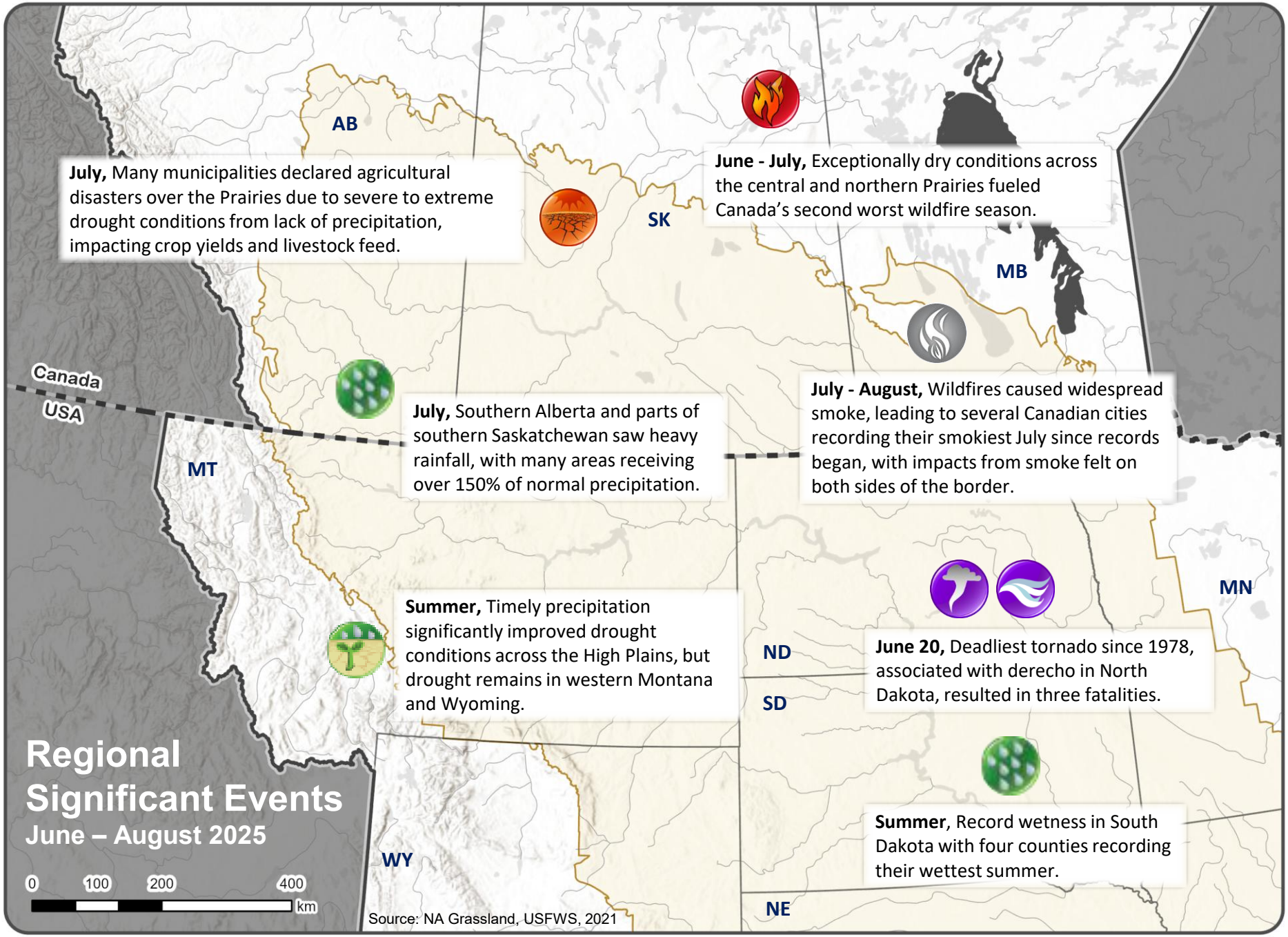
PRAIRIES and HIGH PLAINS

Weather and Climate Highlights and Impacts, June to August 2025
Climate Outlook, October to December 2025

Environment and Climate Change Canada | Environnement et Changement climatique Canada

