



The Farmer Business Case for Sustainability

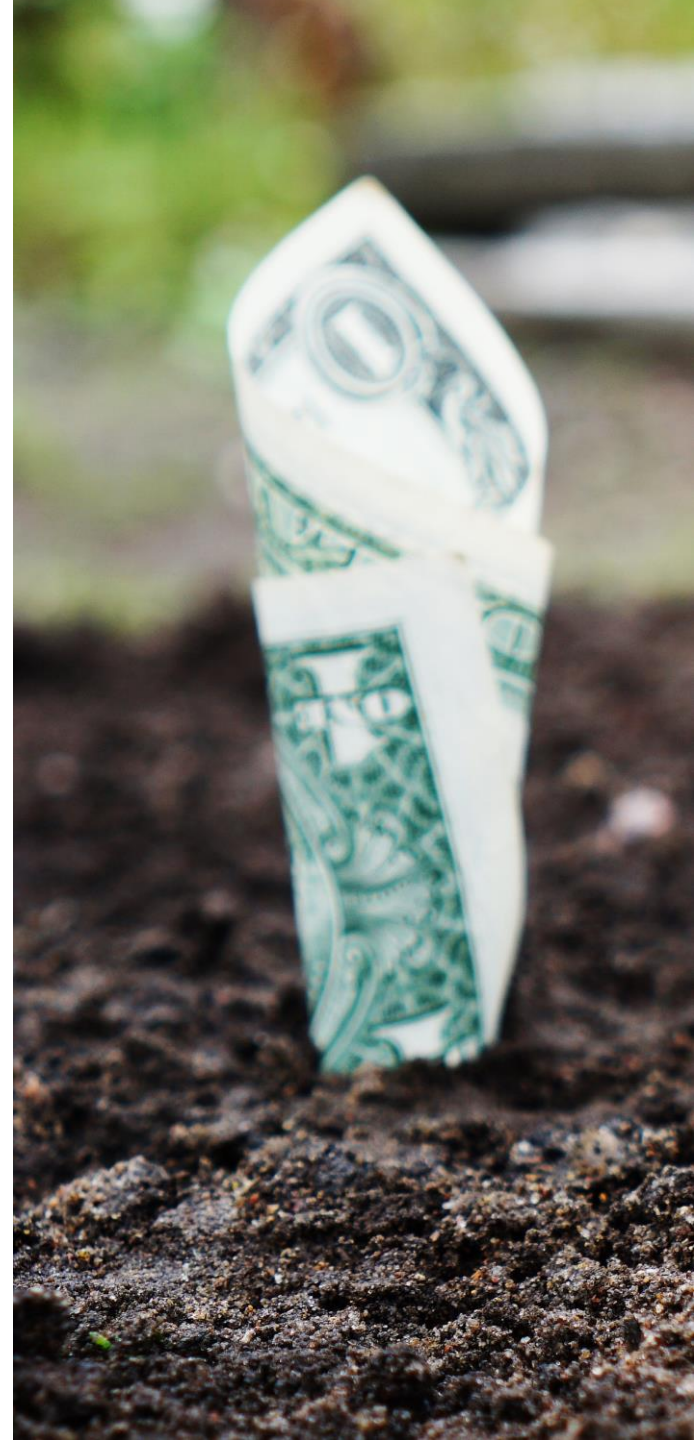
Learning Objectives

- Communicate the value of sustainability to customers
- Respond to producer questions about demand
- Highlight examples of successful farmers
- Forecast potential economic benefits



Finding Value in Sustainable Agriculture

- Reduce risk with technical support
- Increase operational efficiency
- Connect to financial assistance programs
- Engage in supply chain sustainability projects
- Protect freedom to operate



Reduce Risk with Technical Support

Chapter 1

Reduce Risk With Technical Support

Example: Grower wants to add
cover crops to rotation.

