

## **The Wild Hydrologic Cycle of 2021 and 2022**

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Agricultural production on the Canadian Prairies relies on adequate water availability to supply Canadians with high-quality products. Excess or deficit water availability can cause devastating effects on crop yield. The agricultural regions of Manitoba experienced severe drought during the 2021 growing season. A combination of below normal winter precipitation in early 2021 and low growing season precipitation resulted in poor crop yields. The multi-facet aspects of drought – from agronomic drought to meteorological drought, can make it difficult to determine the onset, peak or end of a drought cycle. Some locations in Manitoba ended 2021 growing season with over 8-inches of crop water deficit for wheat. In contrast, 2022 turned out to be one of the wettest years on record for some locations, including areas around Winnipeg. Seeding was delayed as a result of excess moisture and the growing season precipitation surpassed crop water demand in many areas. How did the cycle flip from drought to flood? Are Manitoba soils fully recovered from the drought? What is the current state of soil moisture and groundwater? These and other related questions will be explored in the poster presentation.