



Cover Crops Working Group



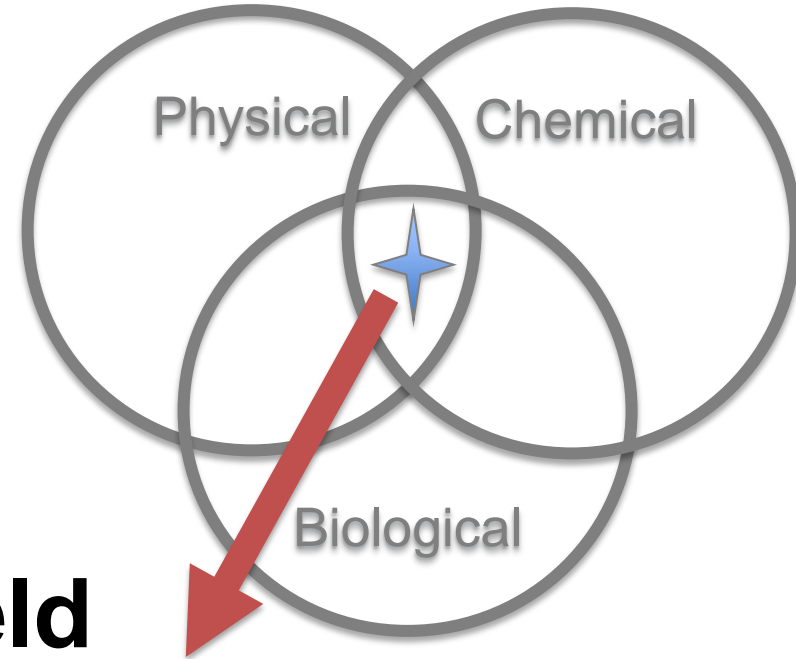
SOIL HEALTH PARTNERSHIP

October 26, 2016



What are we really asking?

In-season management → **Soil Health**
40+ decisions



- **Yield**
- **Profitability**
- **Environmental risk**

Decision tools



A PROJECT TO MAKE AGRICULTURE MORE PRODUCTIVE
AND SUSTAINABLE THROUGH

IMPROVED SOIL HEALTH

GOALS

Recruit a network of 100 farms

Establish research protocols and data analytics

Publish findings and recommendations

Support grower networking / technical assistance

STEERING COMMITTEE



MONSANTO



**The Midwest Row
Crop Collaborative**

Technical Advice



SCIENCE ADVISORY COMMITTEE

Larry Clemens, TNC

Suzy Friedman, EDF

Jerry Hatfield, USDA-ARS

Daren Harmel, USDA-ARS

Wayne Honeycutt, SHI

Doug Karlen, USDA-ARS

Eileen Kladvko, Purdue

Chuck Rice, KSU

Peter Scharf, UMC

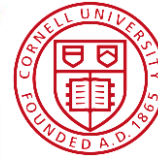
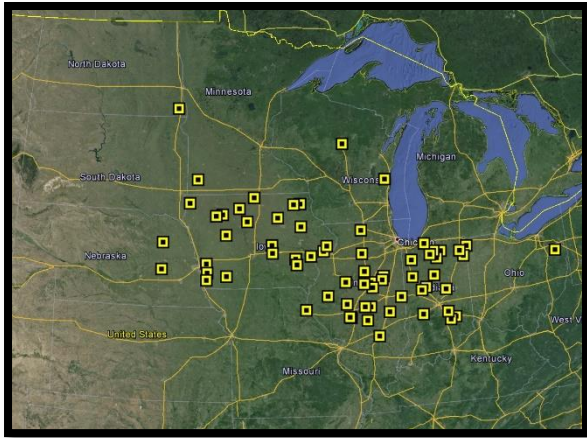
Harold Van Es, Cornell

