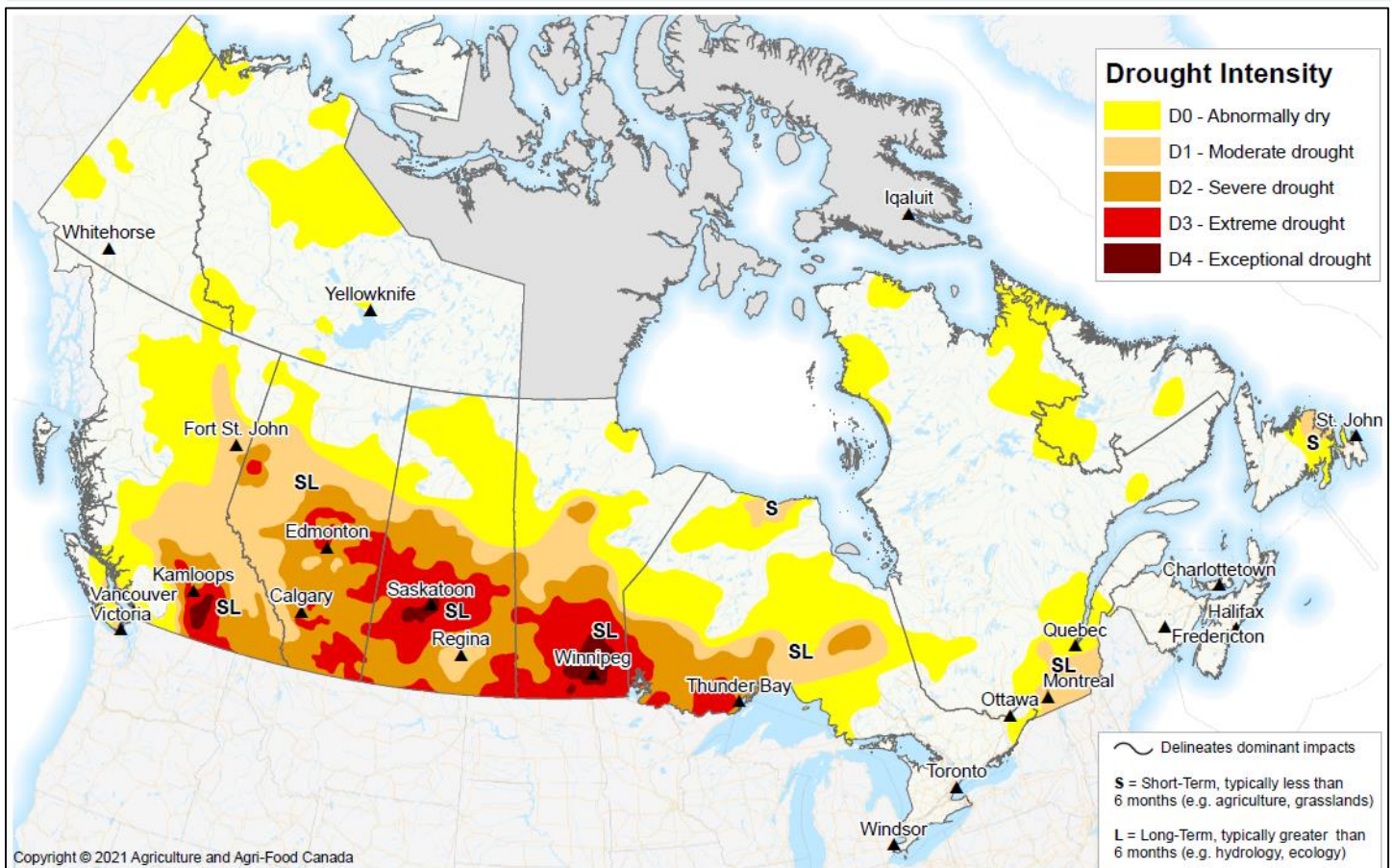


Canadian Drought Monitor

Conditions as of September 30, 2021



In September, overall drought conditions across Canada remained fairly static with some areas of improvement and some areas of degradation. The majority of the Western Canada remained in Severe to Extreme Drought (D2-D3). Temperatures across Canada were mostly 1 to 2 degrees Celsius above normal for September, however the eastern Prairie Region was 2 to 4 degrees Celsius above normal. Generally, Western Canada received below normal precipitation with the exception of coastal British Columbia which received well above-normal rainfall this month. Substantial rainfall along the Pacific coast helped reduce or alleviate drought conditions in that region. The Prairie Region experienced continued deterioration of drought conditions caused by low precipitation, warm temperatures and high evaporation rates through the month. Dry and drought conditions improved somewhat across northwestern Ontario



thanks to significant precipitation. Southern Ontario saw the removal of all remaining drought or abnormally dry regions, while eastern Ontario and southern Quebec continued to experience dry conditions with little change to the drought assessment. Atlantic Canada received significant moisture from several storm events through September, which improved all dry and drought regions. The only remaining area of drought in the Atlantic Region is in northern Newfoundland. The Northern Region remained relatively unchanged through the month with minor improvements in the extreme northwest and minor degradations in northern Quebec. More than forty-five percent of the country was considered Abnormally Dry (D0) or in Moderate to Exceptional Drought (D1-D4) condition, which includes nearly eighty percent of the national agricultural landscape.

