

Cover Crops Can be Part of a Profitable System, Especially as Experience Grows

The role of experience in the profitability of cover crop systems was one of the key findings that arose from our 2021 report, **Conservation's Impact on the Farm Bottom Line**, which evaluated the economics of conservation practices for seven Midwest farmers. Here we highlight some of our takeaways related to cover crops. Be sure to visit soilhealthpartnership.org/farmfinance to explore the full report.

Significant differences in savings between experienced cover croppers and recent adopters came from cover crop seed, total fertilizer, fuel, machinery, and equipment costs.

Net returns on cover cropped fields are affected by years of experience with the practice

We separated experienced and recent cover crop adopters (>5 and up to 5 years of experience, respectively) to demonstrate differences in costs that may occur as farmers gain more experience with integrating cover crops into their management systems.

When looking at each of these groups, we see that corn fields with cover crops had lower net returns (\$307/acre) than fields with conservation tillage but no cover crops (\$377/acre) when all farmers are grouped together. Experienced cover croppers had higher net returns (\$363/acre) than recent adopters (\$267/acre). The experienced cover croppers had higher net returns than fields with conventional tillage and no cover crops (\$324/acre).

Soybean fields with cover crops also had lower net returns (\$173/acre) than fields with conservation tillage and no cover crop (\$251/acre) and conventional fields without cover crops (\$216/acre), but experienced cover crop adopters show substantially higher net revenue (\$251/acre) than recent adopters (\$123/acre). For soybeans, experienced adopters of cover crops had some of the highest net returns in our study.

Note: In this study, differences in profitability related to cover crops appear to be largely dependent on reducing input costs, since yield differences were not large in most cases (regardless of whether the comparison was among cover crop users vs. non-users or experienced vs. recent adopters).



Farmers With Many Years of Cover Crop Experience Make Cost-Saving Adjustments

Farmers who integrated cover crops and reduced tillage on their operations for more than five years seemed to have fine-tuned their systems and achieved cost savings. They had some of the lowest costs and highest profitability per acre, when compared to other combinations of practices, and had lower costs compared to recent cover crop adopters (Figures 1 and 2).

Figure 1: Per-acre costs by tillage and cover crop groups, corn

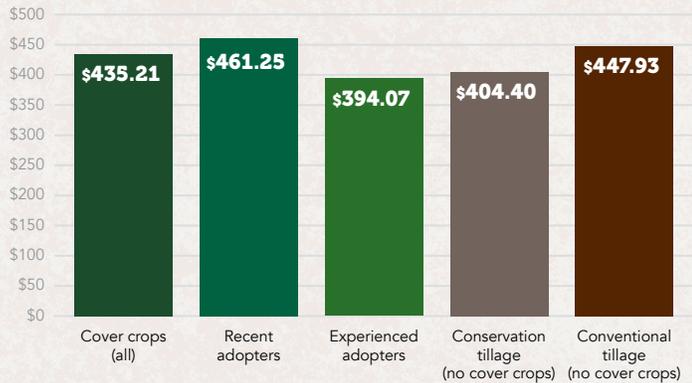


Figure 2: Per-acre costs by tillage and cover crop groups, soybeans



Experience leads to more cost savings with cover crops

Significant differences in savings between experienced cover croppers and recent adopters came from cover crop seed, total fertilizer, fuel, machinery, and equipment costs. Experienced cover crop adopters saved \$9/acre on seed on corn acres compared to recent adopters, \$25/acre on fertilizer, and \$25/acre on equipment. Experienced adopters had similar cost savings on soybeans, including \$6/acre on seed, \$48/acre on fertilizer and \$28/acre on equipment.

The cost savings achieved by experienced adopters often come from changes they've made over time in their seed mix, application, and equipment as they learned to adjust their systems, as well as potential input savings through cover crop impacts on weed pressure, soil structure, nutrient cycling and other factors.

To learn more about our report, *Conservation's Impact on the Farm Bottom Line*, visit soilhealthpartnership.org/farmfinance.

