

Climatic Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

Indian Climate Centre

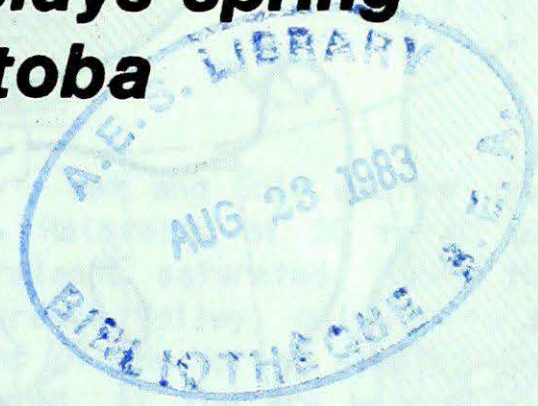
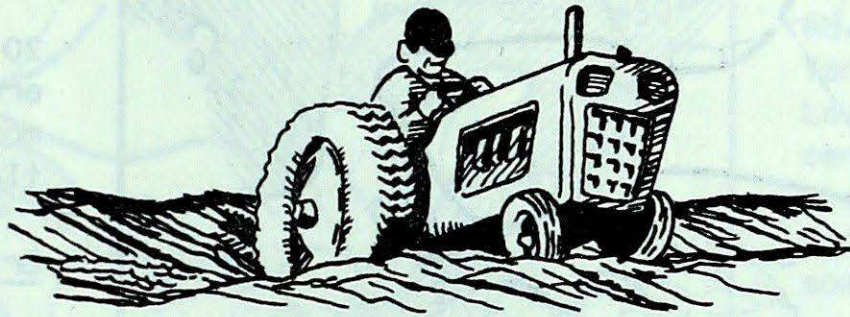
JUNE 10, 1983

(Aussi disponible en français)

VOL. 5 NO. 23

FOR THE PERIOD MAY 31 TO JUNE 6, 1983

- **Continued cool and wet weather delays spring planting 2-3 weeks east of Manitoba**



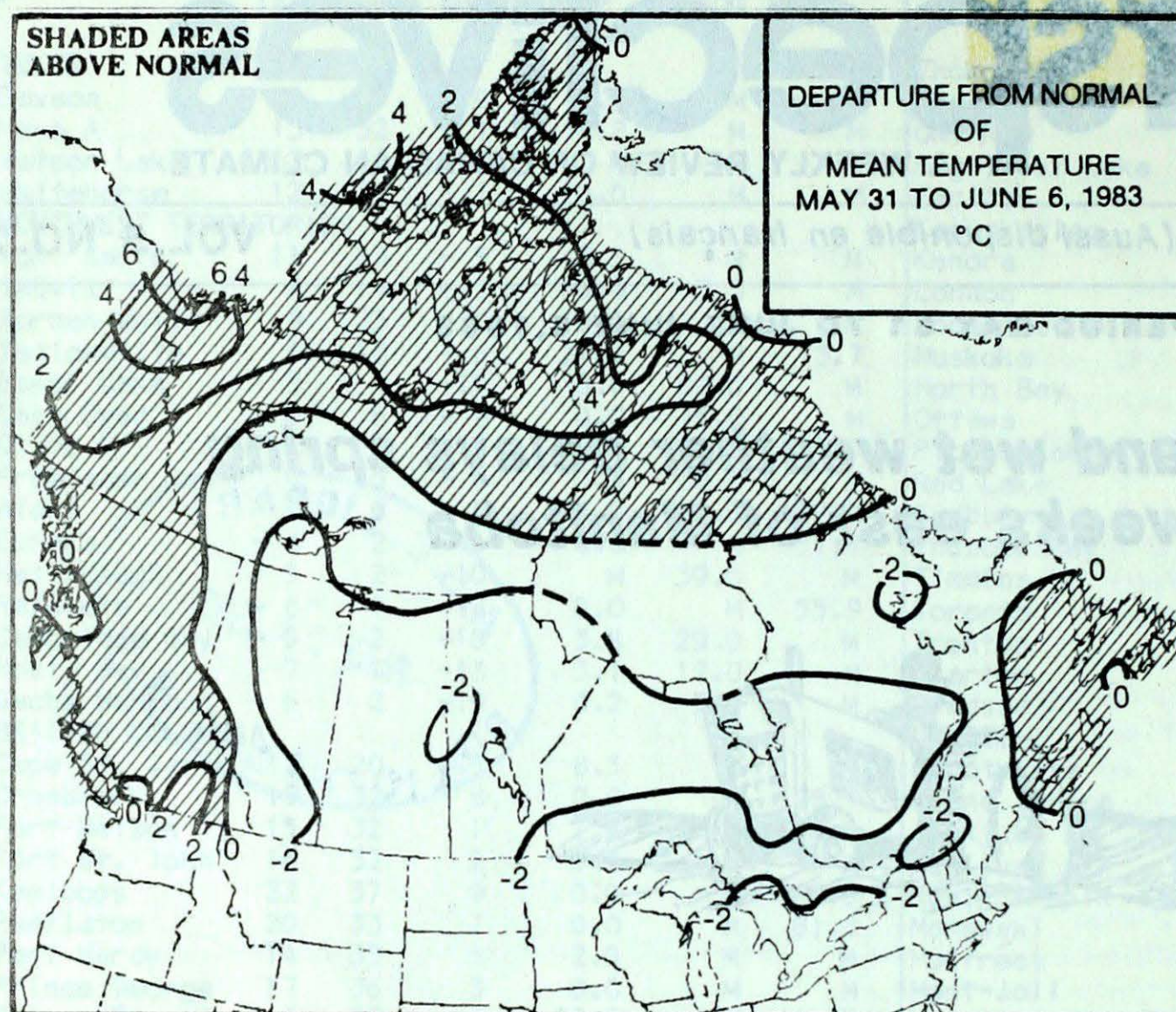
ONTARIO: Half of the corn crop yet to planted :farmers consider earlier hybrids or soybeans