Guidance needed to:

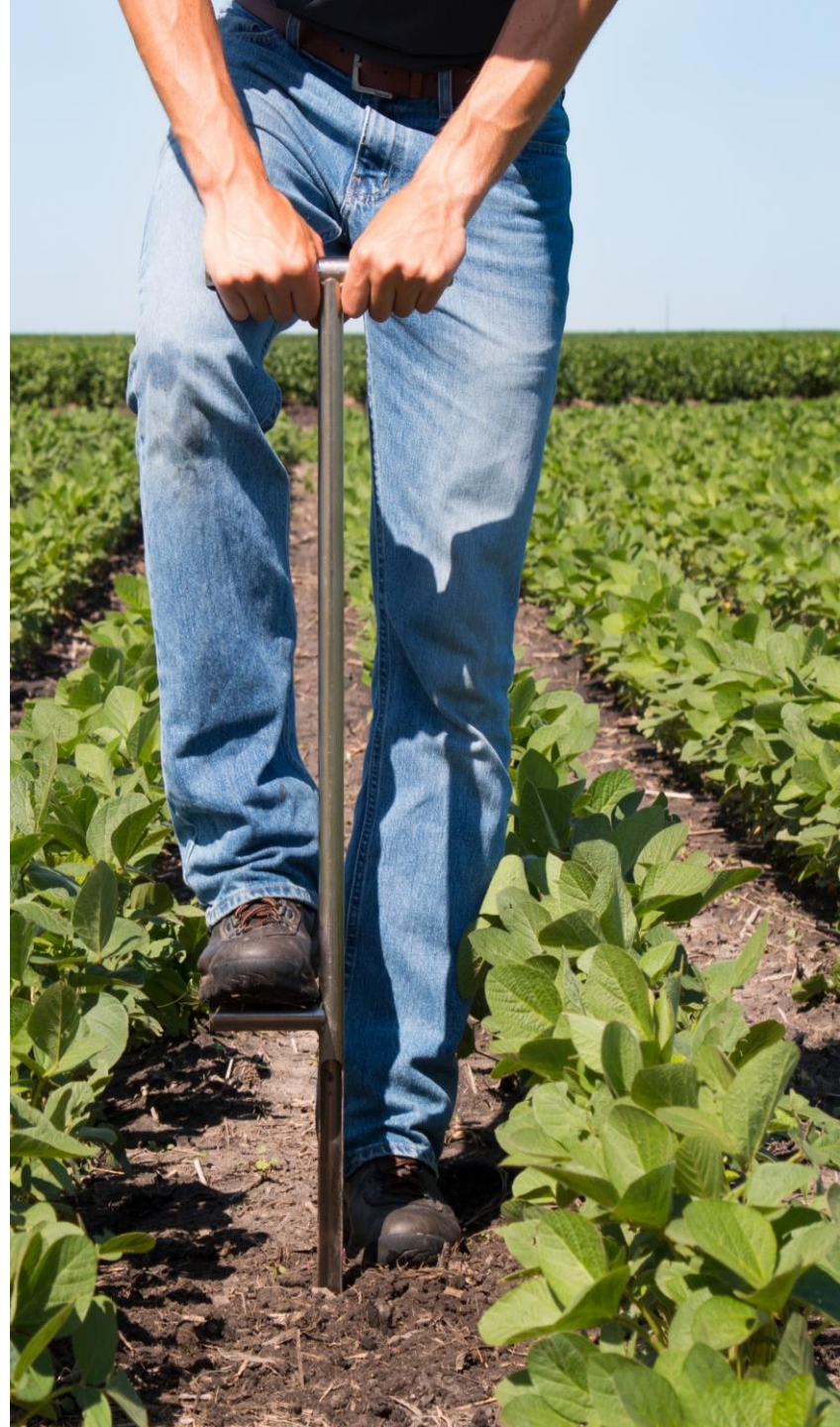
- Select appropriate seed
- Establishing healthy stands
- Terminate cover crop



Reduce Risk With Technical Support

Other examples

- Reduced tillage
- Variable rate technology
- Irrigation technology



Reduce Risk With Technical Support

You are not alone

- American Society of Agronomy
- Conservation Districts
- NRCS
- Cooperative Extension