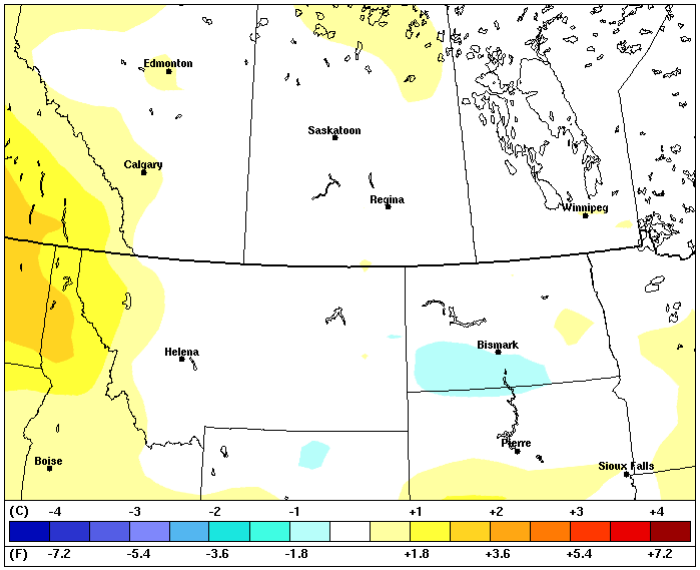
Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada



Regional Climate Overview

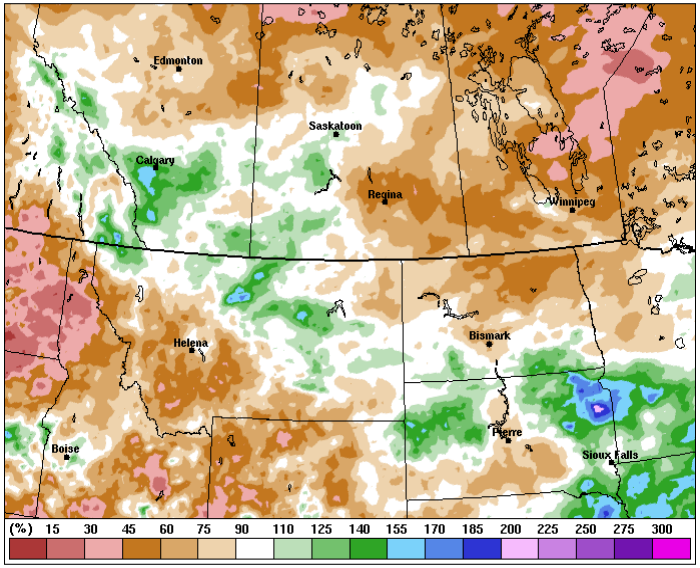
June – August 2025

Departure from Normal Temperature (°C/°F)



Source: ECCC Climate Archive and USHCN v 2.5
Reference period: 1991-2020

Percent of Normal Precipitation (%)



Source: Canadian Precipitation Analysis (CaPA)
Reference period: 1991-2020

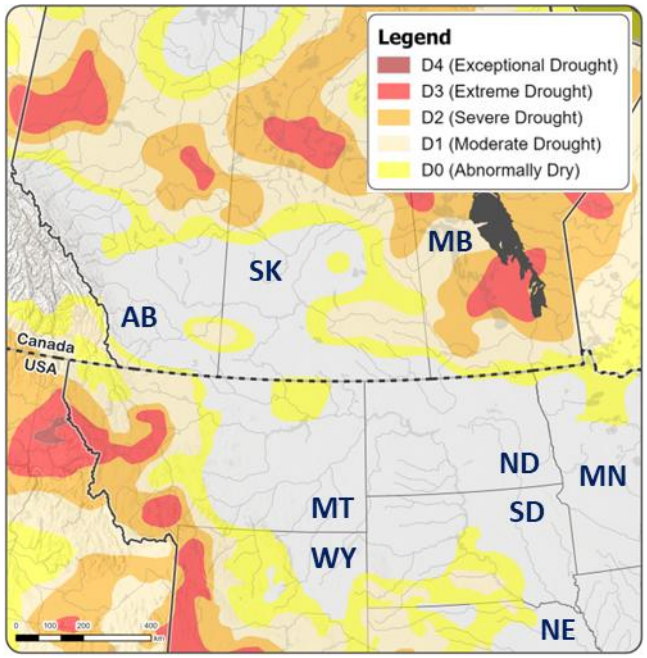
Temperature

Summer brought mostly near normal temperatures across the Prairies and High Plains, with a small pocket of cooler conditions in the southern parts of North Dakota and slightly warmer along the southeastern High Plains. In August, slightly above normal temperatures occurred in parts of Alberta, Saskatchewan, and the southern High Plains.

Precipitation

The Prairies and High Plains saw varied precipitation over the region, with some areas observing much wetter than normal conditions, while others remain near normal or very dry. Among the driest areas were southwestern Montana, much of Wyoming, Manitoba, and parts of Saskatchewan. Regions with wetter than normal conditions were most notable in southern Alberta and northeastern South Dakota, with scattered, more limited pockets in parts of Montana, western South Dakota, and southwestern Saskatchewan.

