Issue 3 – June 1, 2023

Manitoba Potato Report

Weekly Provincial Summary

- Above normal temperatures (5-7^{O}C warmer than last year at the same time) and lack of rains in May are the highlights, weatherwise so far.
- Planting for the province is around 95% complete.
- Hilling and herbicide application is underway.
- Hot and drying winds are causing wind erosion in some sandy fields.

Overview

- Potato planting is almost complete. Despite delays, potato planting in Manitoba is expected to finish in the first week of June, compared to June 18 in 2022.
- Planting in the western and central potato areas of the province is 100% complete. The southern part of the province is just over 90% planted.
- With warm soils, sprout emergence is occurring rapidly. Close to 50% of fields have emergence, but only 25% of fields have 50% emerged plants.
- Regular weekly reports and other features will also be available at *http://www.mbpotatoes.ca/index.cfm*.

Ag Weather Data

Precipitation and Soil Moisture

- Precipitation (mm) in the month of May has been significantly low and 20-40% of normal in the potato growing areas of the province. (Fig. 1, Table 1). The rains at <40% of normal, are significantly below 30 year normal. This is leading to drying out of 0-30 cm soil depth in some areas and is rated optimal to very dry in potato growing areas.
  http://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-precipitation.pdf
- Soil moisture in the top 30 cm was optimal but starting to get very dry in the potato growing areas by May 28 (Fig. 2).
  https://www.gov.mb.ca/agriculture/weather/pubs/soil-moisture-30cm.pdf
- Substantial rain is needed across all potato growing regions of the province.
- Some rains are forecast in the coming few days but hot weather continues. The long-term forecast is for a warm growing season.

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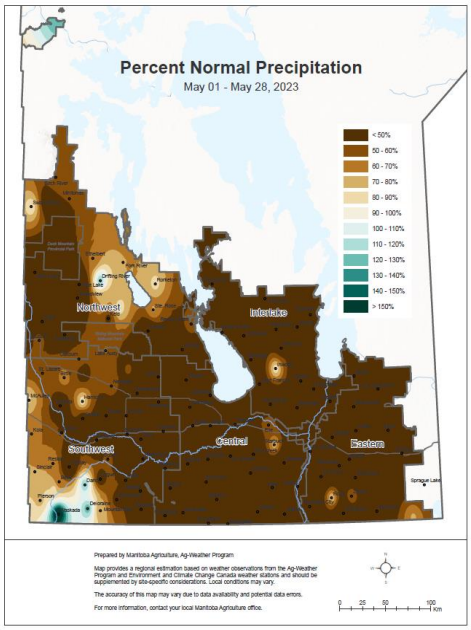

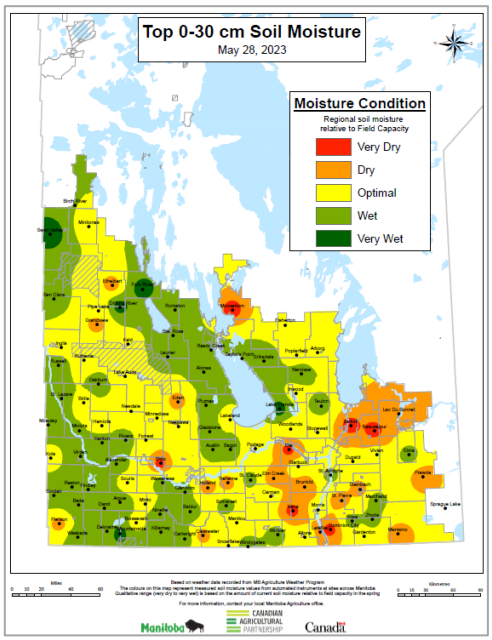

Fig.1.(far left) Rainfall (mm) in the month of May continues to be much below normal.

Fig. 2. Soil moisture (0-30 cm depth) by mid-May is optimal to very dry in potato growing areas of Manitoba.

Temperatures – Air & Soil

- In the potato growing areas, daytime high (max) temperatures for the week (May 22-28) ranged from 31-33^{O}C, while the minimum temperatures ranged from 3.1 to 6.5 ^{O}C (Table 1). The daytime highs were around 5-7^{O}C warmer than the same week in 2022.
- The GDD (Growing degree days with base 5^{O}C) is >125% above normal (Fig. 3), indicating we have a warmer start to the season. The crops without irrigation may soon show stress.
- As in last week, Winkler and Treherne had cooler (12-14^{O}C) soil temperatures at 5 cm depth, while other selected sites, like Shilo, Carberry, Portage and Carman warmed up substantially (17-20^{O}C) (Fig. 4).

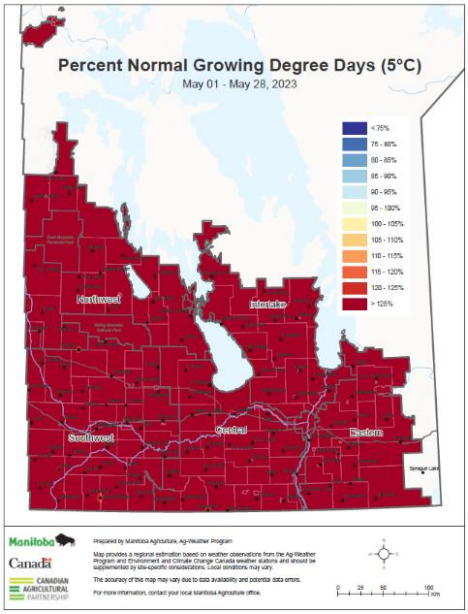

Fig. 3. Accumulated heat units, GDD (May 1-31) across Manitoba continues to be 125% above normal.

