Environment Canada | Environnement Canada

dian Climate Centre

Climatic Perspectives

A WEEKLY REVIEW OF CANADIAN CLIMATE

MONTHLY SUPPLEMENT INCLUDED

AUGUST 19,1983 | (Aussi disponible en français) | VOL.5 NO. 33

FOR THE PERIOD AUGUST 9-15,1983

Canada's Crop Report

British Columbia: Heavy July rains caused splitting in 50 per cent of the cherry crop. Low sugar content and poor quality in peaches, apricots and apples in the southern Okanagan Valley.

Prairies: Heat wave and dry spell expected to lower crop yield 10 to 20 per cent. Harvest underway.

Ontario: Rainfall beneficial to crops. Corn yield could be 25 per cent below normal in the south. Extensive hail damage to tobacco.

Quebec: Quality and yield of corn and cereal crops expected to be below normal this year because of the prolonged dry spell.

Atlantic Provinces: July dry spell hampered "filling out" of spring cereal crops in Nova Scotia. Much-needed rainfall arrived in the Annapolis Valley.

Inside the July monthly supplement.....

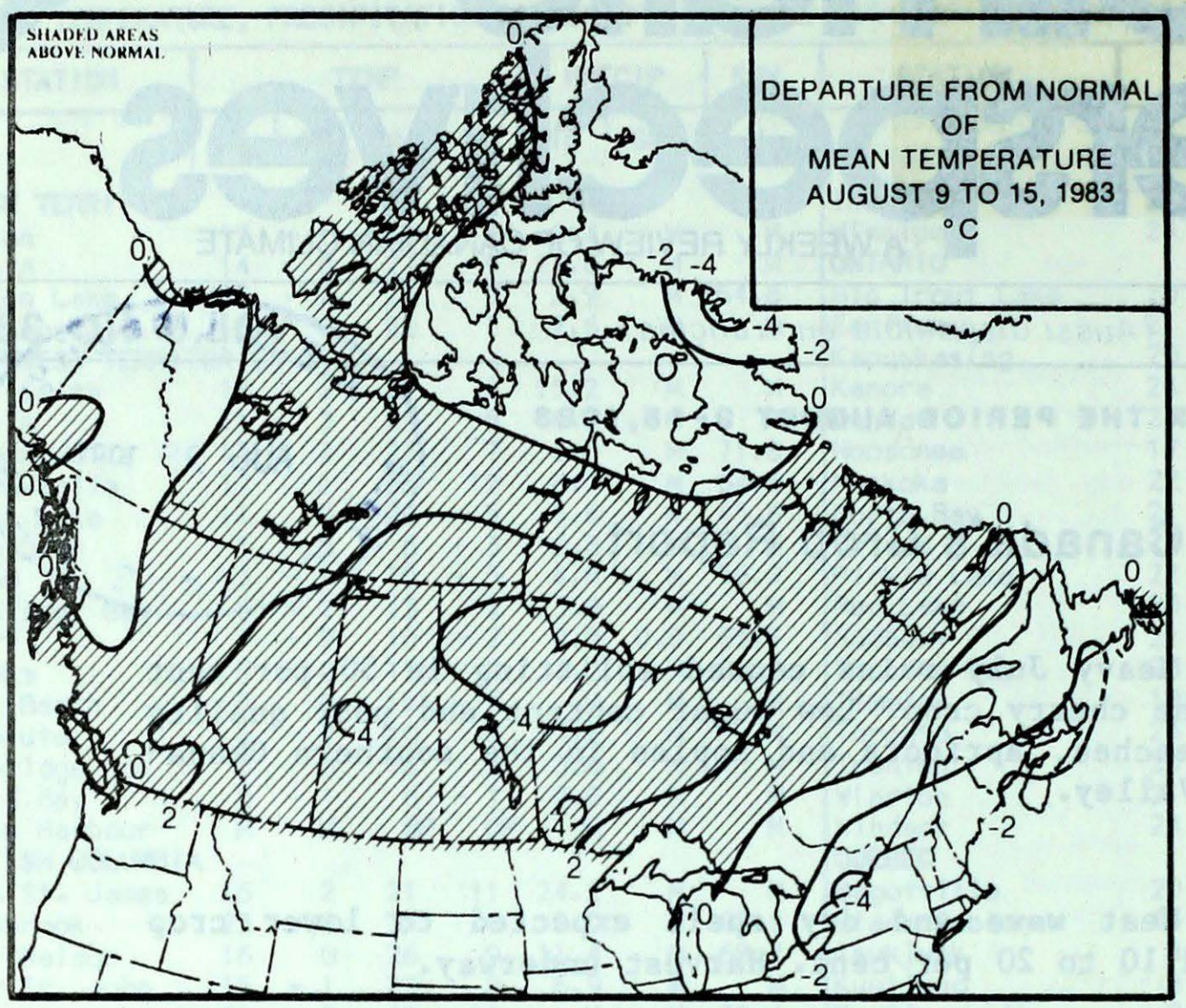
**** Pollution in the high Arctic***

**** Interpretation of probability forecast***

ISSN 0225-5707
UDC: 551.506.1(71)

NOTE: The data shown in this publication are based on unverified reports from approximately 225 Canadian synoptic stations.

