EVAPORATION MEASUREMENTS

at
Research Branch Stations
Canada Department of Agriculture

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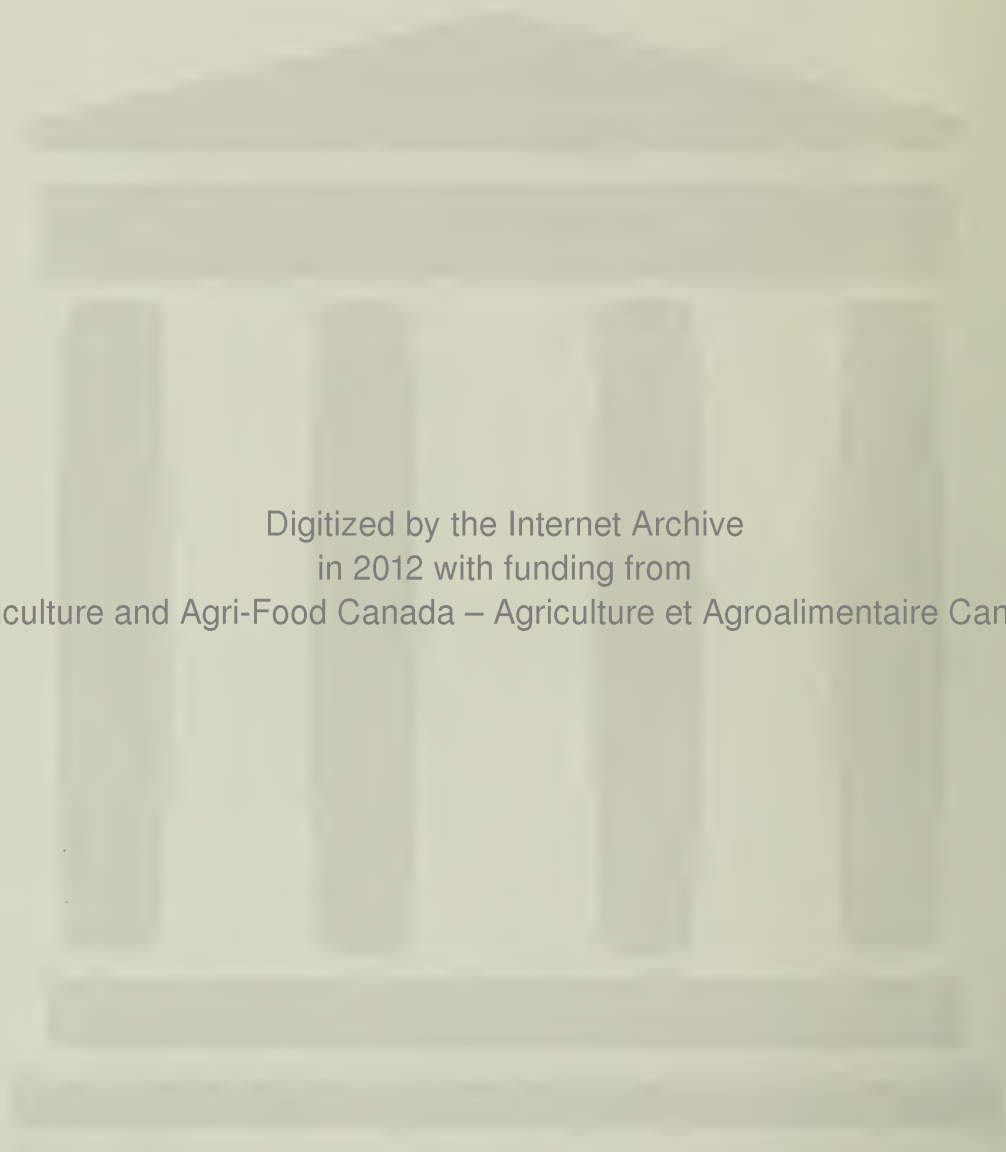

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at

Research Branch Stations Canada Department of Agriculture

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Research Branch
CANADA DEPARTMENT OF AGRICULTURE

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INTRODUCTION

This is a report on records of monthly evaporation from a free water surface at Research Branch stations for each year that records have been taken, up to 1960. At present, records are taken at 37 stations across Canada.

In the early 'twenties it was realized that the balance between evaporation and rainfall was important in determining agricultural potentialities in Western Canada, and records were begun at a number of stations there and at Ottawa. Later it was realized that, though the rainfall in Eastern Canada is normally ample, periods of drought may occur. To assess the intensity and duration of droughts there, about 1945 records were begun at most of the farms in the Experimental Farms Service.

The construction, operation and maintenance of the evaporimeter used are described in Appendix A.

The report is a revision of *Evaporation Measurements at Branch Units of the Experimental Farms Service, throughout Canada*, issued in 1953. The earlier report gave all records up to 1952. A few errors were corrected.

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TABLE 1

STATIONS REPORTING EVAPORATION FROM FREE WATER SURFACE

Station	Latitude		Longitude		Elevation
	°	'	°	'	Ft. A.S.L.
		Yukon			
Mile 1019, Alaska Highway	60	45	137	35	2030
		British Columbia			
Agassiz	49	14	121	46	52
Prince George	53	54	122	40	2218
Saanichton	48	39	123	24	100
Smithers	54	47	127	12	1631
Summerland	49	34	119	40	1600
		Alberta			
Beaverlodge, old site	55	11	119	22	2500
new site	55	11	119	22	2500
Consort	51	51	110	47	2460
Fort Vermilion	48	23	116	03	950
Glenwoodville	49	22	113	31	3500
Lacombe	52	28	113	44	2783
Lethbridge, irrigated	49	43	112	51	2961
dry land	49	43	112	51	2961
Manyberries	49	24	110	41	3000
Pollockville	51	05	111	36	2425
Taber	49	47	112	8	2650
Vauxhall	50	03	112	08	2555
Whitla	49	52	111	03	2748
Youngstown	51	25	111	24	2543
		Saskatchewan			
Indian Head	50	28	103	40	1924
Melfort	52	52	104	36	1518
Regina	50	27	104	37	1880
Rosthern	52	40	106	20	1672
Scott	52	22	108	46	2164
Swift Current, main farm	50	15	107	45	2505
south farm	50	13	107	45	2707
		Manitoba			
Brandon	49	51	99	57	1200
Morden	49	11	98	5	992

TABLE 1 (Continued)

Research Unit	Latitude		Longitude		Elevation
	°	'	°	'	Ft. A.S.L.
		Ontario			
Delhi	42	52	80	32	765
Kapuskasing	49	25	82	23	715
Ottawa	45	24	75	43	260
		Quebec			
L'Assomption	45	50	73	28	69
Lennoxville	45	22	71	52	498
Normandin	48	38	72	29	1330
La Pocatière	47	22	70	02	100
		New Brunswick			
Fredericton	45	55	66	37	106
		Nova Scotia			
Kentville	45	04	64	36	50
		Prince Edward Island			
Charlottetown	46	14	63	07	74