Photo courtesy USDA Natural Resource Conservation Service

Discussion

Increase Operational Efficiency: Supporting Research

Chapter 2

Increasing Operational Efficiency: Supporting Research

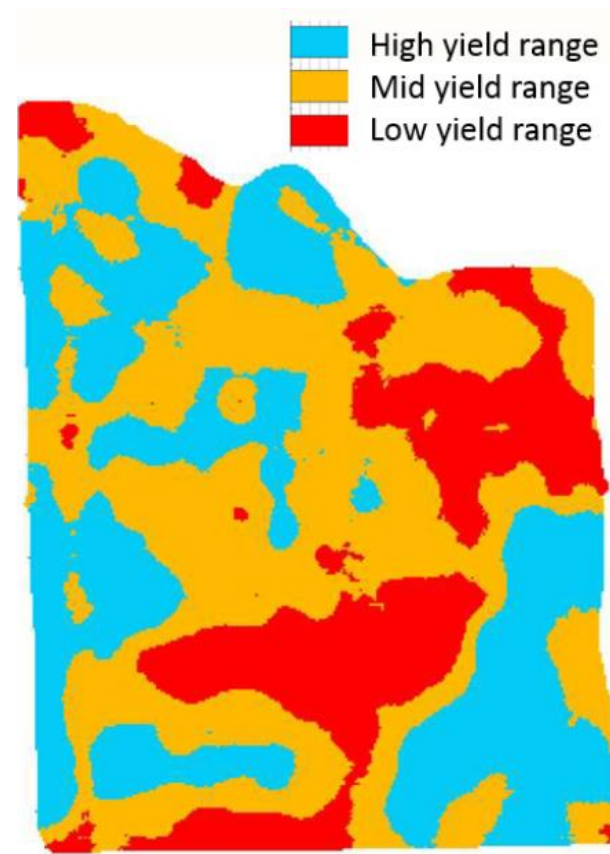
USDA-ERS Study:
Precision
technology
reduces input
costs