QUEBEC: Only 25 per cent of seeding completed

MARITIMES: Cereal crops not fully planted, dry weather needed for forage crops

- **Water supply on the Prairies..... page 5**

ACROSS THE COUNTRY...

Yukon and the Northwest Territories

For the second week in a row, monthly record high temperatures were set across the Yukon as the mercury climbed into the mid-thirties. On May 31, Dawson and Mayo established monthly records with 35 and 34 degrees respectively. The old records were set just a day earlier. Brisk northerly flow of cooler air moderated the temperatures to more reasonable values towards the weekend. In the high Arctic, temperatures averaged 3 to 6 degrees above normal.

Thunderstorms produced 15 to 20 mm of precipitation in the southern Yukon; Carmacks received the most, 39 mm. Elsewhere, precipitation was light.

British Columbia

Unseasonably warm weather gave way to a cooler more seasonal regime early in the week. Numerous fires were still reported in the Interior but due to increased shower activity all were under control. The hay harvest has commenced on Vancouver Island.

Prairies

It was generally sunny and cool in the west. Widely scattered showers have not alleviated soil moisture shortages in central Alberta. Established crops were maturing well but rain is urgently needed for the newly seeded crops and pastures. All forest fires were under control.

In eastern sections, increased cloud and precipitation was evident. Temperatures were more than 3° below normal contributing to delayed germination of newly seeded crops.

Ontario

After several rainy week-ends, sunny and warm weather which finally arrived during the last week-end allowed residents to venture into outdoor activities.