TABLE 2

AVERAGE MONTHLY AND SEASONAL EVAPORATION IN INCHES FROM FREE WATER SURFACE AT THE STATIONS

Station	Recorded years	May	June	July	August	Sept.	Oct.	May to Sept.
			Yukon					
Mile 1019, Alaska Highway	15	3.55	4.70	3.97	2.92	1.45		16.59
			British Columbia					
Agassiz	14	3.00	2.89	3.95	3.42	2.16	1.61	15.42
Prince George	15	2.85	3.06	2.99	2.59	1.57		13.06
Saanichton	13	3.72	4.06	5.01	4.04	2.66	1.26	19.49
Smithers	10	3.58	3.64	3.88	3.15	1.75		16.00
Summerland	32	5.17	5.07	6.20	5.36	3.34		25.14
			Alberta					
Beaverlodge, old site	35	3.44	3.60	4.11	3.25	1.97		16.37
new site	7	4.94	4.67	5.67	4.14	2.74		22.16
Consort	7		6.08	6.88	5.71	3.92		
Fort Vermilion	12	3.46	3.38	4.20	3.04	2.16		16.24
Glenwoodville	10	3.97	4.55	4.98	4.19	2.71	1.16	20.40
Lacombe	34	3.25	3.48	4.17	3.44	2.06	1.07	16.40
Lethbridge, irrigated	38	4.44	4.80	6.09	5.07	3.39	2.49	23.79
dry land	11	5.17	5.89	7.04	6.36	3.68	2.55	28.14
Manyberries	33	5.13	6.06	7.63	6.82	4.61	2.52	30.25
Pollockville	8		4.28	5.83	4.17	3.03	2.24	
Taber	5	5.22	5.58	6.49	5.93	3.89		27.11
Vauxhall	7	5.93	7.02	7.76	6.81	4.21	3.24	31.73
Whitla	8	4.07	5.52	6.87	6.92	4.49	3.32	27.87
Youngstown	7	4.67	5.80	6.67	6.18	3.74		27.06

TABLE 2 (Continued)

Research Unit	Recorded Years	May	June	July	August	Sept.	Oct.	May to Sept.
			Saskatchewan					
Indian Head	33	3.75	4.02	5.02	4.71	2.89		20.39
Melfort	4	2.82	3.94	4.49	3.32	2.74		17.31
Regina	10	4.58	4.55	5.34	4.86	3.30		22.63
Rosthern	17	4.23	4.91	5.70	5.71	4.26		24.81
Scott	38	4.47	4.08	4.96	4.10	2.80		20.41
Swift Current, main farm	39	5.36	5.72	7.19	6.34	4.16		28.77
south farm	2	4.93	6.48	6.79	6.23	4.91		29.34
			Manitoba					
Brandon	21		4.31	4.48	4.16	2.86		
Morden	10	4.22	6.05	5.26	4.54	3.25		23.32
			Ontario					
Delhi	16	4.06	4.32	5.49	5.13	3.54	2.01	22.54
Kapuskasing	15		2.94	3.41	2.91	1.56		
Ottawa	36	3.33	4.16	4.90	4.42	2.80	1.85	19.61
			Quebec					
L'Assomption	13	3.30	4.26	4.59	4.01	2.86	1.55	19.02
Lennoxville	13	3.07	3.99	4.47	4.34	2.82		18.69
Normandin	12	2.47	3.16	3.62	3.34	2.14	1.44	14.73
La Pocatière	14	2.88	3.53	4.20	3.57	2.63		16.81
			New Brunswick					
Fredericton	8	2.90	3.76	4.71	3.75	2.83		17.95
			Nova Scotia					
Kentville	3	2.79	4.39	5.10	4.45	3.16		19.89
			Prince Edward Island					
Charlottetown	15	3.43	3.35	4.16	3.64	3.62		18.20

TABLE 3

MONTHLY EVAPORATION IN INCHES AT THE STATIONS

Mile 1019, Alaska Highway, Yukon

Year	April	May	June	July	Aug.	Sept.	Oct.
1946		3.50	5.08	3.94	2.94	1.88	
1947		4.06	5.25	4.93	3.31	1.44	
1948		2.94	5.25	3.94	2.81	1.62	
1949		2.69	3.62	3.56	2.56	1.88	
1950		3.19	4.94	3.06	3.06	1.81	
1951		3.31	4.44	4.06	3.81	1.94	
1952		4.25	4.31	4.56	3.00	1.31	
1953		3.38	4.06	2.91	2.83	1.26	
1954		2.61	4.20	3.24	2.47	1.76	
1955		3.05	4.93	3.40	2.85	1.12	
1956		4.34	6.65	3.86	2.28	0.48	
1957		4.55	3.60	3.39	3.23	1.69	
1958		4.13	5.32	5.34	3.26	0.53	
1959		3.33	4.38	5.29	2.32	1.68	
1960		3.88	4.42	4.04	3.09	1.32	
Average		3.55	4.70	3.97	2.92	1.45	

Agassiz, British Columbia

1947		2.12	.28	2.12	2.76	.62	
1948			2.65	2.52	1.56		
1949		4.21	3.20	3.86	3.45	2.55	
1950		2.83	3.67	3.70	3.48	2.45	
1951		.97	3.88	3.93	3.56	2.72	
1952		1.64	1.52	3.27	2.19	1.42	1.14
1953		2.64	1.29	3.64	3.99	1.66	
1954		3.34	2.21	3.33	2.12	1.48	2.07
1955		2.75	5.01	3.23	3.37	3.64	
1956		4.45	2.41	5.91	4.44	2.45	
1957		3.51	3.82	3.57	3.94	3.70	
1958		6.41	4.46	7.37	5.34	1.19	
1959		2.27	2.73	4.05	4.08	2.06	
1960		1.91	3.26	4.83	3.60	2.19	
Average		3.00	2.89	3.95	3.42	2.16	1.61

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TABLE 3 (continued)

Prince George, British Columbia

Year	April	May	June	July	Aug.	Sept.	Oct.
1946		3.99	1.89	1.72	2.96	1.31	
1947		2.97	2.17	1.68	1.61	1.33	
1948		2.00	3.28	1.69	1.55	1.15	
1949		2.78	2.69	.67	1.34	1.75	
1950		2.18	3.24	2.53	1.87	1.65	
1951		2.62	3.04	3.24	2.33	1.82	
1952		2.98	2.09	3.30	4.12	.47	
1953		3.34	2.70	3.07	2.58	1.75	
1954		1.89	2.82	2.49	1.85	1.06	
1955		4.20	4.37	4.65	3.18	3.36	
1956		2.60	3.18	6.58	4.25		
1957		3.34	3.71	1.24	3.37		
1958		3.84	5.24	5.09	4.18		
1959		2.10	4.29	3.70	.98		
1960		1.93	1.12	3.25	2.64		
Average		2.85	3.06	2.99	2.59	1.57	

