Issue 6 – June 14, 2024

Manitoba Potato Report

[Seasonal Reports](#) [Weekly Weather Maps](#) [Potato Production](#)

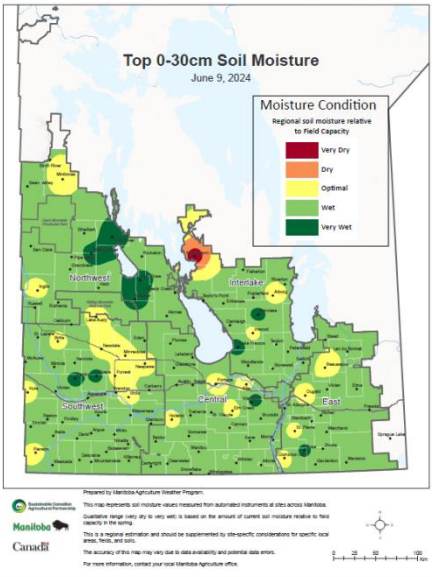
Provincial Summary

- Potato planting in Manitoba was completed on June 7.
- Rains, so far, are 165 to nearly 227% of normal in potato growing areas. Due to wet or high moisture in hills, there are more reports of minor incidences of seed rot.
- Most potato fields are doing very well, with crops just emerging to about 6 inch height. Over 75% of the fields are estimated to have emergence.
- Regular weekly reports with updates on disease and insect pests, including late blight risk forecasts on potatoes will also be available at http://www.mbpotatoes.ca/index.cfm. The site also carries SPRAYcast®, providing 3-day spray-advisory weather forecasts for selected sites.

Ag Weather Data

Precipitation and Soil Moisture

- The top 30 cm was generally wet by June 9, with few potato growing areas becoming optimal with respect to field capacity (*Fig.1*). The 0-120 cm depths also showed wet conditions relative to field capacity (*Fig. 2*). https://www.gov.mb.ca/agriculture/weather/pubs/soil-moisture-30cm.pdf and https://www.gov.mb.ca/agriculture/weather/pubs/soil-moisture-120cm.pdf.
- After heavy rains on May 25, there have been frequent rain events which kept the soil moisture high. Precipitation (mm) in May and up to June 9 was above normal across agro-Manitoba, ranging from 165% (Altona) to 227% (Carman) in the selected sites (*Table 1*). https://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-precipitation.pdf. After May 27, scattered rains on June 3, 11 and 13 (Fig. 3) created many wet spots in potato fields in many areas of Manitoba.



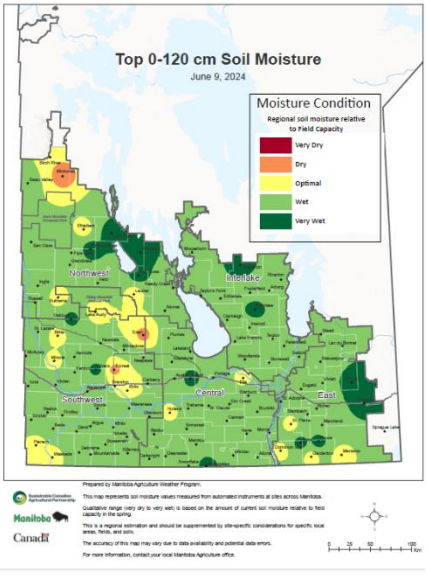


Fig. 1 (left): 0-30 cm depth and Fig. 2 (right): 0-120 cm depths: show generally wet conditions, with patches of optimal soil moisture conditions on June 9 relative to field capacity. Larger areas of soil had become drier compared to last week at both depth profiles.