Pacific Region (BC)

British Columbia received variable amounts of precipitation in September, including well above-normal rain across Vancouver Island, normal to above-normal precipitation amounts throughout much of the northern and southern Interior, and below normal rainfall in the central Interior. Despite ample precipitation in much of the region over the past 30 days, precipitation deficits from earlier in the growing season have resulted in persistent drought conditions.

A substantial portion of Vancouver Island, including Victoria, Nanaimo and Comox received between 90 and 400 mm of precipitation in September, this represents 250 to 450 per cent of normal for most regions. Drought conditions improved significantly, however precipitation was insufficient to make up for seasonal or longer-term deficits leaving some parts of the southern and eastern coasts of Vancouver Island in Drought. In the lower mainland, Severe Drought (D2) conditions improved as a result of high precipitation over the month, however, due to Severe Drought (D2) conditions being present in the lower mainland since June, exacerbated by the summer heat (Vancouver recorded its second hottest summer on record), Moderate Drought (D1) conditions remain. The central Interior continued to receive below-normal precipitation particularly in areas around Kelowna, Kamloops, Penticton, Vernon, and Cranbrook. These areas received between 60 and 75 per cent of normal September rainfall, as a result, Extreme Drought (D3) and Exceptional Drought (D4) conditions expanded slightly from the previous assessment. Across southern British Columbia above-normal September precipitation allowed for slight drought improvement including the reduction of Exceptional Drought (D4) in the southern Okanagan and southcentral areas. Minimal changes were made to the Peace Region in northern British Columbia where an expansion of Abnormally Dry (D0) conditions developed northwards adjoining with D0 pockets in the Northwest Territories. Moderate Drought (D1) conditions enveloped the Prince George region due to the area receiving below-normal precipitation over the past 60 days. Although there was some expansion of Severe Drought (D3) conditions northward, the Exceptional Drought (D4) conditions along the U.S./British

Columbia border experienced reprieve in conditions with near normal precipitation over the past 60 days. Thirty-three percent of the Pacific Region experienced Moderate to Exceptional (D1-D4) conditions, including approximately eighty-five percent of the agricultural landscape.

Prairie Region (AB, SK, MB)

Overall, September precipitation did very little to improve drought conditions across the Prairie Region. Extremely dry conditions persisted throughout much of the region with Extreme Drought (D3) conditions expanding substantially through west-central and southern Saskatchewan and central and southern Alberta. Extreme and Exceptional Drought (D3-D4) receded in southwestern Manitoba as a result of significant rainfall at the end of August and very early September helping to lessen drought impacts. Northern areas received near-normal to above-normal precipitation through the past 30 days, while southern portions of the Prairies continued to follow a summer-long trend of receiving exceptionally low precipitation.

Alberta continued to receive below normal precipitation across much of the province, with the largest monthly deficits in eastern and southern regions. Central Alberta saw improvement to Moderate Drought (D1) conditions, where near normal precipitation was received from the Rocky Mountains northward to High Prairie. In southern Alberta, Extreme Drought (D3) conditions expanded, now encompassing nearly the entire southeast corner of the province, where soil moisture continues to be a concern and precipitation is needed to build reserves over the winter season. A small Extreme Drought (D3) region was added in the Northern agricultural region of the Peace River region where continued dry conditions significantly impacted agricultural production this season. Drought conditions across the province led to low crop yields and reduced feed availability this year and there is a high likelihood of carrying over impacts into next year. By the end of September, sixty-seven percent of Alberta was classified as being in Moderate to Severe Drought (D1-D3); encompassing ninety-seven percent of the provinces agricultural landscape.

In Saskatchewan, following a growing season that saw less than 50 percent of average precipitation, the month of September continued this trend with the province receiving less than 40 percent of average precipitation. Despite dryness providing ideal harvest conditions, agricultural producers are hoping for substantial fall precipitation to replenish soil moisture reserves heading into the winter season. In central areas of the province, Severe Drought (D3) conditions expanded west over the Alberta/Saskatchewan border due to the region receiving less than 50 percent of average precipitation over the past 90 days. Exceptional Drought (D4) conditions remained relatively unchanged in west central areas surrounding Saskatoon that have been under Exceptional Drought (D4) conditions since July. In September, windy conditions and minimal precipitation further reduced soil moisture and producers are becoming

desperate for conditions to improve. The expansion of Severe Drought (D3) conditions in the central areas continued, expanding further west into Alberta. Farmers in the Swift Current area, in the southwest corner of the province, report that they have not seen a crop this bad since 1988, as this region has been experiencing some level of drought (D1-D4) since January, 2021. In the southeast corner of the province, Severe Drought (D3) conditions have expanded west from the Saskatchewan/Manitoba border due to this area having received well-below average precipitation over the past 30 days and producers are reporting culling of livestock herds to prepare for winter under short feed supply. By the end of September sixty-four percent of Saskatchewan was in Moderate to Exceptional Drought (D1-D4); encompassing one hundred percent of the provinces agricultural landscape.

