

Cover Crops

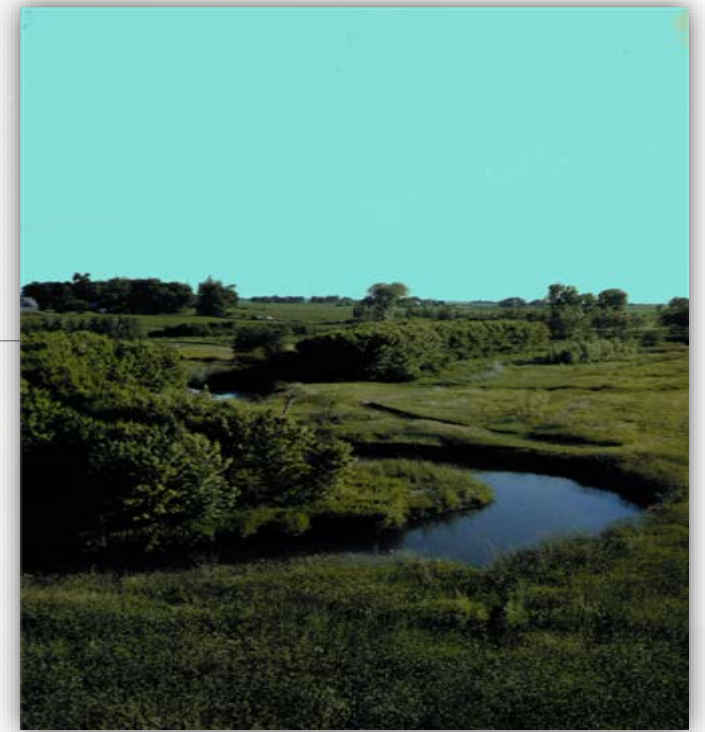
Cover crop use and Economics

CHAD WATTS, CTIC EXECUTIVE DIRECTOR





CTIC



CTIC champions, promotes and provides information on technologies and sustainable agricultural systems that conserve and enhance soil, water, air and wildlife resources and are productive and profitable.



A Public/Private Partnership

Members

Corporations, Institutions (media, commodity groups, conservation organizations, associations), **Individuals**

Advisors & Partners

Federal agencies, universities, extension, research institutions



Today's Topics

- Who is using cover crops
- Cover crop economics
- The potential for cover crops



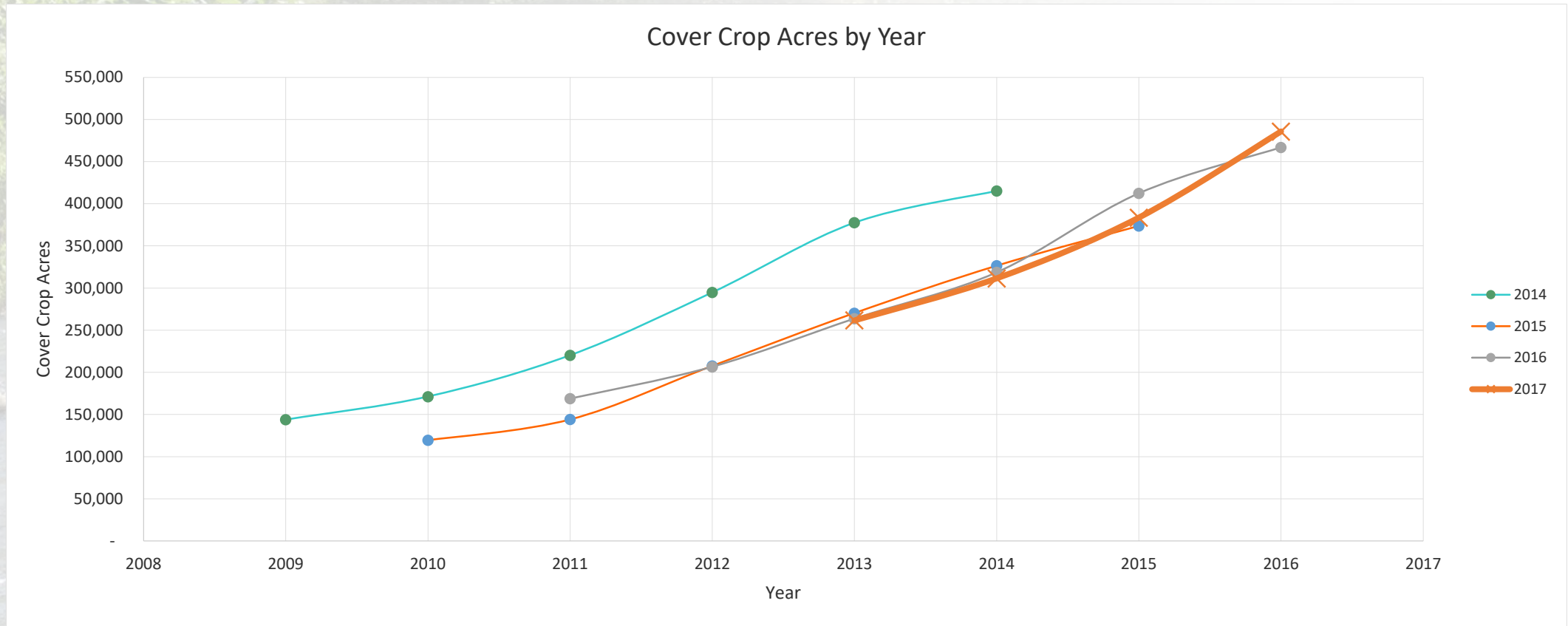


Who is using cover crops?

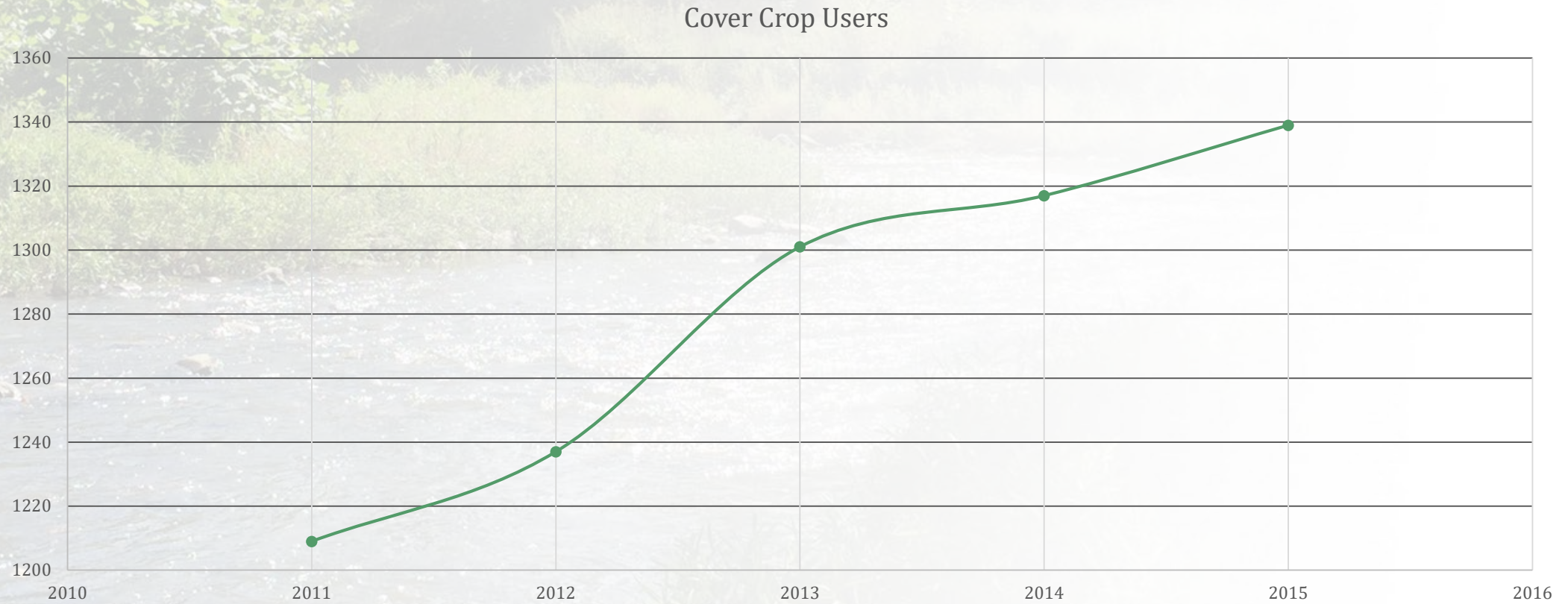
AN ANALYSIS OF THE FARMERS USING COVER CROPS



