
NORTH DAKOTA CLIMATE INITIATIVE – SECTOR STORY 1

Cover Crops Help North Dakota Gain Ground on Climate Resilience

The North Dakota Department of Environmental Quality (NDDEQ) is leading a first-of-its-kind sustainability plan, the North Dakota Climate Initiative. This initiative builds on steps that North Dakota farmers and ranchers are already taking to achieve a sustainable and resilient future.

With an annual economic impact totaling well over \$35 billion, North Dakota farmers are a powerful force driving the state's economy and feeding the nation. North Dakota is home to roughly 25,000 farms and ranches, comprising nearly 39.3 million acres and broadly supporting nearly 25 percent of the state's workforce. Many of these farms and ranches have led the way on environmental stewardship and sustainability, such as innovations in cover crops.

Cover cropping is a practice that involves planting crops, not to harvest, but to cover soil. Farmers benefit from cover crops because they reduce soil erosion, attract pollinators, keep more nutrients in the ground, and facilitate weed and pest management. Additionally, cover crops sequester carbon dioxide from the atmosphere by trapping it in the soil and root systems. Cover cropping is an innovative approach that promotes sustainable and profitable farming in the long-term and helps North Dakota [collaboratively reduce its greenhouse gas emissions](#).

For Gilby farmer Greg Amundson, transitioning to no-till and cover cropping wasn't an easy decision. "My biggest hurdle was a mental one," said Amundson. "It was hard not to think about the things I'd heard other area farmers say over the years: 'No-till won't work in the valley; it'll never work.'"

Amundson's perspective changed after a dramatic experience during a snowstorm. "Hitting that hard drift of snow mixed with dirt blown across the road from the field just changed my mind about no-till," he said. "I came home and told my dad, 'That's it! We're doing this.'" Since then, Amundson has embraced no-till farming and cover cropping, seeing improvements in soil structure, trafficability, and overall profitability. "This is a journey, but there's no turning back for me. I won't go back to full tillage."

According to the [2022 Census of Agriculture](#), the number of acres of cover crops planted in North Dakota more than doubled from over 400,000 acres in 2017 to nearly 840,000 acres in 2022.

North Dakota’s farmers resolutely care about preserving the land, which is essential to producing abundant food, feed, fuel, and fiber and ensuring future generations can do the same.

Agriculture organizations such as the National Corn Growers Association, the United Soybean Board, the U.S. Department of Agriculture Partnerships, North Dakota State University, and more have partnered with state commodity groups and conservation organizations to promote the widespread adoption of cover cropping techniques. Their goal is to double the adoption of cover crops nationally to reach 30 million acres by 2030.

Farmers and agricultural specialists can learn from each other, gaining insight about how to successfully employ these techniques and make them affordable. The following programs have helped farmers successfully adopt cover cropping:

- [North Dakota Department of Agriculture’s Soil Health Cover Crop Grant Program](#) provides funding to farmers who implement cover crops in North Dakota.
- [Farmers for Soil Health](#) is a national program that provides enrolled farmers with incentive payments for adopting cover crops on their farms. NDSU, a partner in this program, aims to enroll 35,000 acres, or approximately 98 farmers, in North Dakota.
- Alliance to Advance Climate-Smart Agriculture in North Dakota is a program led by North Dakota’s Farmers Union that provides \$100 per acre or animal unit to producers who adopt high-value conservation practices. The program specifically incentivizes adoption or maintenance of no till, minimum till, prescribed grazing, cover crops, and other practices that curb greenhouse gas emissions.

Cover cropping is just one way that North Dakota farmers have already started sowing the seeds of success for a more resilient and sustainable future. As North Dakota farmers continue to pioneer innovative techniques that bolster conservation efforts, there’s good reason to be optimistic about the state’s climate and economic future.