

# Issue 21 – September 25, 2024

## Manitoba Potato Report



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### Provincial Summary

- Heavy and widespread rains in the province from Sept. 16 to 18 helped improve the soil moisture for harvesting in most of the province, except south of Winkler, and a few fields with heavy soils. There was more rain on Sept. 22, mainly in western parts of the province.
- The cumulative precipitation from May 1 to Sept. 22 is still above the 30-year normal, ranging from 106 to 202% of normal in the potato growing areas. In the top 0-30 cm zone, soil moisture relative to field capacity generally became wetter in potato growing areas. No supplemental irrigation was needed.
- P-Days range from 860-930 in agro-Manitoba and are 110 to 120% of normal in potato areas.
- Harvest in the province is estimated to be about 40% complete, and ranges from 5% to 60% at various farms. Weather forecast indicates sunny conditions with high day time temperatures and no rain until Sept. 30. No frost is expected until Oct. 8.
- There is no report of late blight in Manitoba.
- “Potato early dying”, caused by *Verticillium* wilt and black dot, is being reported from more fields.
- Regular weekly reports are also available at <http://www.mbpotatoes.ca/index.cfm>. The site has SPRAYcast® that provides a 3-day spray advisory weather forecast for selected sites.

### Ag Weather Data

#### Precipitation and Soil Moisture

- This week, there were heavy rains on Sept. 16 to 18, especially in the south-eastern potato growing areas, including Winkler. On Sept. 22 there was widespread rainfall mostly in the western potato growing areas of the province.
  - Thunderstorms were particularly severe in the Winkler area, with rainfall of 133.5 mm on Sept. 16 and 17 (Table 1, Fig. 1, 2).
  - On Sept. 21-22 there was more rainfall in the western potato growing areas, like Shilo, Carberry, and Treherne as compared to the eastern potato growing areas.
- The week’s cumulative rainfall was significant across the province, and ranged from 21.6 mm (Rivers) to 162 mm (Winkler) (Table 2, Fig. 2). [Province of Manitoba | agriculture - Weather Conditions and Reports \(gov.mb.ca\)](http://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-precipitation.pdf).
- The cumulative rains from May 1 to Sept. 23 are still above the 30-year normal, ranging from 106% (Glenboro) to 202% (Winkler) at the selected sites (Table 2). <https://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-precipitation.pdf>
- With the recent rainfall, soil moisture relative to field capacity has increased and is now optimal to wet as compared to optimal to dry last week (Fig. 3 a,b). [Soil-moisture-30cm.pdf \(gov.mb.ca\)](#). The 0 to 120 cm zone ranges from optimal to wet in potato growing areas, as displayed on the [Soil-moisture-120cm.pdf \(gov.mb.ca\) map](#).

Report compiled by Dr. Vikram Bisht  
Potato and Horticulture Crop Pathologist, Manitoba Agriculture  
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Table 1. Special weather bulletin after heavy rains on Sept. 16 / 17. Most rainfall was recorded at the stations listed below.

Station	Rain (mm)	Heaviest Rain Duration
Winkler	133.4	79.9 mm in 6 hrs (1 pm – 7 pm Sept 16)
Elma	206.4	105.5 mm in 3 hrs (11 am – 1 pm Sept 17)
Steinbach	155.3	76.2 mm in 3 hrs (8 am – 11 am Sept 17)
St. Pierre	167.1	112.0 mm in 6 hrs (4 am – 10 am Sep 17)
Richer	161.5	87.0 mm in 3 hrs (8 am – 11 am Sept 17)

Fig. 1. Heavy rains and thunderstorms passed through Winkler on Sept 16 and 17. Screen shot from Storm Radar (the weather channel) showing heavy rains passing through Winkler on Sept. 16. Vikram Bisht (Manitoba Agriculture).