Canada



WEEKLY TEMPERATURES EXTREMES (°C)

	MAXIMUM		MINIMUM	
YUKON TERRITORY	24.4	Watson Lake	1.2	Shingle Point
NORTHWEST TERRITORIES	29.7	Fort Smith	-6.0	Cape Hooper
BRITISH COLUMBIA	36.8	Kamloops	1.6	Puntzi Mountain
ALBERTA	35.7	Medicine Hat	4.2	High Level
SASKATCHEWAN	36.6	Swift Current	6.1	Cree Lake
MANITOBA	33.6	Portage la Prairie	6.5	Thompson
ONTARIO	32.4	Kenora	0.0	Winisk
QUEBEC	29.8	Gaspé	0.6	Matagami
NEW BRUNSWICK	30.3	Chatham	5.8	Fredericton
NOVA SCOTIA	26.5	Greenwood	6.1	Shelburne
PRINCE EDWARD ISLAND	26.4	Summerside	9.2	Charlottetown
NEWFOUNDLAND	29.9	Goose	1.6	Badger

ACROSS THE NATION

Warmest mean temperature	22.9	Estevan, SASK
Coolest mean temperature	-1.0	Cape Hooper, NWT

ACROSS THE COUNTRY...

Yukon and Northwest Territories

The weather was cool and damp across the Yukon; Tungston had the highest rainfall, 44 mm. Other communities received about 20 mm. In the Northwest Territories, the temperatures ranged from 2° above normal in the Mackenzie District to 4° below normal over Baffin Island. On August 11, heavy rainfall washed out part of the Klondike Highway between Whitehorse and Carcross. By the week's end, 9 forest fires were burning west of the Mackenzie Mountains.