Manitoba saw some slight improvement, with the reduction of the Exceptional Drought (D4) in southern regions to drought conditions through the month of September as a result of precipitation at the end of August and early September and improved soil moisture and vegetative growth. The majority of the southern and central portions of the province remain in an Extreme (D3) or Exceptional (D4) drought classification. Soil moisture, specifically for hay and pasture growth, as well as water availability, have been of utmost concern to producers especially in the central portion of the province. This area received near to above-normal precipitation through the past 60 days, which allowed for some dugouts to partially refill in the Interlake region, as well as a decrease to Exceptional Drought (D4) conditions near Lake Winnipeg. The beneficial effects of this precipitation were brief and Severe Drought (D3) conditions continued to grow west over the Saskatchewan/Manitoba border, surrounding Swan River, this region has seen below normal precipitation over the past 365 days. A portion of Severe Drought (D3) conditions in the east central region of the province was improved due to a stretch of above-normal precipitation, allowing for better water availability for livestock, however, surface supply and water quality is still low and will require more precipitation for next year. Exceptional Drought (D4) conditions also improved slightly in the southcentral areas of the province. Although there was some light moisture, producers progressed with harvest operations. Feed supplies going into the winter season is expected to be short for many due to this season's drought. By the end of September, forty-three percent of Manitoba was in Moderate to Exceptional Drought (D1-D4); encompassing one hundred percent of the provinces agricultural landscape.

At the end of the month, sixty percent of the Prairie Region was classified as being in Moderate to Exceptional Drought (D1-D4); including ninety-nine percent of the region's agricultural landscape.

Central Region (ON, QC)

Drought conditions in Central Canada generally improved in the west and degraded in the east over the last 30 days. September saw significant improvements in drought conditions in both northwestern and southern Ontario. In northwestern Ontario, improvement was made across all drought classifications from Moderate to Extreme Drought (D1-D3) conditions. Moderate to Severe Drought (D1-D2) conditions were pulled back from the region surrounding Osnaburgh House, which received 75 to 100 mm of precipitation over the past 30 days. In the Lake of the Woods region, along the southern U.S./Ontario border, Extreme and Exceptional Drought (D3 – D4) conditions improved as the area received approximately 150 mm of precipitation in the month of September, which helped alleviate soil moisture deficits. Extreme Drought (D3) conditions still encompass the Kenora, Rainy Lake, and Lac des Mille Lacs regions which received below to well below-normal precipitation amounts over the growing season. In southern Ontario, Abnormally Dry (D0) conditions, which previously surrounded the Kitchener Waterloo region and the Toronto Durham regions, were diminished due to the areas receiving exceptionally high precipitation values through the month of September. In southern Quebec, minor changes were made to Moderate Drought (D1) conditions. Continued below normal precipitation in the Montreal and Granby region has resulted in continued drought conditions. A pocket of Severe Drought (D2) formed in the Montreal area following a dry growing season and dry fall. Thirty-nine percent of the Central region remains in either Abnormally Dry (D0) conditions, or in Moderate to Extreme Drought (D1-D3); including forty percent of the regions agricultural landscape.

Atlantic Region (NS, NB, PE, NL)

Through the month of September, the majority of the Atlantic Region received well –above-normal precipitation, which allowed for the improvement of Abnormally Dry (D0) conditions from last month. In New Brunswick, a small portion of Abnormally Dry (D0) conditions have been present since the beginning of the growing season and was alleviated this month due to the region receiving two-hundred percent of its average precipitation over the last 30 days. Abnormally Dry (D0) conditions in northern Nova Scotia were also improved from the previous month, where the region also received moderately high amounts of precipitation. Abnormally Dry (D0) and Moderate Drought (D1) conditions across Newfoundland and Labrador remained, albeit slightly improved. This portion of the island received normal to above normal precipitation through the past 30 days, however, Moderate Drought (D1) conditions around Gander remain. In the northern region Moderate Drought (D1) conditions expanded east from the Quebec border where only 25 to 75 percent of average precipitation was received over the past 60 days. By the end of the month, twenty percent of the Atlantic Region was classified as

Abnormally Dry (D0) or experiencing Moderate Drought (D1) conditions; including four percent of the agricultural landscape.

Northern Region (YT, NT)

The Northern regions of Canada received below average precipitation in the month of September leaving Abnormally Dry (D0) conditions slightly improved. Over the past 60 days, northern parts of the Northwest Territories saw below-normal precipitation resulting in the expansion of Abnormally Dry (D0) conditions. Abnormally Dry (D0) conditions in northern British Columbia expanded northward connecting the D0 in the southern Territories. Moderate Drought (D1) conditions were alleviated in the northwest region of the territories. Abnormally Dry (D0) conditions persisted in Fort Nelson, Burwash and Watson Lake regions of the Yukon where between 40 and 60 per cent of normal September precipitation was received. Eighteen percent of the Northern Region is classified as Abnormally Dry (D0).

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