

There is a considerable area (approximately 4,330 acres) of highly fertile land on either side of the upper Poolburn on which irrigation would be unnecessary, as it derives sufficient moisture from the lateral subterranean seepage from the Poolburn and Dunsdale Creek.

I consider Ida Valley an ideal field for irrigation, and can with confidence recommend the adoption of any scheme whereby water could be obtained, even at a very considerable expenditure, so long as the land was not loaded beyond its producing-power.

ROXBURGH BLOCK (V).

This is a limited area of fertile land situated towards the southern end of the arid region, and it lies chiefly on the right bank of the Clutha River, with a northerly aspect, sloping beautifully from the hill-foot to the river.

The soil is of excellent quality, and has proved eminently suitable for fruit-growing. The many orchards here are evidently managed with skill and ability, and most of them are already provided with water from the mountain-streams. Some of the owners have not so far found it necessary to irrigate this land, and those interviewed by me all agree that if judgment is not exercised in the application of water the result is liable to be disastrous both to soil and fruit.

CROMWELL BLOCK (VI).

From the Kawarau Gorge this follows the foothills to Lowburn, thence extends along the Clutha River to its junction with the Kawarau, whence it stretches to the gorge of that river.

There is a narrow belt of highly fertile soil extending along the foothills, containing about 2,870 acres suitable for irrigation, and of this area about 1,000 acres is already irrigated. The soil is decomposed mica-schist, intermixed with rich loam, possessing an extraordinary power of endurance under cultivation. One farmer, Mr. James Ritchie, informed me that a portion of his land had produced seventeen successive crops of oats without manure, and that there is still no signs of its productiveness abating, the last crop yielding over sixty bushels per acre. His method of cultivation has been to crop and fallow alternately for a period extending over thirty-five years.

There can be no doubt as to the benefits of discreet irrigation on this class of land, which, without water, would be practically valueless.

As frequently happens, the fertile soil terminates abruptly a short distance from the foot of the range, and here this is conspicuously the case.

Immediately joining this land lies the Cromwell Flat, which embraces approximately 4,700 acres of extremely disappointing country. About half of this area, and what would otherwise have been the best portion of it, is now covered with drifting sand. The greater portion of the balance is very flat, with a slight top soil of poor quality over a shingle-bed of great depth. The soil improves towards the racecourse, but even here it is intersected by belts of shingle which would absorb enormous quantities of water, possibly without any appreciable benefit for a long period.

Some years ago the irrigation of a portion of this flat was attempted by private enterprise at a very considerable cost, and, from indications still visible, it had been directed with much skill. The settler who so courageously attempted to convert this barren waste into a fertile plain was, so he informed me, compelled to abandon the scheme and ultimately to pay a small sum to be relieved of his interest in the property. He is still, however, of the opinion that, were the whole of the Roaring Meg River diverted to Cromwell Flat, it would in time restore vegetation over a large portion of it.

It seems to be that the only feasible method of dealing with this flat is to provide water under pressure, to be applied by hose directly to the plants. Such a scheme, however, could only be adopted in small orchards, and even then its success would be doubtful.

MOUNT PISA BLOCK (VII).

From Lowburn this follows the foothills to Luggate, thence extending along that stream to its junction with the Clutha River. Between Lowburn and Mount Pisa homestead there are several small areas of first-class soil. In some instances as much as 200 acres is to be found in one continuous stretch, with unimportant shingle-beds intervening. This is exceptional, and, taken generally, owing to the presence of shingle, possibly not more than 20 per cent. of the area marked on the map could be considered suitable for profitable irrigation. It is worthy of note, however, that on this block the soil, even where sparsely distributed over or through the shingle, is fine decomposed mica-schist, responding readily to water; but unfortunately the absorption is so great, apart from the close proximity to the river, which is at a much lower level, that it would be impossible to saturate the lower strata, even were the water-supply unlimited.

The several areas now irrigated (about 450 acres) are most alluring, dotted as they are through this arid valley; but, as already stated, there is evidence that rapid percolation would render any comprehensive scheme of irrigation impracticable.

Between Mount Pisa homestead and Luggate several small areas have been irrigated with some success where the soil is more or less suitable; but the conditions generally are not conducive to any elaborate scheme of irrigation.

The area of irrigable land in this block is estimated at 4,740 acres.

LUGGATE-GLENDHU BLOCK (VIII).

From Luggate Stream this follows the hill-foot, by Mount Barker, to Glendhu, thence extending along the east side of Lake Wanaka to the outlet of the Clutha River. This block may be described as purely pastoral land, the soil generally being of poor quality, and, excepting small areas at Luggate and Mount Barker, there is practically no land fit for expensive cultivation.