Saanichton, British Columbia

1948		–	4.08	3.88	2.75	2.86	1.29
1949		4.24	4.65	4.59	3.54	2.94	1.47
1950		3.21	4.77	5.14	4.28	2.77	.91
1951		3.55	4.98	6.10	4.74	2.67	.97
1952		3.88	4.16	5.35	4.52	2.94	1.67
1953		3.22	2.99	4.90	3.49	2.74	
1954		3.84	3.51	3.86	3.05	1.99	
1955		2.73	3.32	3.35	4.17	2.46	
1956		4.39	3.11	6.05	4.24	2.56	
1957		3.81	3.97	3.58	3.64	2.92	
1958		5.15	4.46	6.50	5.24	2.59	
1959		3.70	4.50	5.90	5.00	2.12	
1960		2.92	4.26	5.97	3.92	3.03	
Average		3.72	4.06	5.01	4.04	2.66	1.26

TABLE 3 (Continued)

Smithers, British Columbia

Year	April	May	June	July	Aug.	Sept.	Oct.
1951		2.13	4.46	4.47	3.25	2.08	
1952		3.47	3.22	5.01	4.17	0.98	
1953		3.42	2.82	2.89	2.32	1.60	
1954		3.11	2.38	1.73	2.79	1.32	
1955		4.29	4.28	3.32	2.81	2.10	
1956		4.06	3.13	4.63	4.08	2.22	
1957		4.46	3.82	2.95	2.28	1.83	
1958		5.26	5.08	5.90	4.04	1.49	
1959		2.97	3.03	4.22	2.57	1.74	
1960		2.63	4.14	3.64	3.19	2.09	
Average		3.58	3.65	3.88	3.15	1.75	

Summerland, British Columbia

1924		5.85	5.58	7.94	5.50	3.58	
1925		5.21	5.63	6.88	5.47	3.70	
1926		4.39	5.83	7.08	5.07		
1927							
1928							
1929							
1930		3.97	4.82	6.24	4.96	2.83	
1931		5.25	4.55	6.76	5.28	2.69	
1932		4.12	5.24	4.65	4.84	2.98	
1933			4.95	6.40	5.51	3.05	
1934					5.22	2.54	
1935		4.45	5.00	5.29	4.44	3.97	
1936			4.57	6.55	5.47	3.21	
1937			4.88	5.93	5.02	3.23	
1938		5.33	5.71	6.78	5.16	2.99	
1939							
1940			6.17	5.36	5.29		
1941			3.79	5.23	4.36	1.86	
1942			4.10	5.31	5.43	3.29	
1943			4.34	5.89	4.72	2.87	
1944			5.23	6.34	4.44	2.95	
1945			2.41	2.99	2.76	2.74	
1946			3.06	4.89	4.39	2.49	
1947			4.40	5.97	4.85	2.90	
1948			3.50	3.85	2.02	2.51	
1949			4.51	5.65	3.96	2.64	
1950			5.62	5.83	4.28	3.70	

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TABLE 3 (Continued)

Summerland, British Columbia (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1951			5.86	6.23	5.05	3.17	
1952			5.08	6.86	5.70	3.10	
1953			4.94	5.81	4.67	2.62	
1954			4.79	5.12	4.55	2.49	
1955			8.09	6.49	9.13	5.13	
1956			5.32	7.74	7.17	5.72	
1957		7.20	6.60	6.62	3.80	5.89	
1958		6.83	6.35	8.42	8.50	4.83	
1959		5.00	4.41	8.47	7.79	3.92	
1960		4.48	6.80	8.88	6.62	4.00	
Average		5.17	5.07	6.20	5.36	3.34	

Beaverlodge, Alberta, Old Site

1922		2.55	5.00	4.57	4.26	2.52	
1923		4.17	4.08	3.55	2.84	2.37	
1924		4.34	3.98	4.64	2.77	1.68	
1925		4.23	4.44	5.15	3.63	2.00	
1926		3.07	3.45	5.06	3.09	1.69	
1927		4.13	3.87	4.35	4.36	1.67	
1928		4.75	3.36	5.61	4.18	2.62	
1929		4.11	4.44	5.75	3.65	2.13	
1930		4.30	1.93	4.07	5.50	1.47	
1931		3.39	2.94	5.51	3.90	1.98	
1932		2.76	4.84	3.47	4.82	2.22	
1933		3.12	4.30	2.97	4.38	2.23	
1934		3.52	4.26	2.85	2.56	.82	
1935		2.49	1.79	3.24	1.59	1.44	
1936		3.20	3.26	3.66	2.50	0.91	
1937		3.04	2.96	4.48	2.69	1.90	
1938		3.59	4.44	4.28	3.41	2.06	
1939		3.53	3.69	3.59	4.44	1.87	
1940		3.47	3.91	3.30	4.26	2.10	
1941		3.32	3.69	5.68	1.78	0.98	
1942		2.91	3.16	4.75	3.28	1.87	
1943		2.55	2.86	4.67	2.52	3.39	
1944		3.22	3.99	3.94	3.15	2.77	
1945		3.84	3.60	4.46	4.59	2.14	

TABLE 3 (Continued)

Beaverlodge, Alberta (Old Site) (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1946		4.05	3.42	5.15	3.51	2.12	
1947		3.74	3.27	4.20	2.15	1.83	
1948		2.87	5.08	3.57	2.52	2.62	
1949		2.30	3.92	3.25	2.89	2.63	
1950		2.83	4.58	3.73	2.51	2.11	
1951		3.67	3.06	2.11	3.12	2.09	
1952		4.04	2.63	4.32	2.72	1.86	
1953		2.74	1.78	3.19	2.47	1.79	
1954			2.89	3.65	1.71	1.40	
1955		2.74	4.17	2.99	3.18	2.12	
1956		4.48	3.08	3.93	2.79	1.60	
1957			Discontinued				
Average		3.44	3.60	4.11	3.25	1.97	

*Beaverlodge, Alberta, New Site**

1954			3.72	4.75	2.11	1.76
1955		3.63	5.41	3.94	3.97	2.80
1956		6.67	4.53	5.05	4.10	2.41
1957		5.38	5.17	4.82	3.27	3.09
1958		5.77	4.99	6.87	6.06	2.56
1959		4.30	4.49	7.35	4.32	2.65
1960		3.86	4.40	6.88	5.12	3.89
Average		4.94	4.67	5.67	4.14	2.74

*For comparison of evaporation from old and new sites see: Carder, A.C. Rate of evaporation from a free water surface as influenced by exposure. Canadian Journal of Plant Science 41:199–203. 1961.

