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Albertans able to learn more about provincial climate change patterns on interactive website

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The [Alberta Climate Records website](#) has been up and running for four years, explaining interactively how Alberta's climate patterns have changed since the 1950s.

However, the University of Lethbridge project was relaunched on Monday with the inclusion of future climate projections extending to 2070.

It's a tool that developers Dr. Stefan Kienzle and Christine Clark believe could be of value to farmers across the province.

"We have those 55 different climate indices all together, from frost days to heatwaves, etcetera," Kienzle explained.

Kienzle, a professor in the department of geography and environment, first began his deep dive into the data in 2012, before recruiting grad students and summer students to help with the project.

Clark, an assistant professor of new media with the university, was recruited to design and develop the website and ensure the extensive data was both accessible and interactive.

"The data set behind the website is vast," Clark said.

“There’s more than 25 million individual data points, and all of those data points are accessible through the website, through the map.”

Through analysis, the team determined that climate change has variably affected different areas of the province.

Ken Coles, the executive director of Farming Smarter, said the ability to pin-point specific data on the website is the most valuable component for growers who have faced increasingly challenging conditions in southern Alberta.

“Farmers love talking about the weather,” Coles said. “This is just a great tool to be able to settle some arguments and to be able to really zone in on quite the variation — because there’s lots of little micro-climates all over the place.”

Kienzle said his data has shown notable climate trends across the province over the last 60+ years, including the gradual warming of winters.

However, he said an increase in both cold snaps and heatwaves — as well as higher temperatures off-setting an increase in precipitation — will continue to provide a hostile growing environment for farmers.

“The difference in wetness from the precipitation is absorbed by the increase in evaporation,” Kienzle he said. “So we actually will end up with drier soils in the summer, and that means higher irrigation demand, and unfortunately, also, higher risk of wildfires.”

The website includes more than 100 high-resolution maps that are available for download.

Clark stressed that the site is best experienced on a desktop or tablet, as a mobile version has yet to be developed.