



Technology Advances Sustainable Wheat

“We as farmers have always been conservationists. The land is our livelihood, and we need it, so we try to preserve it in different ways.”

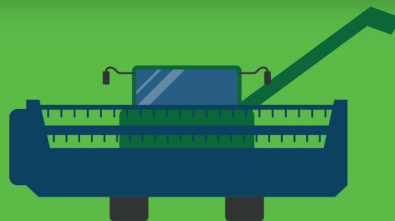
**David Clough, North Dakota
Hard Red Spring Wheat Farmer**

Farming has changed dramatically in the many years since David Clough planted his first wheat crop in 1969. A first generation farmer, he had to learn to survive lean years, unpredictable markets and adapt as technology changed traditional farming practices. He says two things have kept him in business for more than 47 years. The first was his ability to diversify his business growing hard red spring wheat, edible beans, sunflowers, soybeans, barley and selling farm equipment. His second key to success has been embracing technology and new sustainable practices as farming has evolved. Today David farms more than 1,400 acres with his wife Aileen and uses the latest farming technologies to preserve his farmland for the next generation.



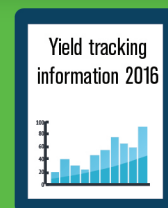
CROP ROTATION

David rotates his crops to manage weed and insect control, nitrogen soil levels and soil moisture.



NO-TILL FARMING

Before no-till farming, David left his fields fallow (without a growing crop) and till the soil to reduce weed growth. Tilling loosens the soil and can lead to soil loss from dust. Today, David uses no-till practices on many of his crops.

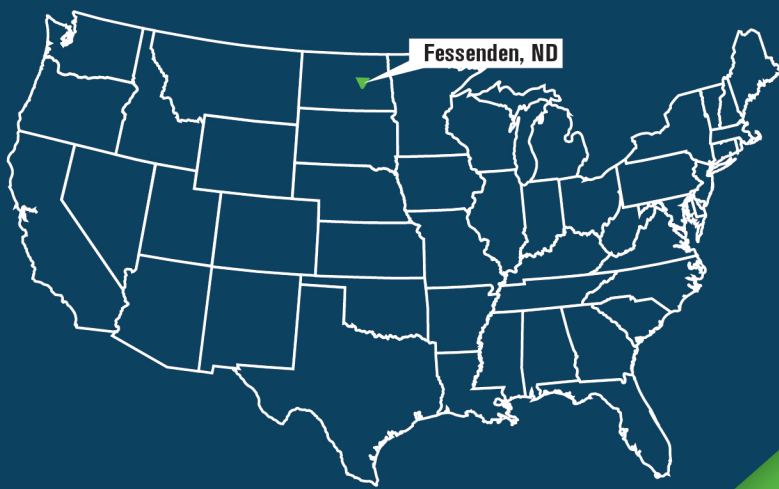


INVESTMENT IN TECHNOLOGY

As technology advances, so do farming practices. David uses genetically modified seeds, GPS technology and more to help conserve resources and ensure a sustainable future for his farm.

47 chances

Every farm is different in each region of the country and proper land management can vary even within farms. After farming for nearly 50 years, David says he looks at each crop as the chance to write a story, with only one opportunity a year to get it right. Changing and adapting to technology is one of the ways he has worked to make his total of 47 wheat crops a “good story.”



“ We weren’t as sustainable 50 years ago when I first started farming, but we have changed and adapted and we will keep changing and adapting. We’re doing it to survive here and to keep our land in good shape for future generations. ”

GPS Technology

Using GPS technology helps David save money and conserve resources on his farm. Auto-steer features in his tractors help him cover oddly shaped fields without missing a spot or overlapping when applying products like fertilizer or pesticides. David is also adaptive to trying new technology. Instead of using traditional GPS technology, which can cause up to a 6 inch overlap when spraying chemicals – adding up to several feet over an entire field – he uses Real Time Kinetics (RTK). This new technology uses satellites and a base that allows him to apply inputs with sub-inch accuracy, conserving time and reducing the amount of chemicals and fertilizers added to the soil on his farm.

