Hot, dry and disastrous: Western Canada's drought is taking a toll

Record temperatures and scant rain are affecting forests, farms, fisheries and jobs

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Record-breaking temperatures and extremely low rainfall across Western Canada are causing chaos for farmers and firefighters this summer as they grapple with the worst drought in more than a decade. The widespread hot and dry conditions in B.C., Alberta and Saskatchewan have led to a jump in wildfires, tight water restrictions, and pressure on farmers as many crops remain stunted and the cost of hay skyrockets. And while some rain sprinkled over the largely bone-dry Prairies and in B.C. this week, it may be too little, too late for the western provinces to fully recover before the summer ends.



NICK PROCAYLO/PNG

With the Capilano reservoir in North Vancouver at 69 per cent capacity, Metro Vancouver has advanced the region to Stage 3 of its water restrictions.

Plans to help the dry provinces cope with the drought have already been initiated. On Thursday, Agriculture Minister Gerry Ritz announced the federal government would grant tax deferrals to livestock producers in regions affected by drought.

On the same day, with smoke billowing from a hillside behind him, Prime Minister Stephen Harper vowed to take a hard look at new ways to fight devastating wildfires such as the one raging near West Kelowna.

In Alberta, several counties have declared states of agricultural emergency. In Saskatchewan, crop insurance rules are being loosened to help the anxious farmers. In British Columbia, water restrictions have been imposed while "drought shaming" grows on social media.

It's prompting many people to ask just what's going on.

"Is it climate change? I don't know. It may just be a fluke, it may just be something coincidental, it's hard to say," says David Phillips, senior climatologist with Environment Canada.

He says although many people have associated the lack of rain in the region with El Niño — a climate event that happens when warm water in the Pacific Ocean interacts with the atmosphere — it may actually be connected to a mass of warm water in the Pacific Ocean that originated in the Gulf of Alaska and moved down the coast to B.C. It's been dubbed the "Pacific blob."

"(It) could have contributed to weather blocking, which prevents normal processing of precipitation events, over the western provinces," Phillips says, adding it also could have brought wetter weather in the east.

"What we're seeing now is conditions go from one extreme to the other," Phillips says. "Some parts of the Prairies last year were the wettest on record. This year, we've seen the opposite." He calls it "weather whiplash." "That seems to be a common thing that we're seeing around the world, where normal doesn't exist anymore."

The effects of this year's extremely dry conditions are widespread. **Farming**

About 60 per cent of the agricultural landscape within the prairie region has received very low or record low precipitation so far, says agro-climate specialist Trevor Hadwen. That has affected about 27,000 farmers and about six million cattle in the dry regions of Alberta and Saskatchewan.

"We had just completed our first hay cut, which was probably a little less than half what we normally get. And the second cut in the pasture was basically dying," says Orville Schmidt, who farms in Leduc, southeast of Edmonton. "I hate to admit it, but I'm 60 years old. In those 60 years, I can only remember two or three summers like this where we've had no rain in May, June and July."

Alberta's capital city and its surrounding areas have been the driest in the province.

The most recent crop reports pegged sub-soil moisture levels in the area as 97 per cent poor to fair. Only 13 to 18 per cent of spring wheat, barley, canola and dry peas were in good to excellent condition. Several Alberta counties have declared states of agricultural disasters — although the declaration does not guarantee there will be an immediate flow of provincial or federal dollars to farmers, the hard-hit counties are hoping a financial relief fund will be set up.

Bill Gehl, who farms near Tregarva, north of Regina, says subsoil moisture left over from two wet years helped insulate his crops against the worst of the drought.

"We were coming off of three years, at least, of excess moisture, so really the conditions were quite good," he says. "But then, that was followed up by a fairly extended period of no moisture whatsoever."

In B.C.'s Fraser Valley, farmers are doubly fraught by hot, dry conditions, with crops that are ripening so fast they can't be harvested and unirrigated fields burned brown by unrelenting sun.

Farmers have left tonnes of perfect berries, corn, peas and beans in the field to rot because they are all ripening at the same time, says Tom Baumann, an agriculture professor at the University of the Fraser Valley.

Chilliwack farmer Ian Sparkes left 240,000 ears of ripe corn in the field after his staggered showings all ripened at the same time.

"I just can't sell it all," says Sparkes, who has about two dozen farm stands.