Province of Manitoba | agriculture - Weather Conditions and Reports (gov.mb.ca)

Report compiled by Dr. Vikram Bisht
Potato and Horticulture Crop Pathologist, Manitoba Agriculture
Subscribe to the weekly Potato Report

Manitoba

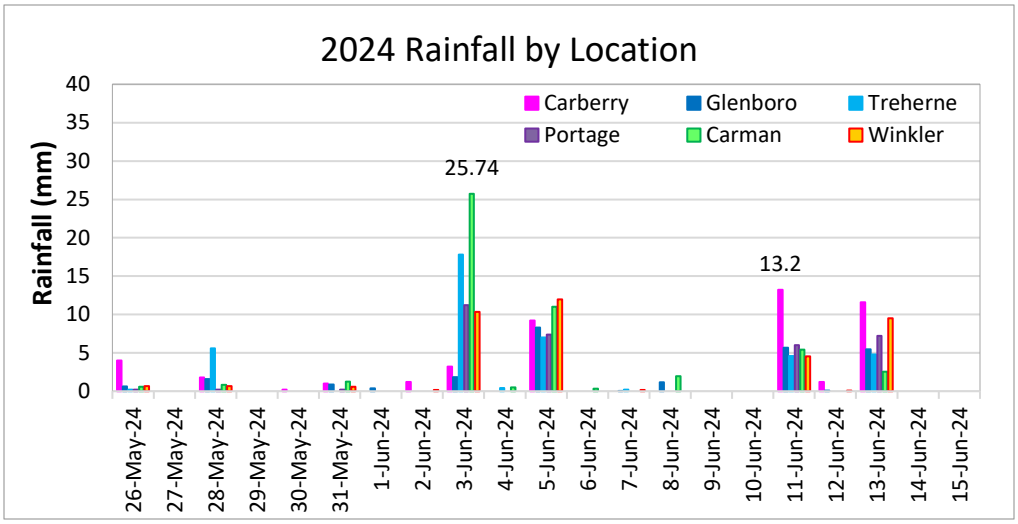


Fig. 3. Heavy and widespread rain on May 25 were followed by scattered rains on June 3, 11 and 13, leading to many wet fields across Manitoba. Strong winds dried the soil surface, and in sandy soils caused stem injuries.

Temperatures – Air and Soil

- The heat accumulation in terms of GDD from May 1 to June 9 has been below normal (Fig. 4) due to a cool May and ranged from 85 to 100% of normal. https://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-gdd.pdf
- However, Potato Physiological days (P-Days), useful cumulative heat units for potato growth between 7 and 30 ^{O}C was slightly above normal during the first week in June (*Fig. 5*). https://www.gov.mb.ca/agriculture/weather/pubs/percent-normal-p-day.pdf
- The daytime high temperatures (June 3 to June 9) ranged from 21.8 (Treherne) to 25.3 ^{O}C (Winkler) (*Table 1*) and overnight lows ranged from temperatures 3.4 (Rivers) to 7.4 ^{O}C, (Portage).
- Soil temperatures have warmed up at 5 cm and 20 cm depths, especially in June.