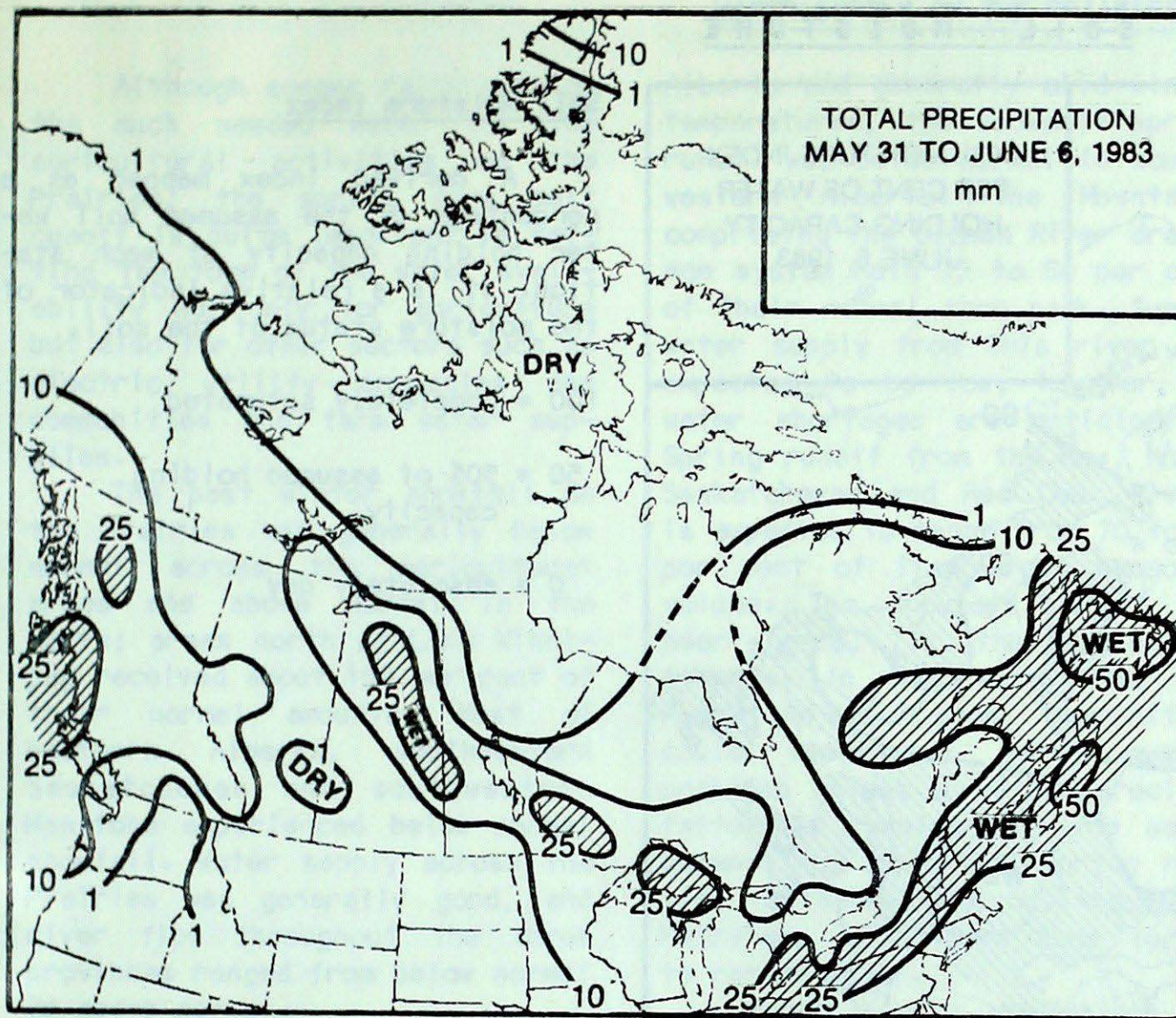
Rain and cold, however, dominated the rest of the week setting record low daytime temperatures at a few central Ontario stations. North-

WEEKLY TEMPERATURES EXTREMES (°C)

	MAXIMUM		MINIMUM	
YUKON TERRITORY	34.7	Dawson	-0.5	Whitehorse
NORTHWEST TERRITORIES	24.7	Fort Simpson	-10.0	Cape Hooper
BRITISH COLUMBIA	33.1	Kamloops	-1.8	Dease Lake
ALBERTA	28.4	Lethbridge	-0.5	Edson
SASKATCHEWAN	25.6	Meadow Lake	-2.7	Collins Bay
		North Battleford		
MANITOBA	23.8	Portage la Prairie	-4.2	Gilliam
ONTARIO	24.0	Windsor	-2.4	Armstrong
				Big Trout Lake
QUÉBEC	23.4	Maniwaki	-4.0	La Grande Riviere
NEW BRUNSWICK	24.5	Chatham	1.8	Miscou Island
NOVA SCOTIA	24.5	Greenwood	3.7	Shelburne
PRINCE EDWARD ISLAND	21.6	Summerside	5.8	East Point
NEWFOUNDLAND	23.3	Badger	-2.4	Churchill Falls

ACROSS THE NATION

Warmest mean temperature	19.3	Penticton, BC
Coollest mean temperature	-4.9	Broughton Island, NWT



WEEKLY TOTAL PRECIPITATION EXTREMES (mm)

YUKON	39.0	Carmacks
NORTHWEST TERRITORIES	15.6	Alert
BRITISH COLUMBIA	109.9	Cape Scott
ALBERTA	16.6	Calgary
SASKATCHEWAN	43.2	La Ronge
MANITOBA	24.7	Bissett
ONTARIO	45.2	Dauphin
QUEBEC	46.6	Sloux Lookout
NEW BRUNSWICK	43.4	Blanc Sablon
NOVA SCOTIA	66.4	Saint John
PRINCE EDWARD ISLAND	32.2	Eddy Point
NEWFOUNDLAND	124.7	Summerside
		Stephenville

ONTARIO AGRICULTURE

Continued cool and wet spring weather has delayed the growth of vegetable and fruit crops across southern Ontario. Accumulated growing degree-days were 8 to 14 days behind normal. A late freeze during May caused considerable damage to the early strawberry bloom. In the Niagara Peninsula, apples and grapes suffered some frost damage. The Ontario Ministry of Agriculture reported a lot of twig canker on peaches especially in early developing areas

east of the Welland Canal. The very cold weather during late March caused considerable damage to the two and three year old peach trees in the Niagara Peninsula.