Consort, Alberta

1954				3.32	2.43
1955		5.50	4.63	5.99	4.80
1956		5.62	3.76	3.91	2.11
1957		6.00	7.22	5.84	
1958		6.88	9.09	9.04	4.87
1959		5.81	9.30	5.94	
1960		6.64	7.29	5.92	5.40
Average		6.08	6.88	5.71	3.92

TABLE 3 (Continued)

Fort Vermilion, Alberta

Year	April	May	June	July	Aug.	Sept.	Oct.
1946		2.82	3.01	3.54	3.12	1.03	
1947		3.01	2.05	3.34	2.85	2.06	
1948			2.71	4.17	3.86	2.58	
1949		3.61	2.75	3.81	3.42	2.01	
1950		3.06	3.13	4.97	1.82	2.31	
1951		3.94	1.63	1.62	2.79	2.26	
1952		3.98	4.42	3.57	4.18	1.67	
1953			4.37	8.04	1.73	1.76	
1954					3.43	4.00	
1955							
1956							
1957		3.64	4.11	3.34	2.85	2.07	
1958			4.42	4.76	3.71	2.18	
1959		3.42	4.25	5.15	2.33		
1960		3.62	3.69	4.13	3.43	1.94	
Average		3.46	3.38	4.20	3.04	2.16	

Glenwoodville, Alberta

1951				3.87	3.80	2.12	
1952				4.26	4.12	1.98	1.23
1953		3.97	3.55	4.40	3.93	2.22	1.31
1954			4.66	5.76	3.76	1.93	
1955			3.93	3.96	4.74	2.94	0.93
1956			5.27	4.53	3.71	3.19	
1957			3.99	6.42	3.83	3.30	
1958				4.34	4.87	3.38	
1959			4.94	6.06	4.85	2.13	
1960			5.48	6.18	4.25	3.95	
Average		3.97	4.55	4.98	4.19	2.71	1.16

Lacombe, Alberta

1923		2.61	3.21	4.49	3.04	2.79	
1924		4.24	3.67	4.65	4.08	2.03	1.15
1925		4.06	3.60	4.32	4.56	2.06	.85

TABLE 3 (Continued)

Lacombe, Alberta (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1926		3.27	3.45	4.58	2.57	.45	.67
1927		3.79	2.97	5.43	2.62	2.06	1.11
1928		3.76	2.36	3.30	3.02	2.59	
1929		2.83	5.01	5.14	3.64	2.20	1.31
1930		2.96	3.46	4.23	3.77	1.70	
1931		3.83	2.66	3.23	3.03	1.85	
1932		2.88	2.63	2.67	3.02	1.96	
1933		3.97	3.38	3.43	2.79	2.16	
1934		3.45	2.95	3.20	3.65	1.60	
1935		1.76	2.51	3.91	2.63	1.91	1.18
1936		3.28	3.17	4.35	2.87	2.19	
1937		4.02	3.16	3.57	2.14	2.03	1.19
1938		2.71	2.50	4.17	2.85	2.21	
1939		3.40	1.61	3.83	5.05	1.87	
1940		2.88	3.25	2.68	3.74	1.91	
1941		3.08	4.51	3.61	2.68	1.40	
1942		1.37	2.09	2.23	2.68	1.53	
1943							
1944		5.27	2.43	3.84	2.74	1.52	
1945		2.35	3.00	2.97	2.60	1.55	
1946		3.01	1.28	3.49			
1947				3.76	3.12	1.87	
1948							
1949		0.91	5.13				
1950				3.53	2.74		
1951		3.26	2.97	3.93	2.75	1.74	
1952					4.84	4.16	
1953		5.44	4.30	5.75	4.69	4.25	
1954			4.48	6.28	2.50		
1955			7.39	5.27	6.30		
1956			6.30	5.70	5.10		
1957			3.48	6.58	4.14		
1958				3.45	4.16		
1959			3.93	5.09	2.86		
1960			4.54	5.09	3.86		
Average		3.25	3.48	4.17	3.44	2.06	1.07

TABLE 3 (Continued)

Lethbridge, Alberta, irrigated

Year	April	May	June	July	Aug.	Sept.	Oct.
1922		4.66	4.94	4.51	4.77	4.05	3.17
1923		5.08	5.49	4.52	4.28	3.42	1.74
1924		5.97	4.43	6.13	4.14	3.93	2.29
1925		3.71	4.82	7.02	6.05	3.44	1.09
1926		6.24	5.37	5.60	4.58	1.77	3.05
1927		3.36	3.83	4.00	3.78	3.16	2.38
1928		5.90	3.65	6.74	4.23	4.97	
1929		3.07	4.63	7.89	5.54	3.19	3.63
1930			6.27	8.03	6.77	5.57	1.93
1931		6.15	7.06	8.03	6.90	3.22	3.72
1932		4.91	5.50	5.84	6.99	3.46	1.36
1933		4.97	6.20	7.30	4.67	2.37	1.88
1934		5.28	5.50	6.74	5.49	1.98	2.66
1935		3.67	4.95	5.33	5.45	4.43	2.18
1936		7.50	6.69	8.86	6.47	3.81	4.97
1937		5.78	7.26	7.02	4.91	2.60	1.59
1938		3.35	4.01	5.77	4.59	2.62	2.24
1939		4.95	3.15	6.46	4.49	3.90	2.79
1940		4.56	3.88	4.82	5.98	5.77	3.81
1941		4.30	3.22	5.95	3.63	2.58	1.51
1942		4.02	4.07	4.54	3.45	2.46	1.70
1943		3.77	3.27	6.07	5.76	3.98	3.38
1944		2.93	2.74	4.95	5.13	3.14	1.43
1945		3.35	3.77	5.83	4.79	3.06	1.57
1946		4.02	3.83	5.54	4.50	2.79	1.34
1947		4.23	3.97	7.89	4.00	1.70	1.59
1948		2.44	3.76	4.68	4.48	3.65	1.99
1949				no record			
1950		4.85	4.25	4.85	4.71	3.92	2.81
1951		4.20	4.30	4.85	3.26	2.03	
1952		4.00	4.22	4.50	4.32	3.05	2.75
1953		4.11	2.87	5.50	6.00	4.54	3.57
1954		4.54	5.61	7.06	4.15	2.51	2.82
1955		2.71	6.87	5.19	6.66	4.23	3.16
1956		3.82	5.87	5.27	4.89	3.28	
1957		4.11	5.17	8.35	6.50	3.60	
1958		5.76	4.33	4.68	5.50	4.34	2.96
1959		3.62	6.10	7.29	6.01	2.66	
1960		4.56	6.62	7.92	5.02	3.54	3.09
Average		4.44	4.80	6.09	5.07	3.39	2.49

TABLE 3 (Continued)

Lethbridge, Alberta, Dry Land

Year	April	May	June	July	Aug.	Sept.	Oct.
1950		5.90	6.30	7.05	6.80	4.38	2.56
1951		4.65	4.94	5.25	4.27	2.01	.82
1952		3.97	5.58	6.69	5.72	3.48	
1953		4.37	4.50	7.37	6.17	4.19	
1954		5.01	5.03	6.79	6.18	2.91	2.69
1955		4.93	6.33	5.78	6.66	4.14	
1956		4.59	6.87	6.88	5.85	1.83	
1957		7.81	5.95	9.27	5.61	4.51	4.14
1958		6.23	5.06	5.93	7.18	4.88	2.64
1959		4.51	7.46	7.67	8.64	2.92	1.92
1960		4.90	6.74	8.80	6.90	5.18	3.08
Average		5.17	5.89	7.04	6.36	3.68	2.55