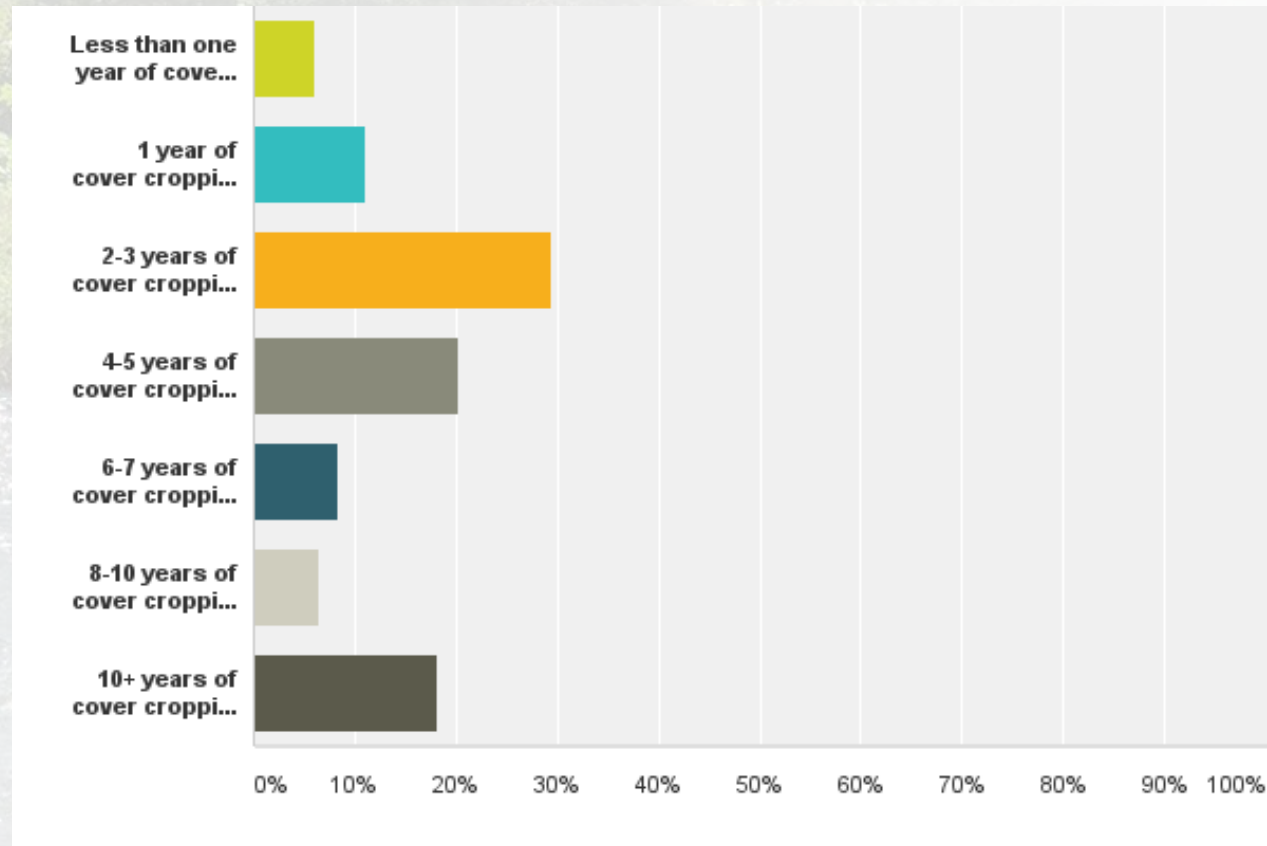
Cover Crop Acres of Respondents



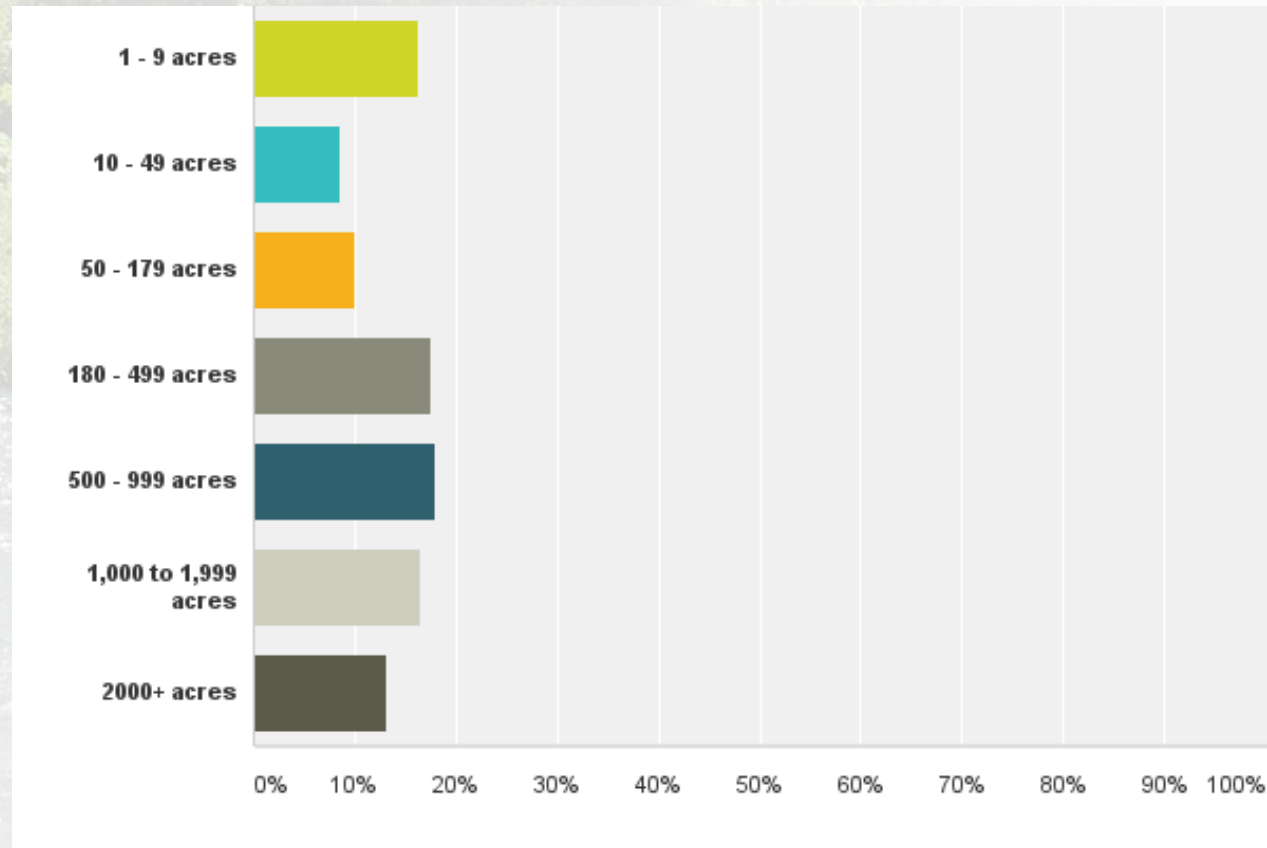
Number of Cover Crop Users



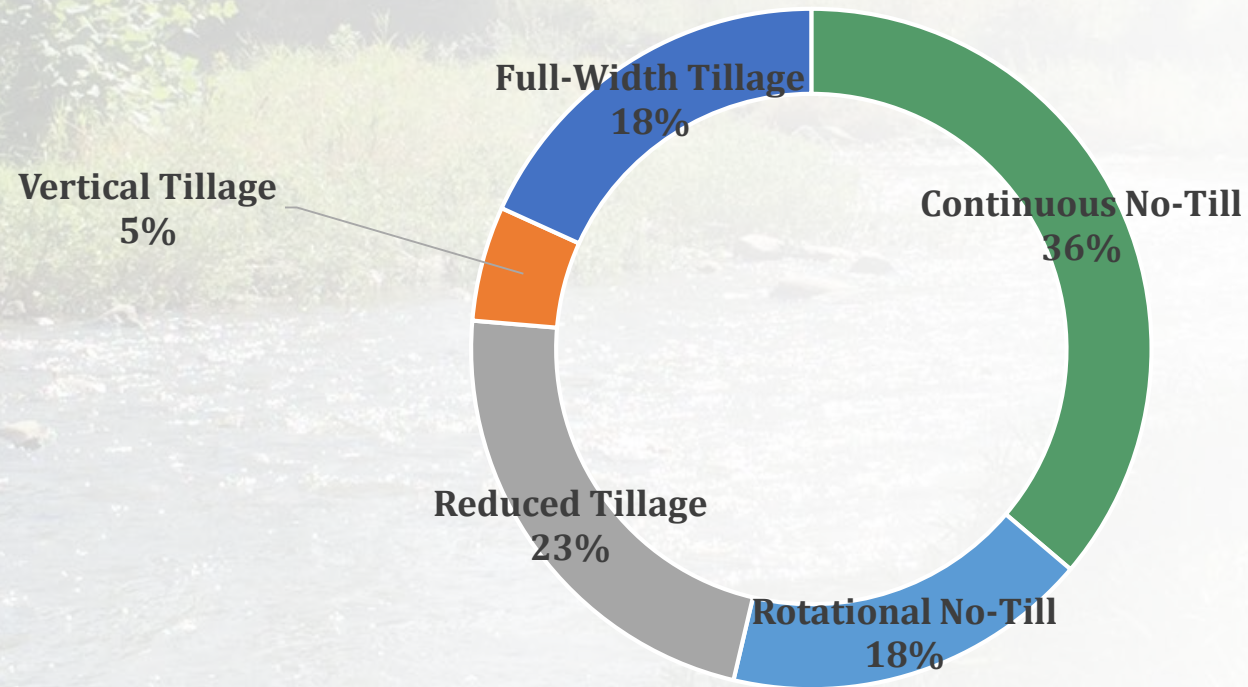
Cover Crop Experience



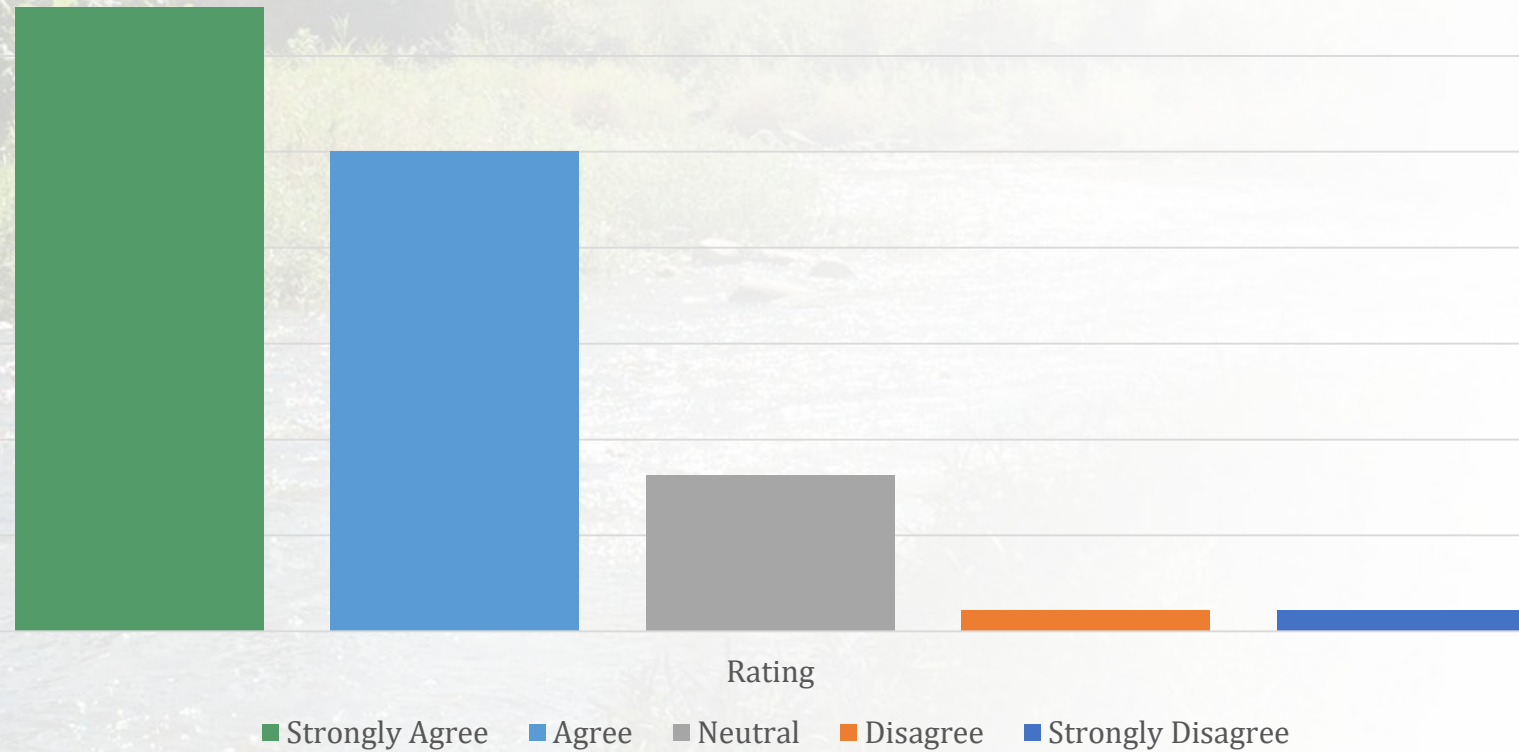
Size of Farms using Cover Crops



Tillage Systems of Cover Crop Users



I consider myself to be more likely to adopt conservation practices than my neighbors.





Cover Crop Economics

VARIOUS REASONS FARMERS ARE USING COVER CROPS



Why Farmers are using Cover Crops

- Top 5 Reasons

- Increases overall soil health
- Reduces erosion
- Increases soil organic matter
- Provides nitrogen scavenging
- Controls weeds

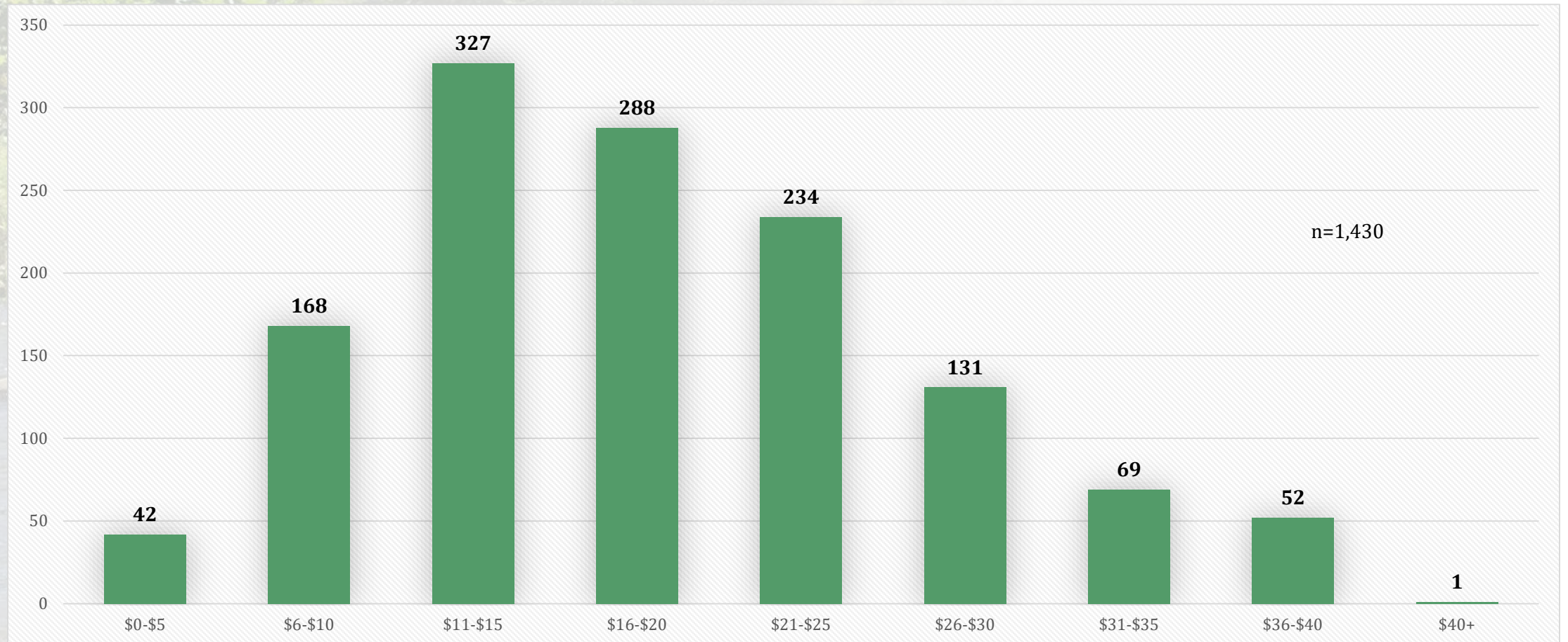


Top Challenges to using Cover Crops

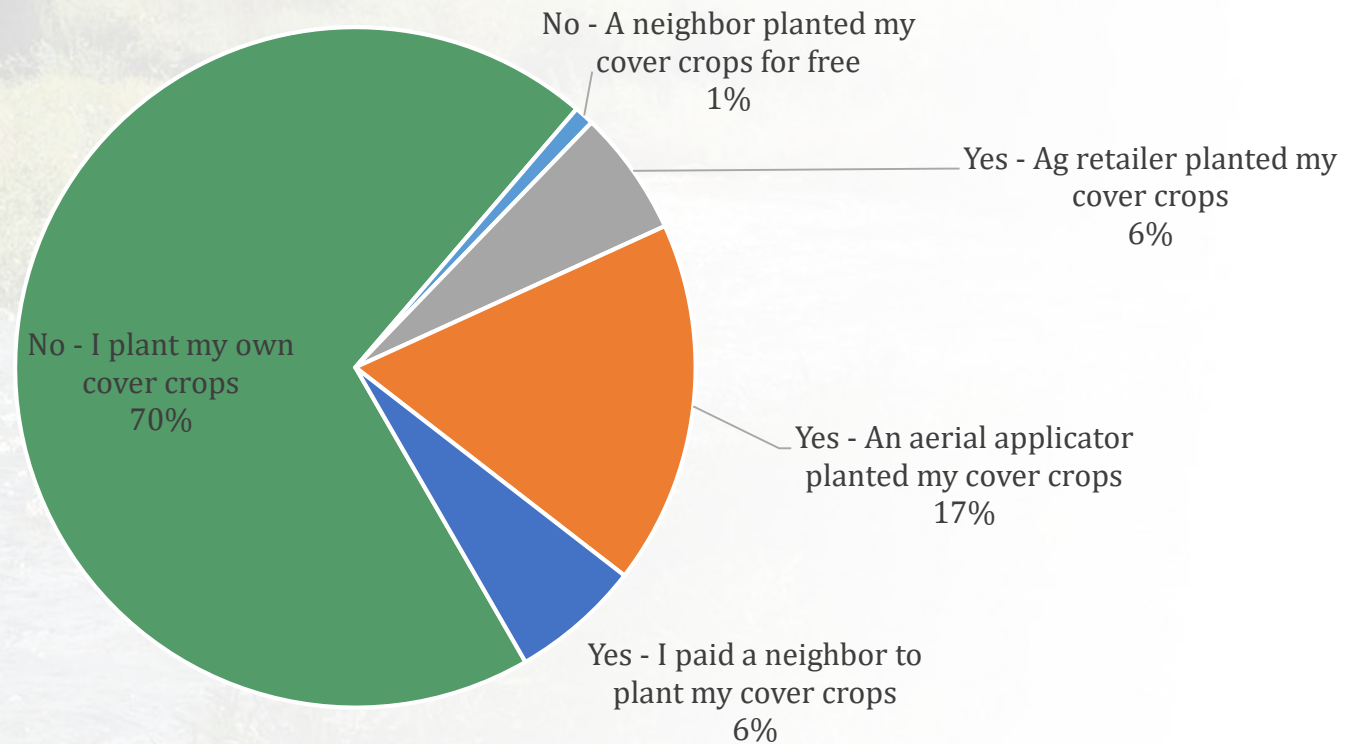
- Top 5 reasons
 - Time and labor required for planting and managing cover crops
 - Establishment
 - Species selection
 - No measurable economic return
 - Increases overall production risk



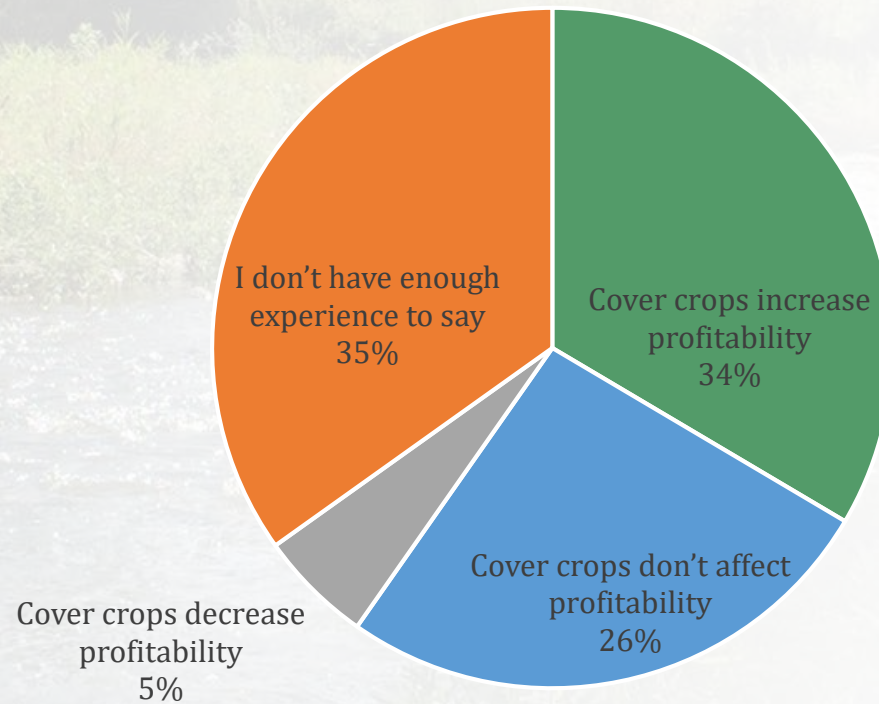
Cover Crop Seed Expenses



Did you pay someone to plant or establish your cover crops?