British Columbia

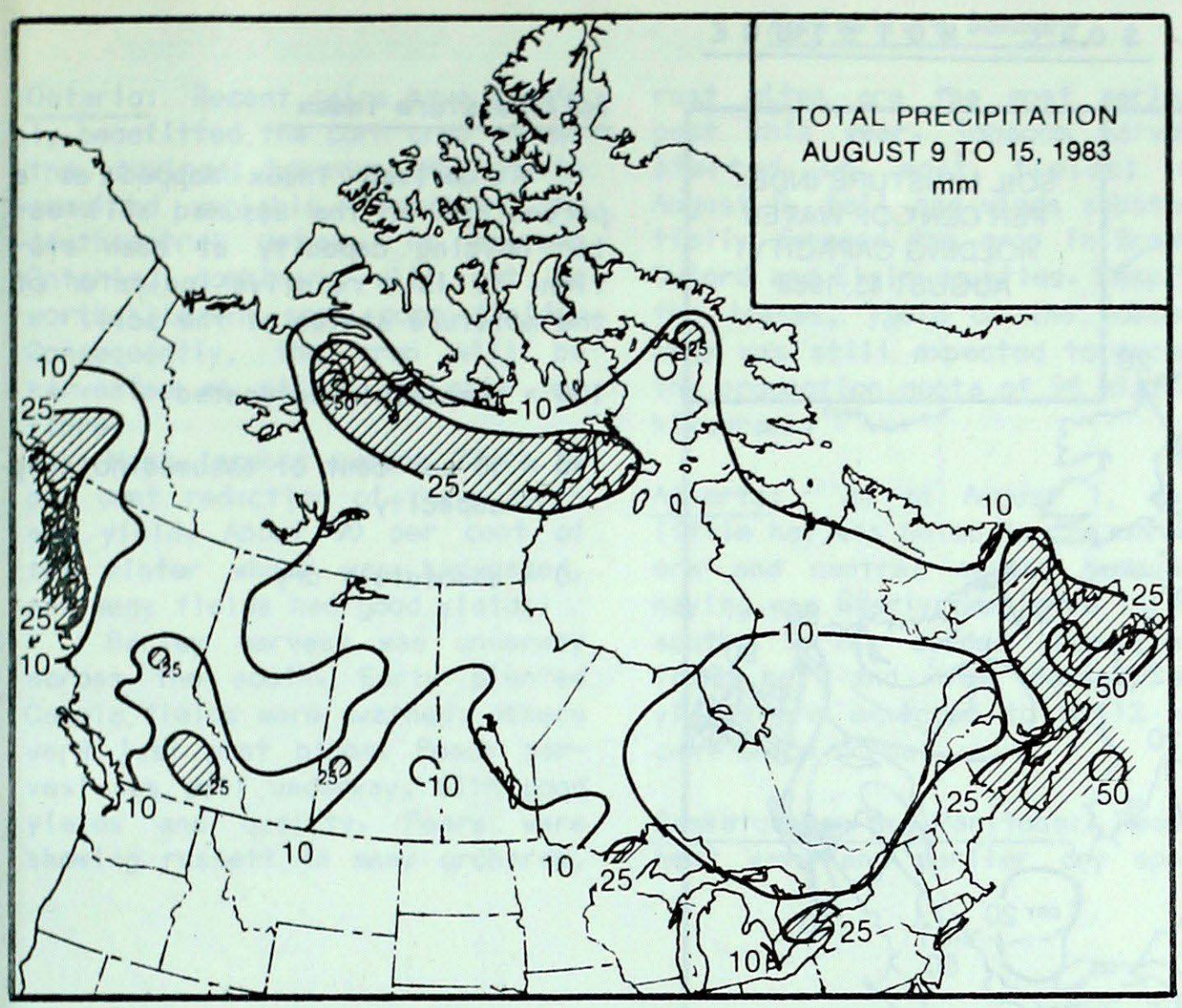
Lack of rain and above normal temperatures highlighted the weather once again this week. Thunderstorms dumped 20-30 mm of rain in the very dry southeastern areas. Dry weather allowed the hay harvest to progress rapidly throughout the province.

Prairies

Hot and dry weather continued. Daytime temperatures remained in the low to mid-thirties throughout most of the Prairies. Only southwestern Saskatchewan received rainfall in excess of 20 mm. Except for central Alberta, soil moisture reserves were at critically low levels. On August 14, outbreaks of severe thunderstorms triggered a tornado at Carnduff Sask. Winds gusting near 100 km/h caused substantial structural damage; a few large trees were downed in the violent weather. Harvesting was well underway throughout the Prairies. Due to the lack of moisture and excessive heat, yields of most crops are expected to be 10 to 20 per cent below normal.

Ontario

A drastic change in weather was evident across the province. After the oppressive summer-heat of June and July, the temperatures dropped to record low values at numerous localities. Most notable was Toronto's maximum of 17.3° on August 11; this is the lowest maximum in 143



HEAVIEST WEEKLY PRECIPITATION (mm)

YUKON	40.8	Burwash
NORTHWEST TERRITORIES	51.5	Coppermine
BRITISH COLUMBIA	39.6	Prince Rupert
ALBERTA	22.2	Lethbridge
SASKATCHEWAN	28.2	Kindersley
MANITOBA	22.2	Norway House
ONTARIO	38.9	Thunder Bay
QUEBEC	38.2	Blanc Sablon
NEW BRUNSWICK	37.8	Saint John
NOVA SCOTIA	56.9	Sable Island
PRINCE EDWARD ISLAND	22.9	Charlottetown
NEWFOUNDLAND	74.1	St. Lawrence

Summary of Ice Conditions

Hudson Bay was mainly open water and a shipping route existed into Churchill Bay. Heavy pieces of old ice at the entrance of Hudson Strait and along the northern portions of Labrador coast hampered local shipping. Three ships were damaged by icebergs in the Hudson Strait. Ice cover was more extensive than normal in eastern Arctic this year.

Mainly open water, with some loose ice, existed in the drilling areas of the Beaufort Sea. The pack ice was just north of the operation area.

years of record for that day.

The morning of August 10 was especially cold in the north when the temperatures remained near freezing.

