Canadian farmers used about 40% less water to irrigate their crops in 2020 compared with two years earlier, mostly due to more rainy conditions in Canada. Most of the irrigated water was used for field or forage crops.

Canadian agricultural producers used approximately 1.8 billion cubic metres of water to irrigate their crops in 2020.

Total volumes used for irrigation during the growing season were mainly down in Alberta. Alberta's total irrigation water volume decreased by 39% from 2018 to 1.2 billion cubic metres in 2020, accounting for approximately two-thirds of the national irrigation water applied to crops.

Field (50%) and forage (37%) crops used the most irrigation water across the country, with fruit (8%) and vegetable (5%) crops accounting for the rest.

The majority of irrigating farms (87%) in 2020 reported having no issues preventing them from irrigating.

Chart 1
Irrigation volume by crop type

Alberta accounts for over two-thirds of the land that receives irrigation

Nationally, a total of 605,907 hectares of land received irrigation in 2020, down 12% from 2018. Provincially, farmland in Alberta received the most irrigation (432,195 hectares), accounting for over two-thirds (71%) of the total area of land that received irrigation in Canada.

Canadian farmers also reported that field (345,581 hectares) or forage (205,866 hectares) crops accounted for the vast majority of irrigated land.
Most off-farm water sources are from provincial authorities

Canadian farmers use four types of water sources: water from on-farm underground sources (e.g. wells), on-farm surface water sources (such as lakes and rivers), off-farm sources, and other water sources.

A large portion of the off-farm irrigation water in Canada was provided by provincial sources, as reported in Alberta (97%), Saskatchewan (94%), and British Columbia (69%). The provincial sources consist of irrigation districts and projects. Some farmers reported that these were the only option available to them for irrigation water.

Note to readers

The Agricultural Water Survey gathered information on irrigation water use, irrigation methods and practices, and sources and quality of water used for agricultural purposes on Canadian farms during the 2020 growing season (April 1 to October 31, 2020). This survey is part of the Canadian Environmental Sustainability Indicators program.

The volume of water is reported in cubic metres. One cubic metre equals 1,000 litres.

The area of land that received irrigation refers to land area that actually received irrigation. Land area that had the capacity to be irrigated but did not receive irrigation is not included.

The 2020 survey estimates for both irrigation volume and area of land that received irrigation showed growth rates that varied widely across regions. Differences in weather patterns, crop types and farming practices can all lead to these variations.

Available tables: 38-10-0239-01 to 38-10-0249-01.

Definitions, data sources and methods: survey number 5145.

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; infostats@statcan.gc.ca) or Media Relations (statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca).