

## Problem

Erosion of farmland in southeastern Idaho



## How Does No-Till Work?

- Crops left on ground after annual harvest
- Root systems hold soil particles together
- Soil is not washed or blown away

## Tillage Comparison

No-Till



Planting and spraying only

Conventional Tillage



Cultivating Planting Disking Plowing

## Background

- Prime farmland
- High winds
- Sporadic heavy rainfall
- 5.8 tons/acre/yr lost



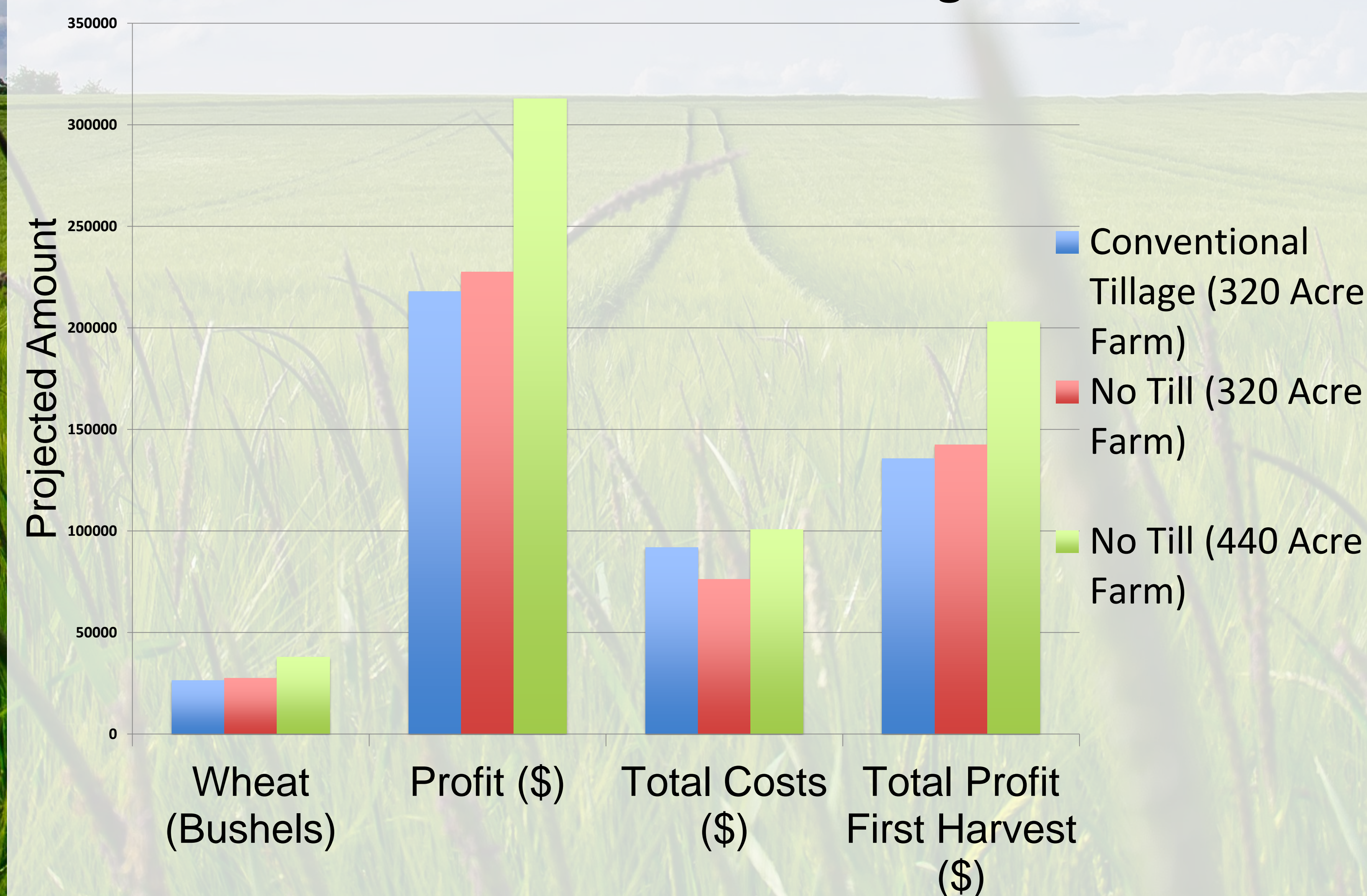
## Solution



No-till farming

## Costs and Benefits

### Economics of Conventional Tillage Vs. No-Till



- Increased crop yield
- Reduced soil erosion
- Low running cost
- More organic soil
- Better for environment
- Soil moisture control

## Assessment Steps

Measure changes in crop yield, soil erosion, and soil quality  
 Compare to USDA's Web Soil Surveys from 1981 and 2011  
 Talk to farmers and local soil surveyors

## Acknowledgments

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## References

Hoffmann, Glenn. Email interview. 12 Nov. 2013.  
 Idaho Wheat. (n.d.). *Idaho Farm Bureau*. Retrieved December 4, 2013, from <http://www.idahofb.org/index.php?action=commodities.wheat>  
 Soil Survey Staff. Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usd.gov/>. Accessed November 10, 2013.  
 Wheat Daily Price. (2013, December 3). *Wheat*. Retrieved December 4, 2013, from <http://www.indexmundi.com/commodities/?commodity=wheat>