Rainfall was plentiful in southern Ontario. Delhi received the most, 100 mm - 70 mm fell on August 11 alone. Less than 10 mm fell in the central and northern areas. Crops were recovering from the June-July drought in the south. In the Niagara Peninsula, peach harvest was underway and yields were expected to be good. Owing to the muddy fields, tomatoes and cucumbers were left unpicked in extreme southwestern Ontario. Hail damage, from the storm that struck Toronto on August 8, proved to be more extensive than earlier estimated - hail severely damaged all cars in one sales lot.

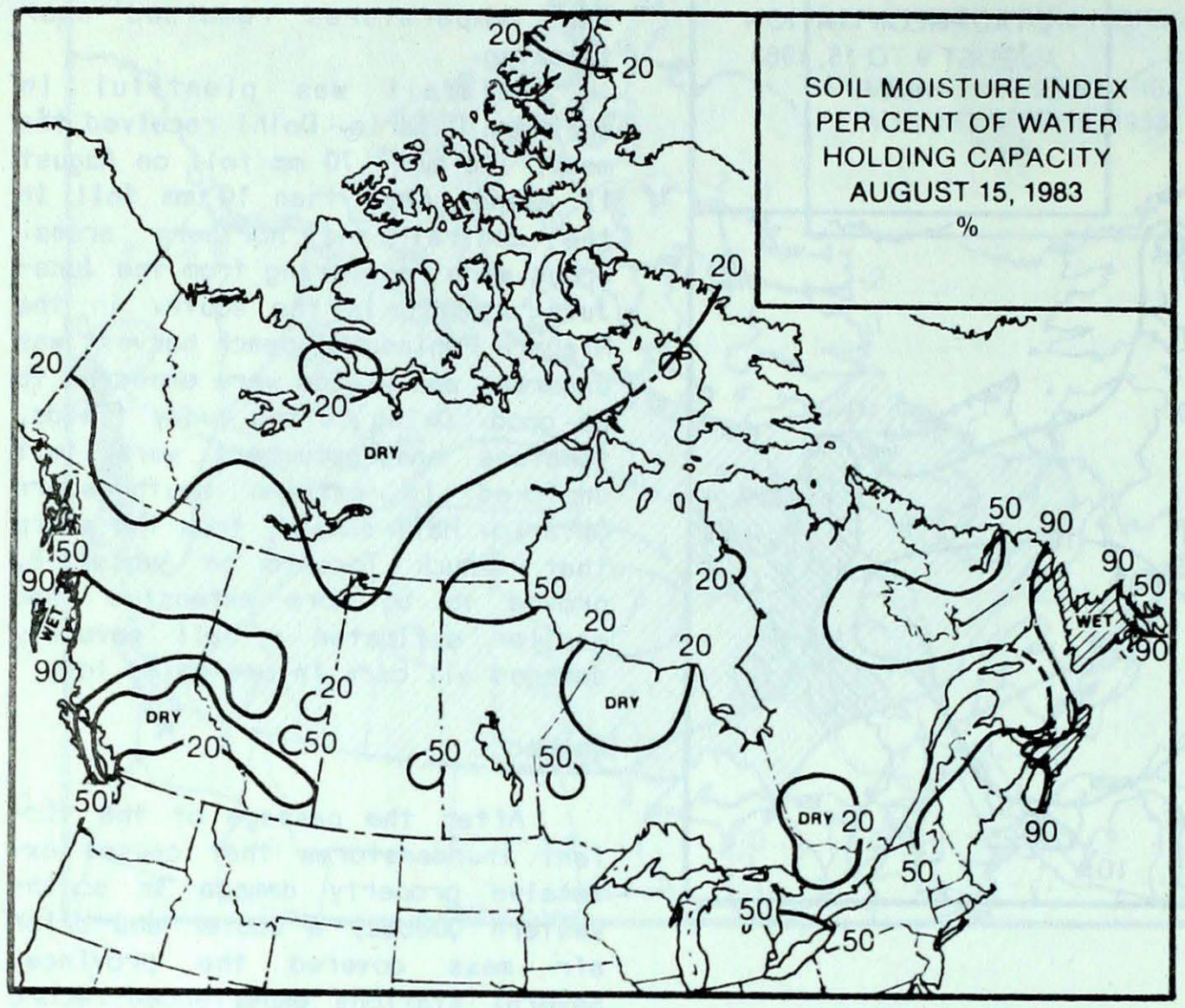
Québec

After the passage of the violent thunderstorms that caused extensive property damage in southwestern Québec, a cooler and drier air mass covered the province. Several stations experienced record low temperatures. On August 8, the readings dropped to a chilling 1° at Kuujjuaq, but moderated to more seasonable values towards the weekend. Precipitation was light almost everywhere; Sherbrooke had the most, 43 mm. Areas of forested land ravaged by fires continued to be very high this season - 260,000 hectares so far this year compared to the 5-year average of 5,700 hectares.

