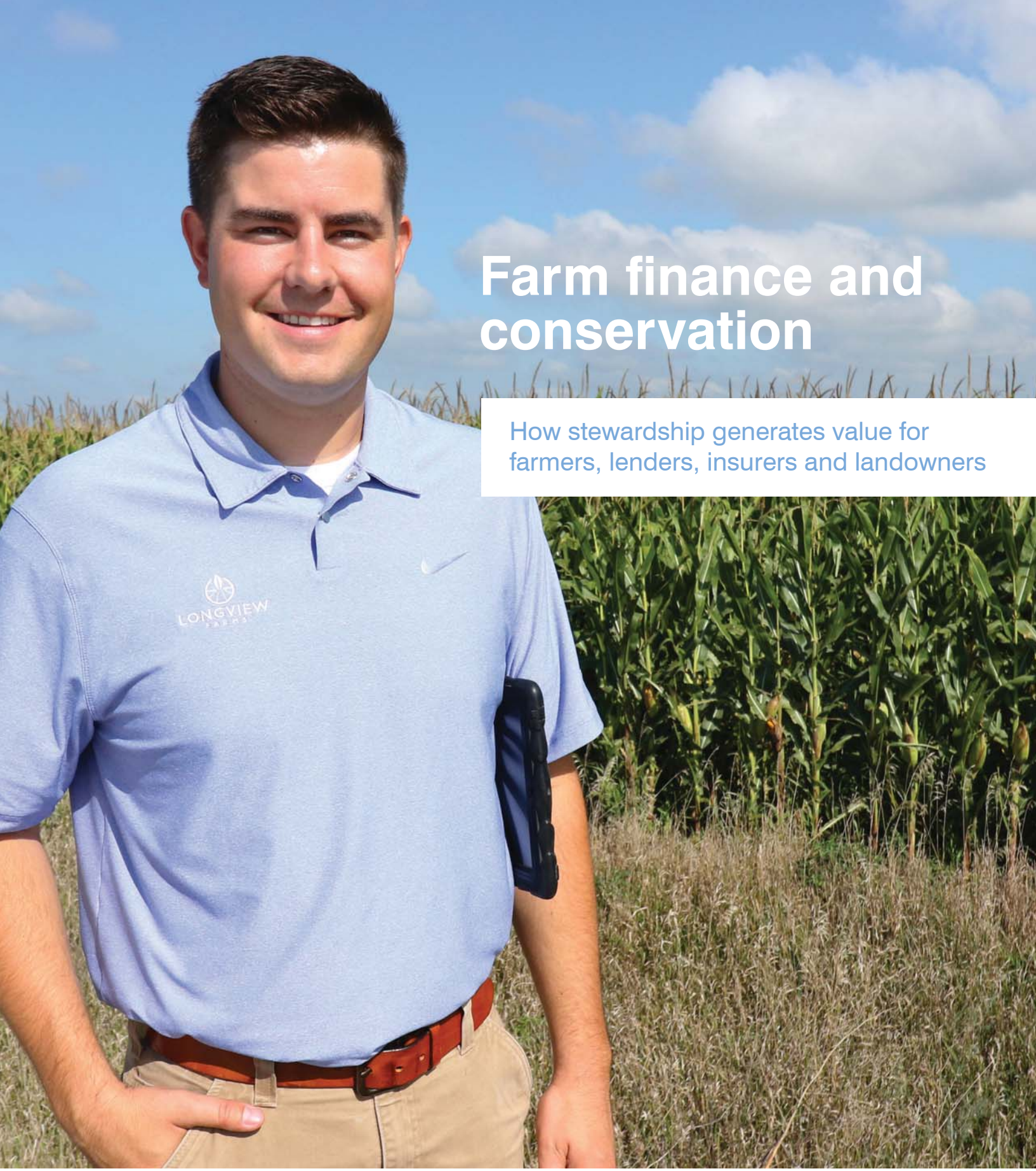



# Farm finance and conservation

## How stewardship generates value for farmers, lenders, insurers and landowners

EDF
ENVIRONMENTAL
DEFENSE FUND
Finding the ways that work

K·COE
ISOM

**Farm finance and conservation:** How stewardship generates value for farmers, lenders, insurers and landowners

# Authors


**Maggie Monast,** Environmental Defense Fund

**Laura Sands,** K·Coe Isom

**Alan Grafton,** K·Coe Isom AgKnowledge


EDF ENVIRONMENTAL DEFENSE FUND
Finding the ways that work

## About EDF

**Environmental Defense Fund** (edf.org), a leading international nonprofit organization, creates transformational solutions to the most serious environmental problems. EDF links science, economics, law and innovative private-sector partnerships.