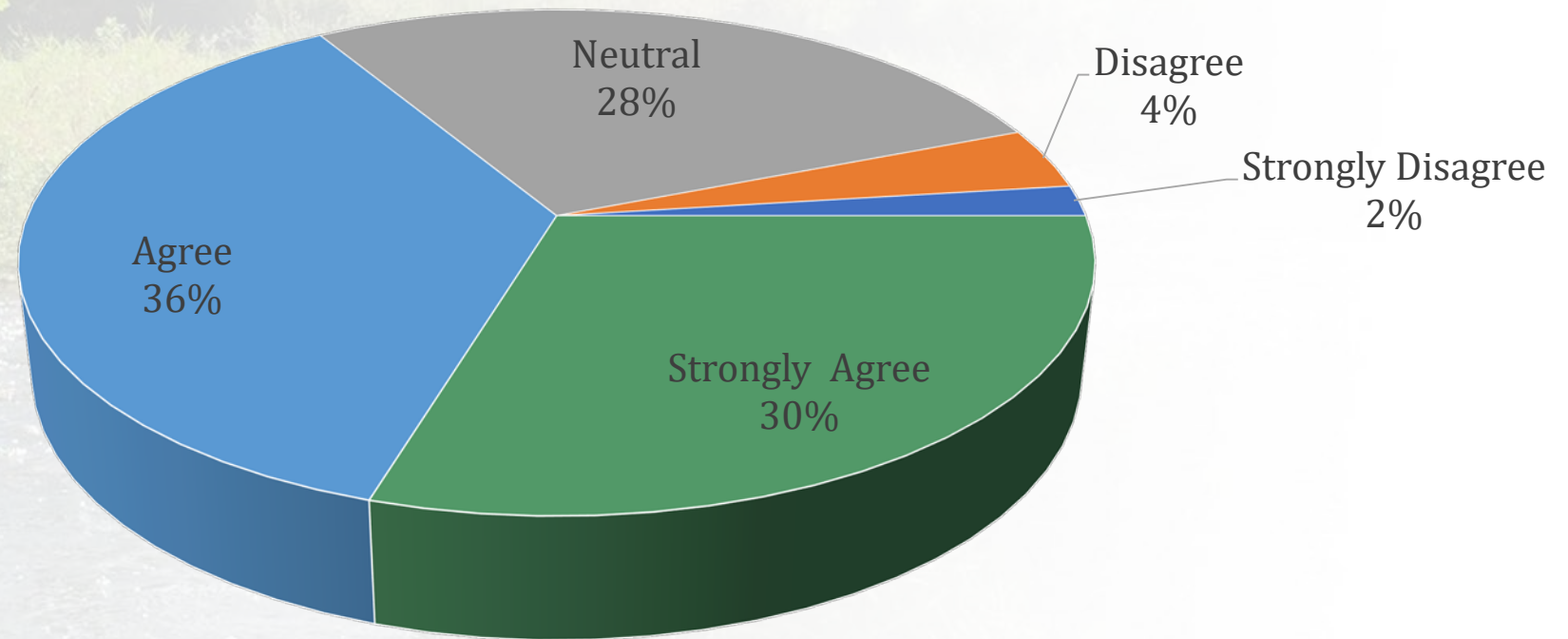


Impact of Cover Crops on Profitability

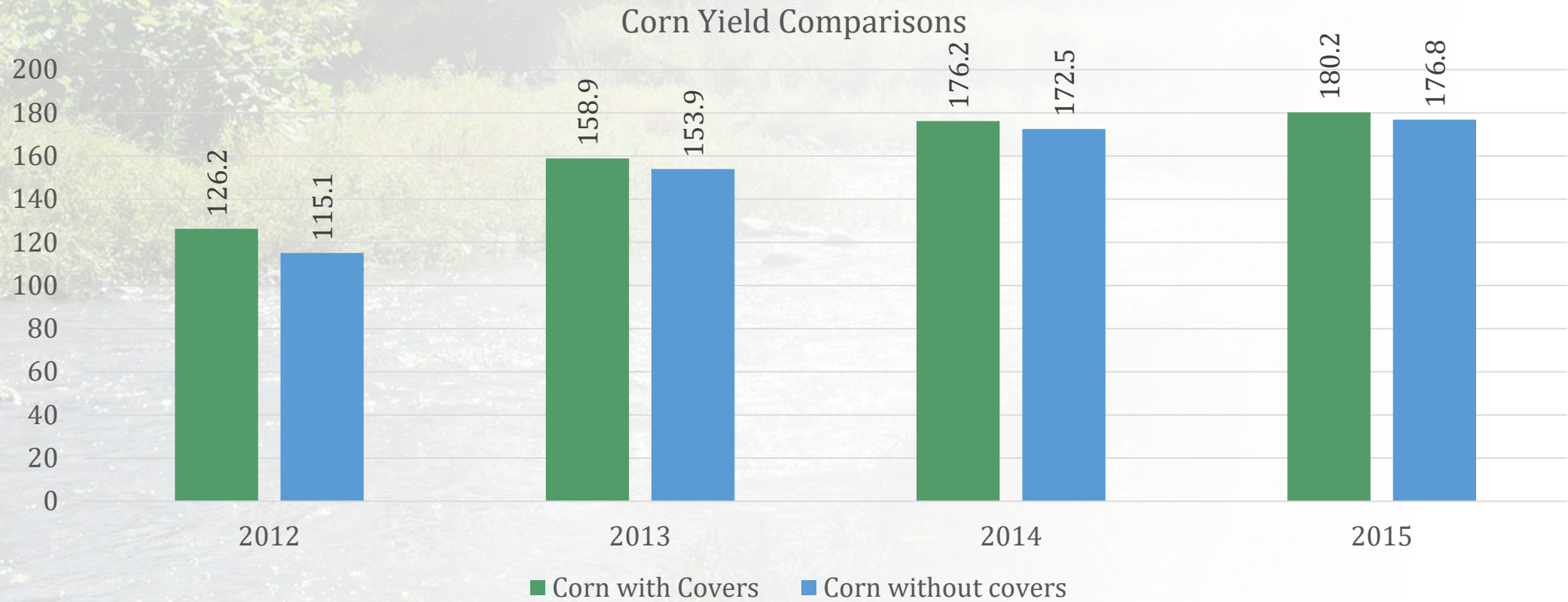


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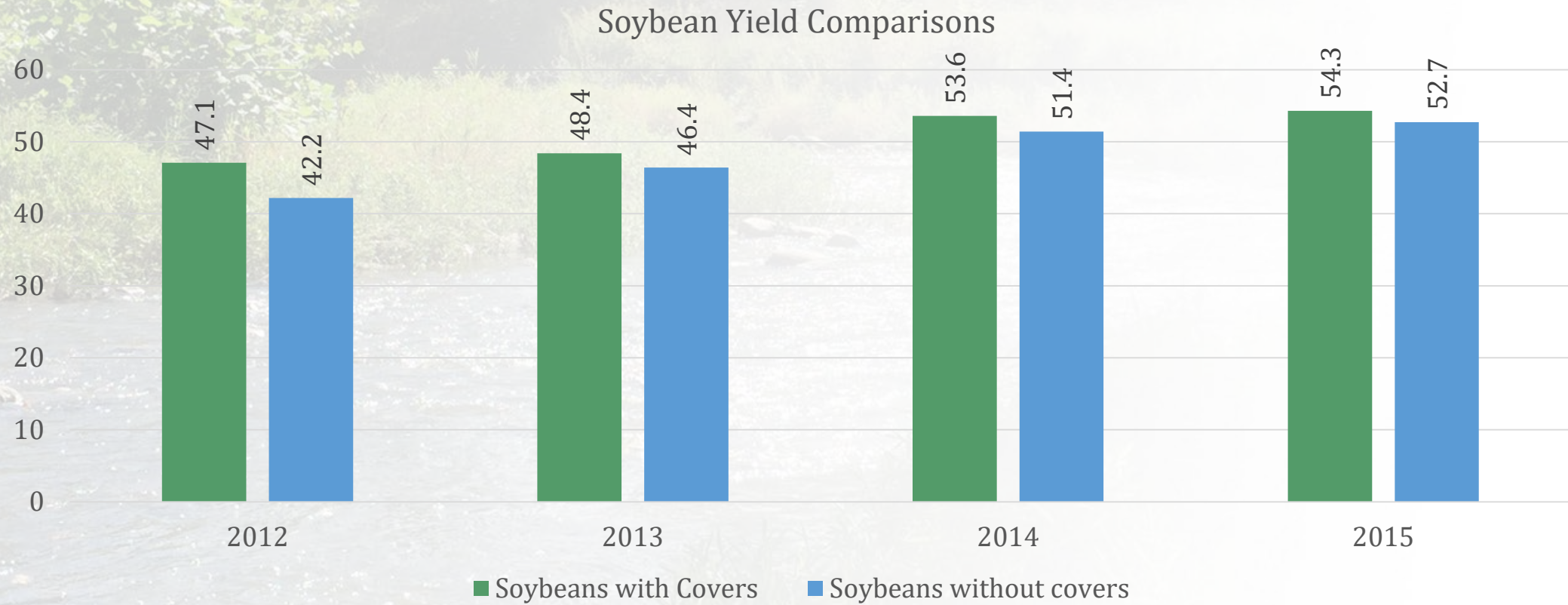
I believe cover crops can reduce yield variability during extreme weather events



