

The provision of drainage facilities and the comparative immunity from flooding as a result of the extensive flood-control works completed in recent years has given an incentive to practise approved methods of aiding production with the certainty of procuring results.

It is generally admitted that the Kaitaia Flats would be capable of much greater production with the adoption of more intensive farming and improved methods. Underdraining has not been practised to any extent, and many more subdivisional drains are needed to take full advantage of the outlets already provided. There are also large areas in rough pasture or at a low stage of development. Diminished returns and the difficulty of obtaining capital has doubtless arrested or hampered development, but in many cases larger areas are held than could be developed to the best advantage in normal times. Smaller areas are desirable both for facilitating production and lightening the individual liability.

Rainfall, &c.—Rainfall and river-gauge readings have been recorded regularly throughout the year. The total monthly rainfall and highest and lowest river-gauge readings for each month have been recorded as set out on schedule hereunder :—

RAINFALL AND RIVER-GAUGE READINGS AT KAITAIA FOR YEAR ENDED 31ST MARCH, 1933.

Month.	Rainfall (Inches).	Wet Days.	Highest Rainfall for Twenty-four Hours.		Kaitaia River- gauge Readings.	
			Inches.	Day.	Highest.	Lowest.
1932.						
April	6.05	12	2.15	9th	64.5	52.4
May	3.19	14	0.64	22nd	59.3	54.0
June	3.08	12	0.90	16th	62.0	53.7
July	3.30	14	1.21	9th	60.0	54.0
August	3.85	12	1.24	14th	65.4	54.0
September	3.18	15	1.02	14th	62.2	53.3
October	2.95	14	0.75	16th	58.6	52.6
November	0.38	7	0.23	5th	55.0	52.3
December	2.93	13	1.66	23rd	60.0	52.3
1933.						
January	1.05	6	0.38	6th	54.0	52.2
February	6.35	14	3.88	28th	62.5	52.1
March	1.62	11	0.67	21st	58.1	52.1
Totals	37.93	144				

Flood-levels have also been taken throughout the area on several occasions and connected to datum.

The rainfall for this year, 37.93 in., is the lowest recorded for many years, and is the third successive year of abnormally low rainfall. No flooding occurred, and there was no overflow from the Kaitaia River on to the low country. As the river has been confined to its banks for the past three years, it appears the Kaitaia flats are now immune from flooding, except during abnormal rainfall such as may be expected to occur at long intervals; but it must be borne in mind that the three-year period mentioned has been one of very low rainfall, and that higher flood-levels will probably be recorded even with the average yearly rainfall, and that some overflow may occur in seasons wetter than the average.

Whangatane Spillway.—This channel was in operation on fourteen occasions during the year for periods of from twelve to forty-eight hours. The maximum amount of water carried was approximately 3,000 cusecs; but it is apparent a much greater volume could be safely passed by the channel, also that the regulating weir at intake will effectually prevent any overtaking of the spillway in the lower reaches.

The only work carried out on the spillway was the placing of a fascine mat below the concrete apron of the regulating weir to prevent scour by flood-waters.

School Cut.—This cut now forms the permanent channel for the Kaitaia River, and as the old channel is rapidly filling with silt and shingle, some fencing of properties was entailed. Fifteen chains of fencing was erected, together with one swing gate across the old channel.

Drains.—58 m. 25 ch. of drain was cleared of weeds and siltage. This work was carried out by contract, public tenders being called.

Stop-banks.—Thirteen miles of stop-banks, with fifty-four flood-gate outlets, were regularly inspected. Some patching of stop-banks was carried out, and attention given to flood-gates to maintain efficient operation.

General.—Attention was given to the maintenance of plant laid up on the area. Pontoons of floating plants have fallen into a bad state of repair, necessitating regular pumping, and exposed ironwork on all machines was chipped and painted to prevent deterioration by rusting.

Proposals for Ensuing Year.—Maintenance of existing drains and stop-banks is the only work proposed for the ensuing year.