



Social & Economic Considerations

Presenter Name
Location

Objectives

- Describe common challenges to SHMS adoption and transition.
- Summarize economic effects of SHMS through partial budgets and case studies.

Adopting Soil Health Practices

- “Requires not only an understanding of the physical resource data but also social data.”
- Awareness a understanding key human social & economic considerations can assist with implementation & long term adoption

What is the current perception of soil health in your region?

What keeps people from implementing & how have others overcome these obstacles?



How To Impact Change

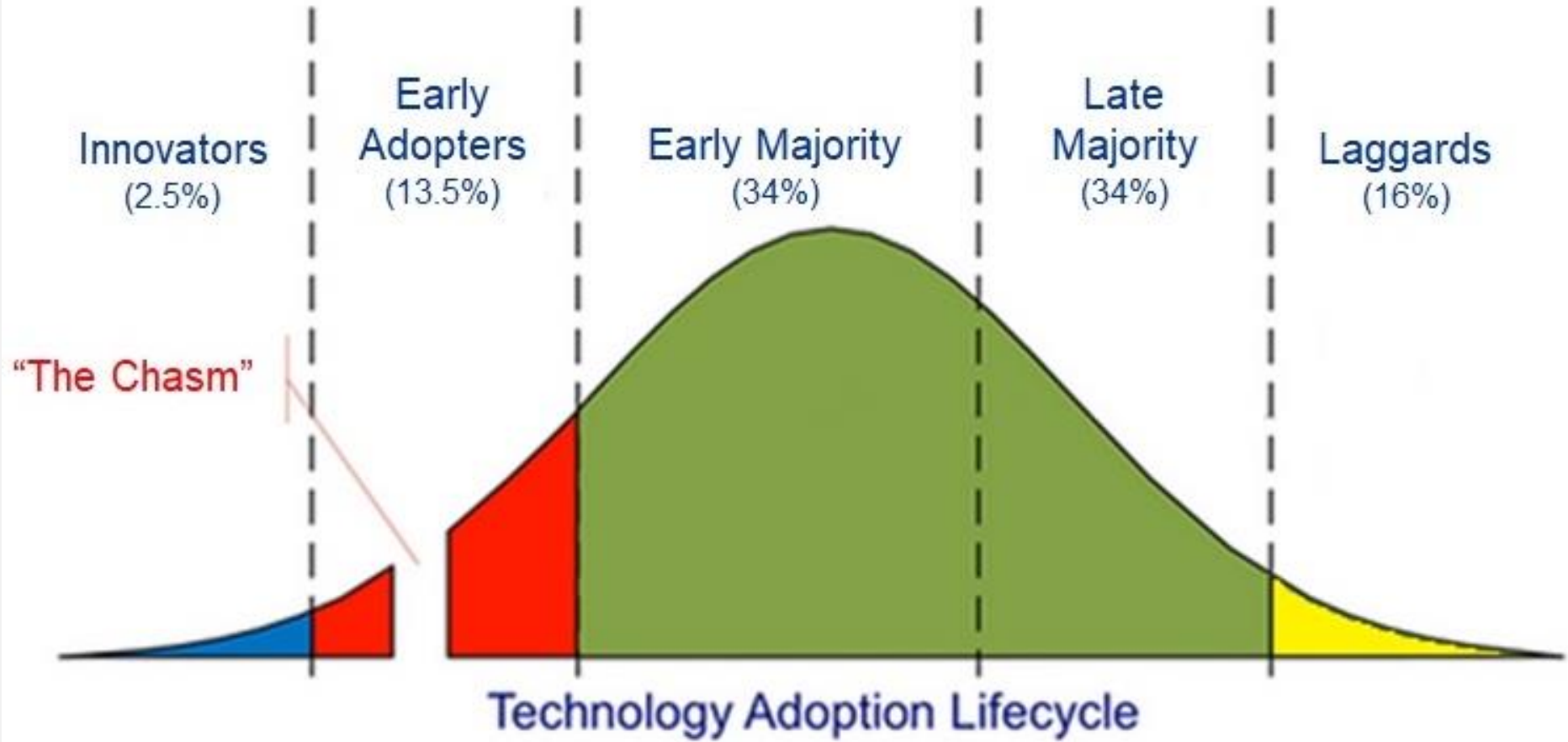
Adoption

Behavior associated with an individual's or group's decision on whether or not to accept new ideas, practices or products

Technology Transfer

The process by which the adoption of a new idea, practice, or product spreads throughout a group, community or society

Adoption Categories



Individual stages of adoption



The producer can return to any one of these stages at any time during the adoption process

Knowledge check – poll question

Stages of adoption

- As a planner where do you fit in these stages?
 - In all of them
- At what stage can you fail the landowner?
 - Any stage: by lack of follow through or interest after the initial contact at the awareness stage or any time when the producer seeks assistance.



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What are Some Obstacles to Soil Health Adoption?

