



Documenting the Economic Benefits of Soil Health Management

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Research that Matters. Economics that Work.



Food & Agriculture

Protecting the resources needed to feed a hungry world



Economic Development

Finding where sustainability meets local economic opportunity



Climate Resilience

Mitigating and adapting to global warming

Why Is Soil Health Important?

Practices



Cover Crops



No-till

Benefits

- Water quality
- Climate resilience
- Risk management
- Yield stabilization
- And more!

What Did We Set Out to Do?

Four Datu Case Studies



150 NACD Soil Health Champions



How Do We Approach the Analysis?

Datu's Analysis is:

- Data-driven
- Interpreted by Farmers
- Complemented by Community Perspectives

| | Year 1 After Adoption: 2012 Corn | Year 2 After Adoption: 2013 Beans | Year 3 After Adoption: 2014 Corn | Year 4 After Adoption: 2015 Beans |
|----------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| Cover Crops Costs | | | | |
| Planting - Seeds | 29.5 | 28.3 | 10.4 | 21.8 |
| Planting - Machinery | 0.3 | 0.3 | 0.3 | 0.3 |
| Planting - Misc | 8.0 | 5.0 | 4.0 | 4.0 |
| Termination - Herbicide | - | 0.2 | 1.9 | - |
| Termination - Machinery | - | - | - | - |
| Learning Activities | 25.6 | 24.6 | 29.3 | 6.4 |
| Other Costs | 20.0 | 5.0 | 2.0 | 2.0 |
| Total Additional Costs | 83.4 | 63.4 | 48.0 | 34.5 |
| Cover Crops Benefits | | | | |
| Yield | (0.2) | - | (6.4) | (82.0) |
| Fertilizer - N | - | - | (17.4) | - |
| Fertilizer - P | - | - | - | (7.2) |
| Fertilizer - K | - | - | - | (45.9) |
| Erosion - Hours | - | (2.6) | (12.8) | (12.8) |
| Erosion - Machinery | - | (0.7) | (3.6) | (3.6) |
| Other Benefits | - | - | - | (1.3) |
| Total Additional Benefits | (0.2) | (3.3) | (40.2) | (152.8) |
| CSP Cost Share | - | - | (40.0) | (40.0) |
| Total Impact | 83.2 | 60.1 | (32.2) | (158.3) |

Example Partial Budget (preliminary – do not cite)

What Are We Finding?



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How to Benefit from Cover Cropping? Give it Time!

Guest Authors: Marie Veyrier and Sarah Mine, Datu Research, LLC.

When Iowa farmer Frank Moore decided to try cover cropping in 2013, he knew he would face up-front costs. As a long-term adopter of no-till—which he has done successfully with corn and soybeans for more than 20 years—he didn't expect the benefits to be immediate. His hunch was reinforced when a fellow producer at a cover crop show told him: "I've never seen a guy doing cover crops three years in a row that isn't still doing it. So give it three years."

In 2013, when excessive and constant rains prevented him from planting his cash crop, Frank seized the opportunity to grow cover crops on 115 of his 2,300 acres. He seeded 20lb/acre of annual rye grass in September 2013 on three of his fields.



Cover crop seeding in 2013

Incurring costs for producers starting out with cover crops vary depending on the cultivar, seeding, and management methods. Frank's budget data from the first year of adoption validates the common perception that net costs will be heaviest at the outset. Establishment costs, which consisted of buying annual rye grass seeds and running a prairie grass drill or three-point seeder to plant them, represented the bulk of cover crop-related charges—about \$27 per acre seeded (see Figure 1). A change in his herbicide program enabled Frank to avoid any additional cover crop termination costs.

Information

This entry was posted on January 15, 2016 by maryprice in Soil Health and tagged CIG, Cover Crops, Datu, finance, NRCS, Soil Health.

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<http://wp.me/p5KIKO-4y>

Navigation

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Adam Kurczewski

October is 'Soil and its Products' Month NACD welcomes fall intern

<https://conservation4thefuture.wordpress.com/2016/01/15/how-to-benefit-from-cover-cropping-give-it-time/>



Questions?

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