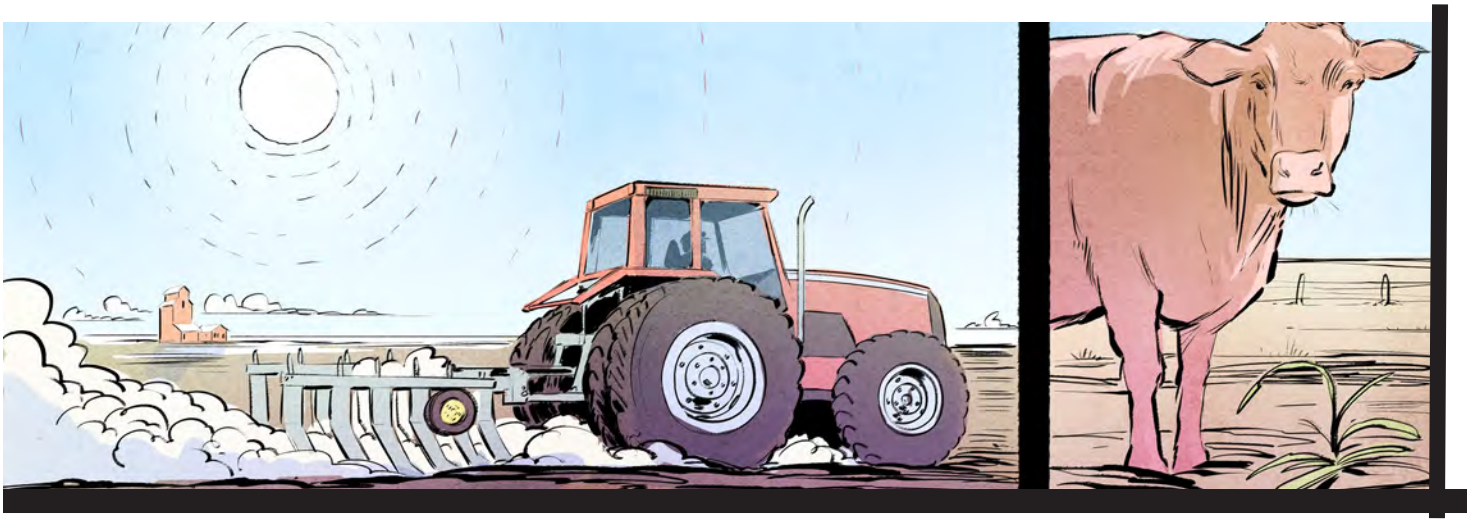
National

# A Dry Summer for Canada's Breadbasket

## – How drought is impacting Prairie farmland



It's been a distressing season for many farmers and ranchers in Alberta, Saskatchewan, and Manitoba.

Canada's Prairie region is known for its vast grasslands, fertile farmland, and rich energy resources. For many years, 'Canada's breadbasket' has produced over 90 percent of the country's wheat, and many other crops. The flat prairie plains are ideally suited for growing food to feed Canadians and to export around the world.

But meagre rainfall and an unseasonably hot spring and early summer **parched** many of the rich and vibrant fields. Rivers, lakes, and even dugouts—small artificial ponds farmers dig to collect rain and snowmelt for **livestock**—began to dry out.

### Emergency conditions

In May, the situation was so bad that **Agriculture and Agri-Food Canada** classified 77 percent of the Prairie region as either Abnormally Dry or as experiencing Moderate to Extreme **Drought**. Soil moisture levels across 72 percent of the agricultural landscape fell to record lows. Conditions deteriorated so much that several areas declared agricultural states of emergency.

Worse, this is the ninth consecutive year that the Prairies have experienced drought. "Everything is short, everything is dying," said Saskatchewan farmer Virginia Maier. "When [drought] goes on for so many years, it's starting to get depressing."

### Crops and animals suffer

The impact on farming was immediate and severe. Crops like wheat, canola, and barley that usually flourish were threatened. Ranchers faced barren pastures and sold off cattle—they didn't have enough hay to feed the hungry animals. Some turned to **irrigation**, but due to scarce water supplies, the cost of piping in the precious liquid skyrocketed. Some farmers purchased feed to keep their livestock alive. These were costly and temporary fixes.

Wildlife also felt the strain. Thirsty and desperate deer, elk, and other animals moved closer to settlements to find water. Birds responded to the dry environment by shifting migration routes and changing their habits. Fish populations in lakes and warming rivers declined as they struggled to survive in shrinking **habitats**.

### Relief for some . . .

Thankfully, by mid-August, circumstances had improved in some areas. Heavy **precipitation** in late June—a welcome surprise—pulled central Alberta and west-central Saskatchewan back from the brink, with some areas receiving over 100 millimetres of rain. That bolstered soil moisture levels and decreased the worst of the drought conditions.