The cool and wet weather has greatly reduced the yield potential of asparagus in south central Ontario. Much of the lettuce planted in early May had no growth. Early planted sweet corn and pea stands were very poor and early potatoes were slowly emerging.

western Ontario received most of the rain; at Thunder Bay, 33 mm was nearly 50 per cent of the normal June amount there.

The persistent wet and cool weather continued to keep the forest fire danger low throughout the province. In the farming areas, field tillage, planting and spraying continued to be delayed about 2 weeks. While the cold weather has considerably delayed mosquitoes activity, it has, at the same time, provided ideal breeding grounds for the black flies.

Québec

Wet and cold weather prevailed. Rainfalls of 20 to 40 mm kept farmlands saturated. Along the St. Lawrence Valley, only 20 to 30 per cent of the spring seeding was completed. If the dry weather doesn't arrive soon, it may be too late for some crops to be seeded.

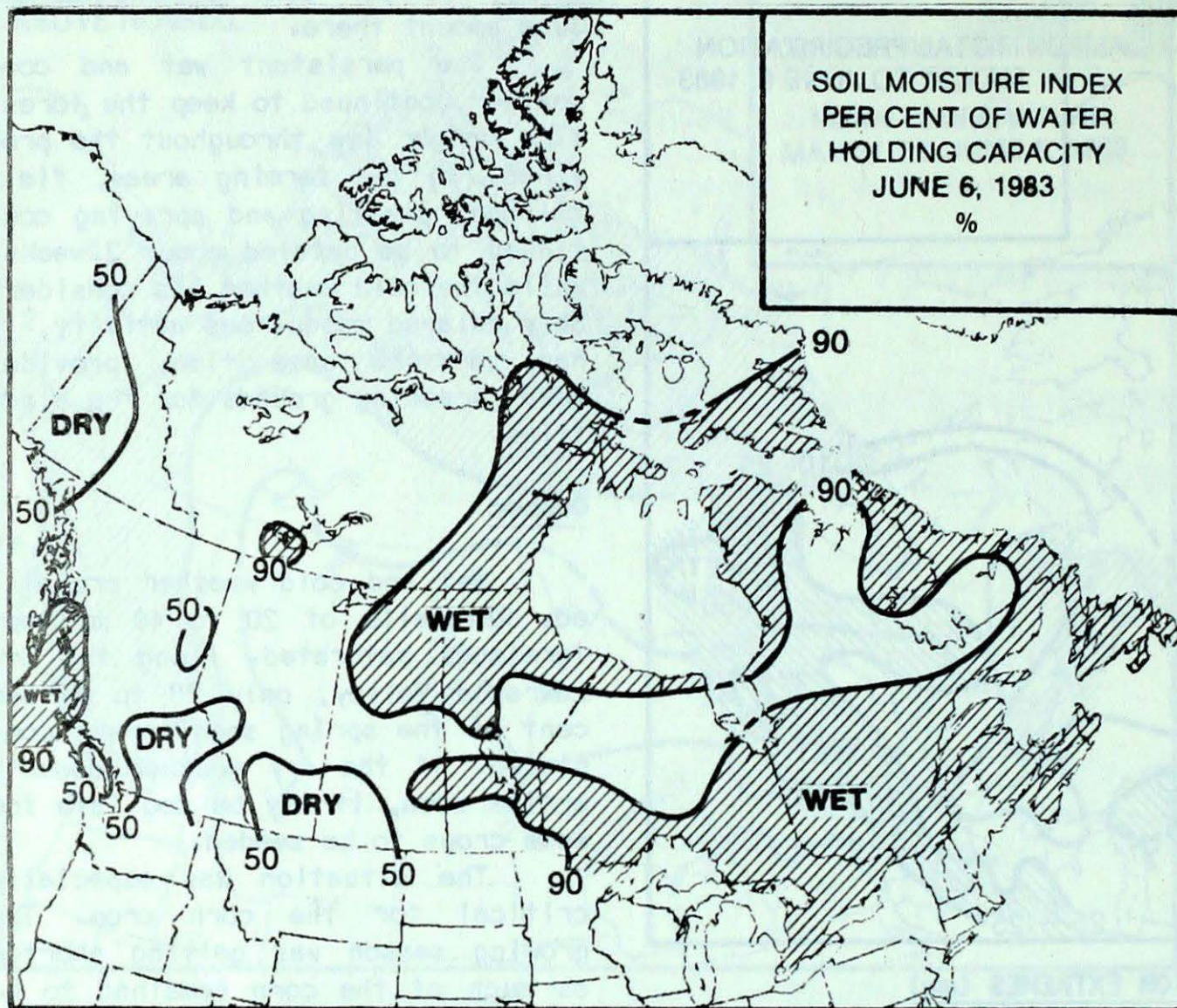
The situation was especially critical for the corn crop. The growing season was getting shorter as much of the corn remained to be seeded.