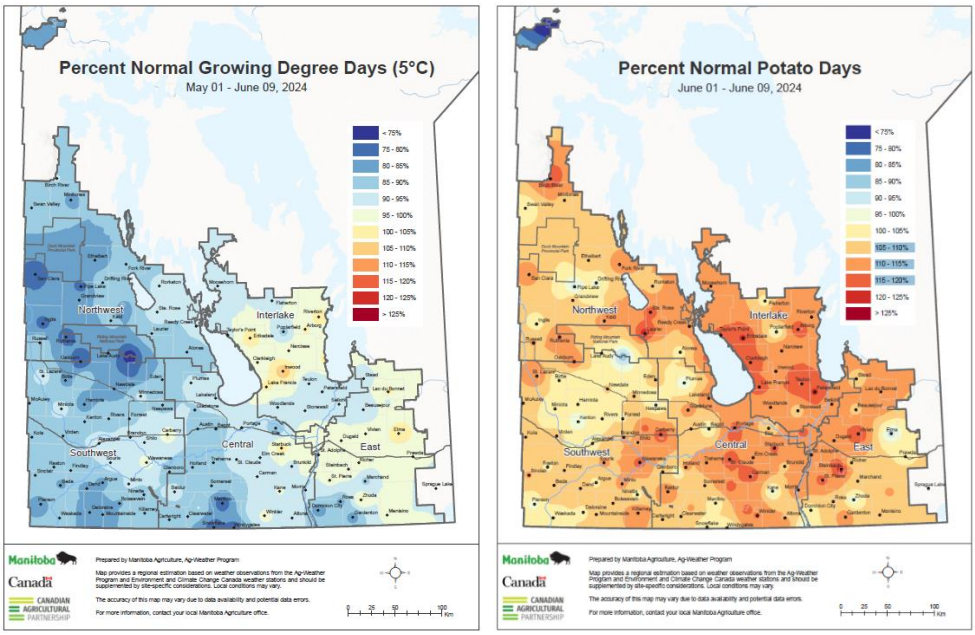


Fig. 4 (left). Growing Degree Days (GDD base 5) from May 1 to June 9, has been generally below normal, ranging from 85 to 100% of normal in potato growing areas.
Fig. 5 (right): showing above normal P-days from June 1 to 9.

Manitoba

Weather Data Summary for Selected Potato Site Stations

- The week (June 3 - 9) has been a bit cooler than the previous week (Table 1).
- The week's rainfall ranged from 4.3 (Austin) to 20.4 mm (Rivers). Rainfall was less than last week's, but the cumulative rainfall (May 1 to June 11) was still 165 to 227% of the 30-year normal.
- The last few days has been marked by a few thunderstorms (Fig. 6 a, b, c), with strong winds and scattered showers.
- According to the Environment and Climate Change Canada (ECCC) weather forecast, more scattered rain is expected from Thursday (June 13) to Tuesday (June18) across Manitoba.

Fig. 6. a. Thunderstorms caused scattered heavy downpours in some areas, June 7 (Photo: Vikram Bisht, Manitoba Agriculture)

and Fig. 6 b, c: June 12 (Photos: Colleen Flynn, Manitoba Agriculture), also catching beautiful double rainbow.

Table 1. MB Ag Weather Data – June 3 - June 9

Region	Max Temp (ºC)	Min Temp (ºC)	Rain (mm) for the week	Rain (mm) (Since May 1)	2024 Rainfall (% of normal) since May 1	2023 Rainfall (% of normal) May 1 – Jun 11	2022 Rainfall (% of normal) May 1 – Jun 14
Altona	24.2	7.0	6.5	127	165	16	150
Austin	23.1	5.7	4.3	144	201	25	295
Bagot	23.3	4.8	5.0	158	221	32	282
Carberry EC	23.6	5.2	8.6	136	200	47	210
Carman	23.4	6.9	13.6	168	227	22	151
Cypress River	22.2	3.8	6.9	157	197	25	153
Glenboro	22.8	4.0	9.3	126	178	29	161

Holland	22.7	4.3	6.4	136	**171**	32	181
Morden	23.9	7.4	14.2	171	**215**	25	152
Portage EC	23.3	6.8	6.1	140	**196**	31	178
Rivers	22.2	**3.4**	**20.4**	127	**204**	126	285
Shilo	22.7	4.7	9.3	137	**201**	117	190
St. Claude	22.4	6.6	7.5	149	**201**	28	153
Treherne	**21.8**	4.5	5.8	152	**205**	26	153
Wawanesa	22.6	4.2	11.6	148	**217**	74	186
Winkler	**25.3**	6.7	12.0	168	**212**	24	135

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

Crop Progress

- Manitoba's potato planting was completed on June 7. In 2023, planting was completed on June 18.
- The frequent rains, even though not heavy, have prevented wet fields from drying down. Most well drained fields appear good.
- Based on various agronomists observations, over 75% of the fields have > 50% emergence by June 12. The 50% of fields emergence were estimated on or around June 7, much later than the June 1 that we normally see.
- Hilling operations and other ground operations including dam/diking and herbicide applications have started in many areas.
- Plant heights range from <1 inch to 6-8 inches in early planted fields and the stands appear good (Fig. 7) .
- Tuberization ranges from tuber initials to about 1 inch size in early planted yellows (Fig. 8 a, b).
- Strong winds in the last few days have lead to minor leaf injury and also sand blasting of new sprouts (Fig. 9 a, b).
- Seed sprouts with symptoms which appear typical of glyphosate injury were seen in a field (Fig. 10). Multiple sprouts from an eye could indicate that the mother plants had late season exposure of low dose of glyphosate.

