

Issue 19 – September 21, 2023

Manitoba Potato Report



Weekly Provincial Summary

- The week (Sept 11-17) was generally cooler than last week with daytime highs ranging from 23.6 to 25.2°C, and the overnight lows ranged from 2.7 to -2.1°C in potato areas.
- The rainfall recorded in most of Manitoba potato areas ranged from 0.9 to 13.2 mm.
- Crop water demand for potato in the week ranged from 16 to 22.3 mm.

Overview

- In potato growing areas, daytime high temperatures ranged from 23.6 to 25.2°C, which is much cooler than last week; while overnight temperatures dipped to 2.7 to -2.1°C.
- Some rainfall was recorded in the week ranging from 0.9 to 13.2 mm across Manitoba.
- Harvest for storages is in full swing. Harvesting status of farms ranges from just started to about 75% harvested. The Manitoba overall estimate would be just over 50% acres harvested. Yield estimates appear to be 10-15% higher than last year.
- Crops are in maturation phase. Potato raw delivery to the processors is still ongoing for 6th week “direct-from-field” resulting from better than projected yields.
- The late blight risk this week again was low for most of the province. No late blight has been reported in Manitoba.
- Early dying complex increasing in severity and incidence has desiccated large portions of many potato fields.
- Regular weekly reports and other features will also be available at: <http://www.mbpotatoes.ca/index.cfm>.

Ag Weather Data

Precipitation and Soil Moisture

- There was some rainfall in the week in most of the province (Table 1), and more in western potato areas of the province. Cumulative rainfall for the week ranged from 0.9 to 13.2 mm.
- The cumulative precipitation for the growing season to-date is much below normal, mostly ranging from 37 to 68%; with the exception of Rivers (84%). (Table 1).
<http://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-precipitation.pdf>
- After the scant rain, the soil moisture status in the province become drier compared to last week - generally dry to very dry category at 0-30 cm soil depth across Manitoba (Fig. 1).
<https://www.gov.mb.ca/agriculture/weather/pubs/soil-moisture-30cm.pdf>

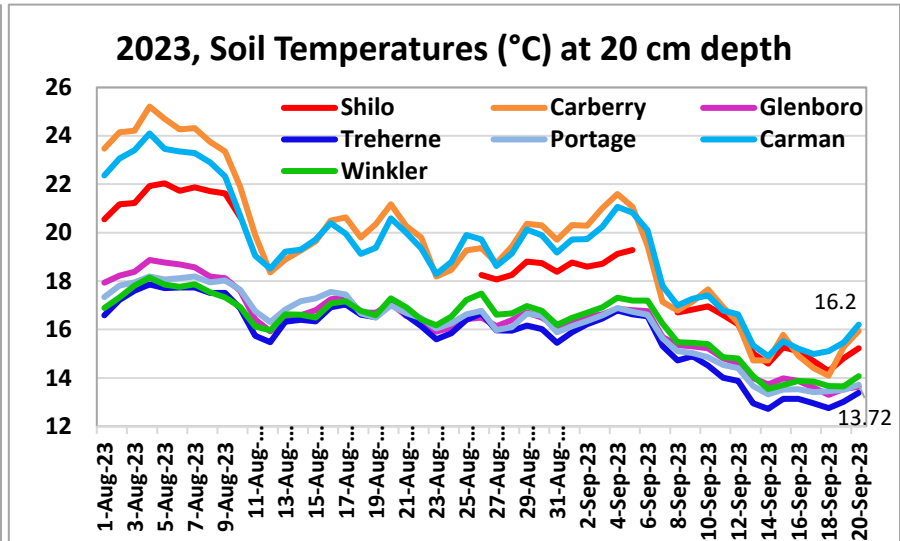
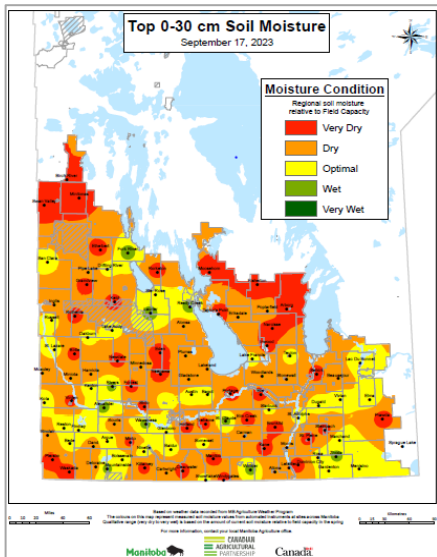


Fig. 1. (Left). Soil moisture (0-30 cm depth) by Sept 17 became drier compared to last week: generally dry to very dry due to scant rains in the week. Crop water demand for potatoes continues to be high.

Fig.2. (Right) Soil temperatures by Sept 17 at 30 cm depth at selected potato areas weather stations, are now 13-16°C.

Temperatures – Air & Soil

- The daytime high temperatures during the week were low, up to 15°C but became warmer towards Sept 17, and hotter by Sept 19 (not included in the week’s data). The week was generally cooler than last week, with daytime highs from 23.6 to 25.2°C. The overnight minimums also were much lower than last week’s, ranging from 2.7 to -2.1°C (Table 1).
- Overnight below zero (slightly below zero) temperatures were observed on Sept. 12 causing minor frost injury to the foliage but no apparent tuber damage.
- The P-Days (Potato Days with base 7°C and 30°C max) has reached 800 to 840 in different potato areas (www.mbpotatoes.ca) by September 17. The P-Days range from 100 to 110% above normal in the potato areas.
- Soil temperatures at 30 cm depth have reduced to or below 16°C in most potato areas; by September 17 (Fig. 2). Shilo, Carberry and Carman were warmer at around 16°C; Treherne was the coolest. Warm soils with high moisture favour pink rot and Pythium leak diseases; secondary infection with soft rot bacteria often follows.

