

# Practical Implementation of Cover Crops

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# Outline

- Sales
- Create awareness of need
- Understand the customer
- Customize solutions
- Help measure success/failure
  - Educated guess



# What is a healthy soil?

“...continued capacity of the soil to function as a vital living ecosystem that sustains plants, animals and humans.” –NRCS

- How do you manage for this?



# Earth Day 2015









# May 2017



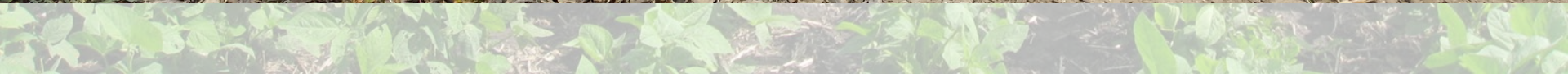


# “Snirt”





# Native vs farmed





# Notill Soybean Ground









# Salinity













# Waterhemp





# Kochia













# Kochia 14 days after dicamba

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# Waterhemp 14 days after dicamba

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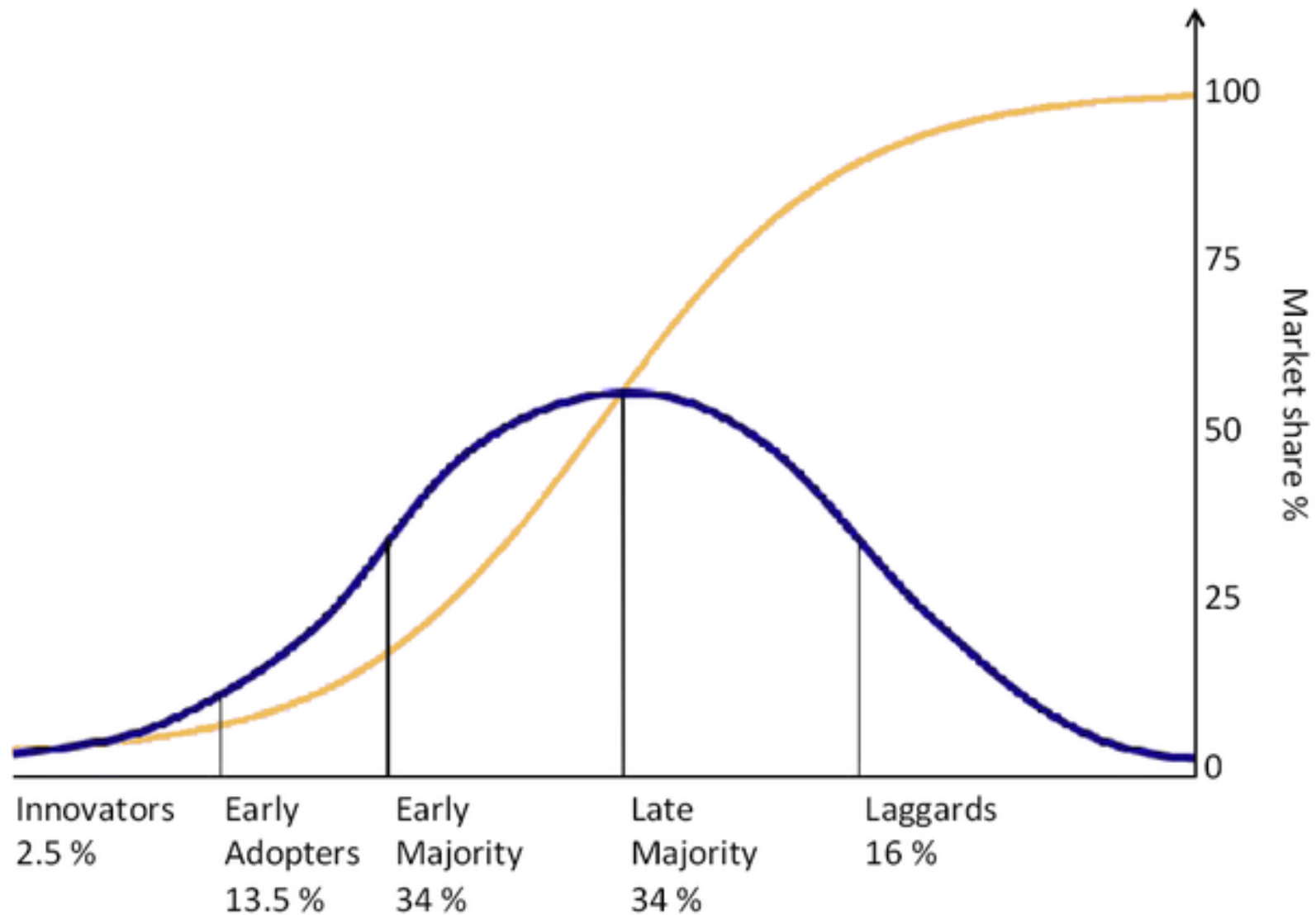


