

NEW ZEALAND METEOROLOGICAL SERVICE.

TECHNICAL INFORMATION CIRCULAR NO. 97.

DIURNAL VARIATION OF RAINFALL.

... The attached tables show the seasonal and annual averages of rainfall in successive 3 hour periods of the day (00 to 03, 03 to 06, .... 21 to 24 hr. NZMT) at 16 pluviograph stations, prepared from tabulations of the hourly rainfalls.

The following are the approximate lengths of record used in the tabulations:

Kaitaia	5 years	Palmerston North (Milson)	9 years
Whenuapai	9 "	Wellington (Kelburn)	27 "
Auckland (Mechanics Bay)	16 "	Nelson (Aerodrome)	12 "
Hamilton (Ruakura)	8 "	Blenheim (Woodbourne)	10 "
Tauranga	12 "	Hokitika	10 "
Gisborne	7 "	Christchurch	25 "
New Plymouth (Aerodrome)	6 "	Taiari	6 "
Napier	6 "	Invercargill (Aerodrome)	10 "

Encl:

Issued by:

The Director,  
N.Z. Meteorological Service,  
P.O. Box 722,  
WELLINGTON.

4th July 1957.



MEAN RAINFALL (INCHES) IN 3-HOUR PERIODS (NZMT)

	SPRING (Sept., Oct., Nov.)							
	00- 03	03- 06	06- 09	09- 12	12- 15	15- 18	18- 21	21- 24
Kaitaia	1.6	1.7	1.7	1.8	2.2	1.5	1.0	0.7
Whenuapai	1.4	1.6	1.4	1.7	1.9	1.7	1.2	1.3
Auckland	1.2	1.4	1.4	1.5	1.5	1.5	1.0	1.1
Hamilton	0.9	1.5	1.4	1.3	1.7	1.8	1.5	1.1
Tauranga	1.5	1.6	1.3	1.4	1.9	1.4	1.4	1.1
Gisborne	1.0	1.0	1.2	1.0	1.2	1.5	1.5	1.2
New Plymouth	1.7	1.3	1.8	1.5	1.6	1.6	1.4	1.6
Napier	0.9	0.9	1.0	0.7	1.0	1.1	0.9	0.8
Palmerston North	1.2	1.0	1.1	1.0	1.1	1.2	1.0	1.0
Wellington	1.5	1.7	1.4	1.4	1.2	1.3	1.4	1.4
Nelson	1.3	1.2	1.2	0.8	0.9	0.9	1.0	1.1
Blenheim	1.0	1.1	0.9	0.9	0.9	0.9	0.9	0.8
Hokitika	4.2	4.1	3.0	2.8	2.7	3.1	3.5	4.0
Christchurch	0.8	0.7	0.8	0.6	0.6	0.6	0.8	0.8
Taieri	0.6	0.6	0.6	0.4	0.6	1.1	1.2	0.7
Invercargill	1.4	1.5	1.4	1.0	1.0	1.3	1.2	1.1

MEAN RAINFALL (INCHES) IN 3-HOUR PERIODS (NZMT)

	SUMMER (Dec., Jan., Feb.)							
	00- 03	03- 06	06- 09	09- 12	12- 15	15- 18	18- 21	21- 24
Kaitaia	0.7	1.0	1.1	0.8	2.0	1.4	0.8	1.1
Whenuapai	0.8	1.0	1.0	1.0	1.2	1.0	0.9	0.6
Auckland	0.7	0.9	1.1	1.1	1.2	1.1	1.0	1.1
Hamilton	0.9	0.9	0.7	1.0	1.0	1.4	1.1	0.7
Tauranga	1.4	1.0	0.8	0.9	0.7	1.2	0.9	1.1
Gisborne	1.2	0.9	0.9	0.6	1.3	1.2	1.3	1.0
New Plymouth	1.6	2.0	1.7	1.7	1.7	1.6	1.6	1.1
Napier	0.7	0.9	0.8	0.5	0.7	1.1	1.2	0.9
Palmerston North	1.1	1.0	1.0	1.1	1.1	1.0	0.8	1.0
Wellington	1.6	1.5	1.4	1.1	1.1	1.2	1.1	1.4
Nelson	1.3	1.4	1.2	0.8	1.0	0.9	1.2	1.0
Blenheim	0.6	0.8	0.8	0.7	0.8	0.7	0.7	0.6
Hokitika	4.1	4.3	4.4	3.4	2.9	2.8	3.3	3.8
Christchurch	1.0	0.8	0.9	0.6	0.7	0.9	0.9	0.9
Taieri	0.9	0.9	0.9	0.7	1.0	0.9	0.9	0.6
Invercargill	1.4	1.8	1.3	1.1	0.9	1.2	1.4	1.3

MEAN RAINFALL (INCHES) IN 3-HOUR PERIODS (NZMT)

AUTUMN (Mar., Apr., May)

