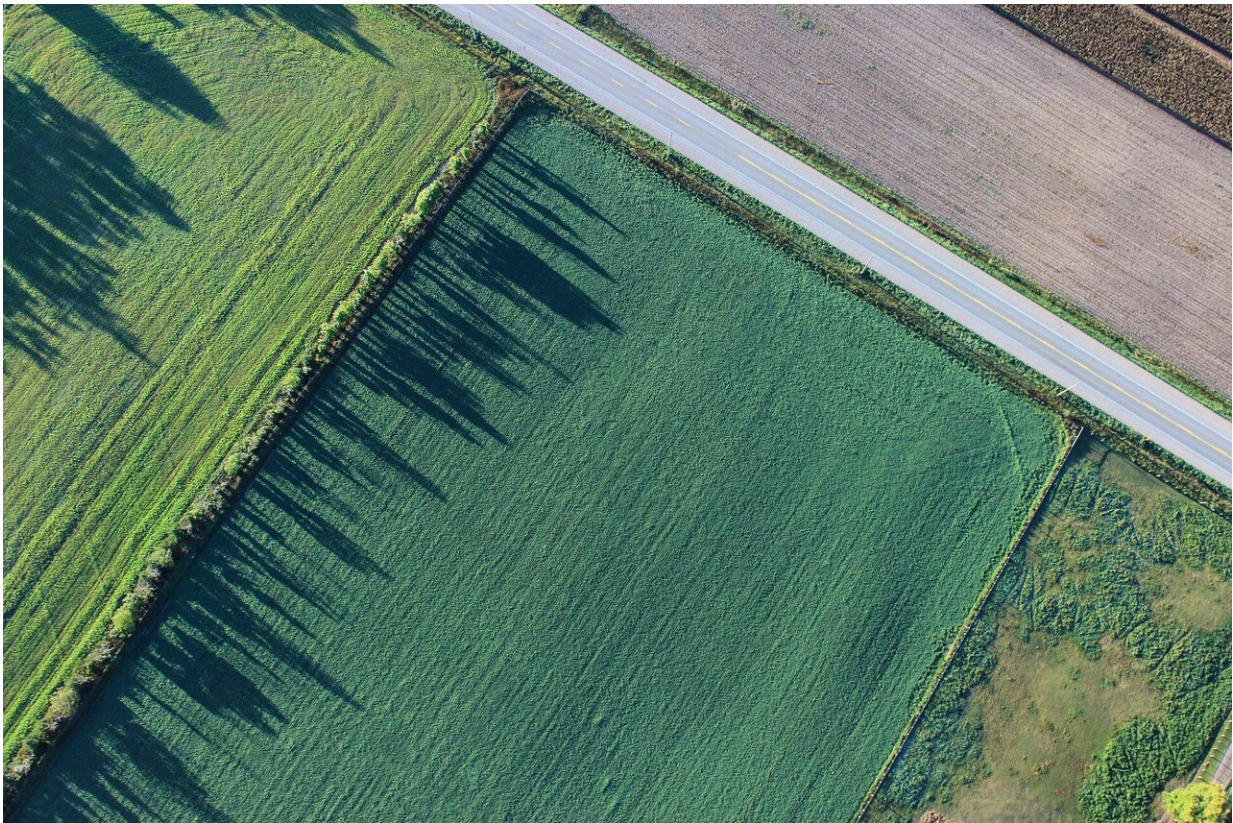


# No-till farming study shows benefit to Midwestern land values

August 15 2022, by Mick Kulikowski

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No-till farming, considered to be a more environmentally friendly farming practice that reduces soil disturbance when compared with conventional practices, appears to have an important benefit besides

reducing soil erosion and nutrient runoff.

A new study from North Carolina State University, capturing county-level data from 12 states in the U.S. Midwest, shows that no-till farming increases agricultural [land values](#), with a 1% increase in no-till farming translating to a \$7.86 per acre increase in land values across the Midwest. In Iowa, the data show a \$14.75 per acre increase in land value with a 1% increase in no-till farming.

Rod Rejesus, professor of agricultural and resource economics at NC State and corresponding author of a paper describing the work, said the study appears to be the first in the academic literature to quantify monetary land value benefits of no-till farming.

"This study suggests that farmland benefits translate into land value benefits, which is typically not considered in debates on no-till pros and cons, and ultimately whether or not conventional-till farmers should convert to no-till practices," Rejesus said.

No-till farming practices leave crop residue on farmlands after harvesting. Farmers plant seeds the following season through the remaining residue. No-till farming typically reduces labor and [fuel costs](#) for farmers when compared with traditional practices, although the academic literature also shows disparities in terms of no-till effects on crop yields and soil productivity. About 37% of U.S. farm acreage uses no-till farming, with strong adoption rates in the Northeast, the mid-Atlantic states and the Midwest.

The study examined two large data sets to answer the question of whether farmland value benefits of no-till farming could be quantified. One set captured agricultural census farmland survey responses in 12 Midwestern states that asked farmers about the current market value of their lands; these were reported in five-year intervals from 2007 to 2017.

The second data set focused solely on Iowa farmland and surveyed experts from that state—farmers, real estate professionals and others—about average farm land values. The data set was collected annually from 2005-2016.

The researchers then separately combined these land value data sets with satellite-based data on no-till uptake at the county level in the 12 states studied.

"This is a tick in the benefits checkbox for no-till farming," Rejesus said. "Spreading the word about these farmland value benefits could help draw more farmers to the practice and induce landowners to encourage this practice among their tenants."

Rejesus hopes to expand on these findings by utilizing the same type of approach to other portions of the country and seeing whether the results match those found in the Midwest.

The paper appears in the *American Journal of Agricultural Economics*.

**More information:** Le Chen et al, The impact of no-till on agricultural land values in the United States Midwest, *American Journal of Agricultural Economics* (2022). [DOI: 10.1111/ajae.12338](https://doi.org/10.1111/ajae.12338)

Provided by North Carolina State University

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