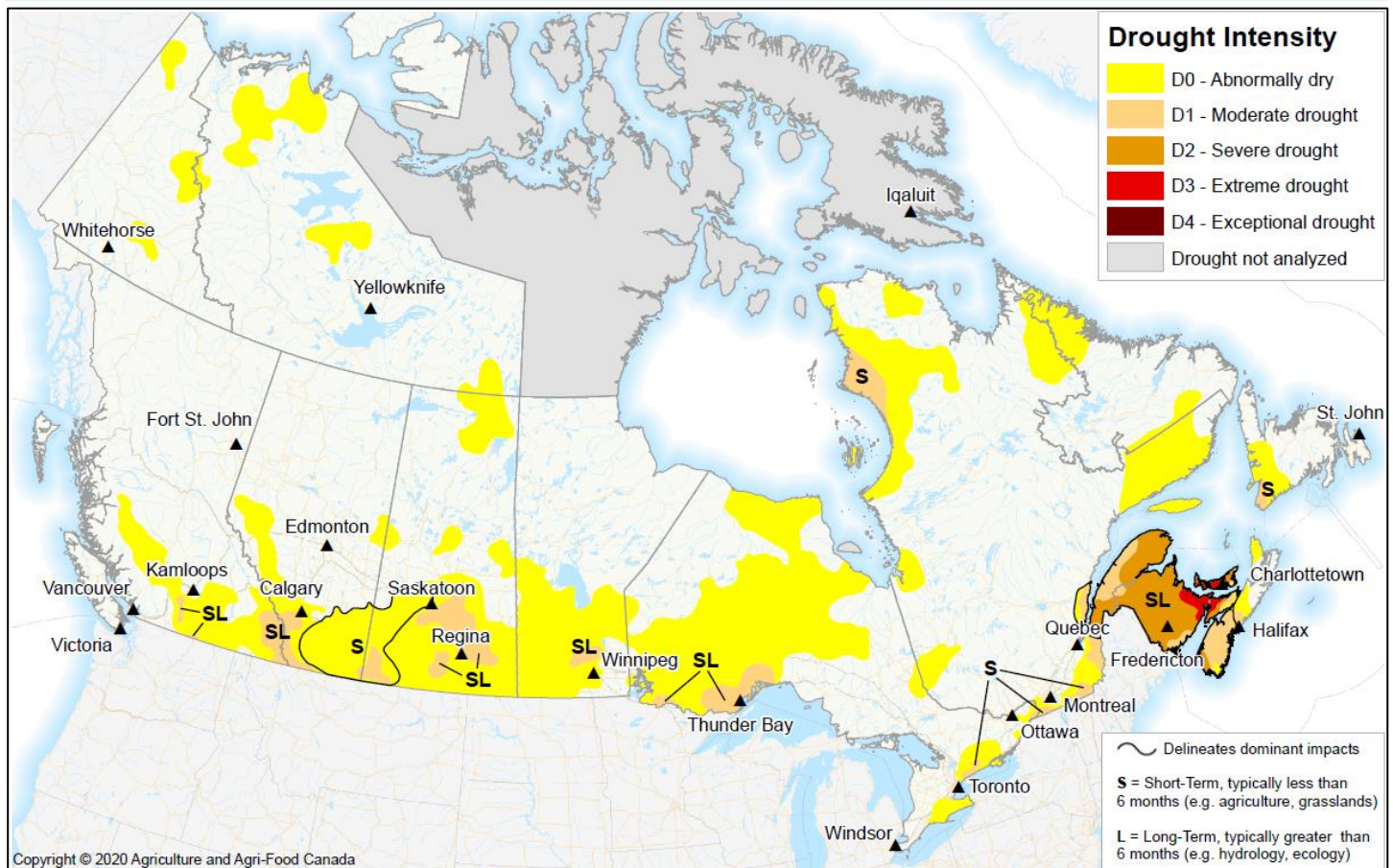


# Canadian Drought Monitor

Conditions as of August 31, 2020



Dry conditions across Canada expanded significantly in the month of August. More than twenty-five percent of the country was considered Abnormally Dry (D0) or in drought; this represents a nearly ten percent increase since the end of July. The Atlantic region continues to be the hardest hit area where agricultural crops yields and water supplies have been impacted by well below-normal summer precipitation and above-normal temperatures. Southern parts of the Prairies experienced both prolonged heat and a lack of precipitation this month, leading to a significant expansion of Abnormally Dry (D0) and Moderate Drought (D1) conditions. Areas in British Columbia bordering with Alberta were also impacted by a lack of precipitation, where as, along the west coast remaining dry spots were ameliorated. Drought concerns have decreased



in parts of southern Ontario and Quebec as the region received substantial precipitation this month.

## **Pacific Region (BC)**

Drought and abnormally dry conditions persisted in the southern interior of British Columbia resulting in a considerable expansion of the Abnormally Dry (D0) classification from Ashcroft eastward to the B.C.-Alberta border. Streamflow is still adequate in this region due to high winter snow pack, however continued hot and dry conditions decreased soil moisture throughout the region. Precipitation in this area is near normal according to long-term indicators, however below-normal summer precipitation has resulted in significant deterioration of conditions. For this reason, the pocket of Moderate Drought (D1) in the Osoyoos area remains in place. Other D1 pockets emerged from Merritt to Princeton, where precipitation was up to 75 percent below-average in August, and from Cranbrook into southern Alberta where precipitation was extremely low in the last 60 days. Despite below-normal rainfall this past month in the central interior, good moisture from previous months has resulted in this area not being included in the D0 region, but will be watched closely to see if conditions continue to worsen. The west coast continued to improve with abnormally high precipitation. Over the last 30 days, Vancouver Island received well above-average precipitation, including 150-200 percent of average in much of the previously dry region, leading to the removal of Abnormally Dry (D0) and Moderate Drought (D1) conditions. Although the east coast of Vancouver Island has received good precipitation through the summer (125-150 percent of average), long term water deficits exist. However, at this point there are no drought concerns. Above-average precipitation also improved dry conditions along the southwestern coast and the Lower Mainland. Vancouver reported above-average precipitation resulting in the removal of D0 in this area. Approximately fourteen percent of the province was classified as Abnormally Dry (D0) or in Moderate Drought (D1), up eight percent compared to last month; this includes thirty-one percent of the agricultural landscape.

