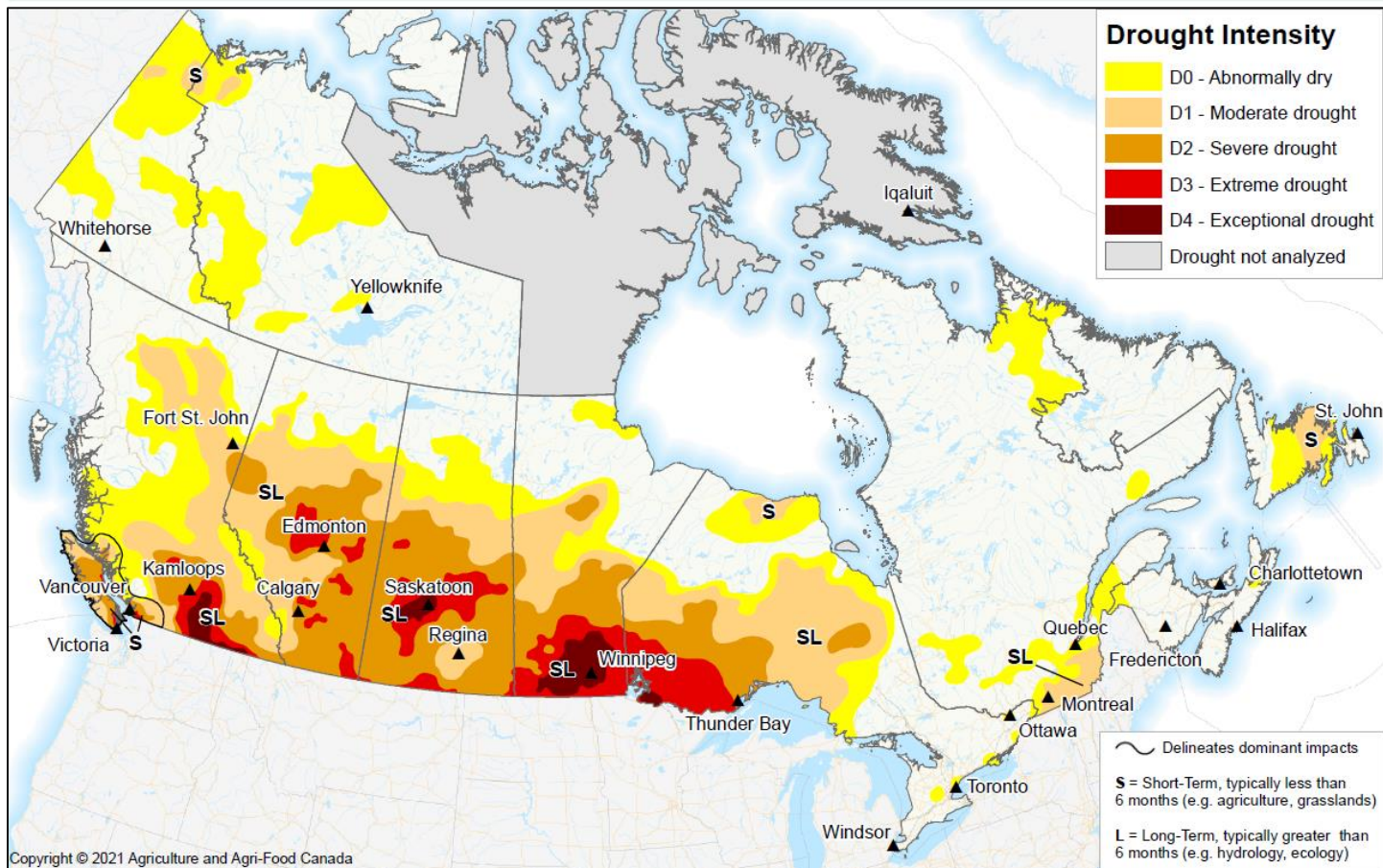


Canadian Drought Monitor

Conditions as of August 31, 2021



Conditions were variable across Canada in August: several storm systems passed through Western Canada bringing much needed moisture to the region, while above normal temperatures and drying conditions developed for much of Central and Eastern Canada.