Atlantic Provinces

Moderate to heavy rainfall of 20 to 40 mm, on August 12, benefitted crops in the Annapolis Valley. In some Nova Scotia localities, heavy rains contributed to saturated fields, thus delaying winter wheat harvest. Otherwise, record-setting cold temperatures early in the week moderated to more seasonable values. On August 3, a tornado at Sunshine Pool on the Gander River knocked down some trees and overturned a few cabins. Another twister ripped through Juniper, N.B. on August 8. Some large trees were uprooted in its path and a lumber yard experienced extensive damage.

SOIL MOISTURE



Soil Moisture Index

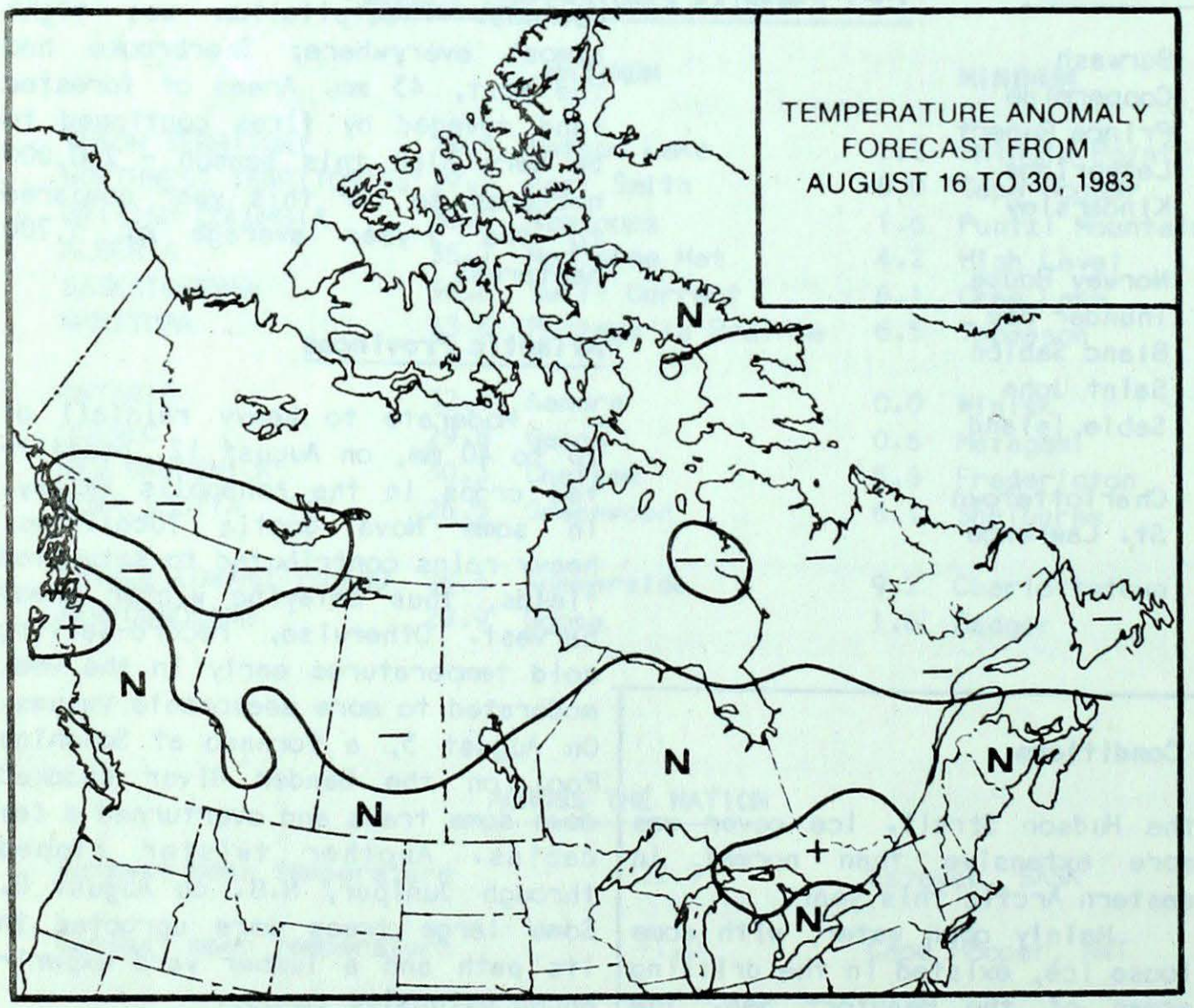
A derived index mapped as a percentage of the assumed soil water holding capacity at each station. It is a relative indicator of the moisture status of the soil.