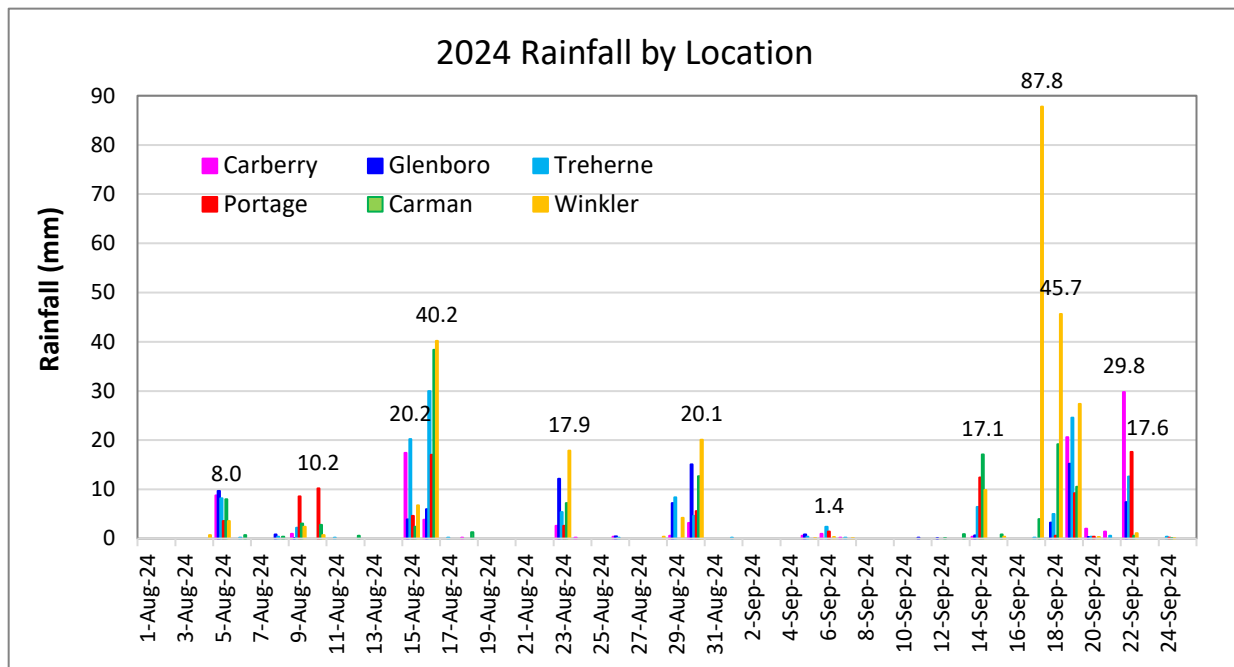


Fig. 2. There was heavy rainfall on Sept. 16 to 18 especially in the Winkler area, and again on Sept. 22 in the potato growing areas of the province.

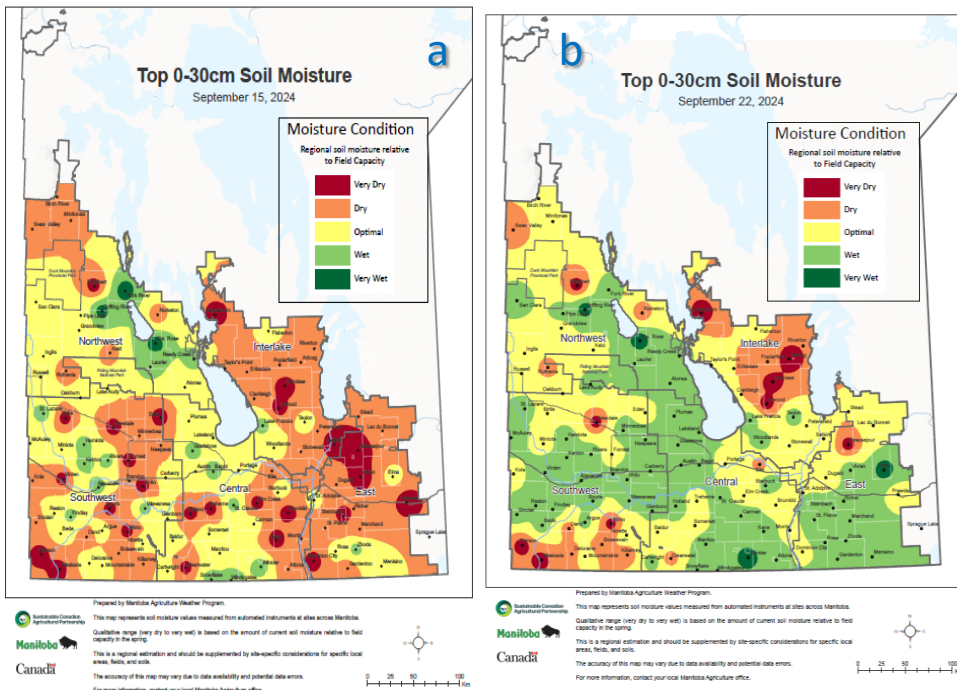


Fig. 3 a: By Sept. 15, due to lack of substantial rains in the previous three weeks, the soil moisture (relative to field capacity) in 0-30 cm zone had become optimum to dry.

3 b: Heavy rains on Sept. 16 / 17 changed soil moisture to optimum to wet in the potato growing areas.

Supplemental irrigation was not needed in the week, Sept. 16 - 22.