Manyberries, Alberta

1928		2.00	5.56	6.37	7.67	5.58	2.20
1929	2.01	4.73	7.14	8.88	7.88	4.36	3.11
1930	1.80	5.03	7.23	9.18	8.73	3.59	1.26
1931	3.30	6.84	7.94	8.06	6.13	4.22	3.17
1932	1.83	4.65	3.58	8.90	5.76	3.67	2.73
1933	1.18	4.68	7.76	11.45	7.25	5.41	2.19
1934	1.12	8.43	5.40	8.20	8.40	7.62	.85
1935		3.75	7.33	8.58	7.56	5.65	3.27
1936	.83	6.89	8.30	11.69	6.71	5.30	4.29
1937			6.73	6.57	7.02	3.61	2.36
1938		3.86	4.22	6.64	6.86	5.19	2.33
1939		6.06	5.70	10.91	9.46	6.14	
1940		5.41	7.56	7.18	8.36	4.85	
1941		6.39	10.28	8.94	7.44	3.92	
1942		4.17	11.03	5.95	4.53	5.83	
1943		5.38	5.02	9.06	10.84	4.50	
1944		7.27	3.76	6.05	4.74	4.50	
1945		3.49	4.30	5.66	5.13	3.51	
1946		4.88	4.27	5.07	5.72	2.69	
1947		6.90	4.40	10.96	5.72	2.79	
1948		3.29	3.66	6.33	5.25	3.64	
1949		6.37	8.76	6.10	8.01	6.20	
1950		6.17	6.94	5.97	5.72	7.23	

TABLE 3 (Continued)

Manyberries, Alberta (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1951		6.52	3.04	6.66	3.62	3.05	
1952		4.73	5.64	5.28	7.31	4.48	
1953		2.45	4.54	7.04	6.94	3.55	
1954		2.11	6.10	6.00	4.08	3.85	
1955		3.84	4.94	3.84	5.65	3.93	
1956		4.53	5.65	5.33	4.11	3.09	
1957		5.62	3.75	7.57	6.32	3.68	
1958		7.51	5.32	7.17	9.84	5.82	
1959		5.31	7.13	9.55	8.64	4.70	
1960		4.90	7.07	10.61	7.74	6.01	
Average	1.72	5.13	6.06	7.63	6.82	4.61	2.52

Pollockville, Alberta

1953			3.13	4.89	4.05	2.15	1.27
1954			3.41	6.06			
1955			5.26	5.10			
1956				4.61	3.10	1.55	
1957			3.57	5.92			
1958							
1959							
1960			6.02	8.39	5.37	5.38	3.21
Average			4.28	5.83	4.17	3.03	2.24

Taber, Alberta

1949		5.07	7.87	8.28	7.46	5.19	
1950		6.36	5.87	6.62	6.36	4.54	
1951		4.92	3.58	4.80	4.27	1.82	
1952		4.97	5.74	5.75	5.09	3.51	
1953		4.77	4.82	7.00	6.40	4.37	
Average		5.22	5.58	6.49	5.93	3.89	

Vauxhall, Alberta

1954		5.95	7.09	8.48	5.47	2.81	
1955		5.02	7.95	5.99	7.87	4.43	
1956		5.63	8.33	6.96	6.28	3.69	
1957		6.36	5.83	9.49	6.01	4.51	
1958		8.30	5.59	5.76	7.67	4.63	2.93
1959		4.68	6.81	8.04	6.81	4.02	
1960		5.58	7.61	9.58	7.56	5.40	3.64
Average		5.93	7.02	7.76	6.81	4.21	3.24

TABLE 3 (Continued)

Whitla, Alberta

Year	April	May	June	July	Aug.	Sept.	Oct.
1951		6.31	5.62	6.95	5.72	3.12	
1952		3.09	5.54	4.77	5.66	3.24	2.20
1953		2.80	3.96				
1954			1.71				
1955				5.02	9.26	4.90	4.18
1956			7.65	5.23	4.75	5.06	
1957			5.87	9.55	6.08	5.20	
1958			5.98	5.59	8.86	4.85	3.57
1959				7.98	8.25		
1960			7.84	9.86	6.77	5.06	
Average		4.07	5.52	6.87	6.92	4.49	3.32

Youngstown, Alberta

1952		5.53	5.51	4.44	6.17	3.50	
1953		2.07	5.32	6.66	5.93	3.85	
1954		4.74	4.74	6.47	4.64	3.33	
1955			6.06	6.58	6.86	3.86	
1956			6.92	7.04	5.03	3.40	
1957		6.33	5.83	8.70	6.38	4.49	
1958			6.22	6.87	8.24		
Average		4.67	5.80	6.67	6.18	3.74	

Indian Head, Saskatchewan

1924		4.30	2.69	5.19	5.62	2.40	
1925		1.22	3.39	5.17	4.19	3.50	
1926			2.51	4.51	3.81	1.61	
1927		2.36	2.25	3.33	3.48	2.29	
1928		4.13	3.44	5.47	5.08	4.03	
1929		2.57	5.77	6.58	9.40	2.47	
1930		4.02	4.32	6.09	6.92	5.21	
1931		6.42	7.67	5.42	7.12	3.43	
1932							
1933		Tank not in use during this period					
1934							
1935							
1936		4.22	3.66	5.70	4.13	2.32	
1937		3.60	5.24	5.63	5.54	2.96	
1938		2.93	3.33	5.19	4.24	3.21	
1939		3.68	2.72	5.24	4.71	3.29	
1940		3.79	3.91	3.88	4.53	2.20	

TABLE 3 (Continued)

Indian Head, Saskatchewan (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1941		3.13	3.60	3.88	3.52	2.74	
1942		3.54	3.27	3.56	2.29	1.64	
1943		2.77	2.72	3.89	3.48	1.72	
1944		3.22	2.67	4.12	3.39	2.15	
1945		3.08	2.76	4.18	3.89	2.23	
1946		2.98	3.82	3.98	3.91	2.27	
1947		4.45	3.85	6.32	4.50	3.34	
1948		4.53	4.96	5.62	5.32	4.62	
1949		5.55	4.94	5.82	5.60	3.61	
1950		4.10	4.68	4.34	4.80	3.69	
1951		5.32	4.29	5.86	4.04	1.99	
1952		4.46	4.72	5.20	5.14	3.06	
1953		2.97	4.11	5.08	5.10	3.56	
1954		2.86	3.12	4.28	3.38	2.52	
1955		2.81	4.60	5.24	5.06	3.62	
1956		3.59	4.93	4.14	4.07	3.22	
1957		4.38	4.02	6.49	3.96	3.38	
1958		5.00	5.12	5.00	5.48	3.42	
1959		4.30	4.58	5.77	4.60	2.60	
1960		4.03	4.86	5.48	5.02	4.18	
Average		3.75	4.02	5.02	4.71	2.89	

Melfort, Saskatchewan

1951		2.25	3.36	2.94	2.99		
1952		4.13	6.08	5.55	5.29	2.58	
1953		3.91	3.31	5.94	3.97	2.90	
1954		1.00	3.02	3.54	1.04		
Average		2.82	3.94	4.49	3.32	2.74	

