



# Farmland Rental and Conservation Practice Adoption

J. Wesley Burnett, Daniel Szmurlo, and Scott Callahan

## What Is the Issue?

The renting of farmland potentially affects access to agricultural production opportunities, land transfer across generations, and the maintenance of soil and water quality. Tenant farmers may operate farms differently than owner-operators, as a land lease may be modified, terminated, or not renewed before the benefits or consequences of a tenant's management choices are realized. Moreover, agricultural tenancy differs from other economic sectors due to the prevalence of informal lease contracts and nonarm's-length transactions (a purchase transaction in which there is a relationship or business affiliation between the seller and buyer of the property). Against this backdrop, this report examines the adoption of conservation practices across owner-operators and cropland tenants across several principal commodity types and years.

## What Did the Study Find?

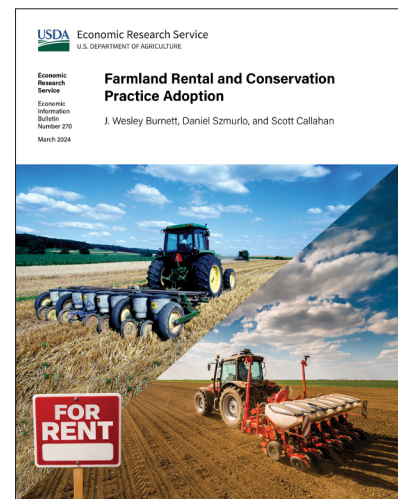
This report found the following key results regarding owner-operated versus cash- and share-rented cropland:

- Soil disturbance decreased over time for all five of the surveyed crops (corn, soybeans, cotton, barley, and sorghum), with very few statistically significant differences across land tenure groups at the national level.

Share- and cash-rented plots exhibited lower soil disturbance than owner-operated plots for corn growers in 2016, but the soil disturbance on owner-operated plots is similar to share- and cash-rent plots by the time corn is surveyed again in 2021.

Share-rented plots exhibited higher soil disturbance than owner-operated plots for cotton growers at the national level in 2019, with the differential driven by operators in the Southern Seaboard and Mississippi Portal.

- Share-rented plots trail owner-operated plots in cover crop adoption across several crops and years at the national level. This pattern is primarily driven by regions outside of the main regions of U.S. production.



ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

Share-rented plots trail owner-operated plots across all surveyed crop years, with the difference being statistically significant at the 5-percent level for corn growers in 2016, soybean growers in 2018, and barley growers in 2019. When divided by USDA's Economic Research Service (ERS) Farm Resource Regions, these differences are not universally shared across regions and typically do not manifest in the regions of highest production for the surveyed crop.

- For all five surveyed crops, very few differences across land tenure groups are statistically significant for the adoption of structural practices.

For both on-field structural practices and off-field structural practices, share-rented and cash-rented plots are often at parity with owner-operated plots, with the exceptions being cash-rented plots for corn growers in 2021 (lower rates for on-field practices) and share-rented plots for soybean growers in 2018 (lower rates for off-field practices).

## **How Was the Study Conducted?**

Results in this report are derived from the analysis of data collected from the 2011–21 Agricultural Resource Management Surveys (ARMS) and the 2014 Tenure, Ownership, and Transition of Agricultural Land (TOTAL) survey. The ARMS data include corn (2016, 2021), soybeans (2012, 2018), barley (2011, 2019), cotton (2015, 2019), and sorghum (2011, 2019). The ARMS is administered by the U.S. Department of Agriculture's Economic Research Service and the National Agricultural Statistics Service. The TOTAL survey is a follow-on component of the 2012 Census of Agriculture to collect data from the owners and operators of agricultural land.