## Temperatures – Air and Soil

- Daytime high temperatures from Sept. 16 to 22 were 2 to 4 °C lower than the previous week, ranging from 24.2 °C (Treherne) to 26.3 °C (Carberry) (Table 2).
- Overnight lows were generally around 4 to 5 °C cooler than last week, and ranged from 0.4 °C (Wawanesa) to 7.0 °C (Winkler) (Table 2). The low overnight temperatures helped lower the tuber pulp temperatures being brought into storage.
- Total accumulated heat units for potato growth, P-Days (Potato Physiological days) from June 1 (50% potato emergence) to Sept. 23 ranged from 860 to 930 in the potato growing areas. ([P-Days \(mbpotatoes.ca\)](#); <https://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-p-day.pdf>). This is 110 to 120% of normal P-Day accumulation at this time of the season.
- Soils are still warm at around 14 -19 °C. Warm soils with high moisture have high risk of tuber rotting.

## Weather Data Summary for Selected Potato Site Stations

- The “potato crop water demand” (CWD) for the week was much lower than the rainfall received and no supplementary irrigation was needed at any of the potato sites (Table 2). CWD for the week ranged from 17.4 to 22.0 mm in the selected potato sites.
- According to the Environment and Climate Change Canada (ECCC) current weather forecast, there is no precipitation until Sept. 30. Forecast for air temperature highs are projected to be around mid to high 20s °C by Sept. 26-27; and overnight lows from 3 to 13 °C. [Manitoba - Weather Conditions and Forecast by Locations - Environment Canada](#). No frost is expected until Oct. 8 ([Weather \(mbpotatoes.ca\)](#)).

Table 2. Manitoba Ag Weather Data – September 16 – 23

Region	Max Temp (°C)	Min Temp (°C)	Rain (mm) for the week	Crop Water Demand (mm) for the week	Rain (mm) (Since May 1)	2024 Rainfall (% of normal) since May 1
Altona	26.0	4.8	70.0	NA	438	136
Austin	24.9	4.5	53.7	20.1	425	137
Bagot	24.4	4.2	62.7	17.7	448	145
Carberry EC	26.3	3.7	47.7	17.4	389	128
Carman	25.5	5.2	34.0	14.9	444	142
Cypress River*						
Glenboro	26.2	2.8	26.0	18.0	329	106
Holland	25.6	2.9	50.4	22.0	397	118
Morden*						
Portage EC	24.3	6.0	33.8	20.6	390	126
Rivers	25.9	2.1	21.6	20.4	332	124
Shilo	26.0	3.0	66.4	23.5	433	143
St. Claude	24.6	6.5	40.9	18.1	413	134
Treherne	24.2	3.3	41.5	17.5	412	133
Wawanesa	26.0	0.4	50.6	20.1	387	127
Winkler	25.7	7.0	162	17.2	644	202

For more Manitoba weather information, visit: [www.gov.mb.ca/agriculture/weather](http://www.gov.mb.ca/agriculture/weather)

\* Data was unavailable. NA – Crop water demand data not available.

## Crop Progress

- All potato crops are in maturation stage.
- Harvest in the province is estimated to be about 40% complete, and ranges from 5% to 60% at various farms. Umatilla, Rangers and Russet Burbanks are now also being brought into storage. Yields are average to better than average.
- Most Ranger Russets are turning color and are being harvested for “direct to processing”.
- Supplementary irrigation was not needed for any potato sites since crop water demand was easily surpassed by the heavy rains across the province.
- Tuber pulp temperatures at harvest are now less than 60 -63 °F (15.5 to 17 °C) in irrigated fields. The forecast for warm temperatures up to Sept. 29, may again disrupt harvest as earlier.
- Due to widespread rainfall in the province, the soil moisture improved harvest conditions, however it was tough harvesting in Winkler, and heavy and wet fields in a few other areas.
- Weather forecast indicates sunny conditions with high day time temperatures and no rain until Sept. 30, so the harvest conditions should be good. However, high day time temperatures may increase the tuber pulp temperature and interrupt harvest.
- There is no frost expected until Oct. 8, allowing an extended harvest period.

## Disease Monitoring

- Potato early dying (PED) caused by verticillium wilt and black dot diseases is now more severe with crop maturity. Russet Burbank is showing more verticillium wilt related early dying than Ranger Russet.
- Powdery scab on roots continue to be reported from more fields.
- Many Russet Burbank crops are showing early dying at various levels of severity.
- Recent heavy rainfall in some areas, has increased the risk of tuber rot in wet fields.

## Late Blight Monitoring

### Monitoring and Forecasting

- Currently, for **Late blight Disease** Severity Values (DSVs), the cumulative 7-Day DSV numbers on Sept. 24, suggest low to moderate risk of late blight at various potato growing areas of Manitoba, if the inoculum is present. No late blight spores were trapped this season.
- No late blight has been reported in the province.
- Late blight risk maps, P-Days, and SprayCast maps are available at <http://www.mbpotatoes.ca/index.cfm>.

Growers and industry stakeholders, please report or submit for diagnosis, any disease or insect observations of importance. If you suspect late blight in your area, please contact [vikram.bisht@gov.mb.ca](mailto:vikram.bisht@gov.mb.ca), or 204-745-0260.