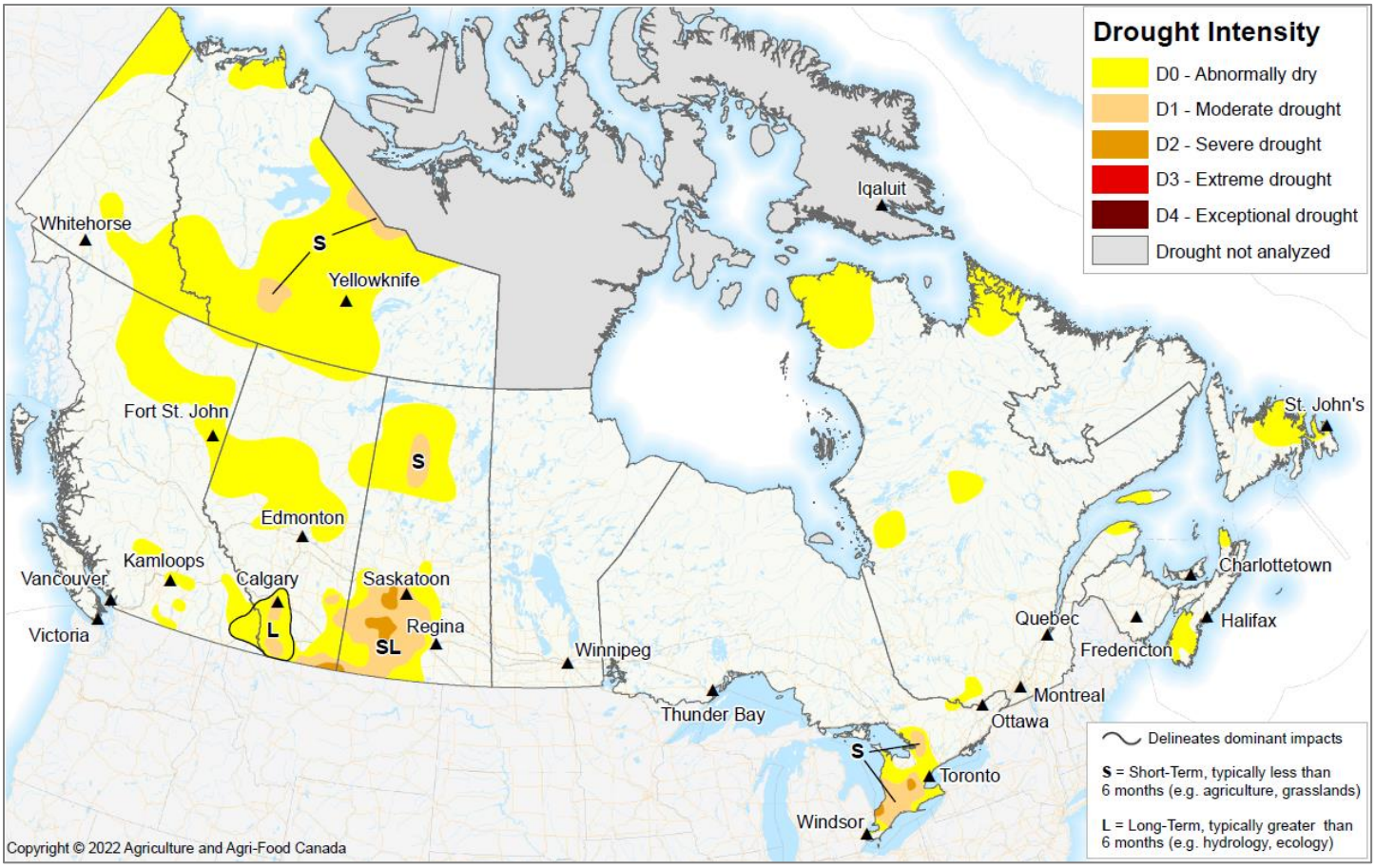
Canadian Drought Monitor

Conditions as of July 31, 2022



Drought conditions across the country this month were generally elevated, with ongoing Severe Drought (D2) in the Prairies, worsening drought across southern Ontario and small pockets of Abnormally Dry (D0) conditions developing in British Columbia, as well as the Atlantic and Northern Regions. Only a few areas reported excess moisture conditions including southern Manitoba and parts of Quebec. Monthly average temperatures were above-normal across the country, especially in the Interior of British Columbia, while parts of Ontario remained near-normal.