Regina, Saskatchewan

1951			3.83	5.68	3.82	1.58	
1952		4.84	4.96	4.54	4.77	2.84	
1953		3.16	3.29	5.00	5.01	3.53	
1954		4.04	3.72	5.26	3.86	2.54	
1955				5.86	5.74	4.18	
1956		3.60	5.25	3.51	4.26	2.88	
1957		3.45	3.62	5.32	4.41	3.15	
1958		8.48	5.30	5.75	7.02	4.27	
1959		4.76	4.99	6.55	5.28	2.91	
1960		4.32	6.00	5.88	4.47	5.06	
Average		4.58	4.55	5.34	4.86	3.30	

TABLE 3 (Continued)

Rosthern, Saskatchewan

Year	April	May	June	July	Aug.	Sept.	Oct.
1924		6.10	4.90	5.80	3.30	2.70	
1925		3.28	3.63	5.68	4.11	2.29	
1926		2.07	4.42	7.29	3.14	1.41	
1927		2.18	3.60	3.78	3.42	2.43	
1928		5.26	3.52	3.88	4.43	2.58	
1929		3.17	3.57	4.19	5.34	2.24	
1930		3.00	3.97	4.26	5.08	3.23	
1931		3.45	4.21	4.04	4.68	2.54	
1932		4.22	4.44	5.28	4.44	3.78	
1933		2.49	4.24	4.28	3.74	2.55	
1934		3.79	5.00	4.95	5.93	2.95	
1935		2.50	4.80	4.10	7.49	3.48	
1936		5.42	6.23	7.80	10.04	7.45	
1937		6.22	9.10	9.68	7.86	9.58	
1938		5.39	6.09	7.77	6.97	5.74	
1939		4.53	4.67	8.37	11.35	13.27	
1940		8.83	7.14				
Average		4.23	4.91	5.70	5.71	4.26	

Scott, Saskatchewan

1922		4.43	4.00	4.61	3.06	3.25	
1923		4.54	4.31	4.14	3.14	3.08	
1924		4.62	5.07	7.42	3.79	3.45	
1925		5.25	3.86	5.62	4.45	2.66	
1926		5.13	2.92	7.65	3.87	1.77	
1927		2.87	3.71	3.46	3.97	2.74	
1928		5.55	3.22	3.49	3.05	3.48	
1929		4.64	5.42	6.70	7.67	2.64	
1930		6.46	5.25	5.24	4.47	2.50	
1931		5.79	4.80	4.63	4.41	3.07	
1932		5.25	3.36	3.93	4.15	2.82	
1933		5.02	5.27	6.01	6.24	2.98	
1934		4.43	3.24	4.09	4.70	1.79	
1935		3.62	3.80	4.88	4.32	2.78	
1936		5.04	5.14	5.82	3.54	2.10	
1937		3.90	3.28	4.24	4.26	3.29	
1938		5.51	3.44	4.03	3.43	3.18	
1939		3.27	3.58	4.63	4.96	2.74	
1940		5.70	2.63	4.31	5.50	3.24	

TABLE 3 (Continued)

Scott, Saskatchewan, (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1941		2.59	2.65	4.35	1.90	0.45	
1942					1.56	3.64	
1943		2.64	2.35	3.50	2.16	2.60	
1944		3.75	2.42	2.07	2.88	1.59	
1945		1.82	3.00	1.11	0.87	0.42	
1946		3.06	2.11	7.37	2.70	1.71	
1947		3.78	3.49	5.90	3.14	1.00	
1948		2.32	3.07	4.80	4.41	3.53	
1949		2.45	1.80	1.32	2.54	1.63	
1950		6.29	5.78	5.36	4.74	1.26	
1951		3.49	3.53	2.97	2.81	1.76	
1952		4.27	3.80	3.72	3.88	2.85	
1953		2.01	2.37	4.93	4.83	3.24	
1954		5.28	5.24	5.93	3.49	3.35	
1955		5.81	5.79	4.68	6.14	4.76	
1956		4.89	5.99	4.30	4.72	3.90	
1957		5.87	4.88	6.74	4.28	3.79	
1958		5.19	5.48	5.20	6.00	4.31	
1959		7.86	6.61	10.52	6.23	5.19	
1960		5.30	7.40	8.88	7.46	4.81	
Average		4.47	4.08	4.96	4.10	2.80	

Swift Current, Saskatchewan, Main Farm

1922		4.32	6.21	5.87	5.23	4.74	
1923		5.74	5.17	4.79	3.92	3.56	
1924		4.76	4.91	5.96	4.79	4.71	
1925		4.72	4.65	6.79	6.57	3.21	
1926		5.53	5.21	7.29	5.05	1.99	
1927		2.37	5.61	6.11	4.82	4.82	
1928		6.48	4.87	5.84	5.97	5.07	
1929		4.74	6.94	9.28	8.27	3.68	
1930		6.49	5.88	7.44	7.93	4.18	
1931		7.42	8.34	8.55	6.57	4.09	
1932		6.53	5.40	6.33	5.42	4.15	
1933		4.47	7.81	8.38	5.80	3.81	
1934		8.62	5.10	8.33	8.41	2.86	
1935		3.88	5.09	6.74	6.01	5.15	
1936		8.40	6.44	10.44	7.67	4.72	
1937		7.77	8.64	10.15	9.07	5.45	
1938		5.42	6.09	8.24	6.35	5.60	
1939		5.47	3.66	6.95	7.25	4.91	
1940		6.18	6.48	7.47	8.79	4.53	

TABLE 3 (Continued)

Swift Current, Saskatchewan, Main Farm (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1941		6.03	8.78	8.72	6.74	3.35	
1942		5.81	4.57	5.87	4.72	3.05	
1943		3.80	4.51	7.06	7.04	4.24	
1944		4.66	4.47	6.23	4.65	3.77	
1945		3.60	5.38	7.96	6.74	3.35	
1946		4.59	5.59	7.61	5.34	2.94	
1947		5.05	4.39	8.80	6.07	3.90	
1948		5.13	4.52	7.03	6.22	5.16	
1949		7.21	7.40	7.82	7.98	5.25	
1950		4.71	5.47	6.72	4.82	4.32	
1951		6.58	4.45	6.25	4.59	2.37	
1952		4.29	5.47	5.63	6.34	3.53	
1953		3.37	4.28	6.69	7.46	4.99	
1954		3.88	4.26	6.76	3.79	2.54	
1955		3.73	5.79	4.67	7.11	4.41	
1956		4.91	6.61	5.80	6.36	4.40	
1957		6.34	5.63	7.92	6.53	4.87	
1958		6.82	6.51	6.93	8.08	4.51	
1959		4.83	6.53	7.44	6.53	4.32	
1960		5.37	6.03	7.64	6.27	5.85	
Average		5.36	5.72	7.19	6.34	4.16	

