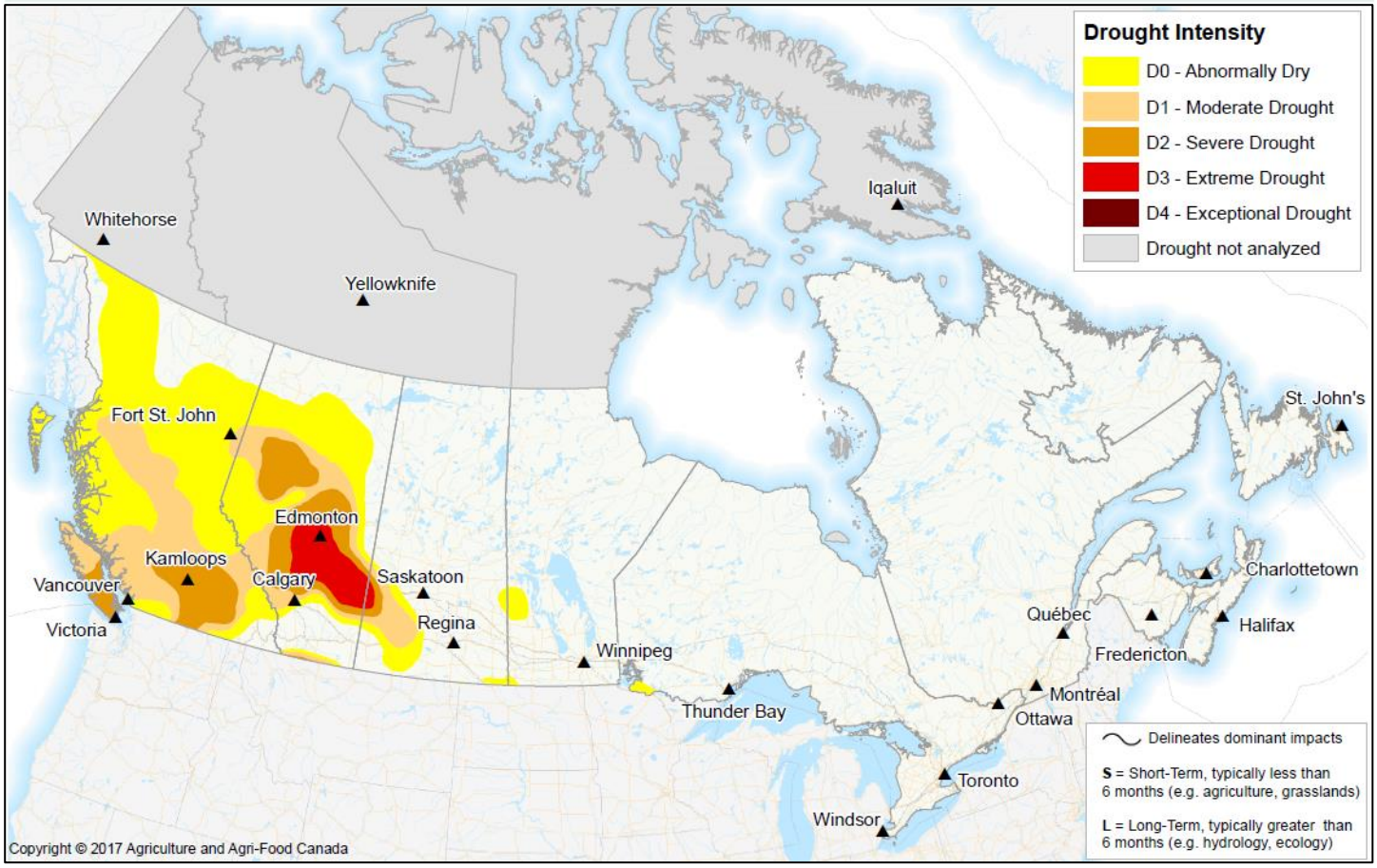
Canadian Drought Monitor

Conditions as of August 31, 2009



Drought conditions intensified during August across western Canada. Most of Western Canada's agricultural region was classified under drought conditions. The percentage of land area south of the 60th parallel classified as drought rose from 9% to 11%, with 27% of the agricultural region in Canada still classified as being in drought. Drought severity and extent increased in British Columbia where record low stream flows were noted because of well below average spring runoff and summer precipitation. Drought severity also increased in north western Alberta where summer rainfall was very sparse. Crop and forage development was one to three weeks behind schedule in many parts of Western Canada. Drought significantly reduced yields and quality throughout much of Alberta and British Columbia as well as parts of Saskatchewan. Feed shortages are reported in western Canada due to reduced quality and quantity of forage crops.