K·COE ISOM

## About K·Coe Isom

**K·Coe Isom** (kcoe.com) is a leading national firm of consultants and certified public accountants in the food and agriculture industry. AgKnowledge is a service that gives farmers and ranchers access to financial and farm management knowledge to inform decision-making.

# Acknowledgements


## Research contributors

**Amy Dickie, Max Levine and Sydney Sanders,** California Environmental Associates

**Larry Band,** sustainable finance consultant

**Scott Walsh,** sustainable business consultant

## Case study participants

We are especially grateful to farmers **Scott Henry, Justin Knopf** and **Joshua Yoder** for their generous contributions of expertise and data.

## Expert reviewers

**Mollie Aronowitz,** Peoples Company

**Sam Bunz,** CropPro Insurance

**Jennifer Filipiak,** American Farmland Trust

**Clay Mitchell,** Fall Line Capital

## Interview participants

We would also like to thank the many interview participants for generously sharing their time and perspectives.

## Foreword

**Keith Alverson,** farmer and National Corn Growers Association board member

# About this report

This report is the result of a collaboration between Environmental Defense Fund (EDF), the agriculture managerial accounting firm K·Coe Isom AgKnowledge and three Midwestern grain farmers – Scott Henry, Justin Knopf and Joshua Yoder. It analyzes the impact of conservation on farm budgets with three in-depth case studies that combine the farmers' own records with their experience adopting conservation practices. The cases show how these farmers have made conservation work financially and share lessons they have learned in the process of adopting conservation practices.

AgKnowledge also pulled data from its own client database to perform a comparative analysis of 10 additional farmers, including farmers who practice no-till, farmers who practice no-till and cover crops, and farmers who have not adopted conservation practices. The report combines this analysis with expertise from AgKnowledge on how farmers can maximize cost savings from conservation adoption.

It is important to note that this analysis is based on farmer records and expertise and therefore does not prove a causal relationship between conservation adoption and the cost and yield impacts. Many factors affect costs and yields in any agricultural operation. However, the farmers who participated in this analysis attribute their cost savings and yield impacts to conservation adoption. Their stories show how conservation can be incorporated successfully into a profitable farming enterprise. Additional efforts to build a robust financial case for conservation are needed to show the value to the farm and beyond.

The report also incorporates a study of the farm financial system conducted by EDF, California Environmental Associates and environmental finance and business consultants Larry Band and Scott Walsh. We examine the financial implications of agricultural conservation to the broader set of businesses, agencies and individuals with financial ties to farmers. We contend that these entities should consider conservation to be a material issue to their own businesses, and that the failure to recognize conservation in their decision-making poses significant financial risk.

Last, we offer ideas on how those businesses, agencies and individuals with financial ties to farmers can monetize the value of conservation. Capturing the true financial value of conservation and incorporating it into the decision-making of farmers and their business partners presents opportunities to share the benefits, costs and risks of conservation adoption more equitably across the farm financial system and to generate more financial and environmental value for all.

# Foreword

“If you take care of the land, the land will take care of you.” I’ve heard this throughout my life, and it’s more than just words to my parents, aunts, uncles and grandparents. To my family, and many other farm families, stewardship is a way of life – and it’s integral to our livelihoods.

Farmers consider the economic viability of conservation practices in the short and long term before deciding whether to implement them. Only those practices that demonstrate positive return on investment will achieve widespread adoption, especially during times of tight farm economics when farmers keep an even more watchful eye on the bottom line. Finding practices that can perform the double duty of improving stewardship and maintaining profitability is critical.

Conservation and stewardship take many forms on the farm, including reduced tillage, cover crops, precision technology and advanced nutrient management. All have different return on investment timelines, influenced by a range of variables unique to each farm, such as weather, soil, labor and land ownership conditions. More than half of U.S. cropland is rented, and uncertainty over the length of land tenure can impact farmers’ approach to long-term conservation investments.

Many conservation practices require a farmer to change their farm management systems. This transition process can bring growing pains, for example, determining when to terminate cover crops or adapting to new equipment needs for conservation tillage. When conservation practices enhance profitability, however, increases in management costs are more than offset.