Economic
Research
Service
Economic
Research
Report
Number 217
October 2016

Farm Profits and Adoption of Precision Agriculture

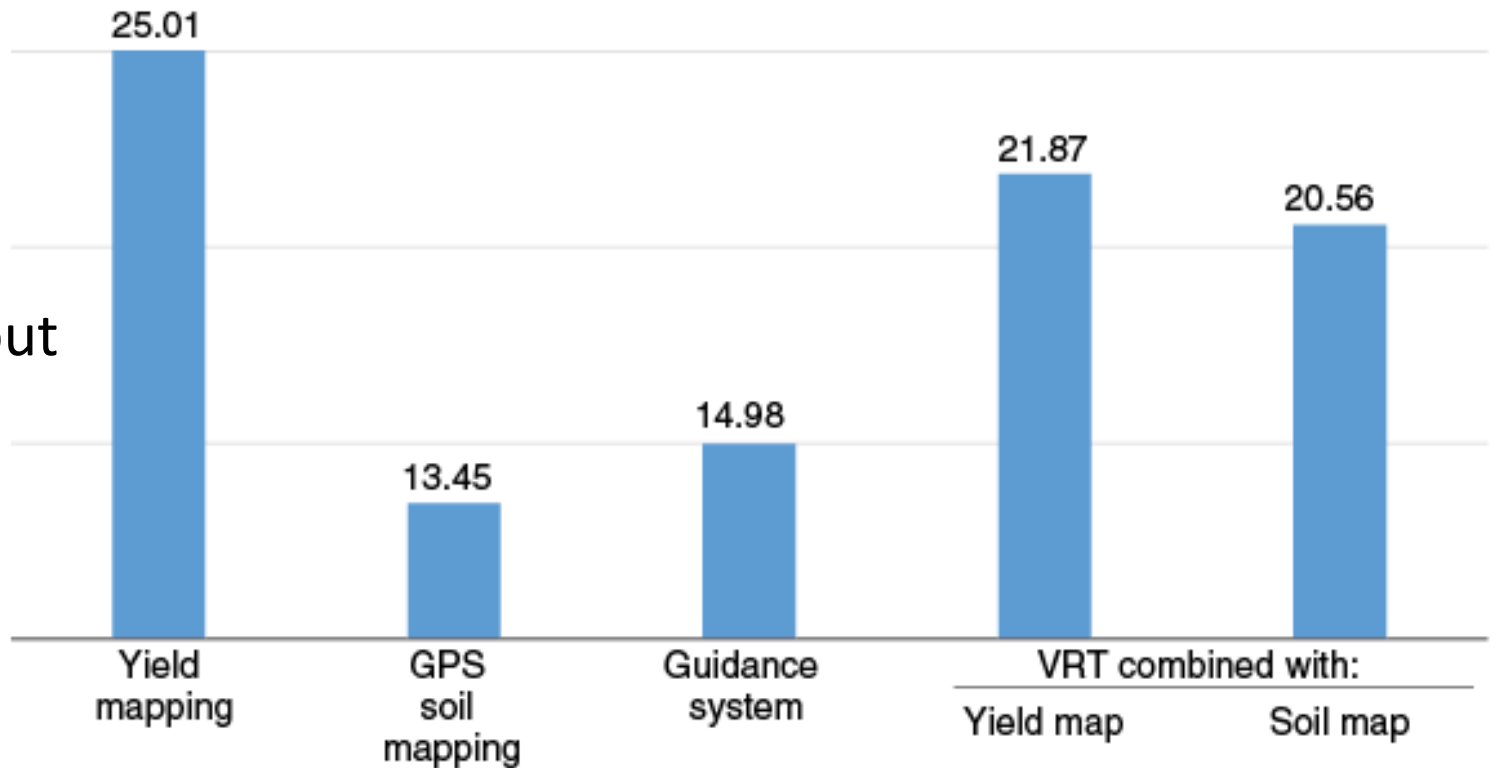
David Schimmelpfennig



**Most corn and soy growers
already use yield monitors.**

Increasing Operational Efficiency: Supporting Research

USDA-ERS
Study:
Precision
technology
reduces input
costs



Increasing Operational Efficiency: Supporting Research

Texas A & M Study: Conservation Tillage Reduces Costs and Boosts Yields



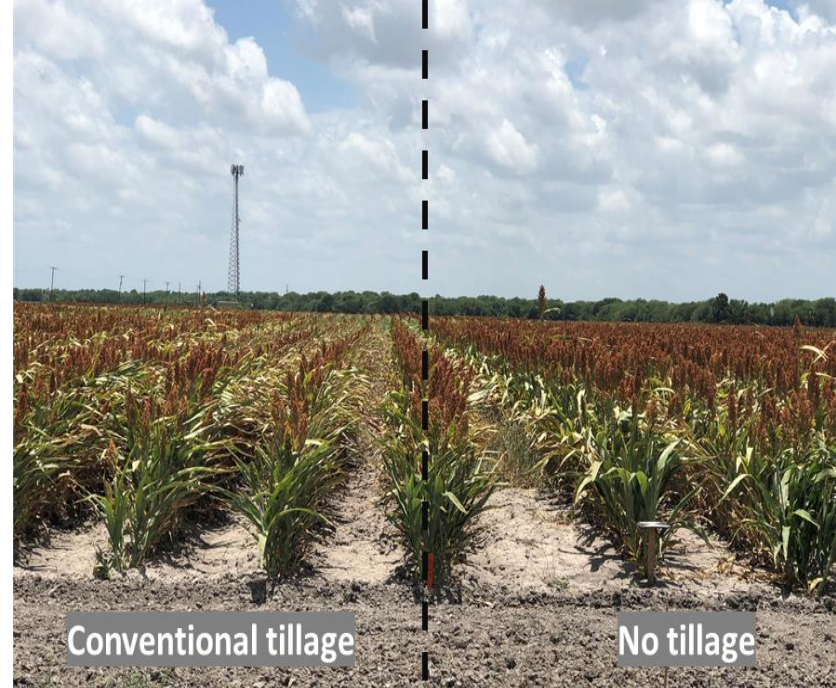
No-Till Farming Practices Offer Cost Savings and More Profit Potential to Cotton and Grain Sorghum Producers

Mac Young
Jamie Foster
Josh McGinty
Steven Klose
Andrea Maeda



FARM Assistance Focus 2018-2
March 2018

Department of Agricultural Economics
Texas A&M AgriLife Extension Service
farmassistance.tamu.edu



Increasing Operational Efficiency: Supporting Research - Texas A & M Study

Table 2: 2018 Conventional and No-Till Cotton and Grain Sorghum Production Costs Differences Per Acre

Expenses	Cotton (lbs.)		Grain Sorghum (cwt.)	
	Conventional	No-Till	Conventional	No-Till
	(\$/Acre)	(\$/Acre)	(\$/Acre)	(\$/Acre)
Herbicides (1)	41.24	51.24	35.13	38.26
Insecticides	27.33	27.35	11.15	11.54
Custom (2)	54.48	32.08	69.59	47.24
Harvest (2,3)	155.55	171.36	15.45	16.91
Boll Weevil	4.27	4.70	n/a	n/a
Labor	13.18	7.72	15.07	9.42

(1) Includes defoliants for cotton.