Swift Current, Saskatchewan, South Farm

1959			5.91	5.99	6.33	3.71
1960		4.93	7.05	7.58	6.12	6.11
Average		4.93	6.48	6.79	6.23	4.91

Brandon, Manitoba

1922				4.14	5.20	2.92
1923			4.11	3.81	4.04	2.91
1924			4.40	4.44	3.77	3.67
1925			2.51	4.62	3.10	3.11
1926			4.10	3.51	1.94	2.38
1927			3.51	2.65	4.00	2.20
1928			3.11	3.15	2.61	2.20
1929			4.21	4.77	5.87	2.23
1930			4.98	4.27	5.07	3.38

TABLE 3 (Continued)

Brandon, Manitoba (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1931			4.97	5.50	4.14	3.44	
1932			4.13	4.06	3.46	2.51	
1933			5.31	4.17	4.23	2.98	
1934			5.60	4.45	5.20	2.46	
1935			3.52	3.67	3.91		
1936			2.99	4.72	5.74	4.09	
1937–52			no observations				
1953				6.43	4.82	2.70	
1954			3.93	5.15	4.64	2.97	
1955			5.67	5.59	3.66	3.06	
1956			4.20	4.78	2.85	2.32	
1957			5.49	5.66	3.78		
1958			5.15	4.46	5.29		
Average			4.31	4.48	4.16	2.86	

Morden, Manitoba

1926		4.14	3.71	4.75	3.28	3.28	
1927		3.93	3.74	3.58	4.35	3.54	
1928		4.23	4.84	3.92	4.16	3.79	
1929		3.93	11.64	6.59	6.42	1.20	
1930		3.94	5.52	4.63	4.78		
1931		5.16	6.24	5.77	6.62	4.11	
1932		4.75	5.75	6.23	6.00	3.56	
1933		4.25	6.90	7.93	4.50		
1934		4.41	6.78	5.61	3.10		
1935		3.47	5.36	3.59	2.17		
Average		4.22	6.05	5.26	4.54	3.25	

Delhi, Ontario

1945		3.28	3.84	4.87	4.59	3.03	
1946		3.87	3.92	6.20	5.20	2.77	
1947		3.71	3.65	6.02	6.17	3.31	
1948		3.14	4.92	5.21	3.94	4.43	
1949		4.26	5.02	6.98	7.17	2.70	
1950		3.60	4.61	4.65	4.37	2.14	
1951		4.14	3.94	4.73	4.08	2.86	
1952		2.89	6.09	7.48	5.63	5.60	
1953		3.41	2.61	4.25	6.85	2.91	2.25
1954		3.91	3.70	7.56	4.79	4.32	1.50
1955		6.81	5.48	6.50	4.02	3.69	1.56

TABLE 3 (Continued)

Delhi, Ontario (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1956		4.23	3.65	5.63	5.25	4.52	1.57
1957		5.16	3.82	4.25	5.20	4.44	1.60
1958		4.16	4.44	3.51	4.82	3.62	1.39
1959		4.09	3.94	4.73	5.73	3.80	3.84
1960		4.23	5.47	5.28	4.19	2.44	2.38
Average		4.06	4.32	5.49	5.13	3.54	2.01

Kapuskasing, Ontario

1945			1.59	3.01	2.36	1.20	
1946			2.25	3.23	2.49	1.57	
1947			2.88	3.96	3.49	1.51	
1948			4.31	3.25	3.72	2.40	
1949			2.99	5.36	2.65	0.00	
1950			2.85	2.80	2.45	1.29	
1951			2.47	1.93	2.19	2.29	
1952			2.29	2.16	2.86	1.65	
1953			3.17	3.58	2.94	2.17	
1954			3.35	3.32	2.52		
1955			4.01	4.71	3.99	1.87	
1956				3.51	3.20		
1957				3.31	3.77	1.67	
1958			2.81	2.86	2.43	1.08	
1959			3.23	4.15	2.55		
1960							
Average			2.94	3.41	2.91	1.56	

Ottawa, Ontario

1925		3.41	3.86	3.12	4.59	2.88
1926		3.79	4.30	4.57	3.52	2.20
1927		3.08	4.46	4.12	3.85	2.17
1928		1.68	2.98	4.47	3.59	2.66
1929		2.98	3.63	5.13	3.90	3.12
1930		2.88	3.56	4.62	3.48	2.60
1931		3.75	4.70	5.62	6.97	2.77
1932		4.09	4.37	5.34	4.50	3.37
1933		2.56	5.90	5.44	4.47	3.14
1934		4.21	4.42	7.20	5.80	2.12
1935		4.29	3.82	5.02	5.21	3.28

TABLE 3 (Continued)

Ottawa, Ontario (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1936		3.41	4.88	5.06	4.28	2.91	
1937		3.04	4.58	4.70	4.00	2.97	
1938		3.06	4.82	3.92	4.86	2.61	
1939				4.78	4.57	3.03	
1940		3.38	3.97	4.40	3.87	2.87	
1941					4.44	3.95	
1942		3.33	4.12	4.86	4.00	2.42	
1943		2.66	4.14	4.67	3.76	2.02	
1944		3.99	4.06	5.24	6.01	2.70	
1945		1.54	3.26	4.88	4.02	2.75	
1946		3.27	3.79	4.76	3.14	2.26	
1947		2.30	2.58	3.24	4.40	3.06	
1948				5.23	4.42	2.59	
1949		3.66	3.84	5.85	5.34	2.71	
1950			4.33	4.37	3.43	2.62	
1951		3.73		4.30	3.89	2.81	
1952				5.54	4.22	2.98	2.33
1953		4.05	4.86	5.33	4.77	3.44	1.88
1954		3.60	3.40	4.51	4.14	2.43	1.66
1955		4.00	4.52	6.53	4.92	3.85	1.65
1956		3.54	3.55	4.29	4.51	2.43	1.92
1957		3.74	4.47	5.48	5.55	3.12	1.60
1958		3.60	4.44	3.87	4.23	2.52	1.81
1959		3.04	4.79	5.47	4.18	3.96	1.89
1960		3.55	4.55	5.36	4.18	2.69	1.87
Average		3.33	4.16	4.90	4.42	2.80	1.85

L'Assomption, Quebec

1945		1.78	3.54	4.47	3.89	5.01	
1946		4.15	5.01	5.20	3.98	3.76	
1947		3.65	4.03	5.42	3.91	3.68	
1948		3.29	4.19	4.61	3.68	2.35	
1949		3.49	3.63	4.89	5.99	3.04	
1950		3.73	5.56	5.03	4.09	2.98	
1951		3.99	3.86	4.25	2.92	2.26	
1952		2.95	4.45	4.84	4.30	2.80	1.79
1953		3.06	4.89	4.40	3.71	2.52	1.56
1954		2.74	3.11	2.79	3.84	2.09	1.33
1955		3.45	4.21	5.58	4.51	2.38	1.75
1956		3.18	3.88	4.05	3.67	1.75	1.50
1957		3.49	5.01	4.17	3.70	2.50	1.36
Average		3.30	4.26	4.59	4.01	2.86	1.55

TABLE 3 (Continued)