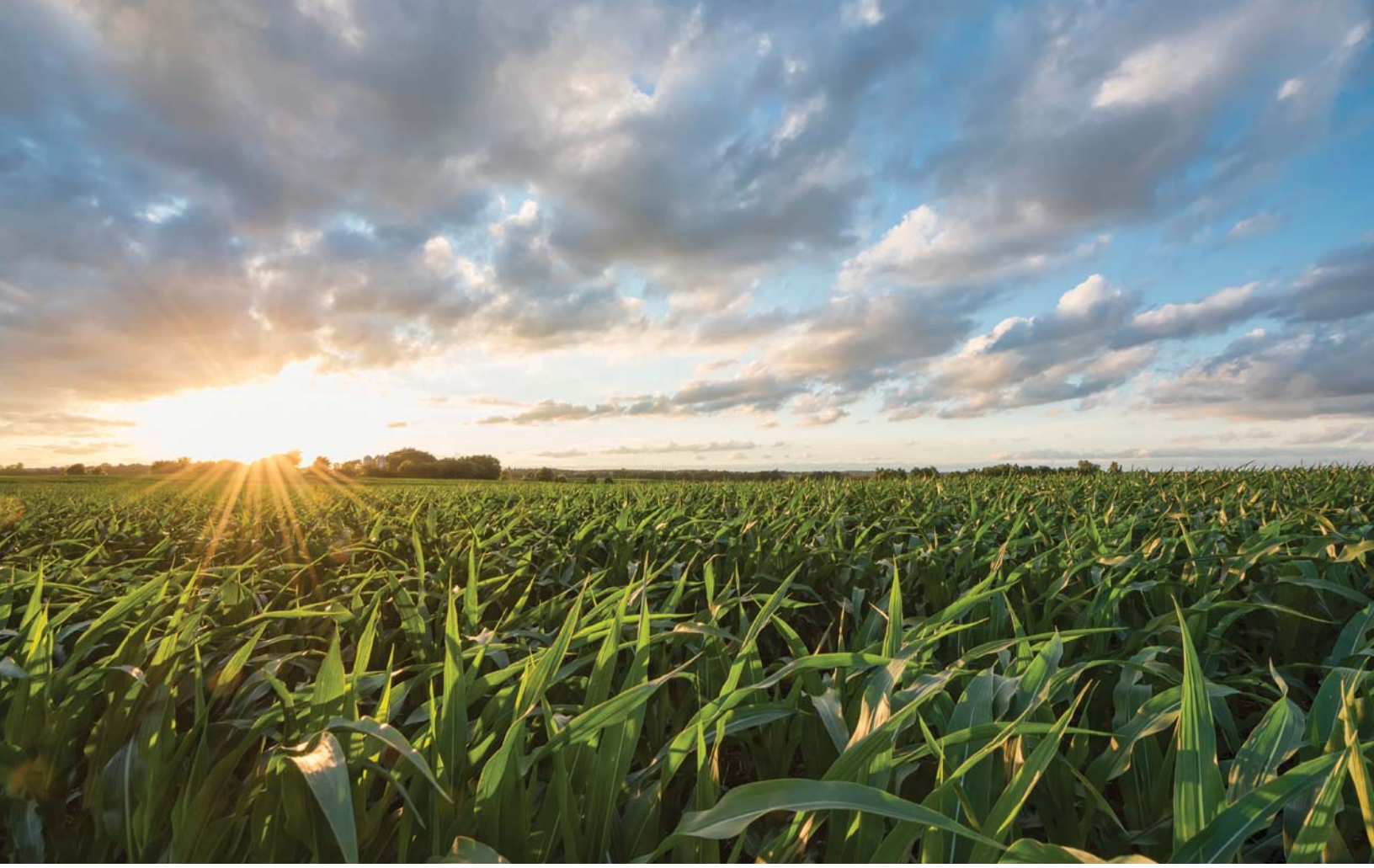
Returns come from reduced monetary and time costs, higher or more stable yields, and increased resiliency to weather variability. Adapting management practices allows farmers to take advantage of the uniqueness of individual farms, while also capitalizing on the conservation practices that work universally across farms. When we manage to the environment around us, we can identify practices that will not only increase profitability but also benefit the land and water we steward.

As a member of the National Corn Growers Association (NCGA) board of directors, I’ve chaired NCGA’s Climate Task Force, served as liaison to our Stewardship Action Team and sat on the Finance Committee. NCGA’s mission is to create opportunities for its 40,000 members while sustainably feeding and fueling a growing world. In efforts toward achieving that mission, we’ve studied the practice changes that will help farmers improve stewardship, resilience and economic viability.

*Farm finance and conservation: How stewardship generates value for farmers, lenders, insurers and landowners* shows how those practices translate to real-world farming operations. It provides three case studies that explore how growers in Iowa, Kansas and Ohio manage the complexities of adopting conservation practices and find solutions that strengthen farm finances and stewardship.

This report takes an honest look at the economic viability of on-farm conservation, and it demonstrates that conservation and profitability can, and should, go hand in hand. Taking care of the land does in fact allow it to take care of your family now and for generations to come.

