

Issue 18 – September 14, 2023

Manitoba Potato Report



Weekly Provincial Summary

- The week (Sept 4-10) was generally cooler than last week with daytime highs ranging from high 20s to 31°C, but later cooled down to low 20s in various potato areas. The overnight lows ranged from 2 to 6°C.
- There was some rainfall recorded in most of Manitoba, mostly on Sept 4 and 5.
- Crop water demand for the week ranged from 17 to 25 mm at different potato areas.
- Crops were still being regularly irrigated where needed.

Overview

- In Potato growing areas, daytime high temperatures ranged from 26.1 to 31.3°C, with Winkler as an outlier at 34.1°C. Overnight temperatures dipped lower than last week.
- There was some rainfall recorded in the week (Sept 4-10), mostly on September 4 & 5, ranging from 6 to 23 mm.
- Crops are in maturation phase. Potato raw delivery to the processors is still ongoing for 5th week “direct-from-field” resulting from better than projected yields.
- Harvest for storages is in full swing. Harvesting status ranges from yet to start to about 50% harvested to-date. The Manitoba overall estimate would be over a third harvested. Yield estimates appear to be 10-15% higher than last year to possibly the highest in the last 10 years.
- The late blight risk this week again was low for most of the province. No late blight has been reported in Manitoba.
- Early dying in potato is increasing in severity and incidence in 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) mostly on the 4th and 5th of September. Cumulative rainfall for the week ranged from 17 to 24.6 mm.
- The cumulative precipitation for the growing season to-date is much below normal, mostly ranging from 38 to 70%; with the exception of Rivers (81%). (Table 1, Fig. 1).
<http://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-precipitation.pdf>
- Even after the rain, the soil moisture status in the province has not changed much from last week’s generally optimum to very dry category at 0-30 cm soil depth across Manitoba (Fig. 2).
<https://www.gov.mb.ca/agriculture/weather/pubs/soil-moisture-30cm.pdf>

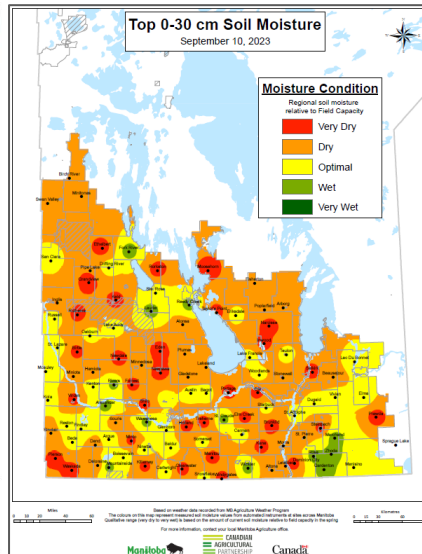
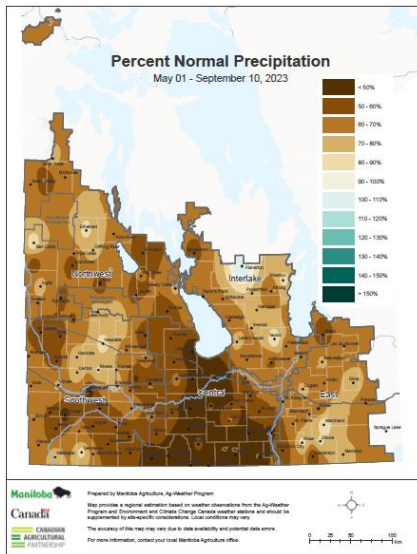


Fig. 1. (left). Rainfall (mm) in May to Sept 10 continues to be significantly below normal in most of the potato growing areas, generally <50 to 75% of normal. The map has not changed much from last week.

Fig. 2. (right). Soil moisture (0-30 cm depth) by Sept 10 stayed similar to last week: optimum to very dry due to lack of rains in the week. Crop water demand for potatoes continues to be high.

Temperatures – Air & Soil

- The daytime high temperatures during the week were lower than last week and generally ranged from 26.1 to 31.3°C, with exception of Winkler at 34.1. The overnight minimums also were much lower than last week's, ranging from 2.4 to 6.2°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 (data not included in this week's weather report).
- The P-Days (Potato Days with base 7°C and 30°C max) has reached 750 to 800 in different potato areas (www.mbpotatoes.ca) by September 10. The P-Days range from 100 to 110% above normal in the potato areas - indicating Manitoba has sufficient heat units for the potato crop.
- Soil temperatures at 30 cm depth have reduced to below 16°C in most potato areas; by September 16 (Fig. 3). Shilo, Carberry and Carman were warmer; Treherne was the coolest. Warm soils with high moisture favour pink rot and Pythium leak diseases.