Wally Tyner, Purdue

Additional Financial Support



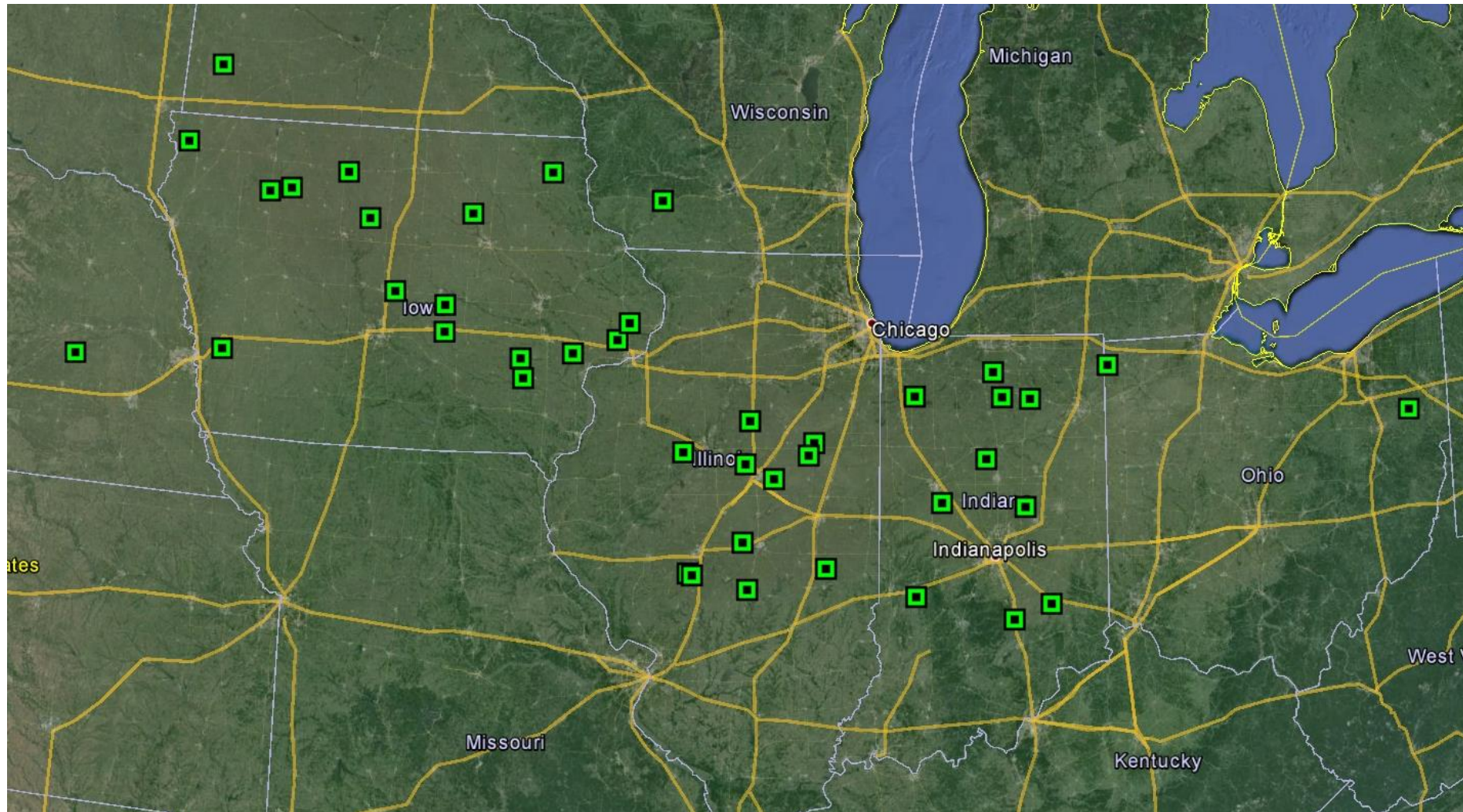
Networks and collaboration



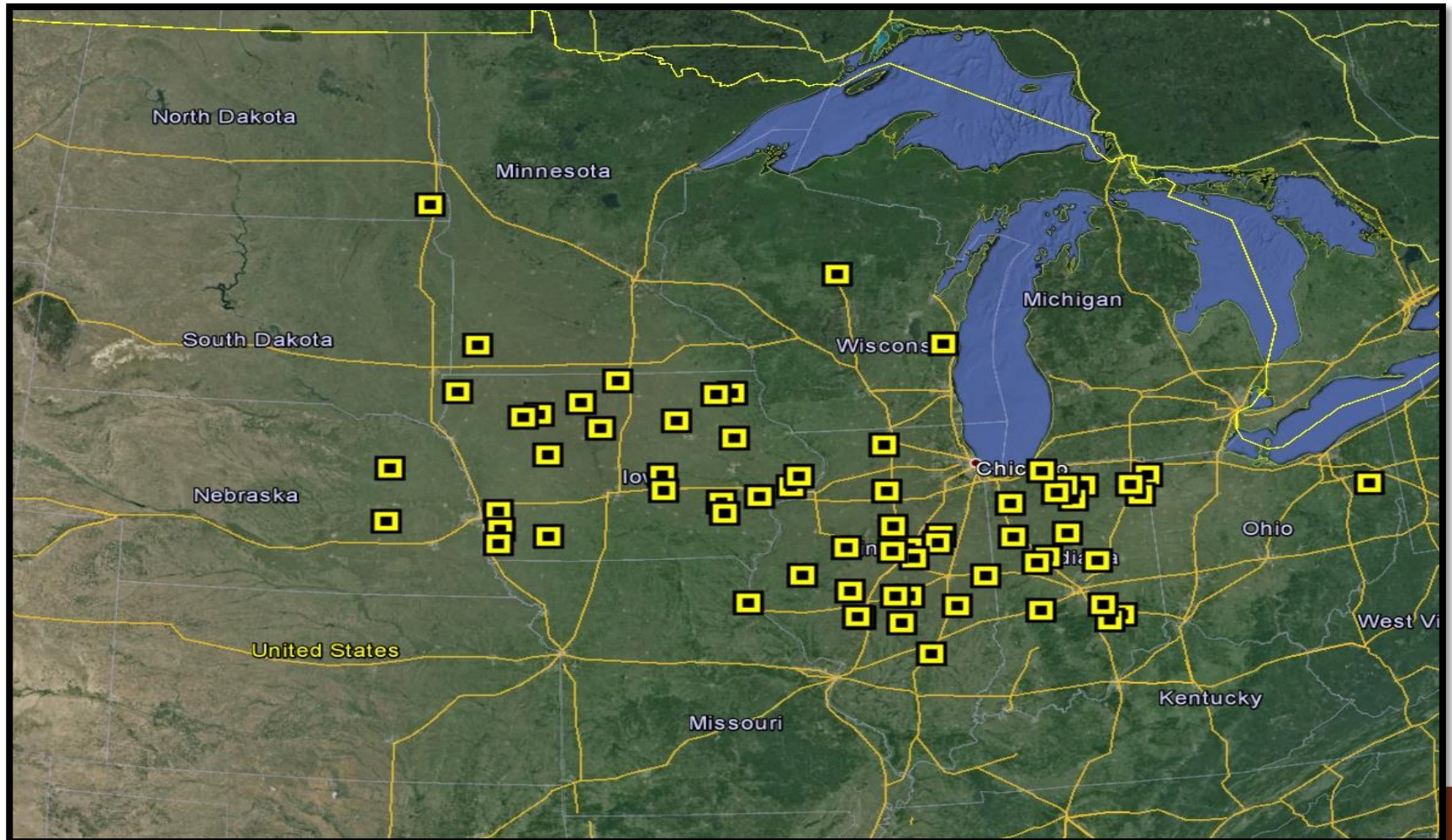
The Midwest Row Crop Collaborative



SHP Demonstration Network Sites



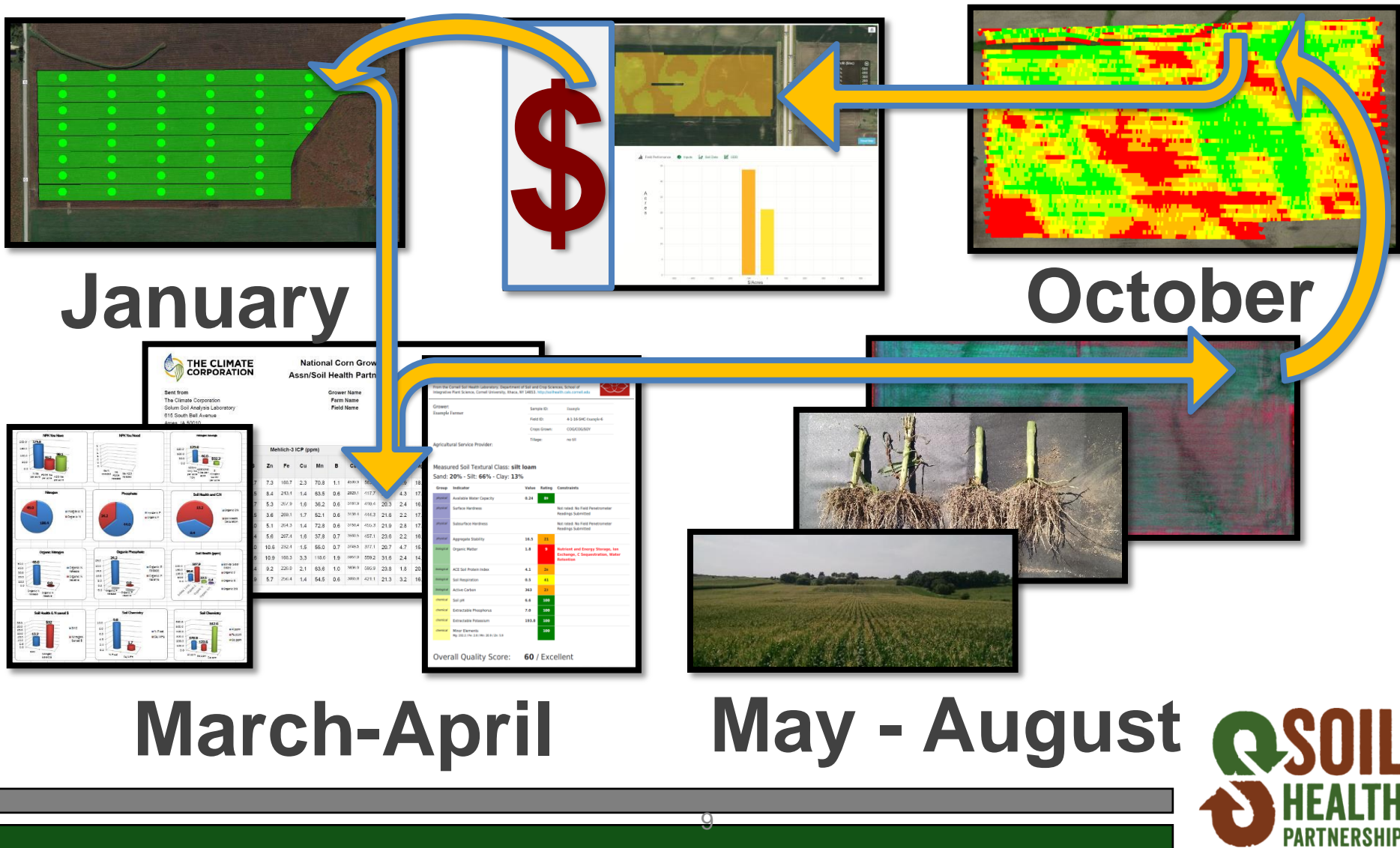
Soil Health Partnership Network Coverage



SHP Collaborations – Data Centric

- AgSolver
 - Profit Zone Manager
 - 2016 CIG proposal
- Cornell University
 - Soil health assessment
- Iowa Soybean Association
 - Aerial imagery, yield processing, database construction, protocol sharing
- USDA-ARS
 - Soil, productivity, agronomic data team
- Purdue
 - Economic data
- Kansas State University
 - PLFA sample analysis (small subset of SHP sites)
- The Nature Conservancy
 - SHP Science Advisory Committee
 - Water quality monitoring
 - SHP location expansion - WI
- Midwest Consortium of Community Colleges
 - Protocol sharing – MOU in place
- North Dakota State University
 - SHP protocol sharing
- POET
 - SHP protocol sharing
- The Soil Health Institute
 - National Soil Health Assessment – soil health sampling protocol
- Walton Family Foundation
 - Data collection and management guidelines for WFF grantees
- Conservation Cropping System Initiative
 - Data collection and sharing partnership in development
- CTIC
 - OpTIS
 - Cover crops consortium development
- Field to Market
 - FieldPrint Calculator – trial of HPI
- Illinois Corn Growers Association
 - Staff partnership
 - Water quality monitoring
- Iowa Corn Growers Association
 - SHP Staff partnership

Soil Health Partnership Data Collection Process



2016 Data Collection Progress

- Soil sampling - ~97% sites with data submissions
- Aerial imagery – 100%
- Yield data – Farmers/agronomist prepped
 - SHP Team training continuing right now
- Treatment establishment
 - Currently 75% of sites with cover crops seeded/established
 - 1 site with nutrient management trial established