In Western Canada, most of British Columbia remained dry with minimal precipitation in the most severe drought regions. Despite parts of the Prairies receiving upwards of 200 percent of normal monthly precipitation, Severe (D2) to Exceptional Drought (D3) dominated the region. Eastern Ontario and Quebec received less than 40 percent of normal precipitation and abnormally high temperatures resulting in continued expansion of drought. Southern portions of Atlantic Canada saw near- to above-normal rains while Newfoundland only received 40 to 60



percent of normal moisture for August. There was an East-West divide with temperatures in Western Canada remaining near-normal while Eastern Canada experienced temperatures greater than 3 to 4 degrees above normal.

Unfortunately, given the long duration of significant drought across the Western Canada for much of the growing season, many crops are forecasted to have below-normal yields. Durum and spring wheat yields are expected to drop significantly compared to last year (reductions of greater than 35 percent) along with chickpeas and dry field peas (between 40 to 70 percent lower than last year). However, winter wheat, corn for grain, soybeans and fall rye yields are expected to be similar to last year's yields.

Forty-three percent of Canada was classified as Abnormally Dry (D0) or in Moderate to Exceptional Drought (D1-D4), with seventy-nine percent of the agricultural landscape classified as Abnormally Dry to Exceptional Drought (D0-D4). Approximately 1,500,000 head of cattle were under Severe to Exceptional Drought (D2-D4) conditions across Western Canada as of the end of August.

Pacific Region (BC)

Precipitation across British Columbia for the month of August remained slightly below normal, except the southeast corner near Cranbrook, which saw substantial precipitation. Despite more precipitation in the last 30 days, overall precipitation for the growing season remained extremely low across the Interior, as well as the Lower Mainland and onto Vancouver Island. Streamflow also remained well below normal, if not record low, as of the end of the month.

Minimal changes were made to drought extent and severity in the province, though both Extreme (D3) and Exceptional Drought (D4) were increased in the province's Interior region. Water restrictions were put in place in the Thompson-Okanagan region in order to reduce the strain on aquatic life and restore the flow volumes required to ensure the survival of significant aquatic species. Concern also remains for cattle as ranchers face hay shortages due to the drought and unseasonably hot weather throughout the summer. Moderate Drought (D1) was also expanded to include all of Vancouver Island, given a nearly 275 mm deficit since the growing season began on April 1st. Although temperatures in August were not significantly above normal, at least 6 towns/cities reported their warmest June-July-August period on record.

Contrary to the concerns in the Interior, Lower Mainland and Island, the southeastern corner of the province received significant rainfall in August. The city of Cranbrook reported their wettest

August on record with a whopping 350 percent of normal precipitation. This significant increase in moisture led to the removal of Extreme Drought (D3) and a reduction of Severe Drought (D2) in the area.

By the end of August, sixty-six percent of the Pacific region was categorized as Abnormally Dry (D0) and nearly forty percent of the region was in Moderate to Exceptional Drought (D1-D4); these conditions accounted for ninety-one percent of the region's agricultural landscape.

Prairies (AB, SK, MB)

Extreme (D3) and Exceptional Drought (D4) continued to impact the Prairie region throughout August, though significant precipitation helped to improve drought conditions in some areas. Most of this moisture fell across southeastern Saskatchewan and southwestern Manitoba, while northern agricultural areas of Saskatchewan and much of Alberta remained dry; this led to a number of Extreme Drought (D3) pockets forming across Alberta and expanding across central Saskatchewan. These areas reported very low to exceptionally low precipitation in the last year, as well as much of southern Manitoba where long-term drought remains a concern. In addition, nearly the entire northern portion of the agricultural area and all of agricultural Manitoba reported a one-year precipitation deficit of more than 140 mm. However, in areas that recorded significant moisture this month (roughly from Regina towards west-central Manitoba), moisture conditions are now above-normal since the start of the growing season; long term drought conditions remain. This led to further improvements to Severe Drought (D2) around Regina and slight improvements to Extreme (D3) and Exceptional Drought (D4) across southeastern Saskatchewan and western Manitoba. The City of Brandon experienced flash-flooding from a roughly 150 to 200 mm precipitation event in August, leading to a two-class improvement from Exceptional Drought (D4) to Severe Drought (D2).