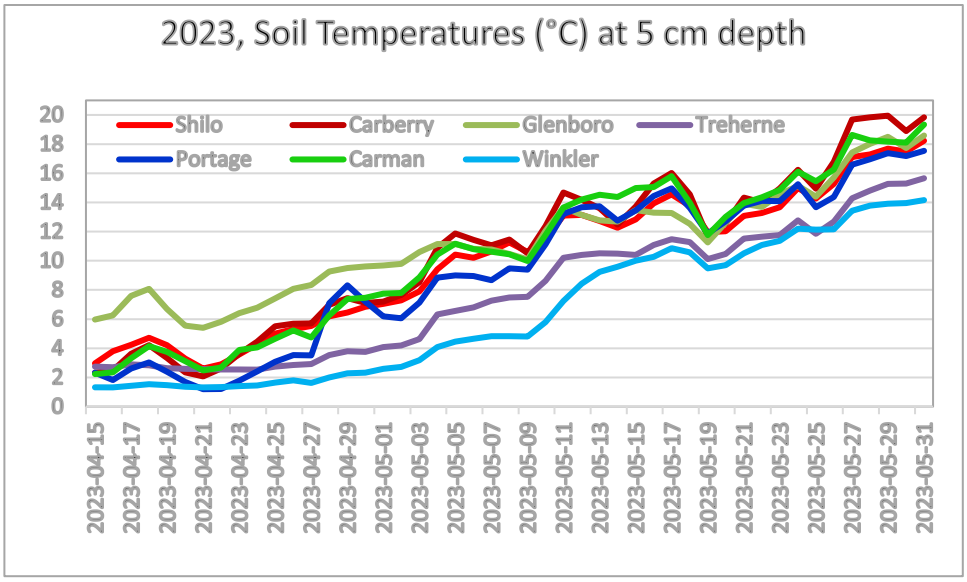

Fig. 4. Soil temperatures have continued to warm up and nearly 20^{0}C in Carberry and Carman.

Weather Data Summary for Selected Potato Site Stations

- The daytime highs in potato producing areas ranged from 31 - 33^{O}C. This has led to 125% above normal temperatures (GDD accumulation). The overnight low temperatures have been around 3-6^{O}C (Table 1).
- There was little to no rainfall this past week (May 23-28), which has led to all potato growing areas being significantly below normal for precipitation (20 to 40% of normal).

For more Manitoba weather information, visit: www.gov.mb.ca/agriculture/weather

Table 1. Manitoba Ag Weather Data – May 23 to 28 for selected potato growing areas.

Region	Max Temp (°C)	MinTemp (°C)	Rain (mm) for the week	Rain (Since May 1) (mm)	2023 Rainfall (% of normal) from May 1
Altona	31.4	5.5	0	9	19
Austin	32.1	3.4	0	10	23
Bagot	33.0	3.3	1.3	18	39
Carberry EC	31.7	3.2	3.1	12	25
Carman	32.3	4.9	Data	unavailable	
Cypress River	31.8	5.1	3.3	15	27
Glenboro	31.5	4.3	0.5	13	26
Holland	31.1	4.2	3.4	14	26
Morden	31.9	5.5	0.9	19	35
Portage EC	31.8	5.3	0	19	43
Rivers	30.6	6.5	0.3	12	31
Shilo	31.4	4.4	3.4	15	32
St. Claude	31.3	5.0	1.7	17	33
Treherne	31.9	4.8	1.9	14	27
Wawanesa	32.0	3.5	9.6	22	48
Winkler	32.4	4.8	2.2	15	26

Agronomics

- Planting operations are nearly complete.
- Close to 50% of fields are showing some emergence; only 25% of fields have 50% emerged plants.
- Hilling and pre-emerge herbicide applications are ongoing.
- Wind erosion is already quite noticeable in some sandy fields (Fig. 5) due to strong winds, lack of rains and warm soils. Some new fields of "direct planting into previous year's stubble" have gone in with one of the objectives being to prevent wind-erosion soon after planting.

Fig. 5. Wind erosion in 2023 in a sandy field. Photo courtesy: Scott Graham (Simplot).

Crop Progress

- The first crop emergence was reported May 22. By May 28, about 40-50% of the fields were showing some emergence. About 25% of the fields have 50% emergence.
- It is expected that by June 2 about 50% of the Manitoba fields will have 50% or more emergence. June 1 is the normal date for 50% emergence of Manitoba potatoes.
- Hilling and pre-emerge herbicide application is ongoing.

Disease & Insect Pests Monitoring

- No issues reported yet.
- Verticillium early dying survey will be conducted in selected fields across Manitoba.
- Plants will be monitored for disease pressure throughout the season.

Late Blight Monitoring

Information

- Late blight risk forecasting will be provided on a regional basis. Please refer to the risk maps on www.mbpotatoes.ca.
- Late Blight Monitoring will occur again this year with weekly updates when plant stage and conditions are optimum for disease transmission.
- As in earlier years, there will be a network of passive traps for late blight spores, across Manitoba. Anyone interested in joining the spore trap network is quite welcome, especially those who make recommendations for late blight management on the farms. **Sporonado spore trap cassettes have been distributed to the cooperators.**
- If you suspect late blight in your area, please contact vikram.bisht@gov.mb.ca

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