At the end of the month, twenty-one percent of the country was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including thirty-five percent of the country's

agricultural landscape. There was no Extreme or Exceptional Drought (D3 or D4) reported this month.

Pacific Region (BC)

July saw the return of hot dry weather across much of the region. The west coast continued to see the most precipitation across the Pacific Region, with most parts of Vancouver Island reporting above-normal precipitation. However, for the remainder of the region, precipitation amounts this month were average to below-average. The northern Interior received the least precipitation with monthly rainfall totals being approximately 30 mm below normal. For the growing season (April 1 to current), most of British Columbia received above-normal precipitation, however longer-term precipitation deficits remained in the southern and central Interior. Wildfires across British Columbia have been significantly reduced this season as a result of cool and wet conditions, however recent hot dry weather raised concerns for increasing wildfire and drought conditions potentially returning. Despite the recent temperature increases and dry conditions, short- and long-term precipitation, soil moisture, stream flow and other indicators did not warrant a drought designation anywhere in the province and only small pockets of Abnormally Dry (D0) conditions remained.

At the end of the month, twenty-one percent of the Pacific Region was considered Abnormally Dry (D0), including thirty percent of the region's agricultural landscape.

Prairie Region (AB, SK, MB)

Drought conditions throughout the Canadian Prairies continued to improve as intense convective storm activity brought significant precipitation to areas with long-term or seasonal deficits. As a result, drought conditions were reduced in both size and severity across southern Alberta and parts of southern Saskatchewan. West central and northern portions of the Prairie region, however, received below-normal precipitation this month resulting in Abnormally Dry (D0) and Moderate to Severe Drought (D1 to D2) conditions to remain.

Alberta received well below-normal precipitation throughout the northern and central regions this month, while southern parts of the province received ample monthly moisture from convective summer storms. Parts of the Peace region received less than 10 mm throughout the month with no meaningful precipitation in the last 2 weeks of July; this accounts for less than 40 percent of normal moisture in July. As a result of the short-term dryness, Abnormally Dry (D0) conditions were expanded across the Peace region, towards northwestern and

northeastern agricultural areas. In addition to the moisture deficit, the number of wildfires in Alberta increased in the past month: one of the larger wildfires burned close to 30,000 hectares in 24 hours in Clearwater County, west of Red Deer. Despite the recent lack of precipitation, agricultural yields are expected to be above normal across the Peace region as well as northeastern and northwestern agricultural areas. In contrast, much of southern Alberta continued to receive substantial moisture from summer storm activity, continuing to reduce drought conditions. The largest monthly precipitation totals, 100 to 150 mm, were recorded in the west central region north of Red Deer. Southern locations, including Brooks (northeast of Lethbridge), also received ample moisture this month of over 100 mm of precipitation. Despite above-normal rainfall in both June and July, some regions of the province continued to show significant long-term precipitation departures. These deficits continued to impact pasture productivity as well as surface and groundwater supplies in some areas, while improved short-term moisture has alleviated moisture concerns for annual crops.

Western Saskatchewan continued to report the most severe and widespread drought conditions in Canada. Despite normal to above-normal precipitation in some parts of the province this month, western regions continued to show deficits through the growing season and substantial deficits in longer-term timescales. Although soil moisture conditions continued to improve due to recent precipitation, this area has not received enough moisture to fully make up deficits from earlier in the growing season or since September 1, 2021. There have been reports of cereal and oilseed crops suffering from the heat in conjunction with the very short surface soil moisture as well as reports of heat blast and premature ripening. Hay yields are also expected to be lower than average due to the hot dry conditions. As a result of these ongoing deficits and impacts, two small pockets of Severe Drought (D2) as well as a larger pocket of Moderate Drought (D1) remained across this corner of the province, with the driest areas reported around Rosetown, Biggar and north of Swift Current. While western parts of the province dealt with ongoing drought, eastern Saskatchewan continued to report excess moisture challenges. In contrast, east central Saskatchewan received below-normal precipitation through July; however, moisture levels in the sub surface remained adequate as a result months of normal to above-normal precipitation this year prior to July. Northern Saskatchewan continued to report below-normal precipitation, which led to Moderate Drought (D1) remaining in the area.

