The Economics of Cover Crops and No-till

Cover crops and no-till are farm management practices that can limit soil loss, reduce run-off, enhance biodiversity, and more. Naturally, farmers who are considering adopting these practices want to know how they will affect their bottom line.

In these case studies, four corn and soybean farmers in the Upper Mississippi River Basin (UMRB) present detailed, year-by-year budget data on their adoption of cover crops or no-till. They share decisions they made and why; how adoption affected income and yields; and what they learned.

Each case study uses partial budget analysis to measure yearly changes in income that the farmer attributes to adoption, compared to the pre-adoption baseline.

TAKEAWAYS

- Planting costs increased by up to \$38 per acre
- Fertilizer costs decreased by up to \$50 per acre
- Erosion repair costs decreased by up to \$16 per acre
- Yields increased by up to \$76 per acre
- Yearly net change in income ranged from -\$83 to \$110 per acre



Locations of four case study farms In Iowa, Missouri, and Illinois

Characteristics of Case Study Farms

	K.F. Farm Effingham Co, IL	Diaz Farm Stephenson Co, IL	Willis Farm Gentry Co, MO	Moore Farm Howard Co, IA
Acreage	1,800	25	1,500	2,300
Livestock	Hog	-	Cow-calf	-
Years of No-till	23	26	30	25
Years of Cover Cropping	0	5	4	3

PARTIAL BUDGET ANALYSIS

Often used in economic analysis of resource conservation, this framework documents selected management changes, including:

- Changes in income the farmer attributes to adoption
- Baseline average of 2-7 years before study period
- Each change in income expressed in \$/acre
- Data from farmer records and in-depth interviews
- Validation by each case study farmer



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