(2) Assumes cotton is custom harvested.

(3) Includes ginning for cotton; hauling and drying for grain sorghum.


Increasing
Operational
Efficiency

Table 1: Cotton and Grain Sorghum Conventional and No-Till Yields Per Acre, Corpus Christi Research and Extension Center				
Year	Cotton (lbs.)		Grain Sorghum (cwt.)	
	Conventional	No-Till	Conventional	No-Till
2011	266	277	35.65	36.79
2012	428	415	26.43	39.49
2013	22	190	0.00	0.00
2014	517	565	27.74	34.41
2015	916	1,058	53.42	48.85
2016	953	910	51.29	56.48
2017	1,168	1,286	45.86	47.02
Average	610	672	34.34	37.58
Case Study Projected Average Yields				
2018	610	672	34.34	37.58
2027	640	705	34.87	38.16

Discussion

Increase Operational Efficiency: Grower Testimonials

Chapter 3

A photograph of two men standing in a rural field. The man on the left is wearing a dark blue jacket and jeans, with his hands in his pockets. The man on the right is wearing a tan jacket, jeans, and a cap, with his hands on his hips. Behind them is a red tractor. The background shows a dirt road and some trees under a cloudy sky.

Profiles In Soil Health

**Jared Questad,
Baltic, SD**

Soil Health Partnership: Farmer Dave Moss



Discussion

Increase Operational Efficiency: Case Studies

Chapter 4

Increase Operational Efficiency: Case Studies

National Association of Conservation Districts
and Datu Research Case Study: Diaz Farm
Benefits from No-Till and Cover Crops



DATU CASE STUDY

Diaz Farm

- Stephenson County, Illinois 
- Average winter 22°F 
- Average summer 70°F 
- Average annual precipitation 38 inches 
- 25 acres of row crops 
- Corn-soybean rotation 
- Gentle rolling terrain with slopes ranging from 3% to 5%, whole farm classified as highly erodible areas, silt loam soil 
- 26 years of no-till, 5 years of cover crops 
- 2012-16 study of cover crops 