# People in this room get Frustrated

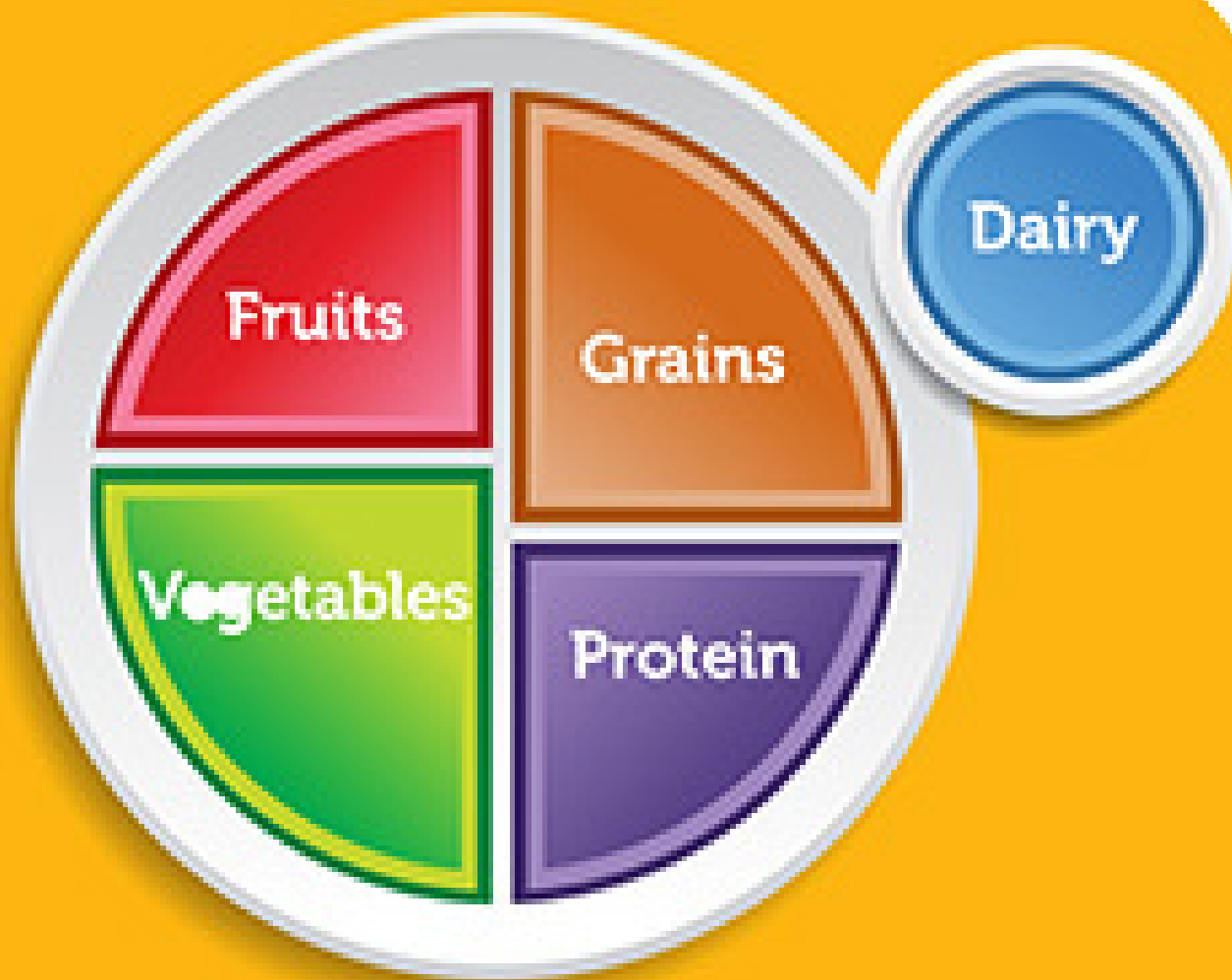
- Do producers see?
- Do they care?
- “Stubborn farmers”
- “They just don’t listen”
- % of Cover crop / soil health adoption?



# Culture/Stages of Adoption







Choose **MyPlate**.gov











# My Grocery Store

Food type	Feet of aisle	% of Total	
Fresh Veg/Fruit	15	2.22%	3.56%
Canned Veg/Fruit	4	0.59%	
Frozen Veg/Fruit	5	0.74%	
Dairy	30	4.44%	7.41%
Frozen dairy	20	2.96%	
Meat	42	6.22%	6.22%
Chips	20	2.96%	2.96%
Total	675	20.15%	



# My recommendations

- **Fresh self assessment**
  - Neighbor
  - Set goals
- **SCIENCE, SCIENCE, SCIENCE!**
- **Watch out for “experts”**
- **“A” Student doesn’t need tutor**
- **Results take time**



# My Goals

- **Erosion**
  - Wind and water
- **Water**
  - Too much and not enough
- **Salinity**
- **Weeds**



# Some Things We are Doing

- Reduced till
- Split fields
- Adding covers
- Use right species
  - Covers and crop
- Carefully adjusting inputs
  - Weed control
  - Fertilizer

