Atlantic Provinces

Weather systems crossing the East Coast kept a pall of dark clouds over the Provinces. Deluges of 50-125 mm of rains continued to keep farmlands saturated. Heavy rainfalls of 80-125 mm at several Newfoundland stations even exceeded the normal amounts for June; for example, 125 mm fell at Stephenville whereas the monthly normal is only 88 mm.

The continued wet weather has set back field ploughing and planting up to 3 weeks in many areas. In Newfoundland, wet fields contributed to bolting in the hay crop. Despite the wet weather nearly 60 per cent of the potato crop was planted in Prince Edward Island. In Nova Scotia, farmers were concerned about the delay in the cereal crop planting. If the crops are not planted soon, they will not have long enough growing season to mature. Although forage crops were maturing well, dry weather was needed for harvesting. In New Brunswick, wet weather has slowed the maturation of the strawberry crop.

SOIL MOISTURE



Soil Moisture Index

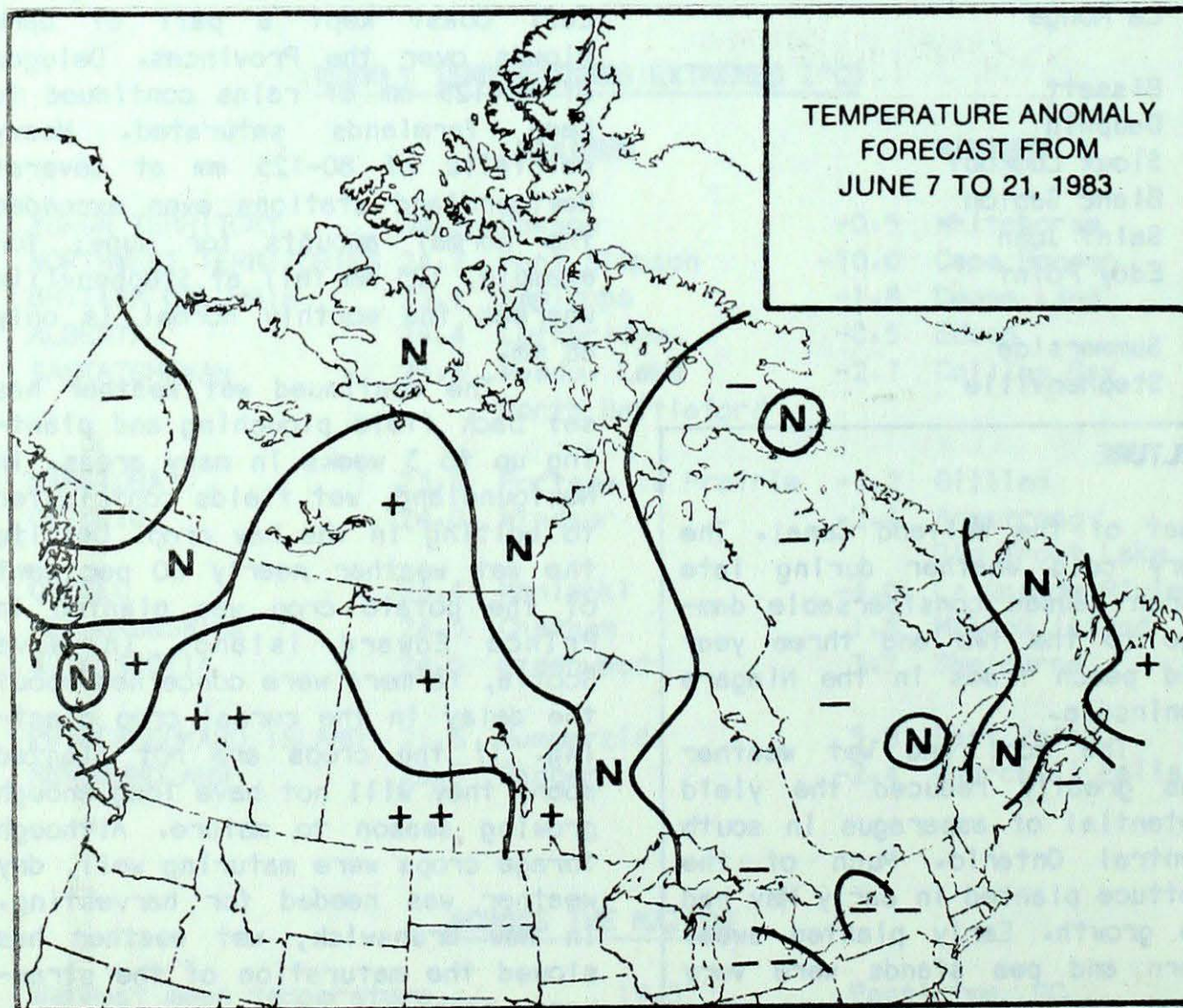
A derived index mapped as a percentage of the assumed soil water holding capacity at each station. It is a relative indicator of the moisture status of the soil.

