

The concrete lining of the main race in the Manuherikia Gorge was completed, all excavation finished, and four large flumes erected.

A double line of pipes at Chatto Creek has been placed in position, and is in working-order.

Ten distributing-races have been completed.

ARDGOUR SETTLEMENT SCHEME.

The permanent line and all siphons have been surveyed and plans prepared. Construction is proceeding satisfactorily, the first 6 miles being fully excavated. From 6 to 11 miles the excavation is practically complete, except for a few short gaps.

EARNSCLEUGH SCHEME.

With the exception of a few culverts this scheme has been completed sufficiently to supply occupied land, but will require extension when other lands are brought into occupation.

GENERAL SURVEYS.

Upper Manuherikia Scheme.—A detailed survey of the wall for the upper dam site at Lauder has been made, and 60 miles of race have been levelled and pegged. Rough surveys have been made of the Falls and the Dunstan Creek dam sites, and trial race-lines have been run with a view to irrigating the northerly end of Ida Valley, as well as the Manuherikia Valley, in all about 100,000 acres. Tarras, Roaring Meg, and Bendigo schemes are being investigated.

GENERAL

This may be an appropriate place to give a few particulars of the effects of irrigation on the land as obtained from actual figures supplied by the farmers on Government irrigated land, and some on land irrigated by private schemes. One man grew 400 tons of lucerne on 80 acres of irrigated ground, and with 350 tons of this fodder he wintered 5,000 sheep, 75 cattle, and 20 horses. With the aid of the pasture on irrigated land he was able to sell 4,900 fat sheep from a property which had never previously been able to turn out a single fat sheep. Another settler brought in a private scheme costing £20 per acre, and was then able, on 100 acres of land which previously was drifting sand of no value, to winter 3,300 sheep as well as horses and cattle; and in addition, in the month of February, he held 2,000 sheep and fattened 300 wethers. Figures of this description must carry conviction to the most sceptical.

Another man, before irrigation, on a little over 300 acres, grazed 100 sheep and fattened 80. He now grazes 600 sheep and fattens 400, and estimates that his land has increased in value five-fold. Another, before irrigation, sold 250 fat sheep and 13 bales of wool per annum. He now sells 1,200 fat sheep and 35 bales of wool; and, further, he estimates that the wool off irrigated land is 2 lbs. or 3 lbs. per sheep heavier and fetches 3d. to 4d. per lb. more as compared with adjoining unirrigated land. Another man who previously sold no fat sheep and four bales of wool, now sells 980 fat sheep and fifteen bales of wool. The increase in the carrying capacity of the land actually irrigated is estimated as increasing from between one-sixteenth and one-quarter of a sheep per acre up to figures ranging between 2 and 10 sheep to the acre.

As a means of arriving at the increased production investigations were made as to the number of sheep and other produce sent away from the stations which serve the principal irrigated areas, and it is found that the average weight of goods between 1908 and 1914 was 1,885 tons, and since that period 4,395 tons; the average of the last year was 5,170 tons.

The sheep exported in the six years prior to 1914 averaged 40,345, since that date 52,500, and last year 60,034. Only about 11 per cent. of the land which might be irrigated is now irrigated, and yet the increase as shown by last year's output as compared with the pre-irrigation average shows: cattle, 35 per cent., sheep, 49 per cent., grain, chaff, and wool, 108 per cent.