Lennoxville, Quebec

Year	April	May	June	July	Aug.	Sept.	Oct.
1945			4.08	4.36	4.44		
1946		4.23	4.17	4.55	2.99	4.53	
1947		3.75	3.00	3.41	4.50	3.92	
1948		1.71	3.57	4.28	5.99	2.86	
1949		3.26	3.89	5.00	4.74	2.30	
1950		3.53	5.00	4.84	9.71	2.31	
1951		3.14	3.80	4.50	2.63	3.08	
1952		1.89	4.19	5.17	3.54	2.32	
1953		3.19	4.79	4.70	3.29	2.57	
1954		2.15	4.62	3.88	3.45	2.85	
1955		3.86	3.74	5.56	3.58	2.80	
1956		2.99	3.26	4.33	3.27	1.89	
1957		3.10	3.76	3.50	4.27	2.40	
Average		3.07	3.99	4.47	4.34	2.82	

Normandin, Quebec

1945		2.88	2.52	3.83	4.30	2.02	
1946		2.03	4.12	4.01	2.63	2.55	
1947			2.88	2.17	2.86	2.19	2.29
1948		3.79	4.36	3.77	3.31	2.46	0.96
1949		2.18	3.04	3.77	3.80	1.88	1.59
1950			3.68	4.64	2.96	2.75	0.91
1951		3.45	2.95	4.28	3.33	1.94	1.41
1952		1.51	2.13	4.90			
1953			2.60	2.80	3.60	2.00	1.50
1954		1.90	3.20	2.60	3.60	2.10	1.60
1955		2.30	3.30	4.20	3.70	1.90	1.30
1956		2.20	3.10	2.50	2.60	1.80	1.40
Average		2.47	3.16	3.62	3.34	2.14	1.44

La Pocatière, Quebec

1945		2.38	3.00	5.31	4.20	2.94	
1946		2.31	3.94	5.81	4.76	3.00	
1947		3.31	4.37	3.81	5.37	3.50	
1948		3.38	4.70	3.19	2.94	2.56	
1949		2.00	4.12	4.25	4.06	1.63	
1950		3.56	2.94	4.50	3.56	2.75	

TABLE 3 (Continued)

La Pocatière, Quebec (continued)

Year	April	May	June	July	Aug.	Sept.	Oct.
1951		3.81	3.31	4.44	2.62	2.12	
1952		2.19	4.57	6.62	3.06	3.00	
1953		3.19	3.62	4.44	3.94	2.31	
1954		2.37	2.56	2.50	3.50	3.56	
1955		2.38	2.44	4.62	2.56	2.94	
1956		3.06	3.19	2.44	2.94	1.56	
1957		3.19	3.63	3.12	3.69	2.69	
1958		3.12	3.06	3.69	2.81	2.25	
Average		2.88	3.53	4.20	3.57	2.63	

Fredericton, New Brunswick

1945		1.47	3.28	4.54	4.71	3.27	
1946		3.17	5.92	4.25	4.02	2.33	
1947			2.16	4.75	3.92	2.97	
1948		5.36	3.07	4.16	3.21	2.51	
1949			5.45	4.21	3.68	2.66	
1950		3.20	3.91	4.16	3.69	2.57	
1951		2.67	3.19	5.96	3.38	3.27	
1952		1.53	3.10	5.65	3.41	3.09	
Average		2.90	3.76	4.71	3.75	2.83	

Kentville, Nova Scotia

1945			3.50	5.20	4.80	3.12	
1946		2.79	4.31	5.22	4.25		
1957			5.37	4.89	4.29	3.19	
Average		2.79	4.39	5.10	4.45	3.16	

TABLE 3 (Continued)

Charlottetown, Prince Edward Island

Year	April	May	June	July	Aug.	Sept.	Oct.
1945		3.23	3.77	5.42	4.81	4.62	
1946		3.00	4.03	5.46	4.10	4.11	
1947			3.03	4.30	4.92	4.53	
1948			2.61	3.52	3.62	3.02	
1949		3.72	3.13	3.80	4.41	2.91	
1950		3.66	3.91	3.72	3.40	3.18	
1951			3.11	5.60	2.90	3.62	
1952		3.30	4.86	6.98	3.84	4.10	
1953		3.67	2.62	3.44	2.08	3.96	
1954		3.90	3.82	3.26	3.34	3.16	
1955		3.01	3.38	3.59	3.60		
1956		3.56	3.24	3.41	3.68	3.50	
1957			2.91	2.80	3.16	3.84	
1958		3.46	2.73	3.94	3.32		
1959		3.26	3.06	3.19	3.42	2.53	
1960							
Average		3.43	3.35	4.16	3.64	3.62	

APPENDIX A
SPECIFICATIONS FOR A STANDARD EVAPORATION TANK: EXPOSURE AND OPERATION

The following specifications were approved by the Irrigation Conference at a meeting at Lethbridge, Alberta, in 1951.

Construction

The tank should be 4 feet in diameter and 2 feet deep. It should be made of galvanized iron of at least No. 22 gauge. A band iron stiffener 1 ½ inches by 1/8 inch should be riveted to the top of the tank to make it firm. The outside of the tank may be painted with a waterproof or rust-preventive paint. The inside should be left unpainted.

Exposure

Selection of the site for the tank is most important in ensuring representative data. The tank should be exposed to wind and sunlight at all times. The ideal site is a level piece of ground with no trees, buildings or other obstacles with an angular elevation greater than 3° from the center of the tank. In other words, no obstacle should be higher than 1/20 of its distance from the tank.

Installation

The tank should be sunk in the ground so that only 2 inches of the rim project above the surface, so that surface water will not drain into the tank. The hole in which the tank is sunk should be backfilled with earth, which should be leveled around the tank. Grass should be planted around the tank and kept cut so that at no time will it be higher than the rim. To keep animals from falling into the tank or drinking from it, it is advisable to erect an open, wire-mesh fence around the site. The fence should be at least 5 feet from the tank and posts should be small and placed so that they do not cast shadows on the tank at midday. Screen should not be placed over the tank as it will reduce both the solar energy and the wind reaching the water surface and thus reduce evaporation.

Operation

The tank should be filled with water to within 2 inches of the rim. At no time should the water be above this height or lower than 4 inches from the rim. The distance of the water from the zero mark should be measured daily with a micrometer gauge to 0.01 inch, preferably at the time of the morning observation. Yesterday's evaporation is determined by sub-

tracting yesterday's micrometer reading from today's and adding the rain measurement, if any fell within the 24-hour period ending this morning.

When water is added to the tank, preferably at the morning observation, a measurement should be made both before and after the addition. After heavy rains that may flood the tank, water should be bailed out and a measurement of the new level taken as a starting point for determining the next day's evaporation.

All foreign material should be skimmed out of the tank daily. An ordinary 5- or 6-inch kitchen wire-screen sieve is ideal. It may be necessary, in some areas where mineral content of water is high, to change the water periodically. Inorganic salts should not be used to prevent the growth of algae since such salts may affect the rate of evaporation.

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