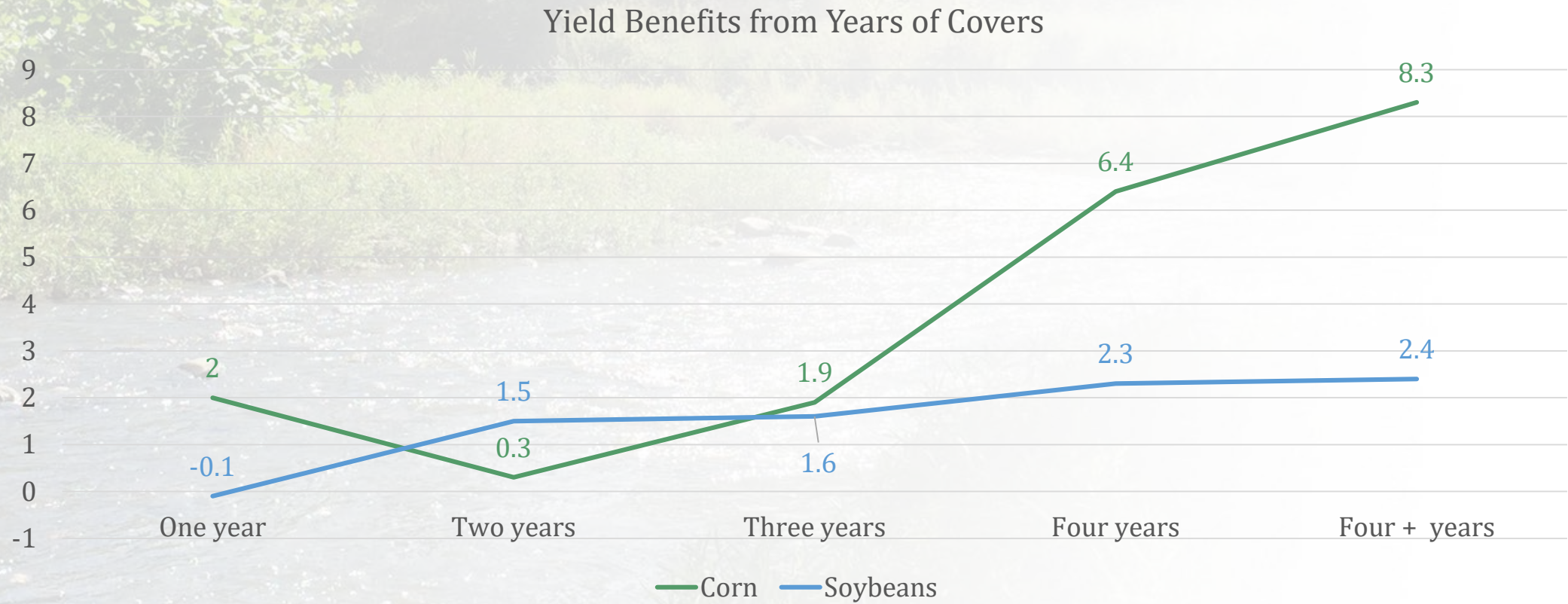
Corn Yield Comparisons



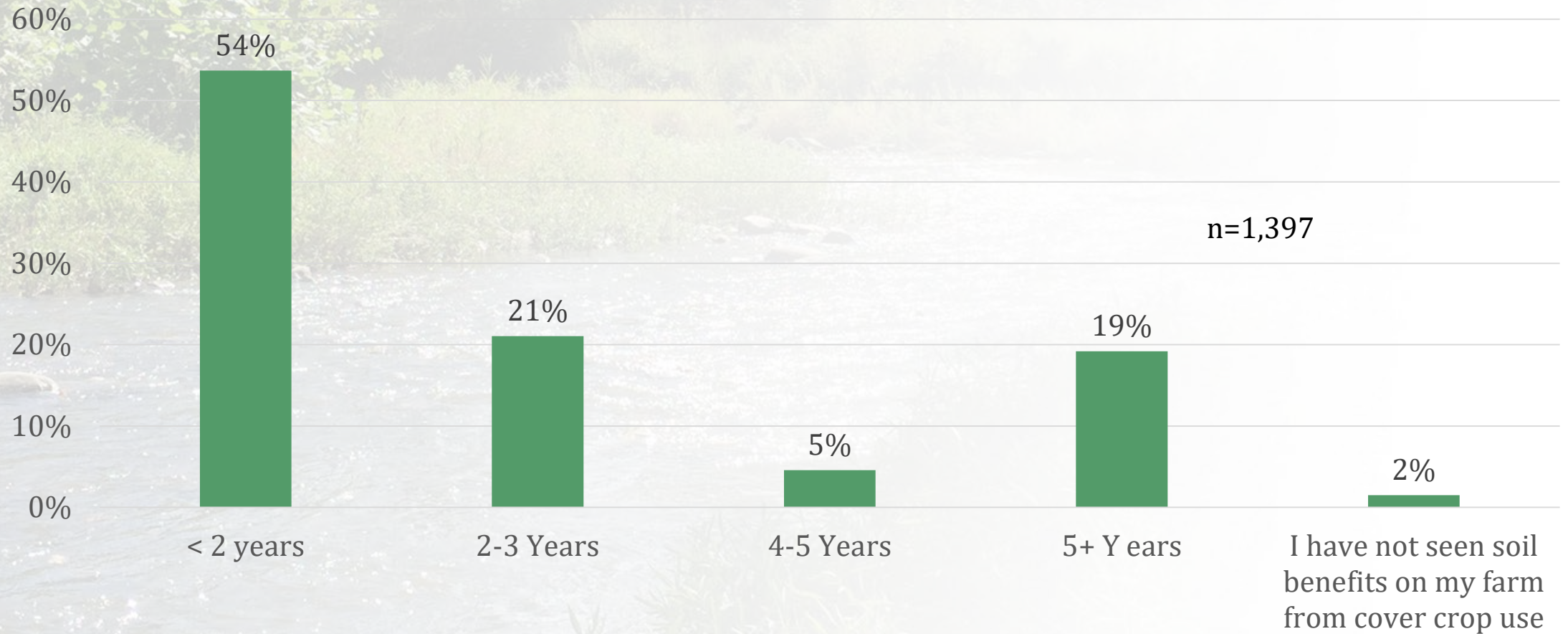
Soybean Yield Comparisons



Benefits Accrue Over Time



When did you begin to see soil health benefits on your farm when using cover crops?

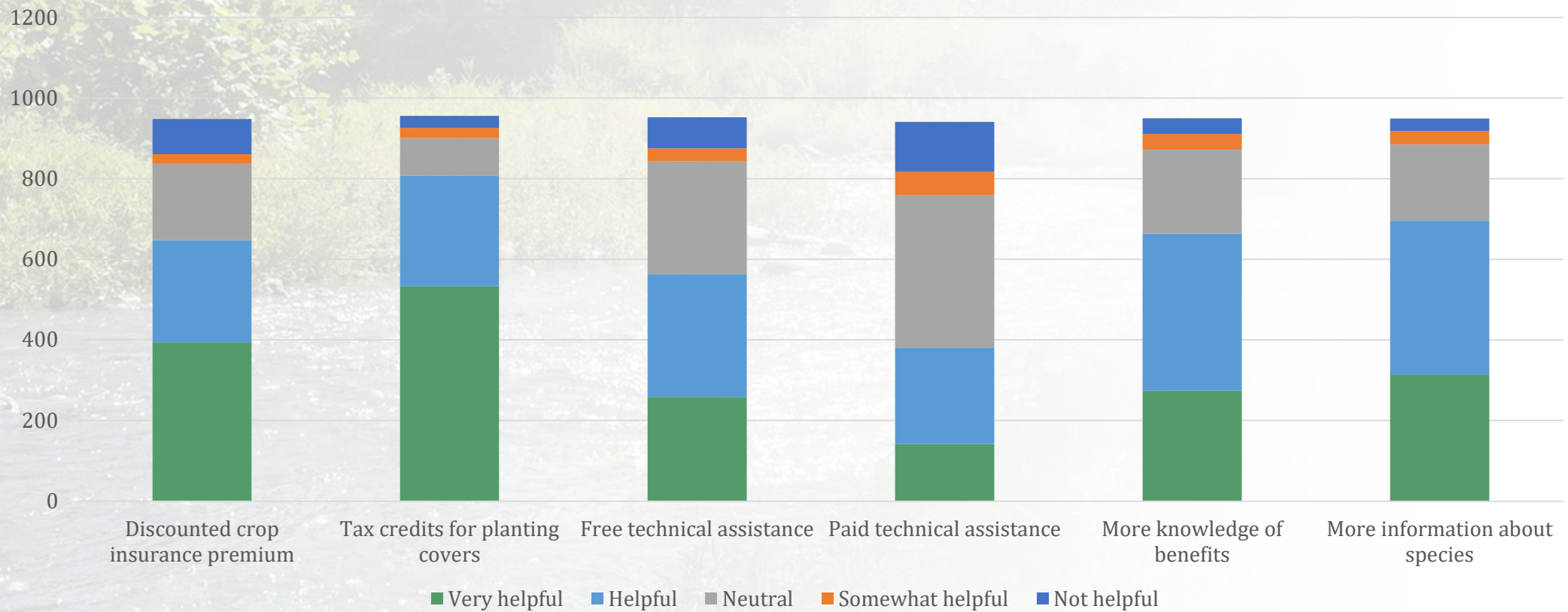


Added value for Cover Crops

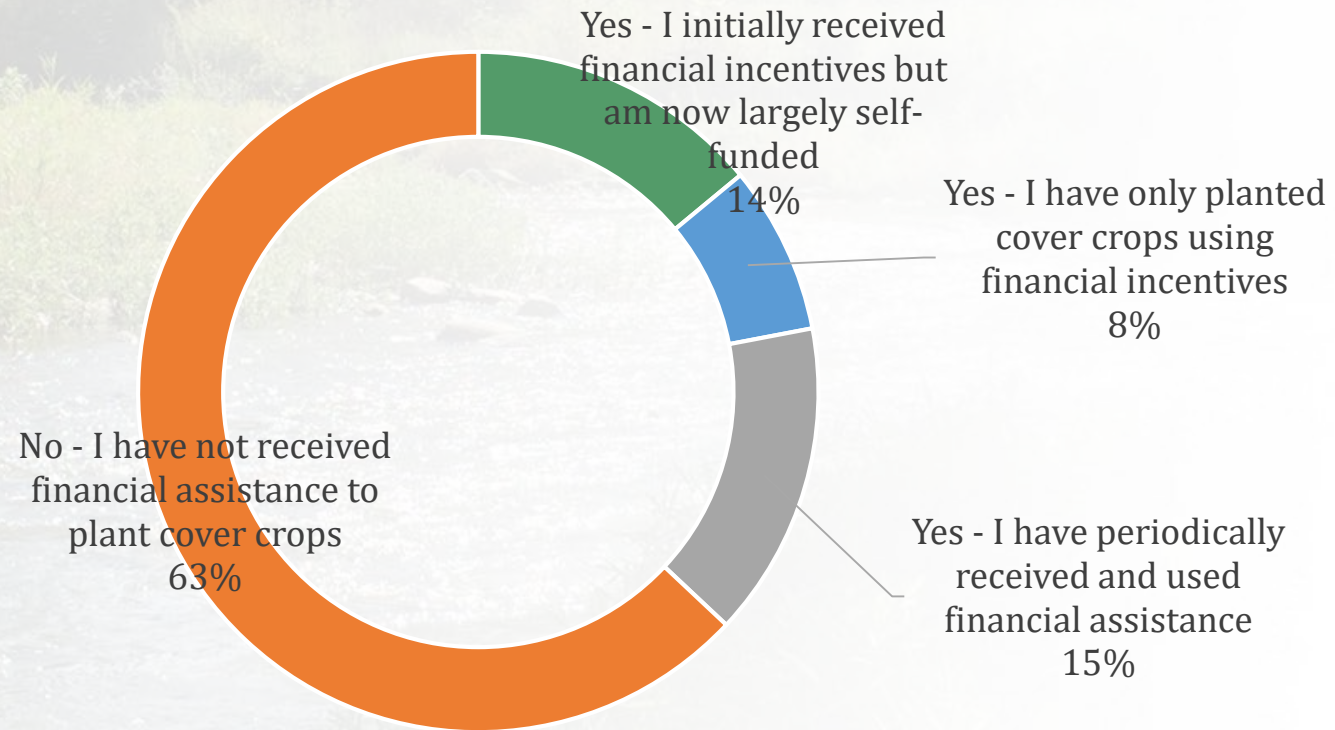
- Grazing livestock
- Making hay or livestock bedding
- Harvesting for biofuels
- Leasing land for hunting or recreation