100 = completely saturated

50 = 50 per cent 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 searching historical weather maps to find cases similar to the present one. The principle used is that a prediction for the next 15 days may be based on what is known to have actually happened during 15-day periods. After the five best cases are selected, the surface temperature anomalies are calculated. This results in five separate forecasts, which are averaged to provide the forecast depicted.

++ much above normal

+ above normal

N normal

– below normal

–– much below normal

Agriculture Summary

Ontario: Recent rains have greatly benefitted the corn crop across the province; however, the growth remained variable throughout the southcentral areas. In eastern Ontario, combining will not be worthwhile in some corn fields. Consequently, the crop will be harvested as silage strictly for fibre.

Most farmers expect 20 to 30 per cent reduction of their average yield. About 90 per cent of the winter wheat was harvested, and many fields had good yields.

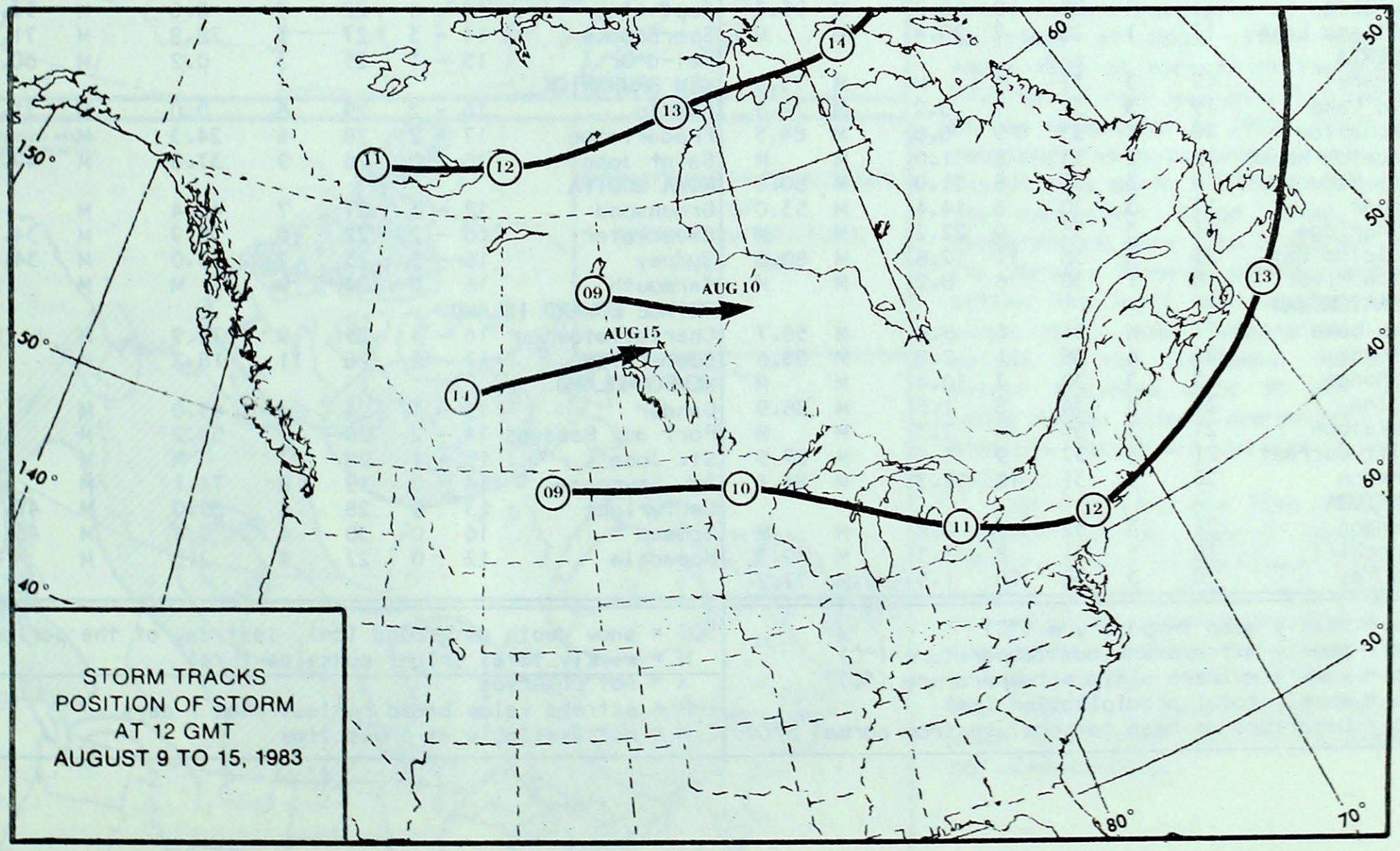
Barley harvest was underway across the south. Early planted Canola fields were swathed; others were just past bloom. Peach harvest was well underway, with good yields and quality. Pears were showing russett in many orchards, rust mites are the most serious pest this year. Tobacco harvest started on most fields; on August 8, hail and winds substantially damaged the crop in Brant, Oxford and Elgin counties. Despite the losses, yield of the tobacco crop was still expected to exceed the production quota of 98 million kilograms.