Much of southern Manitoba received well above-normal precipitation in July. Localized rainfall of more than 150 mm was reported throughout southern Manitoba including more than 175 mm southeast of Winnipeg. This equates to nearly all of southern Manitoba receiving Exceptionally High levels of precipitation since April 1st. While flooding concerns have subsided in most areas, excess moisture impacts continued. Producers reported flooded or marshy

pastures as well as an inability to access some of their fields due to excessive moisture. In areas that are no longer dealing with active flooding or excess surface soil moisture, pasture, hay land and crop production has progressed well. No drought or Abnormally Dry (D0) conditions were reported in Manitoba this month.

At the end of the month, twenty-eight percent of the Prairie Region was classified as Abnormally Dry (D0) or in Moderate to Severe Drought (D1 to D2), including forty-two percent of the region's agricultural landscape.

Central Region (ON, QC)

Drought conditions continued to degrade across southern Ontario this month, while other portions of Central Canada remained relatively drought-free, with the exception of minimal dryness reported across Quebec. Limited rainfall from late-June into the first two weeks of July as well as the last week of July led to an overall deficit in moisture this month as much of southern Ontario reported 60 percent of normal precipitation, with a small pocket west of Toronto recording less than 40 percent of normal precipitation. This lack of moisture at critical crop growth stages left corn and soybean producers replanting crops or having to irrigate just to germinate seeds. There were also reports of corn crops growing only half their expected height and turning brown as well as non-irrigated potato crops struggling and dying off from drought conditions. As such, Abnormally Dry (D0) conditions were expanded north and eastward from last month, while Moderate Drought (D1) and pockets of Severe Drought (D2) emerged around Kitchener-Waterloo and Sarnia. A pocket of Moderate Drought (D1) also emerged from Barrie towards Huntsville. Elsewhere across the region, pockets of Abnormally Dry (D0) conditions sporadically developed throughout parts of central and northern Quebec due to short-term moisture deficits. Remaining portions of the region remained drought-free.

At the end of the month, nine percent of the Central Region was classified as Abnormally Dry (D0), including twenty-two percent of the region's agricultural landscape.

Atlantic Region (NS, NB, PE, NL)

Conditions across the Atlantic Region were variable this month: temperatures were warmer than normal, while precipitation was localized and varied greatly depending on location. Nova Scotia and parts of Newfoundland and Labrador received below-normal precipitation, especially Halifax and Yarmouth which received less than two thirds their normal moisture. Areas along the northeast coast of Newfoundland reported the lowest monthly precipitation with roughly

half the normal expected moisture falling. Pockets of Abnormally Dry (D0) conditions emerged in these areas of both Nova Scotia and Newfoundland this month. The only widespread significant moisture came early in July, where 20 to 40 mm fell across much of the region. The second half of the month saw a hot humid air mass settle in, resulting in heat warnings. Nova Scotia recorded a maximum temperature of 35.4 degrees Celsius on July 25, making it the second warmest temperature in July and the fifth warmest temperature ever. July ended with an increased risk in wildfires for central and northeastern parts of Newfoundland.

At the end of the month, twelve percent of the Atlantic Region was classified as Abnormally Dry (D0), including fifteen percent of the region's agricultural landscape. There was no drought reported in the region this month.

Northern Region (YT, NT)

Northern Canada trended dry across southern portions of the region this month, allowing for Abnormally Dry (D0) conditions to expand and Moderate Drought (D1) to remain. Several wildfires were reported in July, including a 32,000-hectare fire south of Yellowknife, NWT and higher than normal total burned area thus far this year for the Yukon Territory. Old Crow and Watson Lake were reported to be the driest areas of the Northern Region this month, reporting approximately half of the average monthly amount of precipitation, while southwestern and southeastern parts of the region received above-normal moisture. Areas that received above-normal monthly precipitation remained free of drought or Abnormally Dry (D0) conditions in July.

Thirty-five percent of the Northern Region was classified as Abnormally Dry (D0).