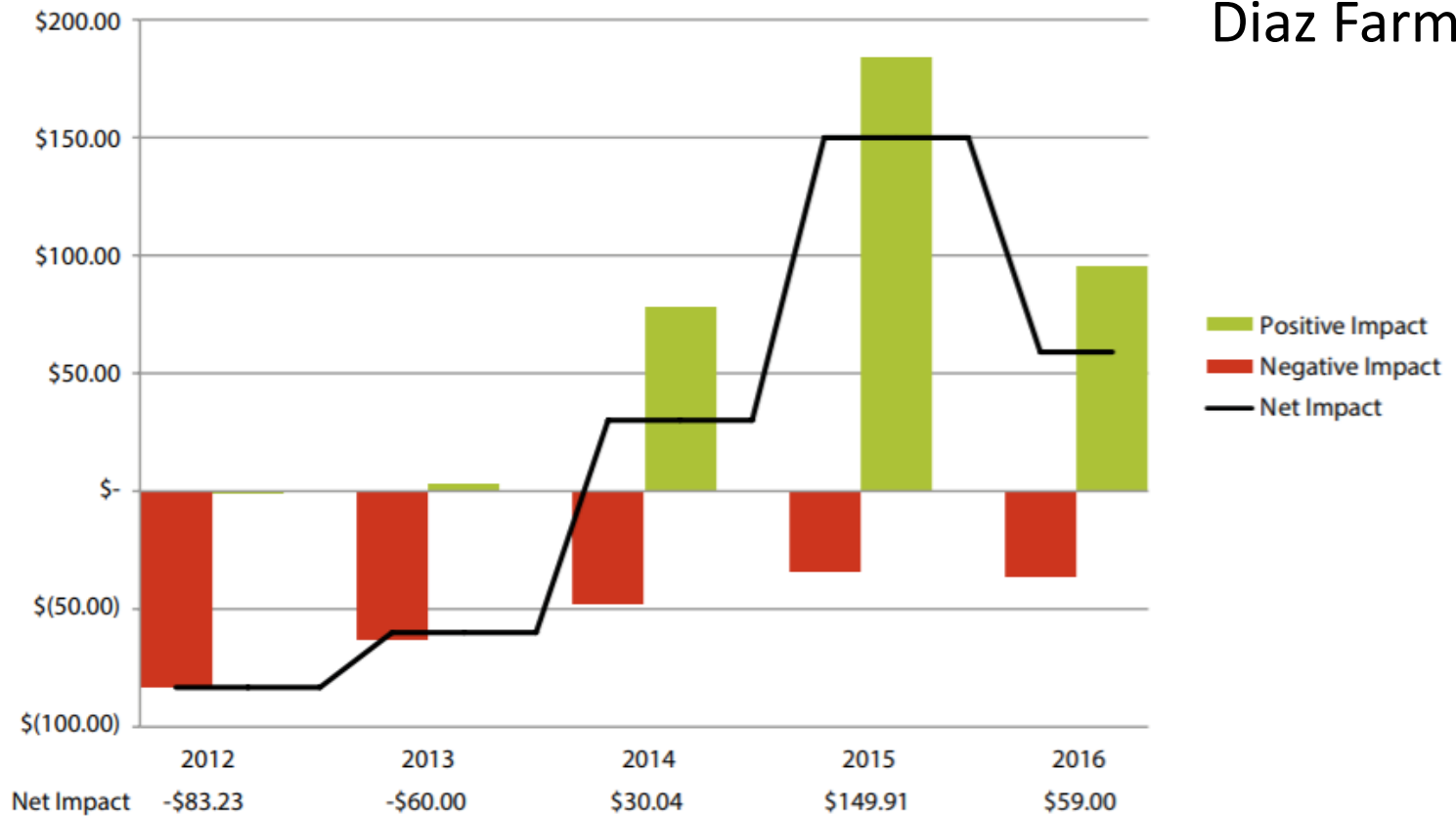




Dan Diaz and son, Zack

Increase Operational Efficiency: Case Studies

FIGURE 2. 2012-16 Overall Budget Impact of Cover Crops, Diaz Farm, \$/acre



Increase Operational Efficiency: Case Studies

National Association of Conservation Districts
and Datu Research Case Study: No-Till Makes a
Positive Impact on Kuhn's Family Farm



DATU CASE STUDY

Kuhns Family Farm

Effingham County, Illinois

Average winter 31°F

Average summer 75°F

Average annual precipitation 44 inches

1,800 acres of row crops

Corn-soybean rotation

Silt loam soils, flat with slopes ranging from 1% to 10%

23 years of no-till

Farrow-to-finish hog operation

Study of first year (1994), midpoint year (2004), and most recent year (2016) of no-till