Alberta: As of August 1, very little hay was baled in the northern and central areas; however, haying was nearly completed in the south. Spring seeded crops suffered hail and water damage, and yields are expected to be 12 per cent below normal.

Saskatchewan and Manitoba: Recent heat wave and earlier dry spell have damaged crops in southeastern Saskatchewan and southern Manitoba. Up to 20 per cent reduction in yields are expected in these areas. Cooler temperatures and rain are urgently needed.

British columbia: Heavy rains of July caused severe splitting in the cherry crop. In the Okanagan Valley, peaches and apricots had low sugar content and scab infection was evident on apples. Recent dry weather allowed hay harvest to progress in all area. In the Fraser Valley, strawberries and blueberries were of poor quality this year.

STORM TRACKS



TEMPERATURE, PRECIPITATION AND BRIGHT SUNSHINE DATA FOR THE WEEK ENDING 0600 GMT AUGUST 16, 1983

STATION	TEMP				PRECIP		SUN
	Av	Dp	Mx	Mn	Tp	SOG	H
YUKON TERRITORY							
Dawson	12	- 1	23	5	24.1	M	M
Mayo A	13	0	23	4	28.6	M	M
Watson Lake	13	- 1	24	2	8.5	M	45.3
Whitehorse	12	- 1	21	5	13.7	M	32.9
NORTHWEST TERRITORIES							
Fort Smith	15	1	30	2	15.0	M	M
Inuvik	11	- 1	22	0	0.2	M	M
Norman Wells	13	- 1	27	6	4.3	M	15.9
Yellowknife	15	0	27	7	6.4	M	M
Baker Lake	12	1	26	2	45.2	M	M
Cape Dyer	3	- 2	10	- 2	15.0	0.0	M
Clyde	2	- 3	13	- 4	0.0	M	45.5
Frobisher Bay	6	- 1	14	1	26.4	M	16.6
Alert	1	- 1	9	- 3	0.0	0.0	32.6
Eureka	7	2	13	1	0.0	M	114.9
Hall Beach	4	- 1	9	1	M	M	M
Resolute	3	0	9	- 2	0.8	M	67.6
Cambridge Bay	7	- 1	13	1	2.1	M	19.4
Mould Bay	3	0	8	- 2	0.0	M	62.4
Sachs Harbour	M	M	10P	- 1	M	M	M
BRITISH COLUMBIA							
Cape St. James	15	2	21	12	8.5	M	M
Cranbrook	20	2	32	10	24.9	M	66.2
Fort Nelson	16	1	30	5	1.3	M	64.3
Fort St. John	16	1	29	6	0.4	M	M
Kamloops	23	2	37	11	3.9	M	M
Penticton	22	2	35	12	21.0	M	65.9
Port Hardy	15	1	20	9	2.6	M	M
Prince George	16	2	29	8	34.2	M	69.9
Prince Rupert	14	1	17	9	39.6	M	M
Revelstoke	20	1	29	11	36.4	M	M
Smithers	14	- 1	27	6	8.8	M	36.2
Vancouver	18	0	24	12	2.5	M	M
Victoria	17	0	25	9	0.2	M	75.7
Williams Lake	17	1	28	7	20.4	M	M
ALBERTA							
Calgary	19	3	31	5	M	M	75.9
Cold Lake	19	3	32	7	0.2	M	79.3
Coronation	20	4	33	9	6.6	M	84.5
Edmonton Namao	19	2	33	8	1.0	M	M
