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Less Till, More Yield

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No-Till, More Yield

Problem

Erosion of farmland in southeastern Idaho

Background

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

Solution

No-till farming

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

Conventional Tillage
- Cultivating
- Planting
- Disking
- Plowing

No-Till
- Planting and spraying only

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

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References

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