100 = completely saturated

50 = 50% of assumed holding capacity

0 = absolutely dry

TEMPERATURE ANOMALY FORECAST



Temperature Anomaly Forecast

The temperature anomaly forecast, for each of the 70 Canadian stations, is prepared by doing a search of historical weather maps to find cases similar to the present. The principle used is that a prediction for the next 15 days may be based on what is known to have actually happened during the 15-day anomaly periods. After the five best sets are selected, the surface temperature anomalies are calculated. This results in five separate forecasts. These are then averaged to provide the consensus forecast depicted.

++ much above normal

+ above normal

N normal

- below normal

-- much below normal

WATER SUPPLY ON THE PRAIRIES

Although summer rains provide the much needed water for the agricultural activities on the Prairies, the spring snow melt runoff is quite important in setting the tone of the water availability not only for agriculture but also for other sectors such as electric utility companies and communities and farm water supplies.

The past winter snowfall on the Prairies was generally below normal across the agricultural areas and above normal in the north; areas north of Lake Winnipeg received about 150 per cent of their normal amounts. Most of southern Alberta, southwestern Saskatchewan and southwestern Manitoba experienced below normal snowfall. Water supply across the Prairies was generally good, and river flow throughout the three provinces ranged from below normal to above normal.

Owing to the below normal snow pack in the mountainous areas of

Alberta and generally mild winter temperatures, the snowmelt spring runoff was below normal in southwestern Alberta. The Mountains comprising the Oldman River drainage system held 75 to 80 per cent of their normal snow pack. Summer water supply from this river was expected to be low; however, no water shortages are anticipated. Spring runoff from the Bow, North Saskatchewan and Red Deer Rivers is expected to range from 70 to 80 per cent of its normal seasonal volume. The snowmelt runoff was near normal in the Plains of Alberta. In the Peace River and Hanna areas, some communities could experience water supply problems unless sustained precipitation is received in the early summer. Due to a low spring runoff, residences and businesses in Fairview, Alta. have been forced to ration water.

Water supply conditions in Saskatchewan varied from below normal in the Churchill River to

slightly above normal in the Lower Qu'Appelle, Wascana, Moose Jaw and Souris River basins. Most reservoirs were at normal levels.

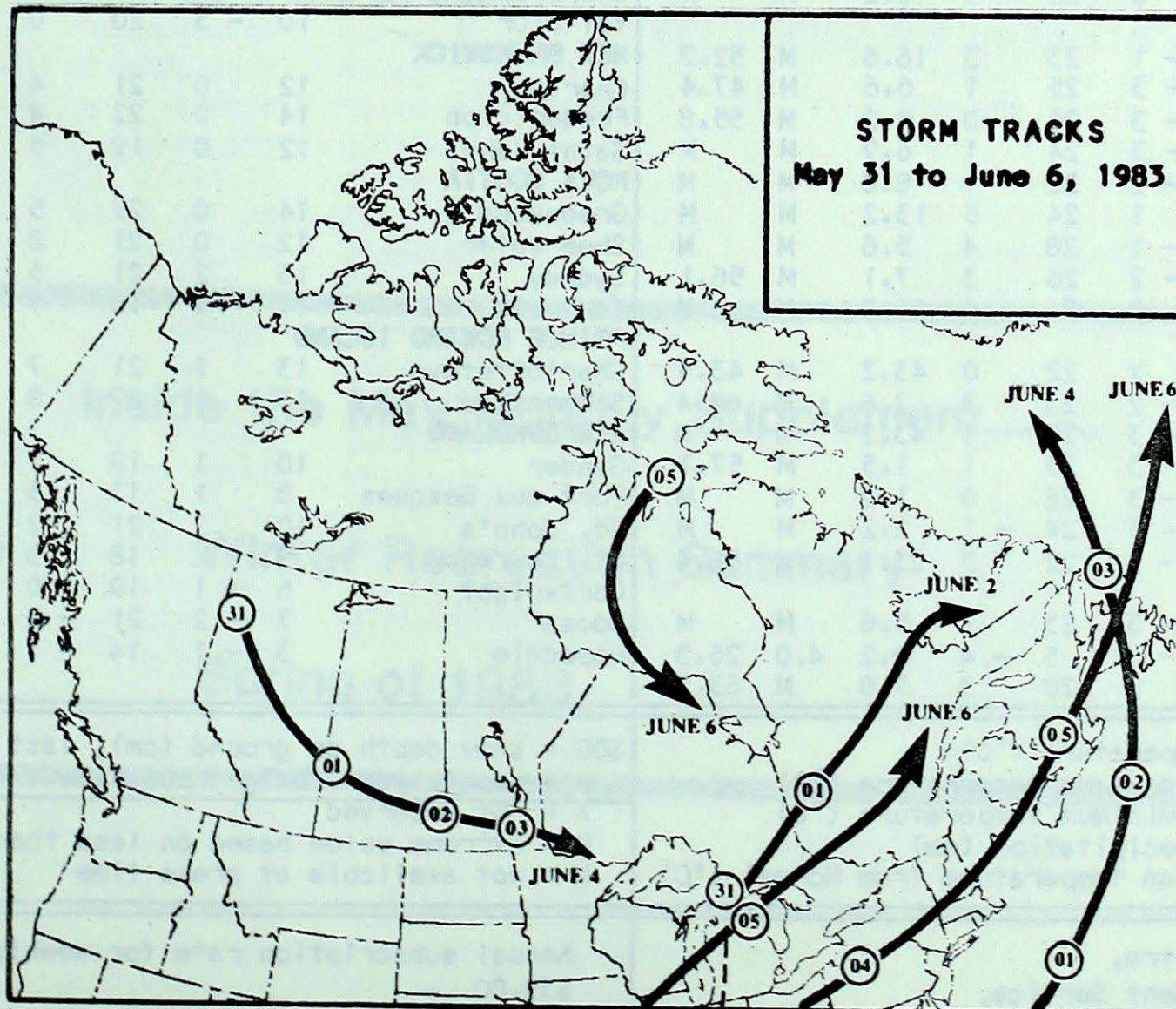
Spring runoff was near normal in southern Manitoba, except in the West Lake-Dauphin-Swan River area, where it was well above normal. Near record floodings occurred in late April on some streams flowing off the Riding, Duck and Porcupine Mountains. Some flooding occurred on the Souris River.

