

Recent years have seen the extension of cultivation and development to increased areas. In many cases lower-lying lands have been developed, as such lands have been slower in responding to drainage owing to their position. These areas are proving increasingly valuable when worked in conjunction with the higher lands which almost invariably adjoin them. The development of these areas, in common with the remaining swamp areas on the plains, has been greatly facilitated by the excellent season experienced. The weather during the past few seasons has been all in favour of this class of land. It is safe to assume that land with the porous subsoil this swamp enjoys will not now be seriously affected by a series of wet seasons, provided full drainage facilities are maintained.

No flooding was experienced during the year from the several rivers and streams running through the area. The work being carried out last year at the mouth of the Rangitaiki River was completed, and the river led back to a straight channel.

The Rangitaiki Plains continues to demonstrate its unique suitability for intensive dairy farming, which is reflected in the very creditable increase in the output of butter from the Rangitaiki Plains Dairy Co. The amount of butter manufactured by this company totalled 2,825 tons, an increase of 300 tons on the previous year. The Tarawera Cheese-factory went out of business before the commencement of the season, but a proprietary concern which draws considerable supplies from the plains commenced operations during the year, and although definite figures are not available, its quota would bring the total butter manufactured to over 3,000 tons.

Although this increased output demonstrates that the area is making rapid strides in development, as is only to be expected with a new district, there are still considerable areas of good and medium quality lands on which production has not yet reached the average. Present indications point to the time being not far distant when, without further capital expenditure by the Department, the total manufacture of butter will reach 5,000 tons, giving a return based on present prices of £560,000 from dairy-produce alone.

Development work on the flax areas within the area, aggregating approximately 7,500 acres, has not proceeded vigorously during the year, although present cultivations have been fully maintained. A new flax-mill was erected near the mouth of the Tarawera River, and milling will no doubt be commenced when payable market prices for hemp are obtainable.

*Rainfall.*—The average rainfall for the past fourteen years has been 52.27 in., with a total for the year under review of 48.24 in., with rain falling on fifty-nine days. July was the wettest month, with a fall of 7.48 in., and November the driest, with a fall of 1.08 in.

*Maintenance.*—As stated previously, work carried out during the year consisted entirely of maintenance. Following the completion by stages of the programme of construction, the main canals have naturally required very little attention for a period of years, and it has been possible to work well within the estimated total expenditure requirements, which were based on the average for a period of years. It must be remembered, however, that work on these canals, involving the use of heavy machinery, cannot be indefinitely postponed. Deterioration beyond a certain safe point would involve the destruction of the hardly won development of large areas of fertile land. For this reason the position of each canal requires careful study to see that work is not done ahead of actual requirements, and yet is not left until the danger-point is reached. In this connection there has been a tendency, particularly during the past dry seasons, to consider that certain areas of mostly lighter and higher lands have been overdrained. In some cases there appears justification for this claim, but it has to be remembered that these areas were not always as free draining as they are to-day, being in most cases retentive morass requiring deep drainage before water-movement could be installed. In these isolated cases the policy of the Department is to defer machine maintenance of the outlets until they have shallowed to the present normal drainage-level of the country.

The hand drains throughout the area were regularly maintained, deepening and improvement work being carried out over several lengths of drain. In addition, a considerable length of dredged canal was cleared of weed growth by hand labour, a further section of deeper canal being cleared with a Sanderson weed-cutter. Repairs as required were carried out to stop-banks, flood-gates, &c. A new length of stop-bank was built from the spoil dredged from the Waioho Canal to prevent overflow, and the old banks along the stream were raised to prevent the overtopping that occurred last year. An old wooden gate was replaced by a small Calco flood-gate on the Te Rahu Canal, south of the Main Road.

The work commenced last year of removing obstructions in the channel of the Rangitaiki River was carried southwards to McCracken's deviation. Overhanging willows from this section of the river were used to complete the protection of the sand-hills, and also to extend a temporary groyne for scouring a channel through the sand-spit obstructing the mouth of the river.

*Dredges.*—The only dredge in operation was a small Bay City walker which was transferred from Hauraki Plains works late in the period in order to carry out canal maintenance work. This plant started work on the Te Rahu Canal at the railway and is working northwards. The opportunity will be taken to raise a low section of the west bank stop-bank south of the Main Road, which serves to protect the main body of the swamp from the Whakatane River floods. During the short period worked, a distance of 30 chains was completed, and 2,640 cubic yards of spoil removed.

Not any of the three original dredges were in commission during the year, but a start was made late in the period to overhaul the pontoons of the floating plant.

*Bridges, Flood-gates, &c.*—No new bridges were erected during the year. The policy of the Department has been to hand over all access bridges to the individual settlers for maintenance and renewal. One single-barrel flood-gate was erected.