**– Keith Alverson,** sixth-generation South Dakota farmer and National Corn Growers Association board member



# Executive summary

The farm economy is under stress. Low commodity prices have caused a 52 percent drop in net farm income over the past five years.[1] Across the country, farmers are sitting down with their financial advisers to figure out where they can cut costs. At the same time, farmers face continued calls to reduce the environmental impacts of agriculture. Water pollution and greenhouse gas emissions associated with nutrient loss are a major challenge, and documented adoption rates of conservation practices remain low.[2]

In lean years, even farmers who are deeply committed to conservation must take a second look at whether any costs required to implement practices are worth it. Farmers who have not yet adopted conservation activities are less likely to experiment with new ones. Thin farm margins make it even more important to show the impacts of conservation adoption on farm budgets. Agricultural sustainability advocates need to be invested in the overall financial success of farmers and change course when conservation adoption doesn't help farms remain viable.

This analysis of the impact of conservation adoption on farm budgets offers reason to be optimistic. The farmers found that conservation management systems can produce lower costs than conventional management and, in some cases, increased or more resilient yields. Despite these benefits, our examination of the broader farm financial system shows that crop insurers, lenders, landowners and others largely ignore the financial value of conservation. The final section of the report offers ideas on how the farm financial system can monetize the value of conservation and incorporate it into decision-making, resulting in greater conservation and financial value for all.

---

[1] Chairman K. Michael Conaway, 18 Apr. 2018. "Opening Statement: Chairman K. Michael Conaway." House Committee on Agriculture, https://agriculture.house.gov/news/documentsingle.aspx?DocumentID=4296.

[2] Wade, Tara, et al. 2015. "Conservation-Practice Adoption Rates Vary Widely by Crop and Region." US Department of Agriculture Economic Research Service, www.ers.usda.gov/publications/pub-details/?pubid=44030.

## Key findings include:

**Conservation practices *can* pay.** Farmers who adopted conservation practices – combinations of no-till, cover crops, nutrient optimization and crop rotation – reported a cascade of cost savings throughout their budgets, including lower fertilizer, labor, fuel and equipment costs. They also saw an increase in their farms' soil structure and health, which in some cases resulted in increased or more resilient yields, losing less yield in bad weather years. Some costs did increase, such as cover crop seed and herbicides, but in each of the cases studied, the benefits of conservation practices outweighed the costs.

**Payoffs come at the farm level.** The farmers emphasized that conservation often requires a total management change, and the whole of that change is greater than the sum of its individual parts. The farm budgets bear out that perspective. The farmers experienced cost increases in a couple of budget categories, but found cost savings in multiple budget categories. This analysis shows that the farm enterprise scale may be more likely to show the financial value of conservation because it captures the holistic conservation management system.

**Getting it right takes time and effort.** It can take time to determine the right mix of practices or the necessary adjustments to fit conservation practices into the specific farm and rotation. It also takes time for the benefits of the practices to outweigh the initial costs of implementing them. Once the farmers figured out the right combination of practices for their operations, the benefits were substantial.

**Conservation benefits are often unrecognized and unrewarded.** In addition to the direct benefits of conservation to farmers, there are significant benefits to the broader farm financial system that often go unrecognized and unrewarded. Farmers who adopt conservation practices provide significant benefits to landowners, lenders and insurers by lowering costs and increasing profits and asset values. Unfortunately, many of the current practices and policies of these business partners do not recognize these benefits and even discourage farmers from conservation adoption. Such practices and policies should be modified to recognize and encourage opportunities for conservation to add financial value.

**Conservation is a material issue.** Materiality is a concept from corporate financial and sustainability reporting that proposes a threshold for reporting on issues that may affect the company and its investors and other stakeholders. The financial impacts of conservation matter for farmers' budgets, as well as those of the businesses and individuals in the broader farm financial system. Recognizing conservation as a material issue to landowners, lenders, crop insurers and others presents opportunities to increase the environmental and financial value generated by farmers who adopt conservation practices, while avoiding the risk associated with sticking to the status quo.

**Creating incentives for conservation is in the financial interest of businesses and individuals with financial ties to farmers.** There are a number of ways the farm finance sector can encourage farmers to adopt conservation practices that benefit the entire value chain. Lease terms, land appraisal practices, crop insurance policies and other financial instruments could all be adjusted to provide incentives for farmers to adopt conservation practices. These innovations offer the opportunity to share the costs and risks of conservation adoption more equitably across the farm financial system, as well as generate more financial value and risk reduction for farmers and their business partners.