	00- 03	03- 06	06- 09	09- 12	12- 15	15- 18	18- 21	21- 24
Kaitaia	1.6	2.0	1.7	2.1	1.7	1.3	1.4	1.4
Whenuapai	2.0	2.0	1.8	2.0	2.2	2.3	1.5	2.0
Auckland	1.5	1.8	1.3	1.4	1.4	1.7	1.5	1.5
Hamilton	1.4	1.4	1.3	1.4	1.4	1.8	1.4	1.5
Tauranga	1.8	1.8	1.9	1.4	1.8	2.1	1.8	2.4
Gisborne	1.9	2.0	1.8	1.6	1.5	1.3	1.6	1.9
New Plymouth	1.5	1.2	1.4	1.6	1.6	1.6	1.7	1.3
Napier	1.3	1.0	0.7	0.7	0.8	1.0	1.0	1.2
Palmerston North	1.2	1.1	0.9	0.8	1.2	1.2	1.2	1.1
Wellington	1.6	1.4	1.2	1.4	1.3	1.5	1.4	1.5
Nelson	1.1	1.3	1.2	1.3	1.2	1.4	1.7	1.0
Blenheim	0.8	0.7	0.8	1.0	0.9	0.8	0.9	0.7
Hokitika	3.2	3.8	3.6	3.4	3.1	3.0	2.6	3.0
Christchurch	0.8	0.9	1.0	0.8	0.8	0.8	1.0	0.9
Taieri	1.0	0.9	0.8	0.7	0.6	0.8	0.9	0.9
Invercargill	1.1	1.5	1.5	1.1	1.0	1.1	1.2	1.0

MEAN RAINFALL (INCHES) IN 3-HOUR PERIODS (NZMT)

WINTER (June, July, Aug.)

	00- 03	03- 06	06- 09	09- 12	12- 15	15- 18	18- 21	21- 24
Kaitaia	2.6	2.4	2.3	2.4	2.4	2.2	1.6	1.8
Whenuapai	2.0	2.3	2.5	1.9	2.5	2.6	2.0	2.3
Auckland	1.5	1.8	1.8	1.8	2.1	2.1	1.7	1.8
Hamilton	1.7	1.9	1.9	1.4	1.9	2.0	1.9	1.6
Tauranga	1.8	1.7	1.9	2.4	2.6	2.2	2.0	1.6
Gisborne	1.9	1.7	1.1	1.2	1.1	1.3	2.0	1.8
New Plymouth	2.4	2.6	2.2	2.1	2.2	2.4	2.2	2.2
Napier	1.3	1.2	1.1	0.9	1.1	1.6	1.5	1.4
Palmerston North	1.3	1.5	1.3	1.1	1.2	1.3	1.5	1.5
Wellington	1.9	1.9	1.8	1.9	1.8	1.8	1.7	1.9
Nelson	1.4	1.2	1.3	1.1	1.3	1.1	1.5	1.5
Blenheim	1.1	1.0	1.0	0.9	1.0	0.9	1.0	1.2
Hokitika	3.6	3.6	3.0	3.3	3.3	3.6	3.4	3.4
Christchurch	0.9	1.0	1.0	0.8	0.8	0.8	1.0	1.0
Taieri	0.8	0.8	0.7	0.8	0.6	0.6	0.8	0.7
Invercargill	1.2	1.2	1.2	1.2	1.1	1.3	1.3	1.4

MEAN RAINFALL (INCHES) IN 3-HOUR PERIODS (NZMT)

	YEAR							
	00- 03	03- 06	06- 09	09- 12	12- 15	15- 18	18- 21	21- 24
Kaitaia	6.5	7.0	6.7	7.1	8.3	6.4	4.8	5.0
Whenuapai	6.2	6.8	6.7	6.6	7.8	7.6	5.7	6.2
Auckland	4.9	5.9	5.6	5.9	6.2	6.2	5.2	5.4
Hamilton	4.8	5.6	5.3	5.1	6.0	7.0	6.0	4.9
Tauranga	6.5	6.3	5.7	5.6	6.8	7.3	6.3	6.7
Gisborne	6.0	5.5	5.1	4.5	5.1	5.3	6.5	5.9
New Plymouth	7.2	7.7	7.2	7.0	7.2	7.2	6.9	6.2
Napier	4.2	4.0	3.6	2.8	3.6	4.7	4.6	4.3
Palmerston North	4.7	4.7	4.3	4.1	4.6	4.7	4.5	4.7
Wellington	6.6	6.5	5.9	5.8	5.4	5.8	5.6	6.2
Nelson	5.1	5.1	5.0	4.0	4.4	4.3	5.3	4.6
Blenheim	3.5	3.6	3.5	3.5	3.5	3.3	3.4	3.5
Hokitika	15.2	15.9	14.1	12.8	11.9	12.5	12.8	14.3
Christchurch	3.4	3.5	3.6	2.9	2.9	3.2	3.6	3.5
Taieri	3.2	3.2	3.0	2.6	2.7	3.4	3.8	3.0
Invercargill	5.1	6.0	5.5	4.4	4.0	4.8	5.1	4.8

