

Viewpoint: How agricultural biotechnology can help North American farmers cope with climate change

The use of modern seed genetics, which includes genetically modified crops, chemical and fertilizer use, greatly contributes to improved agricultural sustainability and climate change mitigation.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter.

[SIGN UP](#)

Those who advocate for a return to crop production that doesn't rely on integrating any of the above technologies are advocating for agricultural production practices prior to 1960, where increases were entirely due to increased land used to produce crops. Increasing land use every year is not a sustainable way to produce crops.

One of the most valuable assets farmers transfer to the next generation is the health of the soil that is farmed. Innovations greatly contribute to improving soil health.

The efficient weed control resulting from GM crop production facilitates continuous zero-tillage crop production, which has significant soil benefits, with one study finding carbon storage increased from 0.3 tonnes per year to 6.4 tonnes per year.

With the positive correlation between GM crops and reduced tillage, both technologies reduce agricultural impacts on the environment and often improve soil and water quality through reduced erosion. Reduced chemical applications have prevented millions of kilograms of chemical active ingredients from being applied to crops, further benefiting soil health.

[**This is an excerpt. Read the original post here**](#)