## **Prairie Region (AB, SK, MB)**

In the month of August, Abnormally Dry (D0) and Moderate Drought (D1) conditions expanded across much of the southern Prairies. Approximately thirty-one percent of the Prairie region was classified as either Abnormally Dry (D0) or in Moderate Drought (D1); this includes nearly sixty percent of the region's agricultural landscape. Although August is typically a dry month in the Prairies, precipitation in southern Alberta has been well below-normal in the last 30 days with growing concern over rapid ripening of crops, grass fires and soil moisture reserves. D0 conditions expanded from Grand Cache south to the U.S. border and from the Rockies east

towards the Saskatchewan border. The foothills southwest of Calgary were the driest part of the province, showing below-normal precipitation in the last 60 days, and as such warranted a Moderate Drought (D1) classification. Crop growth across Saskatchewan seemed promising in July having received much-needed moisture. However, heat stress from prolonged warm temperatures combined with below-normal precipitation led to rapid crop quality deterioration and reports of premature ripening and poor grain fill, reduced surface water supplies and wildfires. In August, Abnormally Dry (D0) conditions emerged as well as pockets of Moderate Drought (D1) from Saskatoon to Regina, near Moose Jaw, and in southwestern Saskatchewan. Similarly, much of southern and central Manitoba is in Abnormally Dry (D0) conditions despite heavy precipitation received near Brandon in early July. The heavy precipitation fell in a short period of time which was most likely lost to runoff leaving crops and soils with little improvement. As a result, surface soil moisture, root zone soil moisture and groundwater levels are all dry in this area. A pocket of Moderate Drought (D1) remains north of Winnipeg due to significant dryness over the last six months.

## **Central Region (ON, QC)**

Concern for drought in southern Ontario has lifted substantially from the previous month. While a dry pocket remains in place south of Toronto, all drought regions within the southern portion of the province were reduced. Significant precipitation during August resulted in substantially improved conditions and moisture levels. Precipitation indicators suggest near-normal conditions taking into account the short- and long-term indicators. A swath of precipitation from Ottawa towards Montreal and Trois-Rivières helped to alleviate dry conditions where 150 percent to upwards of 200 percent above-normal precipitation was received. Wildfires in northwestern Ontario were significant in August. Some First Nation communities were required to evacuate due to the concern of smoke affecting the health and safety of residents. Mid-month precipitation helped to alleviate these concerns, but longer-term dry conditions still remain. Numerous pockets of 25 to 50 percent below-normal in the last 60 days are scattered across northwestern Ontario and have been categorized as Abnormally Dry (D0). Significant dryness has also developed in northern Quebec within the last 3 months. A large swath of this area has seen 75 percent below-normal precipitation according to satellite-derived data. Even though there has been a significant reduction in drought throughout southern parts of Ontario and Quebec, thirty-five percent of the Central region still remains in either Abnormally Dry (D0), Moderate Drought (D1) or in Severe Drought (D2); this includes thirty-six percent of the agricultural landscape.

## **Atlantic Region (NS, NB, PE, NL)**

Excessive and persistent dryness continues to plague the Atlantic region where nearly all of New Brunswick and most of Prince Edward Island are in Severe Drought (D2) or Extreme Drought (D3). Approximately twenty percent of the Atlantic region is classified as in drought; this includes eighty percent of the region's agricultural landscape. Given that the region did not receive adequate precipitation this month, there was minimal relief to the impacts of drought to crop quality or quantity for the growing season. An area including Moncton, Bouctouche and Charlottetown received less than 230 mm below-average precipitation in the past 6 months; this has led to the rare development of Extreme Drought (D3) in the region. This prolonged and persistent lack of precipitation has had a significant impact on producers as crops are drying up or haven't come up at all. Streamflow levels also continue to struggle as many stations report levels in the 10th percentile or lower. This dryness not only extends south in Nova Scotia, but it also includes the southwestern tip of Newfoundland; this is especially prevalent in the Standardised Precipitation Evapotranspiration Index (SPEI) product over the past three months. This has resulted in the formation of a couple Moderate Drought (D1) pockets, as well as an area of Severe Drought (D2) near Yarmouth.

## **Northern Region (YT, NT)**

Precipitation received in the Northern region of the country centred around the southern borders of B.C., Alberta and Saskatchewan. These areas received upwards of 100 percent above-normal or more precipitation in the last 30 days. However, dry spots still remain scattered throughout the remainder of the region. This includes areas south of Great Bear Lake, near Fort Good Hope extending northward, a small pocket south of Faro as well as a pocket along the Yukon-N.W.T. border. Many of these areas have only seen 25 to 50 percent of normal precipitation in the last 30 days. An area of Abnormally Dry (D0) conditions also emerged around Old Crow, Yukon where 79 percent of normal precipitation has been received in the last 90 days. Nine percent of the Northern region is classified as being Abnormally Dry (D0), up five percent from the previous month.