# Cereal Rye





# Cereal Rye





# “Planting Green”



















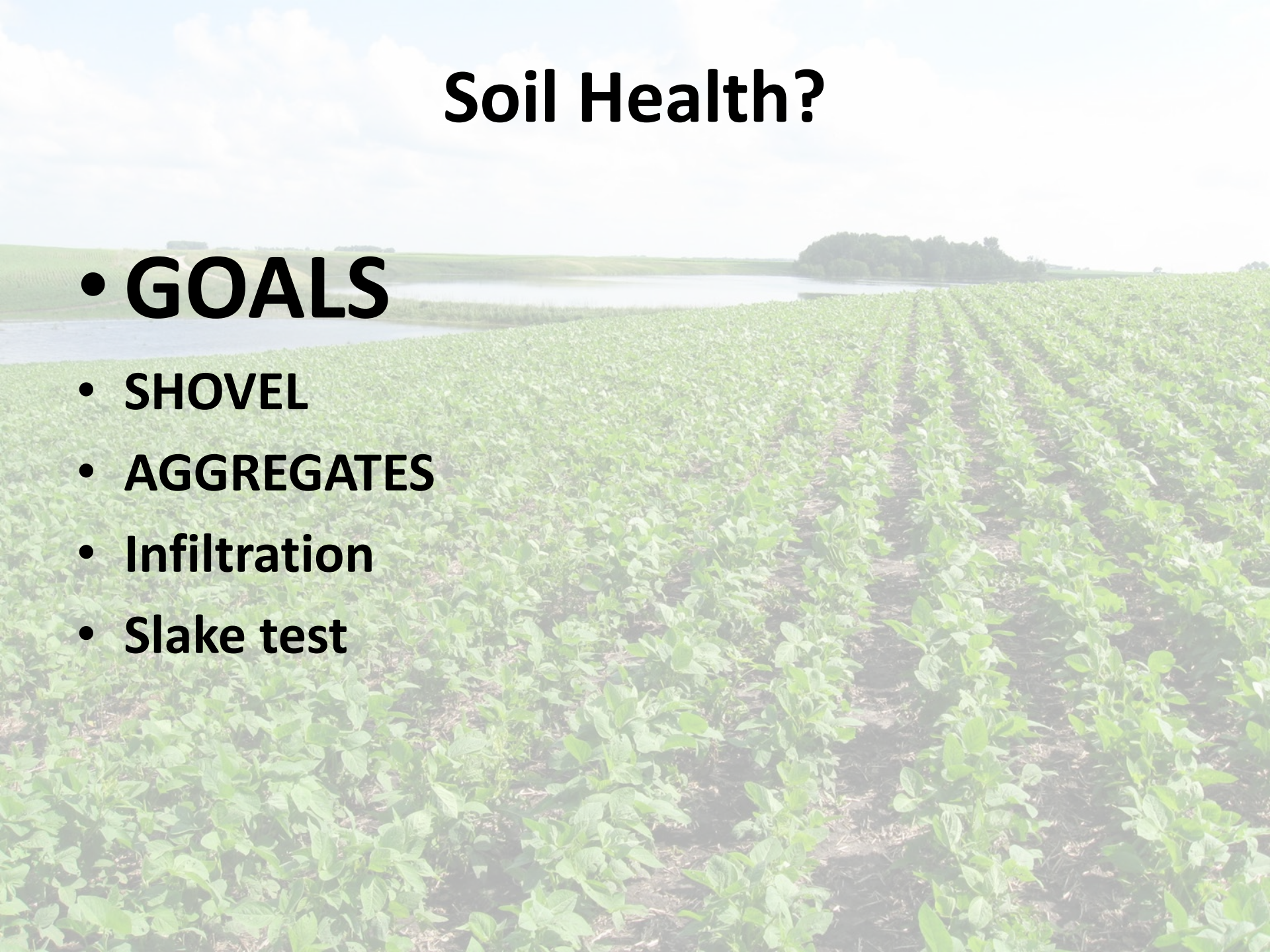






# Soil Health?

- **GOALS**
- **SHOVEL**
- **AGGREGATES**
- **Infiltration**
- **Slake test**

























USDA Natural Resources  
Conservation Service

## Soil Structure Slake Test

Conventional Tillage

No-Till System

Soil Aggregate  
Stability

unlock the  
SECRETS  
of the  
SOIL













# Weed Control Tools

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1. Herbicides
  2. Tillage
  3. Crop Rotation
  4. Canopy
  5. Cover Crops
  6. Mowing
  7. Handweeding
  8. Allelopathy
  9. Harvest Weed Seeds
  10. Nitrogen Management
  11. Grazing
  12. Exclusion (Living fence)
  13. Mulch
  14. Weed Seed Predation
  15. Flame Cultivator
  16. Electricity
  17. UV Light
  18. Rotary Cultivator
  19. Steam
  20. Liquid Nitrogen
  21. Robots with lasers
  22. Abrasive blasting (sand?)