- Lack of technical information
- Lack of community support (socially or economically)
- Inter-Agency organizational barriers
- Landlord/tenant relationships
- Economic
 - Installation cost
 - Management capability
 - Risk aversion



Economic Considerations

- How many producers have used these arguments to not improve soil health?
 - It costs too much
 - Lack of time to seed cover crops
 - Uses too much water
 - There is a yield drag
 - Don't want any extra weeds in my field

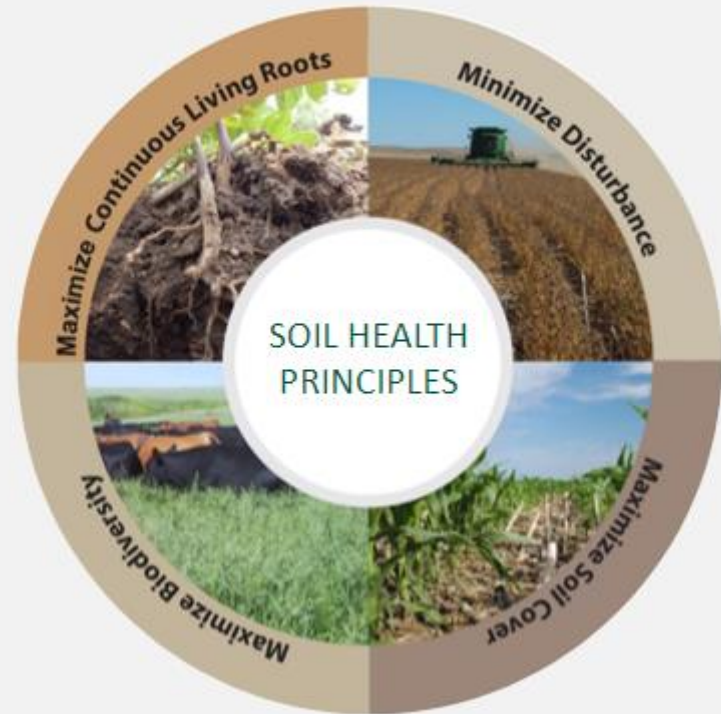


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Improved Soil Function can Lead to Benefits for the Producer

• Potential Benefits

- Reduced Erosion
- Increased Soil Organic Matter
- Increased Nutrient Cycling
- Increased Drought Resilience
- More Available Water
- Improved Filtering and Buffering
- Reduced Pest and Disease incidence
- Reduced Risk





Categories not as easy to quantify

(but important to consider)

- Changes in labor (timing)
- Soil health characteristics difficult to tie to actual dollars spent or saved
 - e.g. earthworms, SOC
- Risk
 - e.g. increased soil health can help reduce crop loss due to weather extremes
- Social Impacts

Case Studies



- Give real world examples
- Usually use partial budget
- Good case studies address all aspects of adoption, not just the positive aspects.
- Must be relatable.
 - Location, climate, crops
 - Available resources
- Read with a critical eye – ask:
 - “Are the benefits applicable to you?”
 - How about the costs?”

How do Economists Compare? Partial Budget Approach

We are looking at **WHAT CHANGES** – Before and After
(or between “Baseline” and “Alternative(s)”)

Positive Effects “+”	Negative Effects “-”
Increased Revenues	Increased Costs
Reduced Costs	Decreased Revenue

T-Chart Levels & Examples

- Level 1 – Descriptive

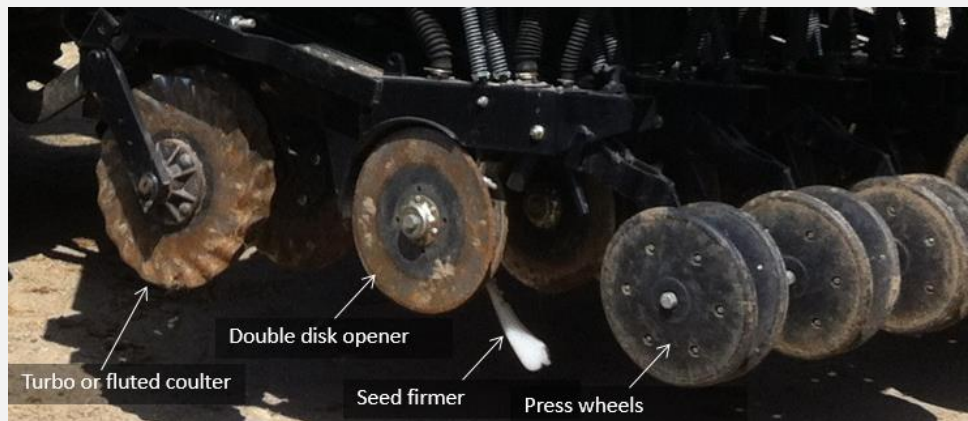
- (+) Decreased fertilizer use
- (-) No-till drill purchase

- Level 2 – Quantitative

- (+) Decreased fertilizer use: 20 lb N/acre
- (-) No-till drill purchase: \$25k/drill

- *Level 3 – Quantitative + Same Units

- (+) Decreased fertilizer use: \$5/ac/yr
- (-) No-till drill purchase: \$9/ac/yr
amortized at 5 yr loan, 6% interest, 600 acres



Things to Remember

1. Adopting a soil health conservation system is a long-term investment.
2. Just like soil degradation does not happen over night, improving soil health also takes time.
3. There are agronomic benefits that result in economic benefits that may not be easily measured, such as reduced risk of yield variability.
4. To realize the greatest benefits from a SHMS, we must find what works best for a producer given THEIR objectives and goals.

Moving from Awareness to Adoption

- Work to develop relationships with producers
- Pursue opportunities for producer education
- Invite and accompany them to soil health-related events
- Invite them to the field and do the assessment together.
- Conduct demos at SWCD meetings, equipment auctions, fairs, their farms, etc.

Moving from Awareness to Adoption (cont.)

- Use discussions about erosion on their fields to transition to soil health principles and opportunities
 - Develop and coordinate an email listserv or social media group of interested producers
 - Conduct periodic coffee and doughnut meetings around SH topics
- What other approaches do you use or think you could use to engage your producers?



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