Drought Monitor



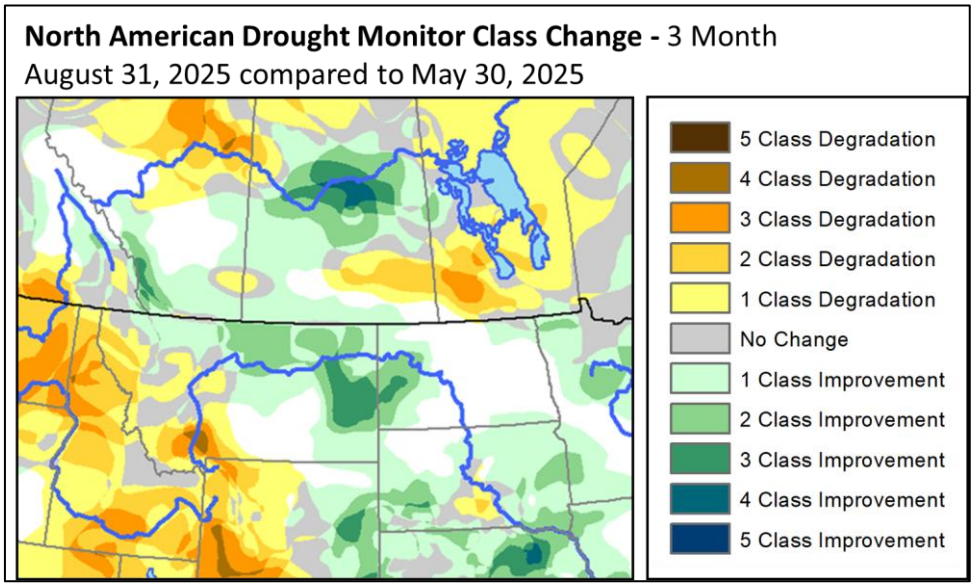
Source: North American Drought Monitor

Drought Conditions as of August 31, 2025

Following several very dry summers and a very dry spring, parts of the region received above or well above normal precipitation this summer, resulting in substantially improved drought conditions by the end of August. June began dry and did not improve, with the establishment of Severe (D2) to Extreme Drought (D3) over southwest Saskatchewan and southeastern and southwestern Alberta by the end of the month, and regions of Moderate (D1) to Severe Drought (D2) across parts of Montana, Wyoming, North Dakota, and South Dakota. Significant rain in July and August over the southern Prairies and northern High Plains alleviated much of the region's drought by the end of the summer. However, substantial drought continued throughout northern regions of the Prairies as well as western Montana and Wyoming. By the end of August, approximately 40% of the Canadian Prairies and 30% of the High Plains were in some form of drought.

Regional Impacts | June – August 2025

Evolving Summer Drought



Source: North America Drought Monitor Change Map

Location: Prairies and High Plains

Across the Prairies and High Plains, the summer months began in drought but did not end that way. Poor precipitation through winter and spring, as well as an early spring melt, led to poor green up of pastures, uneven/poor germination, and reduced runoff. Reduced crops, lack of feed, and poor surface water supplies for livestock in drought-stricken areas led to several rural municipalities and counties in Alberta, Saskatchewan, and Manitoba declaring Agricultural States of Disaster/Emergency in July. Numerous counties in Montana also declared states of disaster due to drought. However, conditions improved with each month due to several high precipitation events and above average rainfall. North Dakota saw its wettest July since 2020, eliminating drought from the state for the first time since 2023. As of the end of August, crop conditions across most of central and southern Alberta were reported as very good, and soil moisture had recovered throughout Southern Saskatchewan. Nevertheless, some areas of the region, like Manitoba, western Montana, and western Wyoming, did not receive as much of this late-summer precipitation, leading to degrading drought conditions in these regions.