Fig. 7. Good crop stand in early seeded fields have 6-8 inch plants, some with early tuber initials. a: Photo: Vikram Bisht (Manitoba Agriculture). b: Janelle Lavich (Choice Ag).

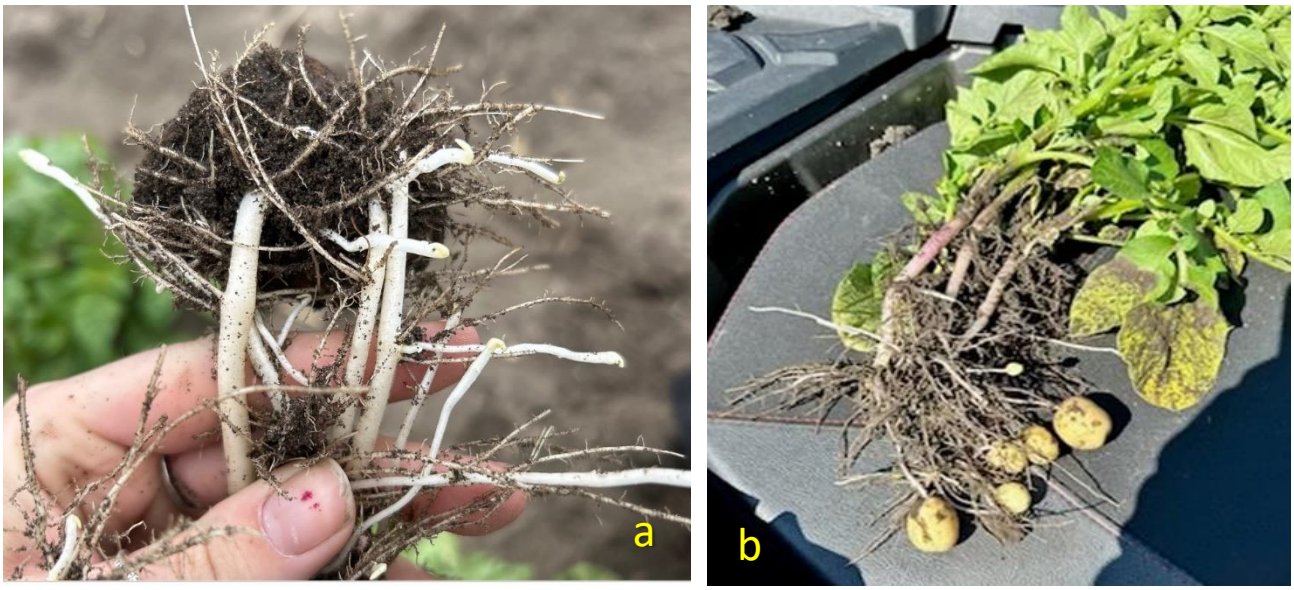


Fig. 8. Tuberization is in different stages. a) Tuber initials Photo: Orla Sheridan (Shilo Farms), b) 1.5 inche tuber size in some early yellow varieties. Photo: Harrisson Loewen (KR CropCheck).

Fig. 9. Strong winds in the last few days have caused (a) minor leaf injury.Photo: Orla Sheridan (Shilo Farms), but also (b) serious sand blasting stem injury on new sprouts. Photo: Greg Dyck (CropCheck).

Fig. 10. Seed sprouts with symptoms typical of glyphosate injury were recorded. Photo: Greg Dyck (CropCheck).