Weather Data Summary for Selected Potato Site Stations

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

Table 1. Manitoba Ag Weather Data – Sept 11-17 for selected potato growing areas.

Region	Max Temp (°C)	Min Temp (°C)	Rain (mm) for the week	Crop Water Demand this Week	Rain (Since May 1) (mm)	Crop Water Demand Jun 1-Sep17	2023 Rainfall (% of normal) May 1 to Sep17
Altona	24.2	1.4	1.7	-	117	-	37
Austin	24	0	4.1	20.9	191	367.4	63
Bagot	24.6	-1.1	0.9	22.0	139	366.4	46
Carberry EC	24.2	-1.0	3.0	18.7	165	308.2	56
Carman	24.2	1.4	2.7	16.0	182	331.1	60

Cypress River	24.2	-0.9	3.3	-	161	-	49
Glenboro	24.0	-1.4	5.3	19.3	189	329.6	63
Holland	24.1	-1.4	5.2	22.7	172	404.7	52
Morden	24.6	2.7	2.0	-	95	-	30
Portage EC	24.8	0.6	7.2	22.1	129	415.0	43
Rivers	24.3	1.7	13.2	22.3	217	358.2	84
Shilo	24.5	0.0	9.9	No Data			
St. Claude	23.6	1.2	4.4	20.2	153	375.0	51
Treherne	23.8	-2.1	3.5	21.4	103	389.8	34
Wawanesa	25.2	-1.9	8.2	18.2	201	340.1	68
Winkler	25.1	1.2	3.4	17.6	152	359.5	49

* Shilo weather station was down from Aug 10 to 24.

† Crop Water Demand: *cwd* (www.mbpotatoes.ca)

Agronomics

- Crop water demand (CWD) for the week was 16 to 22.3 mm in different potato areas (Table 1); and the rainfall was not enough to meet the CWD.
- P-Days are 100 to 110% of normal, and by September 17 were around 800 to 820 in most potato growing areas ([P-Days \(mbpotatoes.ca\)](http://mbpotatoes.ca)).
- Irrigation is being applied in a number of fields to aid in harvesting in dry fields.

Crop Progress

- There were a few top leaves affected by minor frost overnight on Sept 12 (in mostly western potato growing areas), but the lower canopy was unaffected.
- Crops are in maturation phase, and large swaths are drying up do to scant rains and warm temperatures. Tuber qualities have been reported to be good so far.
- Harvest for storage is in full swing and over 50% of Manitoba potato acres have been harvested; with some farms just starting while others are nearly 75% finished.
 - Warm temperatures in the last few days had slowed harvest, due to tuber temperatures approaching 17°C ($\geq 62^{\circ}\text{F}$)
 - Irrigation was needed in some fields to help lifting of potatoes by harvesters.
- Delivery of raw material for processing “direct-from-field” is still continuing for the 6th week in a row, resulting from higher than expected early yields.

Disease & Insect Pests Monitoring

- Verticillium wilt, which is an endemic problem, is taking down many fields. A survey for early dying (Verticillium wilt & Black dot) status in various fields is being conducted using drone imaging.
- With soil temperatures cooling down in many potato areas, the conditions will be less favourable for pink rot and leak at this stage.
- Minor incidences of diseases (Fig. 3) like black scurf, lenticel enlargement and soft rot in high moisture spots in a field. Powdery scab (PS) infected root galls were observed in a couple of fields (Fig. 4). Early symptoms of PS development were also noted.



Fig.3. Tuber diseases. a: Early black scurf, b: lenticel enlargement in high moisture soils; c: Early soft rot in newly harvested tubers. Photo: Vikram Bisht (Manitoba Agriculture).

Fig.4. Powdery scab: a, b: root infection galls were observed in a couple of fields; c: New scab lesions on tuber. Photo: Vikram Bisht (Manitoba Agriculture).

Late Blight Monitoring

- The 7-Day Disease Risk values are pointing to low risk of late blight disease ([Late Blight \(mbpotatoes.ca\)](https://www.mbpotatoes.ca/late-blight)) due to scant rains and strong drying winds.
- No late blight or spores in traps have been reported in Manitoba this season.

Weather Forecast

- Rains: The 10-day forecast ([Weather \(mbpotatoes.ca\)](https://www.mbpotatoes.ca/weather)) and (<https://weather.gc.ca/>) in short: there could be widespread rain/drizzle around Sept 21-24 and again around Sept 28.
 - Forecast for rains indicates 6 to 12 mm rain in western parts of Manitoba (Rivers, Shilo, Wawanesa, Glenboro) on Sept 23, with some drizzle for a day or two. There was some rain (≥ 4 mm) on Sept 20th in Rivers.
 - Central potato areas (Holland, Treherne, St.Claude) rain and some drizzle around Sept 23, and drizzle Sept 28 onwards.
 - In Austin, Bagot, Portage areas – Sept 23 and 29th may have some rain/drizzle.
 - In the southern potato areas – Carman may have rain/drizzle Sept 21 to 24, and then Sept 29; Winkler forecast Sept 21 & 23rd.
- Temperature: There is no frost forecast for the next 10 days. <https://weather.gc.ca/>

If you suspect late blight in your area, please contact vikram.bisht@gov.mb.ca