Fort McMurray	18	3	33	8	21.0	M	60.0
Jasper	17	3	30	8	14.4	M	53.0
Lethbridge	21	3	33	9	22.2	M	M
Medicine Hat	23	3	36	11	12.6	M	80.6
Peace River	16	1	30	6	8.2	M	M
SASKATCHEWAN							
Cree Lake	17	X	31	6	8.8	M	58.7
Estevan	23	4	36	11	2.8	M	85.6
La Ronge	19	3	30	7	10.4	M	M
Regina	21	3	34	8	1.6	M	86.9
Saskatoon	21	3	35	9	7.3	M	M
Swift Current	21	3	37	9	13.2	M	87.9
Yorkton	20	3	31	10	12.2	M	86.4
MANITOBA							
Brandon	21	3	32	9	0.8	M	M
Churchill	18	5	31	8	13.3	M	49.8
The Pas	20	3	30	10	1.5	M	77.2
Thompson	19	5	30	7	6.6	M	M
Winnipeg	M	M	33P	10	M	M	M
ONTARIO							
Big Trout Lake	19	4	28	9	21.5	M	M
Earlton	16	- 1	27	3	M	M	M
Kapuskasing	18	2	30	4	3.0	M	M
Kenora	22	4	32	15	3.1	M	M
London	17	- 3	26	8	30.2	M	M
Moosonee	17	2	30	3	1.0	M	M
Muskoka	16	- 2	27	5	0.0	M	M
North Bay	17	- 1	26	7	0.0	M	66.6
Ottawa	18	- 2	29	10	0.0	M	76.8
Pickle Lake	19	4	28	5	M	M	M
Red Lake	20	3	31	9	M	M	M
Sudbury	17	0	26	9	0.0	M	51.3
Thunder Bay	18	1	29	8	38.9	M	64.2
Timmins	16	0	29	2	3.2	M	M
Toronto	17	- 3	26	9	25.8	M	M
Trenton	16	- 4	26	8	6.0	M	M
Wiarton	17	- 2	26	7	0.4	M	51.1
Windsor	20	- 1	27	14	20.0	M	M
QUEBEC							
Bagotville	16	- 1	29	4	0.0	M	M
Blanc-Sablon	11	- 1	18	3	38.2	M	39.1
Inukjuak	9	0	14	4	16.0	M	27.7
Kuujjuaq	13	2	21	1	10.2	M	41.4
Kuujjuarapik	14	4	29	5	9.4	M	60.5
Manawaki	15	- 2	27	5	0.0	M	77.6
Mont-Joli	17	0	28	8	0.0	M	78.1
Montréal	17	- 3	28	9	0.0	M	65.9
Natashquan	13	- 1	21	5	24.0	M	61.9
Nitchequon	13	0	23	5	2.0	M	51.8
Québec	17	- 2	28	8	0.0	M	68.5
Schefferville	12	0	20	2	17.0	M	40.9
Sept-Iles	14	0	22	7	0.6	M	57.7
Sherbrooke	14	- 3	27	3	28.8	M	71.6
Val-d'Or	15	- 1	25	3	0.2	M	60.9
NEW BRUNSWICK							
Charlo	16	- 2	29	6	0.0	M	71.5
Fredericton	17	- 2	28	6	24.3	M	M
Saint John	16	0	26	9	37.8	M	49.3
NOVA SCOTIA							
Greenwood	17	- 3	27	7	48.4	M	M
Shearwater	16	- 2	22	10	38.9	M	34.5
Sydney	16	- 3	25	7	50.0	M	34.8
Yarmouth	16	0	24	9	M	M	M
PRINCE EDWARD ISLAND							
Charlottetown	16	- 3	25	9	22.9	M	M
Summerside	17	- 2	26	11	18.2	M	M
NEWFOUNDLAND							
Gander	15	- 1	24	7	43.0	M	M
Port aux Basques	14	- 2	20	7	54.2	M	M
St. John's	15	- 1	28	7	M	M	M
St. Lawrence	14	0	19	8	74.1	M	M
Cartwright	13	0	28	4	35.0	M	47.7
Goose	16	0	30	4	9.8	M	46.4
Hopedale	12	0	27	4	2.5	M	M

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