Soil moisture reserves ranged from excessive to good most everywhere, but was considerably variable in Alberta. Parts of northern Alberta has slightly less than adequate moisture in the soil.

A. Shabbar

(Some information provided by the Prairie Farm Rehabilitation Administration)

STORM TRACKS



TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT JUNE 7, 1983

STATION	TEMP				PRECIP		SUN	STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H		Av	Dp	Mx	Mn	TP	SOG	H
YUKON								Thompson	7	-4	18	-2	0.0	M	87.1
Dawson	14	2	35	2	2.4	M	M	Winnipeg	12	-2	23	1	7.0	M	67.0
Mayo A	14	3	34	2	6.2	M	M	ONTARIO							
Watson Lake	12	1	29	4	20.7	M	39.0	Big Trout Lake	5	-4	13	-2	1.4	M	M
Whitehorse	11	1	28	-1	20.6	M	M	Earlton	12	-1	23	0	M	M	M
NORTHWEST TERRITORIES								Kapuskasing	10	-2	21	1	18.1	M	M
Fort Smith	11	-1	22	2	13.3	M	M	Kenora	12	-1	21	6	13.9	M	M
Inuvik	12	6	23	2	0.5	M	M	London	12	-4	21	5	31.6	M	32.4
Norman Wells	13	2	21	5	1.2	M	M	Moosonee	6	-2	16	-2	7.2	M	M
Yellowknife	8	-2	18	1	6.6	M	M	Muskoka	12	-2	23	2	M	M	M
Baker Lake	1	2	4	-4	0.0	12.0	76.1	North Bay	12	-1	21	5	4.6	M	43.2
Cape Dyer	-3	-1	5	-7	0.0	70.0	M	Ottawa	15	-2	23	7	9.8	M	M
Clyde	-1	0	4	-6	0.0	83.0	50.2	Pickle Lake	8	-2	21	0	1.6	M	M
Frobisher Bay	1	0	7	-4	0.0	9.0	M	Red Lake	10	-3	23	0	20.4	M	64.5
Alert	-5	0	0	-10	15.6	41.0	39.0	Sudbury	12	-2	22	4	8.5	M	42.7
Eureka	-1	1	4	-7	0.0	3.0	117.7	Thunder Bay	11	0	22	1	27.9	M	M
Hall Beach	-1	2	3	-6	0.0	M	M	Timmins	10	-3	22	1	14.4	M	M
Resolute	-1	3	3	-7	0.0	13.0	89.2	Toronto	14	-2	22	6	15.7	M	M
Cambridge Bay	0	2	9	-7	0.0	10.0	M	Trenton	14	-2	21	6	10.1	M	M
Mould Bay	1	4	7	-7	0.0	M	M	Warton	12	-2	22	5	8.3	M	51.5
Sachs Harbour	1	3	7	-2	0.0	1.0	M	Windsor	14	-3	24	7	25.1	M	M
BRITISH COLUMBIA								QUEBEC							
Cape St. James	11	1	15	8	33.5	M	M	Bagotville	10	-3	19	1	17.0	M	M
Cranbrook	14	0	25	6	14.8	M	63.5	Blanc Sablon	6	1	14	-1	46.6	M	M
Fort Nelson	13	0	28	2	3.8	M	63.6	Inukjuak	2	0	7	-2	12.4	2.0	M
Fort St. John	12	0	26	5	5.8	M	M	Kuujuuaq	5	0	13	-1	12.0	M	29.7
Kamloops	19	2	33	11	3.2	M	49.8	Kuujuuarapik	3	-1	16	-3	15.0	0.0	29.1
Penticton	19	3	33	8	0.0	M	M	Manawaki	13	-1	23	2	24.6	M	M
Port Hardy	12	1	17	8	13.7	M	14.5	Mont-Joli	11	-1	21	4	25.0	M	34.5
Prince George	13	1	31	4	21.4	M	28.9	Montréal	14	-2	23	8	18.2	M	34.2