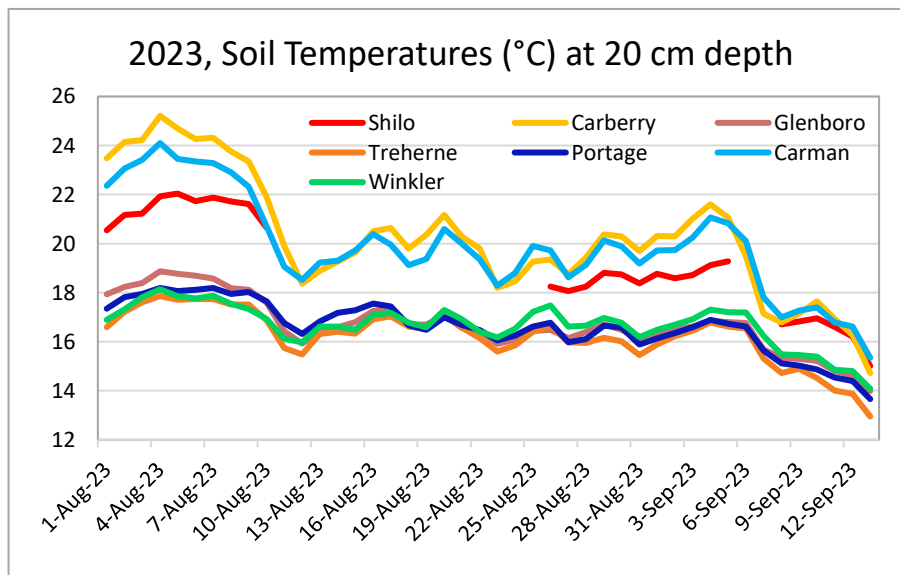


Fig.3. Soil temperatures at 30 cm depth at selected potato areas weather stations, are now 13-16°C.

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 4-10 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-Sep 10	2023 Rainfall (% of normal) from May 1 to Sep 10
Altona	31.3	4.9	20.9	-	116	-	38
Austin	26.4	5.6	13.9	19.6	187	346.5	65
Bagot	26.1	3.1	11.6	20.3	139	344.4	48
Carberry EC	27.4	3.3	14.6	17.0	162	289.6	56
Carman	29.5	5.6	18.9	19.5	179	315.0	61
Cypress River	26.7	3.0	16.1	-	158	-	50
Glenboro	28.0	3.2	23.0	19.5	184	310.3	64
Holland	26.7	2.8	12.8	23.7	167	382.0	53
Morden	30.9	6.2	12.9	-	93	-	31
Portage EC	26.1	3.4	6.6	20.8	121	392.9	42
Rivers	27.1	4.9	8.6	22.0	204	336.0	81
Shilo	24.7	4.6	6.5	No Data			
St. Claude	27.0	5.8	9.4	22.5	148	354.8	51
Treherne	26.8	2.4	6.0	22.0	100	368.4	34
Wawanesa	28.2	2.4	9.0	18.9	193	321.9	67
Winkler	34.1	5.1	19.9	24.6	148	341.9	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 17 to 24.6 mm in different potato areas; and much lower than last week (Table 1).
- P-Days are 100 to 110% of normal, and by September 10 were around 750 to 800 in most potato growing areas ([P-Days \(mbpotatoes.ca\)](http://mbpotatoes.ca)), suggesting maturation phase. The day and night temperature differential is good for bulking.

Crop Progress

- After a few hot days, the high daytime temperatures have dropped into low 20s or below. Many fields are turning lighter green to yellow with maturity.
- Crops are in maturation phase. Tuber qualities have been reported to be good so far.
- Delivery of raw material for processing “direct-from-field” is still continuing for the 5th week in a row, resulting from higher than expected early yields.
- Harvest for storage is in full swing (Fig. 4 & 5). About one third of Manitoba potatoes acres have been harvested; with some farms yet to start while others are nearly 50% finished.
- Seed fields, which were desiccated two weeks ago, are now being harvested (Fig 5).



Fig.4. Harvesting of processing potatoes. a: Windrowed potato ready to be picked up by the harvester – Kurtis McKee (JP Wiebe Farms) b: Drone images potato field harvest. Photos: Vikram Bisht (Manitoba Agriculture).

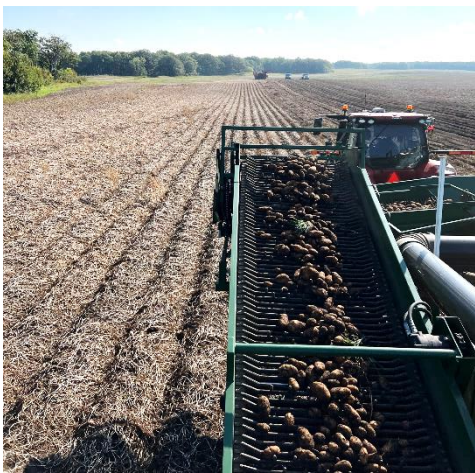


Fig.5. Seed potato field harvest. Photo: Dave Adriaanson (Adriaanson farms).

Disease & Insect Pests Monitoring

- Verticillium wilt, which is an endemic problem in many fields, is appearing to be more widespread and severe as the crops are nearing maturity. A survey for early dying (Verticillium wilt & Black dot) status in various fields is being conducted using drone imaging. Fields with varying levels of disease can be observed; but early dying appears to be more severe as the crops near harvest.
- With soil temperatures cooling down in many potato areas, the conditions will be less favourable for pink rot and leak at this stage.
- Minor incidence of wireworm damage has been reported (Fig 6). Wireworm is a minor issue in Manitoba, but number of reports have been increasing.



Fig.6. Wireworm damage on potato in Manitoba. Photo: Anonymous.

Late Blight Monitoring

- Due to minor rains during the week, hot daytime temperatures and strong drying winds, the 7-Day Disease Risk values are pointing to very low risk of disease, if the inoculum were present.
- No late blight was reported in Manitoba. Also, there were no late blight spores reported during the season.
- Late blight was first reported from Mauricie, Quebec on July 25; it later spread to more potato and tomato fields due to frequent rains. Alliston, ON had earlier reported late blight on potato on July 17.

Weather Forecast

- In the coming week (up to Wednesday, Sept 20), there is no rain forecasted for the potato growing areas of Manitoba, except Friday Sept 15 with some areas having low probability of rain. There is a 60% probability of rain on the Sept 21 in some potato areas. During this period, there is forecast for daytime highs in the low-mid 20s°C, and minimums forecast around 5-6°C. <https://weather.gc.ca/>

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