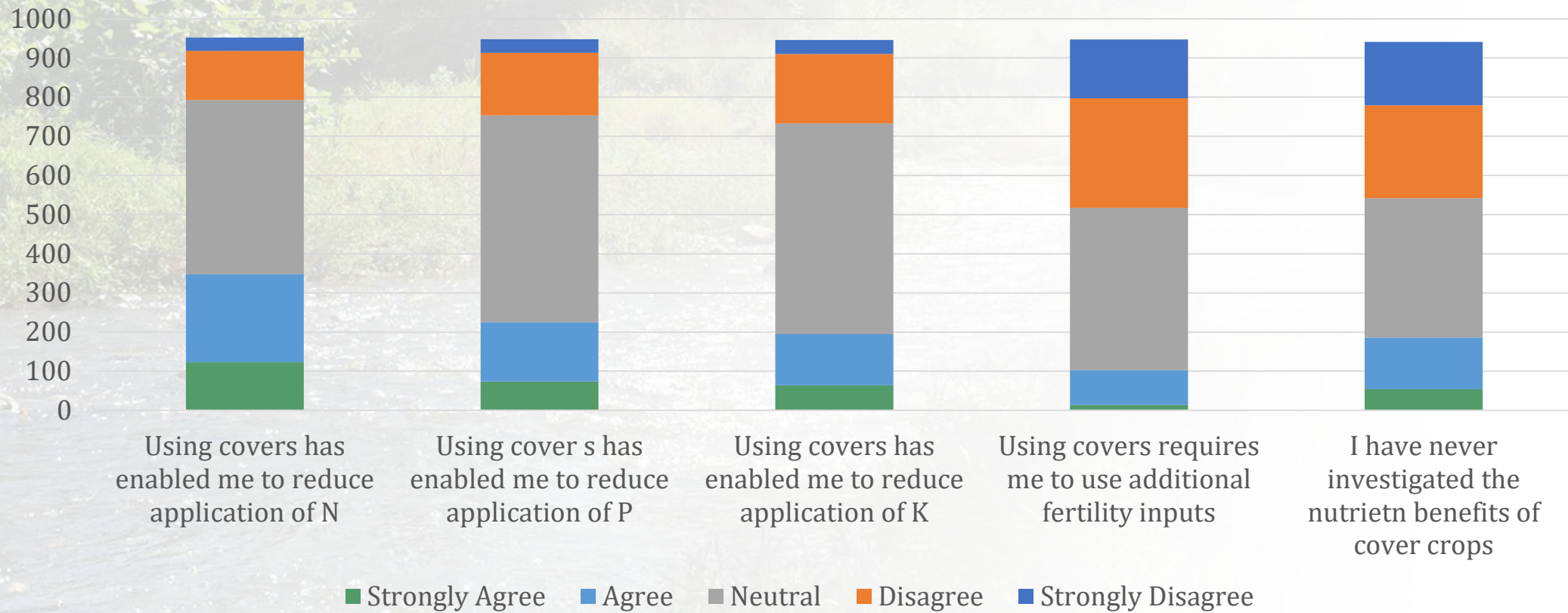
Helpfulness of various incentives in encouraging cover crops use



Use of Financial Assistance



Nutrient Benefits of Cover Crops





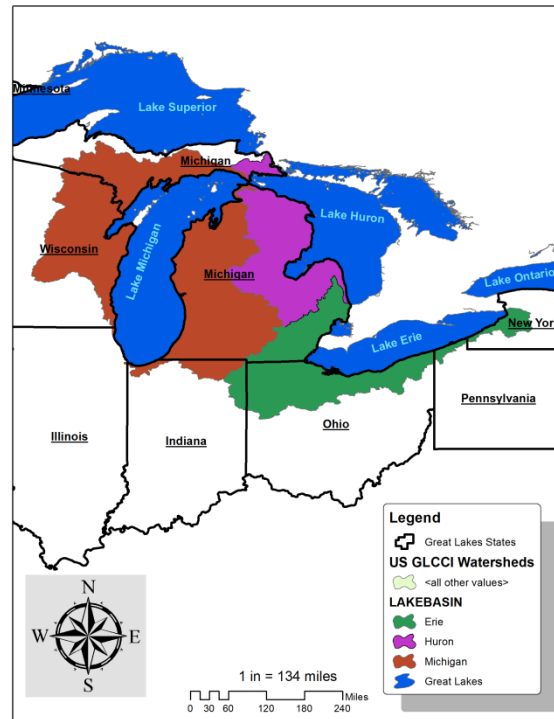
Case Study on the Potential for Cover Crops

GREAT LAKES COVER CROPS INITIATIVE (GLCCI)