Prince Rupert	10	0	16	5	27.7	M	M	Natashquan	9	0	16	1	24.2	M	M
Revelstoke	18	3	32	8	15.4	M	M	Nitchequon	6	-1	12	1	18.8	0.0	M
Smithers	12	1	24	3	21.9	M	56.1	Québec	12	-2	22	5	22.8	M	27.4
Vancouver	15	0	20	10	6.4	M	33.5	Schefferville	4	-2	12	-3	30.7	M	35.2
Victoria	14	1	21	8	0.4	M	M	Sept-Îles	8	-1	15	3	33.6	M	42.8
Williams Lake	13	0	28	5	10.2	M	M	Sherbrooke	11	-3	21	4	32.4	M	30.0
ALBERTA								Val-d'Or	10	-3	20	0	8.7	M	M
Calgary	11	-1	23	3	16.6	M	52.2	NEW BRUNSWICK							
Cold Lake	10	-3	25	1	6.6	M	47.4	Charlo	12	0	21	4	23.0	M	M
Coronation	11	-3	26	0	0.2	M	55.8	Fredericton	14	0	22	4	M	M	M
Edmonton Namao	11	-3	24	1	6.9	M	M	Saint John	12	0	19	5	43.4	M	M
Fort McMurray	10	-2	22	1	8.8	M	M	NOVA SCOTIA							
Jasper	12	1	24	5	13.2	M	M	Greenwood	14	0	25	5	38.0	M	M
Lethbridge	13	-1	28	4	5.6	M	M	Shearwater	12	0	21	8	51.2	M	M
Medicine Hat	13	-2	26	3	7.1	M	56.1	Sydney	13	2	21	5	41.2	M	38.4
Peace River	12	0	24	4	11.0	M	M	Yarmouth	11	-1	16	7	30.1	M	32.6
SASKATCHEWAN								PRINCE EDWARD ISLAND							
Cree Lake	7	X	22	0	43.2	M	43.4	Charlottetown	13	1	21	7	24.4	M	M
Estevan	12	-2	23	3	2.6	M	66.4	Summerside	13	1	22	8	32.2	M	38.3
La Ronge	10	-3	23	3	43.2	M	M	NEWFOUNDLAND							
Regina	11	-3	23	1	1.5	M	57.7	Gander	10	1	19	1	39.8	M	30.0
Saskatoon	11	-3	26	0	1.2	M	M	Port aux Basques	8	1	13	5	61.4	M	M
Swift Current	11	-3	24	-1	2.2	M	M	St. John's	10	2	21	2	34.8	M	M
Yorkton	11	-3	22	3	23.2	M	58.4	St. Lawrence	9	2	18	3	119.6	M	M
MANITOBA								Cartwright	6	-1	19	0	15.8	M	41.2
Brandon	11	-3	23	1	5.6	M	M	Goose	7	-2	21	-2	20.0	M	37.5
Churchill	0	-3	5	-4	0.2	4.0	26.3	Hopedale	3	-1	14	-1	3.6	2.0	M
The Pas	11	0	20	3	7.8	M	63.5								

Av = weekly mean temperature (°C)
Mx = weekly extreme maximum temperature (°C)
Mn = weekly extreme minimum temperature (°C)
TP = weekly total precipitation (mm)
Dp = Departure of mean temperature from Normal (°C)

SOG = snow depth on ground (cm), last day of the period
H = weekly total bright sunshine (hrs)
X = not observed
P = extreme value based on less than 7 days
M = not available at press time

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Annual subscription rate for weekly issues---
\$35.00
Annual subscription rate for one issue per month
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