2013

Less Till, More Yield

Matt Morais  
*Worcester Polytechnic Institute*

Chris Madden  
*Worcester Polytechnic Institute*

Shelby McQueston  
*Worcester Polytechnic Institute*

Maitane Sesma  
*Worcester Polytechnic Institute*

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Recommended Citation

Morais, Matt; Madden, Chris; McQueston, Shelby; and Sesma, Maitane, "Less Till, More Yield" (2013). *Great Problems Seminar Posters (All Posters, All Years)*. 210.  
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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

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

Solution
No-till farming

Costs and Benefits

Tillage Comparison
- No-Till
  - Planting and spraying only
- Conventional Tillage
  - Cultivating
  - Planting
  - Disking
  - Plowing

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

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

Acknowledgments
The team would like to thank Glenn Hoffmann, MLRA Soil Survey Office Leader, NRCS

References
Hoffmann, Glenn. Email interview. 12 Nov. 2013.