Temperatures for August were near normal across most of Canada. British Columbia, however, experienced above normal temperatures and below normal precipitation which combined to intensify drought conditions. Many interior locations recorded temperatures of up to 39ºC (103ºF) during intense heat waves throughout the month. Temperatures across the Prairies were near normal, though parts of Saskatchewan and Manitoba remained below normal for the ninth consecutive month. Cooler conditions hindered crop development, but also provided some relief to drought-stressed regions.

Drought conditions improved for much of southern and central Alberta, as well as west central Saskatchewan. August rainfall in southern and central regions of Alberta reached levels of 200% of normal monthly rainfall with over 100 mm (four inches). West central regions of Saskatchewan did not receive as much precipitation, but normal to above normal precipitation was certainly welcome. Although mid-August thundershowers brought relief to portions of the drought-stricken areas of south central Alberta, severe moisture deficits remain. This region has a precipitation deficit of more than 200 mm (eight inches), or 50% of normal precipitation, since September 2008. August rainfall in these regions improved crop and forage production although for some regions it was too little, too late. The biggest benefit of this significant precipitation is the considerable improvement in water supply and soil moisture conditions.

Conditions continued to deteriorate in north central Alberta, resulting in an expansion of the D3 (Extreme Drought) and D2 (Severe Drought) classifications. Pastures throughout these areas remained in very poor condition and were unable to support grazing. In addition to hauling water and drilling new wells, producers were bale-feeding cattle at the end of August, one of the earliest times ever reported. Forage production was below normal with yields reported at less than half of normal in many places; this led to feed shortages and near-record prices. In the autumn an increased sell-off of livestock is expected, with reports that many producers are looking to leave the industry entirely. At month's end many regions instituted fire bans. In addition, 34 counties in Alberta and four rural municipalities in Saskatchewan declared themselves agricultural drought disaster areas, with more being anticipated. Another notable pocket of drought appeared in southern Alberta bordering Montana. This area was classified in a D1 (Moderate Drought) condition due to monthly precipitation being below 50% percent of normal and the three-month precipitation being 70% of normal.

In the Peace River Region and north eastern British Columbia, drought conditions continued with less than 40% of normal precipitation over the past three months, including less than 16 mm (one-third of an inch) in the month of August. On-farm water supplies were extremely low, hay yields were much less than normal, and annual crop harvest was delayed 2-3 weeks. That, coupled with the fact that the area experienced record dry conditions last year, led to the emergence of a D2 (Severe Drought) classification for this region.

Drought continues to be a major concern throughout much of British Columbia as precipitation was well below normal and stream flows remain significantly reduced. Extreme low flow advisories were issued by the British Columbia Ministry of Environment on September 1 for many rivers in the interior region of British Columbia and on Vancouver Island.

Some irrigators in the interior of the province are implementing voluntary water conservation measures. Well below normal spring runoff and well below average summer rainfall, in addition to numerous heat waves in August that kept temperatures over 30ºC (92ºF) for weeks on end, resulted in an expansion of the D2 (Severe Drought) classification in southern British Columbia. The exceptionally dry conditions kept firefighters battling blazes which forced thousands of residents to evacuate their homes. The D1 (Moderate Drought) area also broadened over the central region of the province, where many areas received less than 40% of normal precipitation in August. Conditions have been reported to be similar to the drought year of 2006 when stream flows were at record lows. There are indications that feed shortages and dugout water shortages could occur this fall in parts of the province. Some water hauling has started and livestock producers are already selling livestock due to feed shortages.

Much of western Manitoba received exceptional rainfall, greater than 150% of normal in August, which caused localized flooding. As a result the D1 classification was downgraded to D0 (Abnormally Dry) in this region which, however, is still experiencing annual precipitation deficits with 150 mm (six inches) less than normal precipitation since September 2008.