land and barren and snow-clad mountain tops.

Of the occupied area about 980,000 acres are classed as unimproved land, consisting in the main of areas which have reverted to second growth. Sown-grass areas account for about 182,500 acres, and for the most part these are in the river valleys. The total occupied

area in 1946-47 supported 97,300 sheep and 67,700 cattle, of which 20,300 were dairy cows in milk.

### Types of Farming

The types of farming carried on in Westland cannot be grouped in any simple way, for from the point of view of size of holdings they may appear to fall into the classification of extensive farming, whereas from the management point of view they are really intensive. The average size of holding for the district is 610 acres, but in most cases an appreciable portion of this area is bush or second-growth light land, and farmers tend to concentrate on the more easily-worked portions, with the result that these areas are farmed more intensively.

The following classification outlines broadly Westland farming systems:—

### Dairy Farming

Dairying is the major farming industry and utilises the greater part of the occupied improved area of all the counties. The main factor responsible for the popularity of this type of farming is the climate, with its mild temperatures, absence of cold winds, well-distributed rainfall, and plentiful sunshine. Most dairy farmers close to the towns concentrate on the production of whole milk for town supply. There are no cheese or milk-processing factories in the district.

The milking season is short compared with that in other districts with somewhat-similar climates, being from September to April, but despite this, average butterfat production per cow approaches 200lb., while the average per acre is at the low figure of 70lb., which is a reflection of the semi-improved run-off areas of the holdings. Averages of 300lb. of butterfat per cow and 150lb. per acre could well be expected, and many farmers have exceeded these figures.

### UTILISATION OF LAND AND STOCK CARRIED IN WESTLAND, 1946-47

	County				Total
	Grey	Westland	Buller	Inangahua	
Total acreage	1,010,560	2,822,400	1,248,000	607,360	5,688,320
Acreage occupied	299,561	688,826	95,727	85,536	1,169,650
Acreage unoccupied	710,999	2,133,574	1,152,273	521,824	4,518,670
Acreage in cultivation (including sown grasses)	47,842	93,501	25,094	22,155	188,592
Acreage of unimproved land (occupied)	251,719	595,325	70,633	63,381	981,058
Acreage sown in grass	47,058	89,260	24,687	21,529	182,534
Acreage in green fodder and root crops	570	283	118	380	1,351
Acreage cut for hay and silage	1,112	984	653	844	3,593
Number of holdings	492	679	500	245	1,916
Average acreage of holding	609	1,014	191	349	610
Total sheep	32,469	43,618	2,127	19,097	97,313
Sheep shorn	30,586	35,926	2,645	16,676	86,833
Breeding ewes	23,085	34,461	1,474	13,595	72,615
Dairy cows in milk	3,856	8,445	6,053	1,950	20,309
Total cattle	17,343	30,694	12,723	6,987	67,753

Figures from "Statistical Report on Agricultural and Pastoral Production, 1946-47."