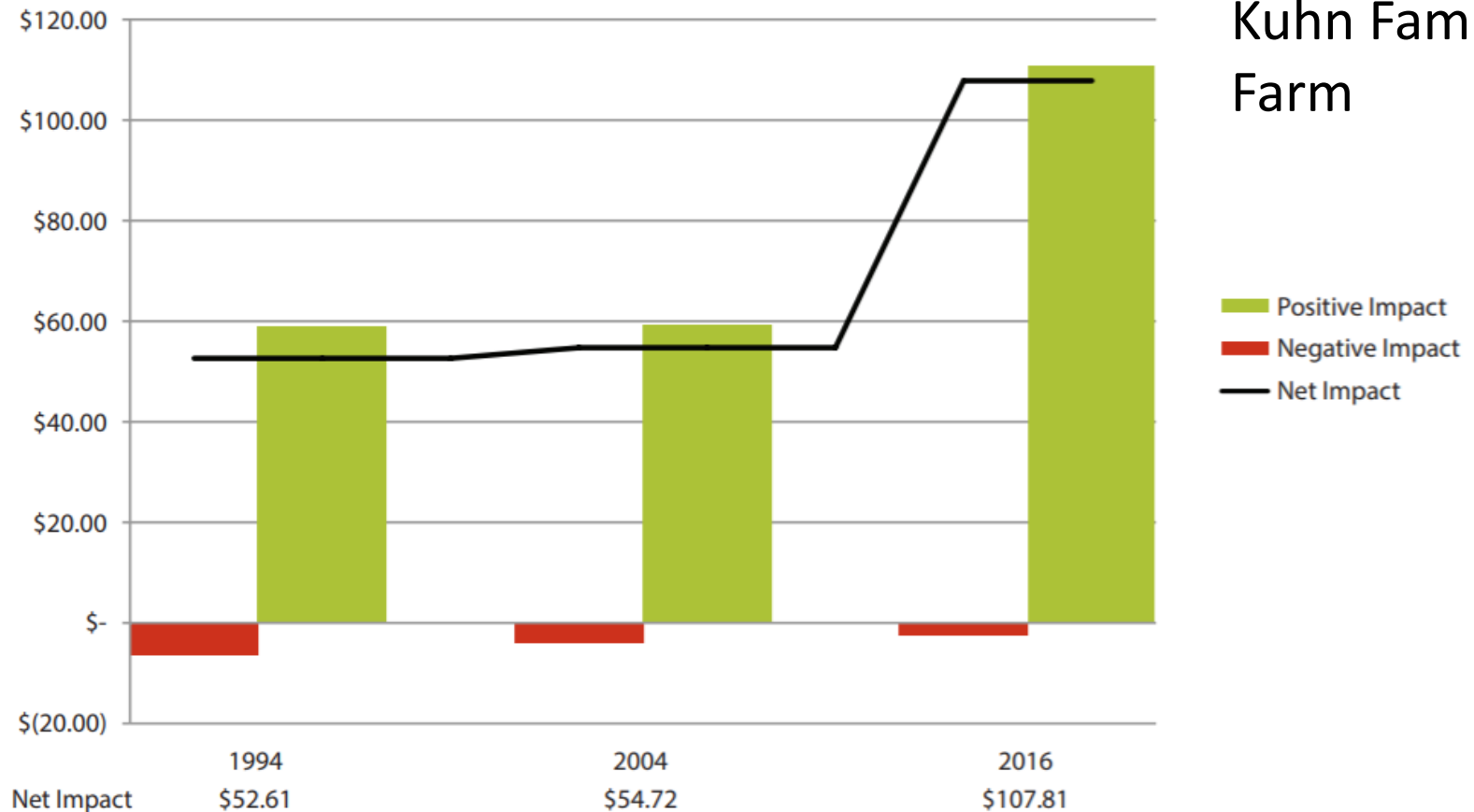
Datu
RESEARCH



Mike and Stan Kuhns

Increase Operational Efficiency: Case Studies

FIGURE 1. Overall Budget Impact of No-till in 1994, 2004, and 2016, K.F. Farm, \$/acre



Discussion

Other Opportunities

Chapter 5

Other Opportunities: Financial Assistance and Incentives

USDA-NRCS

- Ag Management Assistance Program (AMA)
- Conservation Stewardship Program (CSP)
- Environmental Quality Incentives Program (EQIP)



Photo by Jeff Vanuga, USDA Natural Resource Conservation Service

Other Opportunities: Expanding Market Access

Unilever Sustainable Soy Project

- Iowa farmers eligible for \$10/A, up to 10% total farmed acres
- Remaining 90% eligible for \$5/ cover cropped acre



Other Opportunities: Protect Freedom to Operate

- Protect legacy farms
- Keep growers on the land
- Proactively reduce likelihood of new regulations



Discussion

Review

- Communicate the value of sustainability.
- Respond to grower questions about the demand for sustainably sourced products.
- Point to farmers that have successfully implemented practices that improve sustainability outcomes on their farm.
- Forecast the potential economic benefits to growers of adjusting the farm management system.



Discussion

Thank you!

Sustainability Programming for Ag Retailers and CCAs (SPARC)

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