### . . .but not for others

However, much of southern Saskatchewan and Manitoba stayed very dry. In Saskatchewan, only about 23 percent of cropland topsoil had adequate moisture. That means that just a small portion of the soil's upper layer—where crops grow and absorb water—had enough water to support

### Definitions

**Agriculture and Agri-Food Canada**: federal department that regulates agriculture, including production, processing, and marketing of all farm, food, and agri-based products
**Drought**: a period of unusually dry conditions
**Habitat**: the natural environment where a plant or animal lives or grows
**Irrigation**: the artificial application of water to land to assist in the growing of crops and other plants
**Livestock**: animals raised on farms for practical purposes such as food (meat, milk, eggs), fibre (wool), or labour
**Parched**: very dry, especially from lack of moisture or heat
**Precipitation**: any form of moisture that falls from the sky

healthy plant growth. The remaining 77 percent of the soil was either "short" or "very short" of moisture.

### The wildfire factor

Adding to the problem? Across Canada, wildfires reached alarming levels in recent months. By early August, over 6.5 million hectares had burned across the country. Over half of this territory was in Manitoba and Saskatchewan, but large parts of Alberta were in flames as well.

The blazes threatened farms, towns, and many isolated rural and First Nations communities. Emergency personnel were stretched thin. Canada's military helped with evacuations. Other countries, such as Mexico, Australia, and the United States, sent personnel and equipment to help with evacuations and firefighting.

But despite their efforts, tinderbox conditions and the many raging fires caused air quality to deteriorate, posing many health risks—especially to children, the elderly, and those with breathing problems.

### A Canada-wide issue

Sadly, the Prairie region wasn't the only area grappling with tinder-dry conditions. Southwestern Ontario experienced drought that affected corn and soybean crops. Forests, especially maple and other hardwoods, were stressed, and water levels in lakes and rivers dropped, impacting fisheries. Northern Ontario also saw many wildfires.

Atlantic Canada was hit hard too, and persistent heat and dry conditions affected many areas. Much of the region, including Nova Scotia, New Brunswick, Prince Edward Island, as well as parts of Newfoundland and Labrador, experienced below-normal rainfall, with some areas getting less than 60 to 85 percent of their usual precipitation levels. Halifax recorded rainfall at 60 percent of normal levels from April to July. Some outdoor activities were banned, and some Crown lands were closed to the public.

Fierce wildfires broke out in eastern Newfoundland after low winter precipitation and one of the hottest and driest summers ever. Many states of emergency were declared, and thousands of people fled to safety. Evacuation alerts were issued in multiple areas as officials monitored fire behaviour.

### The bigger picture

The circumstances causing drought conditions are part of a broader climate story. The severe droughts are linked to shifting **jet stream** patterns, which influence weather. Long-term climate change is also making extreme conditions more common and more intense. The need for a coordinated response and collaboration between provinces has never been greater to better manage water resources, fight fires, and support affected communities.

### The toll on Prairie crops

Meanwhile, in southwestern Saskatchewan and parts of Alberta and Manitoba, the drought has caused stunted crop growth, rapid maturity, and uneven development. Farmers are reporting yields so low that some plan to use what they reap for animal feed.

Yet surprisingly, overall crop yield forecasts for the Prairies remain relatively solid. Agriculture Canada says that many spring-planted crops, including wheat and canola, could be near or even above the five-year average in some areas due to favourable weather in other parts of Western Canada. And barley production should be just below the five-year average.

Still, given the ongoing risk of drought and wildfires, farming and ranching are under serious stress.

"I'm going to scrape through [for] maybe another year," says Quinton Jacksteit, a Saskatchewan farmer, "but I have a couple of boys that want to farm, and it's not something that I would recommend to them." ★

## Did you know?

The Prairies have a long history of drought. Major dry spells occurred in the 1890s, 1910s, 1930s, 1960s, 1980s, and early 2000s. The 1930s "Dust Bowl" era was especially difficult.

From 1900 to the late 1920s the region experienced large immigration growth and many settlers established farms. They broke the land, cleared the vegetation, and planted crops. In these early years, farms were successful and growing conditions were good. The "breadbasket" thrived during this period.

But the world economy began to crash. The Great Depression, a severe global economic downturn, lasted from 1929 to 1939. These years saw high rates of unemployment and poverty, drastic reductions in industrial production and international trade, and widespread global bank and business failures.

As the 1930s began, the region received meagre precipitation which caused repeated crop devastation. Farmers were impacted by prolonged drought, insect infestations, and the ultimate economic collapse of rural farms.

Farmers struggled to hang on but governments were slow to respond. Banks began repossessing farms and others were abandoned. An estimated 750,000 Canadian farms were lost between 1930 and 1935. Most were in Alberta and Saskatchewan.

## Definitions

**jet stream**: a high-altitude wind current that circles the Earth, typically flowing from west to east