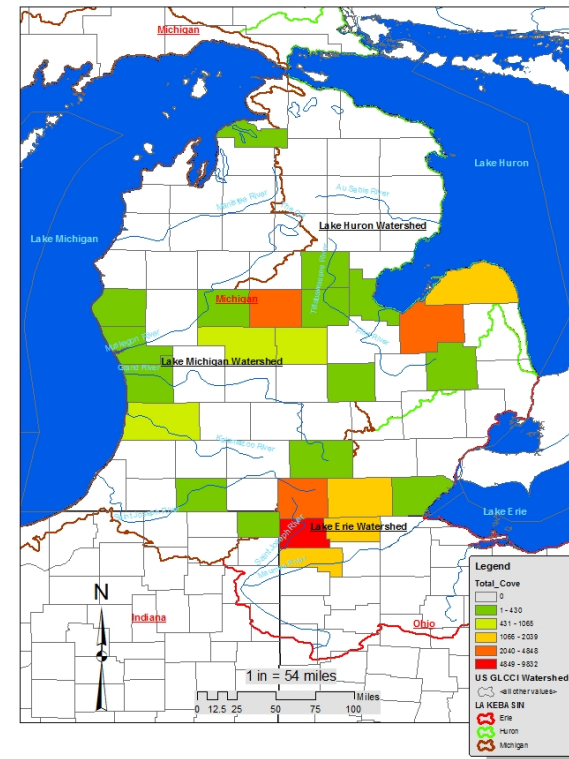


GLCCI Cover Crops

GLCCI Priority Watersheds



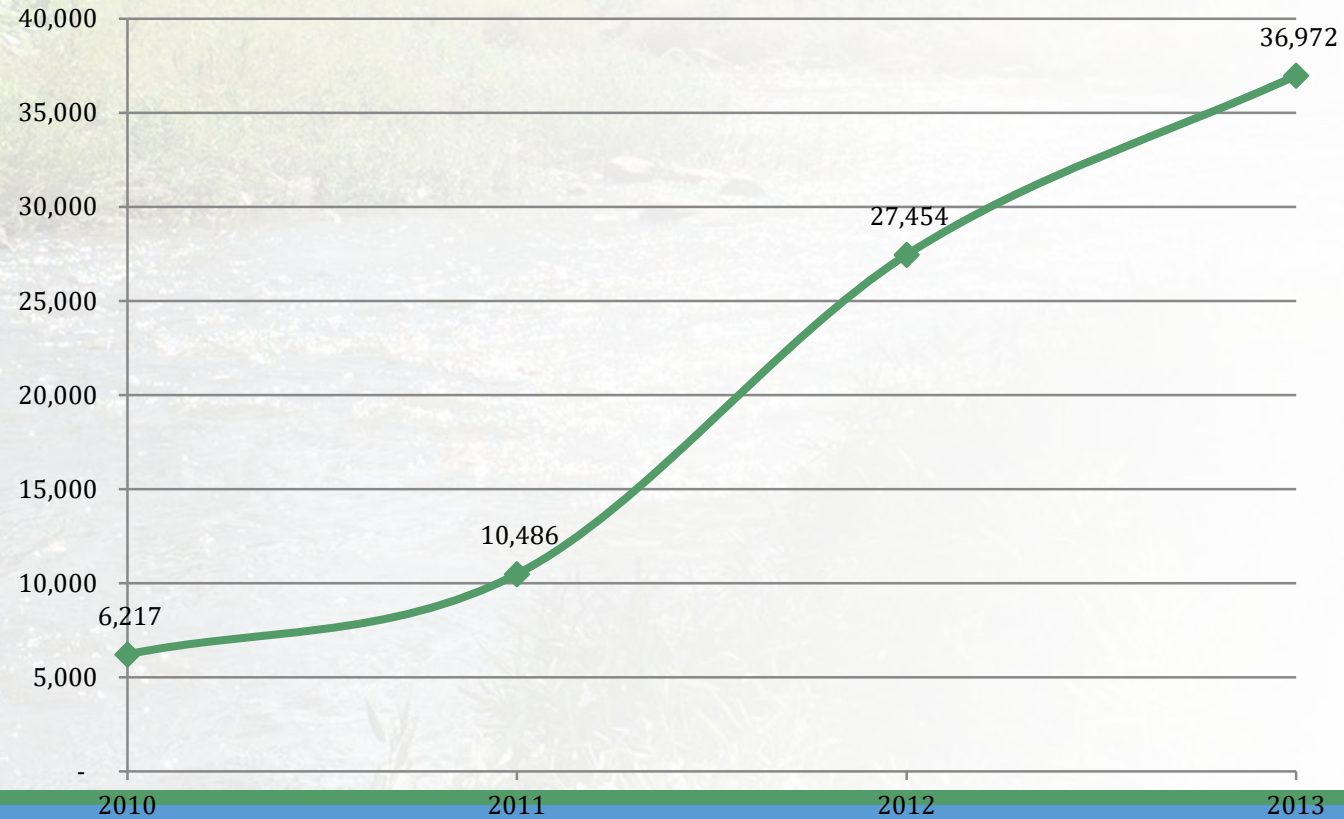
GLCCI Cover Crop Implementation



What GLCCI Accomplished

Planted 36,972 Acres of cover crops

Cumulative Cover Crop Acres Planted

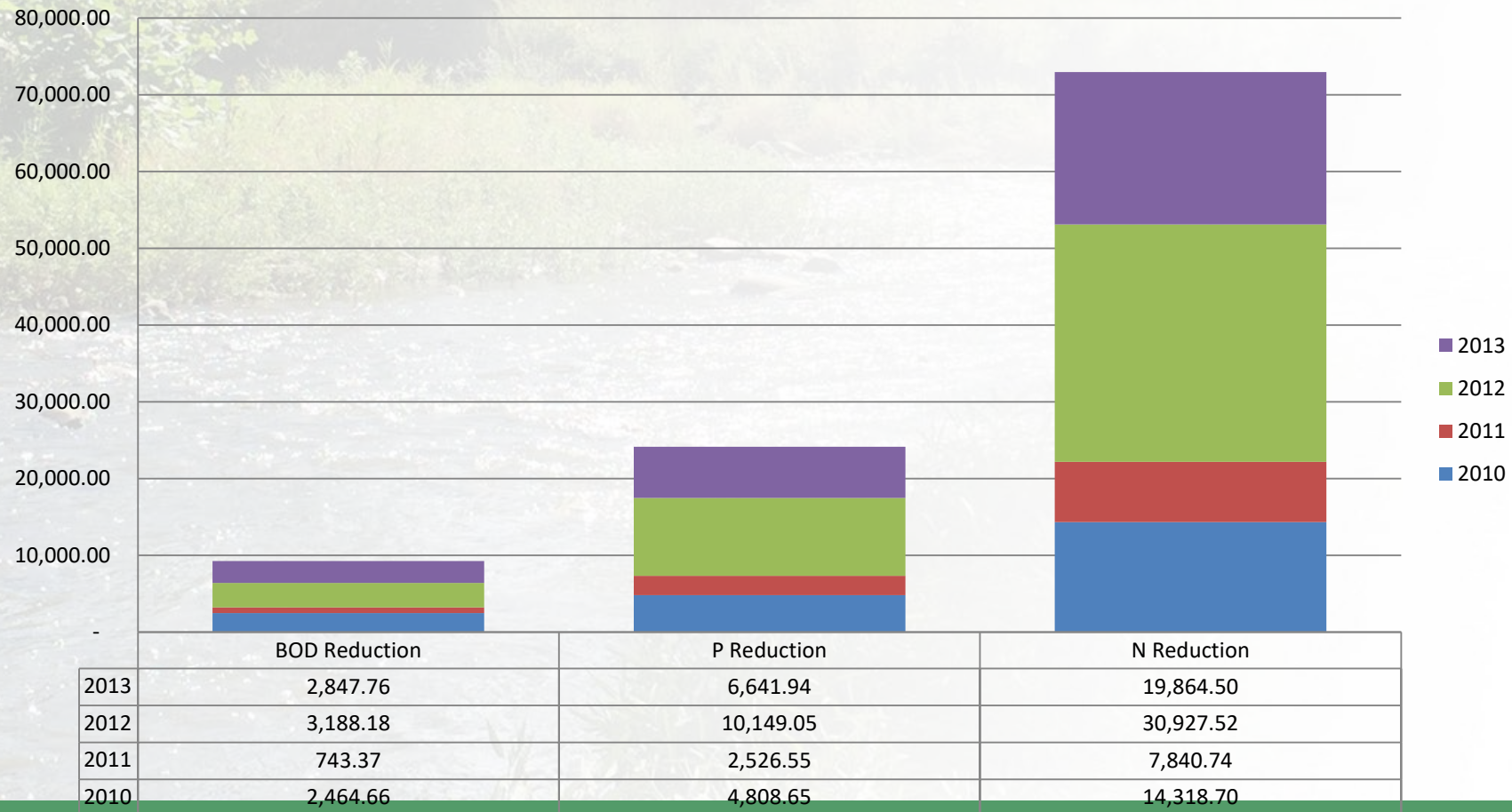


Total Nutrient Load Reduction

Year	Cover Crops Planted	Annual Nitrogen Reduction	Annual Phosphorous Reduction
	Acres Planted	Pounds per Year	Pounds per Year
2010	6,217	14,319	4,809
2011	4,269	7,841	2,527
2012	16,968	30,928	10,149
2013	9,518	19,865	6,642
Total	36,972	72,951	24,126

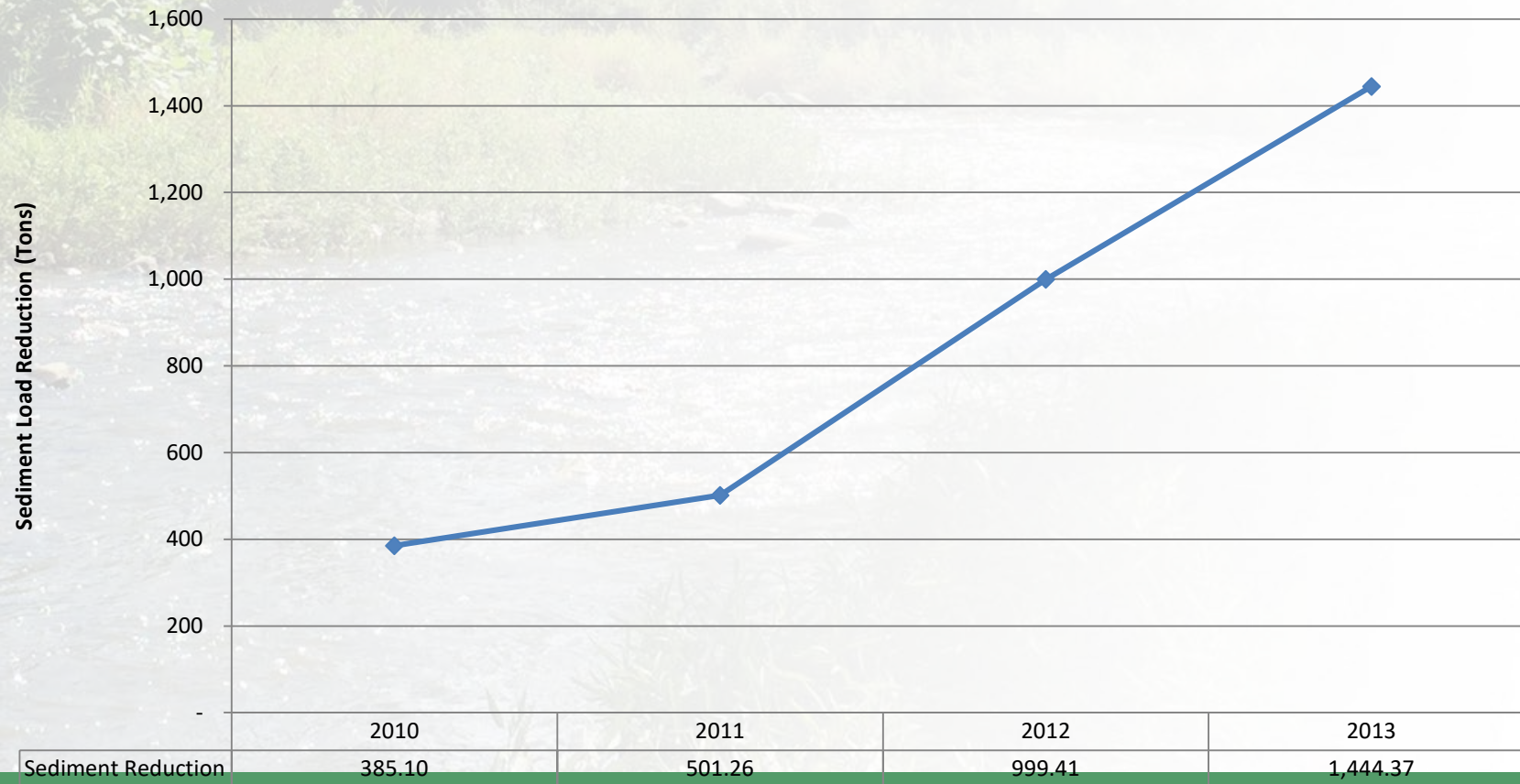
Load Reductions Achieved

Annual Load Reductions (Lbs / Year)



Sediment Load Reductions

**Cumulative Sediment Reduction
(tons / year)**



What is the potential for cover crops?

Acres of Cover Crops Planted in 2012	Cropland Acres in 2012	% of US Cropland where cover crops are used
56,799,829	2,105,821,528	2.7 %

We have a long way to go!

Summary

- Many farmers are using cover crops – More each year
- Cover crop promotion must focus on long-term benefits
 - Benefits accrue over time – Especially for soil health
- Cover crops must be discussed as a systems approach
 - Can be easily tied to soil health benefits and on-farm sustainability
- Economic benefits are difficult to quantify
 - Must consider benefits to soil health and nutrient loss reduction and water quality protection
- Cover crops have a great potential to help address water quality concerns if used in a systems approach with nutrient management and other practices



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