Given the severe dry conditions throughout the summer and stunted crop growth, many producers began harvest weeks ahead of schedule. Due to the timing of the mid-to-late-month precipitation, early-season harvest had to be postponed while producers waited for their crops to dry; this may lead to a decrease in crop quality for already poor-quality crops. Due to the timing of the rain, moisture may not help with this year's crop but should help to build reserves for next year and provide moisture for any Fall-seeded cereals. This moisture also reduced wildfire risk across the region, but surface water supplies remained a concern as well as other drought-related impacts such as grasshoppers. Wheat yields are expected to drop between 20 to 40 percent across the Prairies compared to last year, with Alberta seeing the greatest potential decrease in yields. Canola yields are also expected to drop, but only 15 to 30 percent, with the greatest drop expected in Saskatchewan.

Despite significant rainfall in August, seventy-three percent of the Prairie region remained as Abnormally Dry (D0) or in Moderate to Exceptional Drought (D1-D4), with ninety-nine percent of the agricultural landscape still in drought.

Central Region (ON, QC)

Conditions across the Central region trended dry for the month of August increasing drought extent and severity. While northwestern Ontario received slightly above-normal precipitation, it was not enough to completely alleviate Severe (D2) and Extreme Drought (D3) conditions. In fact, a small pocket of Exceptional Drought (D4) formed along the U.S. border near Lake of the Woods, where extremely to exceptionally low precipitation has been reported in the last year. In addition, pockets of Moderate (D1) to Severe Drought (D2) persisted for the rest of the northern region as 40 to 85 percent of normal precipitation was reported in the last 3 months.

While ample moisture fell in southern Ontario since June, a drying trend developed in eastern areas in August which led to a large area from Barrie, Ontario to the Gaspé Peninsula reporting less than 40 percent of normal precipitation. As a result, Abnormally Dry (D0) conditions were expanded northward, and Moderate Drought (D1) around Montreal towards Quebec City increased. A pocket of Abnormally Dry (D0) conditions also formed around Ottawa as reports of heat stressing cows and dry pastures, vegetables ripening too fast as well as poor nectar flow for bees were received.

At the end of August, thirty-three percent of the Central region was classified as Abnormally Dry (D0) while twenty percent was in Moderate to Exceptional Drought (D1-D4); this accounts for thirty-four percent of the agricultural landscape of the region.

Atlantic Region (NS, NB, PE, NL)

For the month of August, a north-south split of precipitation conditions took place in Atlantic Canada. Provinces in the southern regions, including much of New Brunswick and southern Nova Scotia received upwards of 200 percent of normal rainfall in the last month. This led to the removal of Abnormally Dry (D0) conditions as moisture conditions progressed to above-normal levels since April 1st. However, short-term moisture deficits of 40 to 60 percent below normal in the last 3 months resulted in a pocket of Moderate Drought (D1) forming on Newfoundland. The rest of the Atlantic region remained relatively unchanged.

At the end of August, fifteen percent of the Atlantic region was classified as Abnormally Dry (D0) or in Moderate Drought (D1), accounting for eight percent of the agricultural landscape.

Northern Region (YT, NT)

Much of the drought and abnormally dry conditions in the Northern Region of Canada remained similar to last month, although small improvements were made in the south. A number of stations along the southern border of the Northwest Territories and throughout the Yukon Territory reported extremely high precipitation values in the last month. However, despite this increase in precipitation, overall moisture conditions in the last three months remained near- to below-normal, especially across northern areas of the Yukon. As a result, some Abnormally Dry (D0) conditions were removed in southern areas, but pockets of Moderate Drought (D1) remained around Old Crow, Yukon.

Twenty-three percent of the Northern Region remained Abnormally Dry (D0) or in Moderate Drought (D1) through the month of August.

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