Livestock producers have certainly been hit the hardest, with poor pasture conditions leading to extremely low hay yields across the West. In its weekly crop report, Saskatchewan's agriculture ministry says hay yields on dry land are "well below" the five-year average.

Many farmers facing feeding challenges are being forced to make difficult decisions. There are two options left for cattle producers facing a feed crunch: Purchase more feed for double the normal cost, or begin selling off cattle.

"Guys are just going to be watching their pennies right now," says Norm Hall, president of the Agriculture Producers Association of Saskatchewan. The conditions have forced the Saskatchewan government to OK grazing in 90,000 acres of its wildlife development land. The government has also loosened crop insurance rules to let producers use drought-stressed crops for grazing and forage.

Schmidt says the drought has increased the demand for hay and grain feed right across the West.

"It's increased the demand immensely and I think it has a lot to do with the fact that it's not just us (in Alberta)," Schmidt says. "We've had a lot of people we used to sell hay to in British Columbia desperate for hay. Their drought is just as bad as ours."

And, while areas of Alberta and Saskatchewan saw some muchneeded rain this week, the situation is certainly not improving in B.C.

The southwest portion of the province is experiencing a Level 4 drought — the most extreme rating — and could soon be joined by the South Thompson, Okanagan and Similkameen.

"In British Columbia, about 35 per cent of the agricultural landscape is considered to be receiving very low to record low precipitation," Hadwen says. "That hasn't improved. It's only got worse in the last couple of weeks."

Wildfires

Forests in B.C., Alberta and Saskatchewan are burning this summer at rates well above normal, prompting governments to impose fire bans, driving thousands of people from their homes, and requiring firefighters to be brought in from the eastern provinces, the U.S., Mexico, New Zealand and Australia.

Early in July, Saskatchewan had to call in the army: More than 1,000 military personnel were deployed to fight the wildfires ravaging the province. This week, provincial officials said the amount of land that's burned in Saskatchewan this year was about 10 times what is normal.

In B.C., the blazes have blown through the provincial government's \$63-million firefighting budget, a figure Premier Christy Clark now admits could hit \$400 million by summer's end. About 240 fires are burning in B.C. after dozens more flared up when lightning storms passed through B.C.'s Interior and Okanagan this past week. In Alberta, there have been more than 1,400 fires this year — already more than the number for the entire 2014 wildfire season.

Water Flows

With most of the mountain snowpack long ago melted and little rain since May, water flows in rivers in B.C. are trending to record low flow and higher water temperatures, which leads to high mortality in spawning salmon.

A July 4 fishing ban for southern Vancouver Island streams was this week expanded to most rivers in drought-stricken areas.

"The snow we did have melted off earlier than normal right across the province, upwards of a month ahead of what is normal," says Dave Campbell, spokesman for the Rivers Forecast Centre. "It has also been warmer and drier than normal for almost three months so we are now seeing extreme low flows (in southwestern B.C.)."

Some flows are the lowest recorded since measurements began 80 to 100 years ago, says Campbell.

In Sechelt, on the Sunshine Coast north of Vancouver, the low water levels are being blamed for the loss of at least 130 jobs. This week, the Howe Sound Pulp and Paper Mill announced it would close its paper production operations due to dropping water levels in Lake Seven. The lake feeds the mill's operations.

Restrictions

While several communities in Alberta and Saskatchewan have asked their residents to conserve water, the situation is much more dire on the West Coast. Communities in Vancouver and on Vancouver Island have implemented widespread restrictions on water use to deal with record low reserves. Metro Vancouver has banned outdoor sprinkling, washing cars and filling swimming pools for the first time in more than a decade to preserve rapidly dwindling water supplies in the region's three reservoirs. The water supply is less than 70 per cent of normal for this time of year, according to Metro chairman Greg Moore.

Fearing even tighter restrictions, the citizenry has flooded municipal snitch lines with thousands of complaints about people wasting water.

People are also taking to social media to post "drought-shaming" pictures of homes with green lawns in the city's most affluent neighbourhoods.

Environment Canada meteorologist Lisa Coldwells says just 16.6 millimetres of rain has fallen on the South Coast during May, June and July, compared with an average of 154.5 millimetres.



Some small measure of relief came Friday, as rain fell in Vancouver and along the coast, but it was only expected to be a few millimetres — not enough to make a difference.