Dry Conditions Fuel Wildfires and Smoky Skies

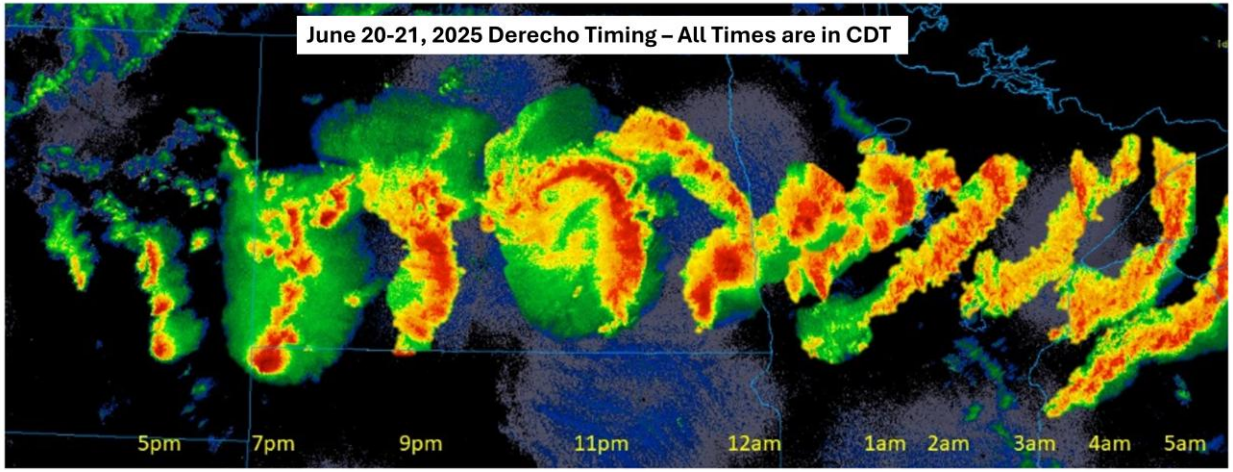
Heavy smoke reduced visibility in the city of Flin Flon during the wildfire event on June 5, 2025. Photo Credit: Province of Manitoba

Location: Prairies and High Plains

A very dry start to the summer in the central Canadian Prairies contributed to an intense wildfire season that swept across the region, burning over five million hectares (over 12 million acres) of land. This summer, Manitoba and Saskatchewan declared states of emergencies and saw the most significant evacuations, damage, and lengthy stretches of poor air quality. By June, Saskatchewan had already estimated damages of up to $500 million to homes and commercial forests, with overall financial losses for the entire region estimated to be much higher for the summer. Wildfires produced smoke that blanketed the region, leading to frequent air quality alerts being issued across the Prairies this summer. July was the smokiest month of the season, and six locations across Saskatchewan and Manitoba experienced their smokiest July on record. Smoke from the Canadian wildfires drifted southwards into the U.S., leading to poor and sometimes hazardous air quality across the High Plains.

Regional Impacts | June – August 2025

Powerful Derecho Impacts the High Plains



Radar imagery showing the timing of the June 20 – 21 derecho event.
Credit: NOAA National Weather Service

Location: North Dakota, Minnesota

During the evening and overnight of Friday June 20, a complex weather system caused extensive impacts across North Dakota and Minnesota. Intense supercell thunderstorms spawned 24 tornadoes, followed by a fast-moving and destructive line of severe thunderstorms known as a "derecho". Of the many tornadoes, the most intense was near Enderlin, ND, producing EF-3 damage and killing at least three people. Long lasting post-storm winds of 60 – 100 mph (100 – 160 km/h) were reported for 2-3 hours at some locations. In Minnesota, a record-breaking 106 mph (170 km/h) wind gust was recorded in Bemidji, causing massive power outages and widespread infrastructure and vehicle damage. The storms destroyed tens of millions of bushels of grain storage infrastructure, damaged over 126,000 acres of cropland, and injured and killed livestock.

Temperature and Precipitation Outlook

October – December 2025

Both the American and Canadian outlooks are leaning towards above average temperatures for most of the region except Montana and North Dakota, where there is an equal chance of below and above normal temperatures. The Canadian and American outlooks indicate a chance of above normal precipitation for western Alberta and western Montana, with no signal over the rest of the region.

PRAIRIES and HIGH PLAINS

Contacts and Partners

- **Environment and Climate Change Canada**
  www.canada.ca/en/services/environment
- **Agriculture and Agri-Food Canada**
  www.agr.gc.ca/drought
- **National Drought Mitigation Center**
  http://drought.unl.edu/
- **NOAA NIDIS**
  www.drought.gov
- **US State Climatologist**
  https://stateclimate.org/
- **NOAA NCEI**
  www.ncei.noaa.gov
- **USDA Climate Hubs**
  www.climatehubs.usda.gov
- **NOAA NWS Climate Prediction Center**
  www.cpc.ncep.noaa.gov
- **High Plains Regional Climate Center**
  www.hprcc.unl.edu
- **NOAA NWS Missouri Basin River Forecast Center**
  www.weather.gov/mbrfc
- **USDA Natural Resources Conservation Service**
  www.nrcs.usda.gov

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