SHP Soil Sampling Protocol Supplement
Last updated 2-10-16

SHP - Soil Sampling Packing list

- SHP Sampling Packet List**
 - 1. SHP Sampling Packet
 - 2. SHP Sampling Packet
 - 3. SHP Sampling Packet
 - 4. SHP Sampling Packet
 - 5. SHP Sampling Packet
 - 6. SHP Sampling Packet
 - 7. SHP Sampling Packet
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 - 17. SHP Sampling Packet
 - 18. SHP Sampling Packet
 - 19. SHP Sampling Packet
 - 20. SHP Sampling Packet
 - 21. SHP Sampling Packet
 - 22. SHP Sampling Packet
- Sampling Day Packing List**
 - 1. SHP Sampling Packet
 - 2. SHP Sampling Packet
 - 3. SHP Sampling Packet
 - 4. SHP Sampling Packet
 - 5. SHP Sampling Packet
 - 6. SHP Sampling Packet
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 - 17. SHP Sampling Packet
 - 18. SHP Sampling Packet
 - 19. SHP Sampling Packet
 - 20. SHP Sampling Packet
 - 21. SHP Sampling Packet
 - 22. SHP Sampling Packet

Plot setup

- 8 even test plots (4 replications of 2 treatments)
- Soil sample points every 1 acre (within a plot)

Soil Sampling - Solum, Cornell and USDA-ARS

- 3 soil sample types collected at each location
- 3 soil sample types collected at each location

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SHP data collection, analytics and publication

SHP Data Analytics Teams

- Soil, productivity, and agronomics

- Dr. Doug Karlen – USDA - ARS
 - Support team within ARS
- First team strategy meeting held Oct. 4-5



- Economics

- Dr. Wally Tyner – Purdue University
 - Post-doc and graduate student support



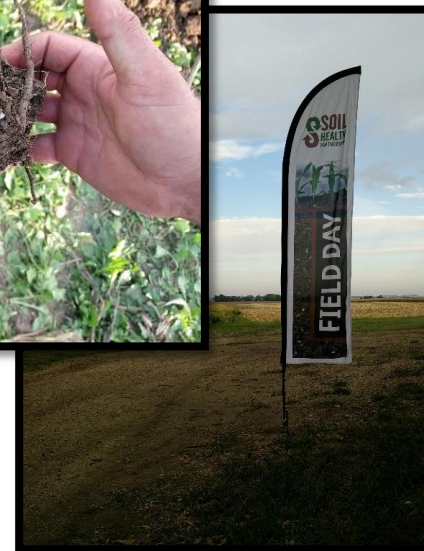
- Integration, sustainability and precision management

- Dr. Chuck Rice – Kansas State University
- Post-doc and industry support team



Soil Health Partnership Communications and Education

- SHP Field events – over 40 farmer engagement events
 - Over 2000 in attendance
- Cropping system seminars and ag retail presentations
 - Over 20 events for agronomists and ag/chem dealers
- Increasing reach at national events
 - Commodity Classic, ASA, CSSA, SSSA, ARA



Soil Health Partnership Communications and Education

- Over 385 media stories
- 430+ million media impressions
- Increased web traffic



SHP Staff Support for the Network



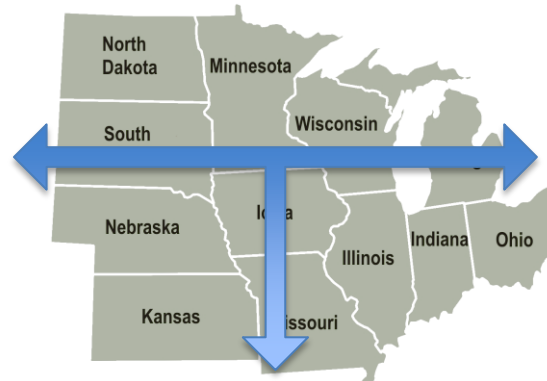
SHP Director
Nick Goeser



SHP Program Coordinator
Anne Dietz



Indiana Field Managers
Dan Towery Hans Kok



NCGA -Graphic Communications Designer
Beth Musgrove



Iowa Field Managers
Elyssa McFarland



Illinois Field Managers
Jim Isermann



Communications
Jenna Higgins Rose

Timeline Expansion

Where do we go from here?