Disease & Insect Pests Monitoring

- Though the 0-30 soil profiles in many areas are considered wet (based on field capacity), the soil surface in many fields appears to have dried and crusted due to strong winds.
- Past rain events, created the wet soils which favour high moisture loving pathogens, like *Pectobacterium* (soft rot) and *Pythium* species (leak) (Fig. 11). Lab confirmation is being done. Incidences of both rots have been seen in the same fields.
- Suction and pan traps for aphid monitoring have been set up in eight seed potato fields across Manitoba. Early suction trap collection at one site has shown that aphids are already around.
- Some process potatoes are showing internal necrosis typical of potato mop top virus (PMTV) infection. The internal discoloration appears to grow darker brown with longer storage (Fig.12).
- Overwintering adults of Colorado potato beetles have become active in southern Manitoba. Scouting for infestation and multiplication is helpful in determining the timing for foliar insecticides (Fig. 13).

Fig. 11. (a): Rotting appears to be Pythium leak-like. Lab confirmation is being done. Photo: Vikram Bisht (Manitoba Agriculture) with field help of Kurt Ginter (KR Crop Check).

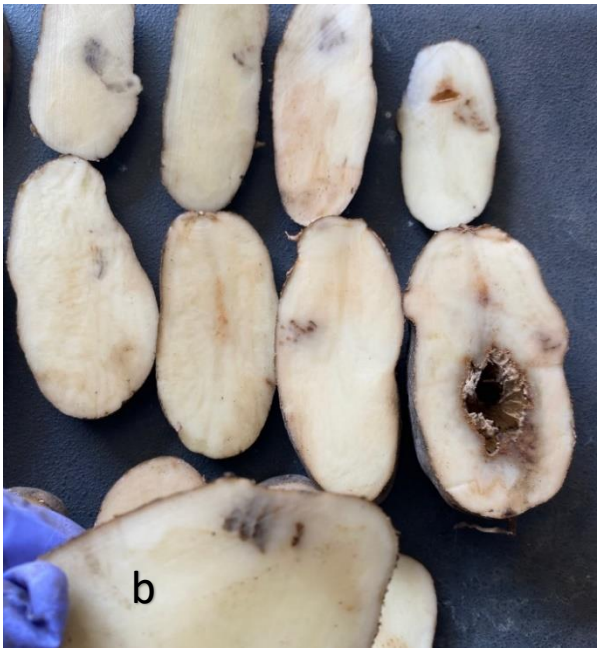


Fig. 12. Potato mop top virus symptoms of spraing, reduce the fry quality. a: Phtoto: Scott Graham; b) Tubers collected from storage. Photo: Vikram Bisht (Manitoba Agriculture).

Fig. 13. Overwintering adults of Colorado potato beetle (CPB) have become active in southern Manitoba potato areas. Photo: Vikram Bisht (Manitoba Agriculture).

Late Blight Monitoring

Information

- Late blight risk forecasting has begun. Late blight disease Risk Values DSVs are cumulative numbers starting from June 1. DSVs are provided on a regional basis. Please refer to the risk maps on Late Blight (mbpotatoes.ca). The late blight Disease Severity Values (DSVs) represent the potential risk of late blight occurring when the inoculum is present. **Current DSV numbers indicate low to medium risk of late blight in Manitoba.**
- Late blight scouting and monitoring will be done this year with weekly updates when plant stage and conditions are optimum for disease transmission.
- As in earlier years, **a network of 15-17 passive Spornado traps for late blight spores, across Manitoba has been established**. Spore trapping is another tool-in-the-box of late blight management. Spore trapping does not replace in-field scouting.
- Anyone interested in joining the spore trap network is quite welcome, especially those who make fungicide recommendations for late blight management on the farms. To place new orders for Sporonado spore trap cassettes please contact Vikram Bisht or Sporometrics.
- Late blight risk maps, P-Days, and SprayCast maps will be 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, or 204-745-0260

Manitoba