

### Highlights

2022-27 NRCS Contribution Agreement Amendment

- Finalized amendment request submitted to USDA-NRCS national
- Will add two additional CCSI/Purdue On The Farm positions. One as a digital ag specialist, the other specialty TBD
- Additional funding added to Event Support

Ecdysis 1000 Farms Initiative

- Helped coordinate 25 farm sites to sample from Vanderburgh to Tippecanoe Counties over a 1week period Note that due to extreme heat, not all sites were sampled.
- Agronomists accompanied team on sampling runs
- Parameters included standard soil tests, "soil health tests", bird counts, insect counts, % of ground cover, leaf and tissue analysis. See attachment for full list of parameters
- Results will be provided to participating farmers. A group meeting with farmer participants is planned for 2024

### **G1.** Farmer Engagement and Involvement

# 1. Innovative and Visionary Farmers

<u>Quarterly Target</u>: 1 ride-a-long, shop visit, or other (Each - A, NPM, SPM) Listening sessions with Innovative and Visionary Farmers. Use to help identify needed field day and training topics.

- 07/05 Denise Jamerson (D)
- 07/07 Cameron Mills (D)
- 07/14 Pat Bittner (D)
- 07/13 Mark Kingma scouting (NA)
- 07/14 Mark Anson (D)
- 07/17 Dan DeSutter (D)
- 07/22 Blake Vince (D)
- 07/25 Tim Rexing 1000 Farms (SA)
- 07/26 Pat Bittner 1000 Farms (SA)
- 07/27 Roger Wenning (D)
- 07/28 Ray McCormick (SA)
- 07/29 Kelly Cheesewright 1000 Farms (NA)
- 07/29 Carter Morgan 1000 Farms (NA)
- 07/29 Rick Clark 1000 Farms (NA)
- Joel Marvel (SWPM)

# **Conservative and Pragmatic Farmers**

Meetings and other opportunities for listening sessions to gain perspective on adoption issues/concerns of soil health practices. Use to help develop outreach topics and tactics. <u>Quarterly Targets</u>: 1 ride-a-long, shop visit, or other (Each - A, NPM, SPM)

- 07/07 Co-Alliance and farmer-client scouting of compaction related to spreading pattern of S (NA)
- 07/14 Meeting w/ farmer and their employee re scheduled spraying of fungicides with drones.
- 07/29 McCutcheon/Overstreet 1000 Farms (NA)
- 07/29 Bill Fordice 1000 Farms (NA)

# 1. Farmer Influencers

<u>Quarterly Targets</u>: 1 LLP per region adding an influencer to their outreach planning team or board. (Each - NPM, SPM)

- 07/06 Jon Lundgren, Jay Skaar, Ecdysis/1000 Farms Project (D, SA)
- 07/14 Finian Makepeace, Kiss the Ground (D)
- 07/15 Barry Fisher (D)

# 2. Presentations

<u>Quarterly Targets</u>: Average of 3 soil health presentations or demonstrations. (A)

- 07/11 Morgan County Farmer Breakfast, Martinsville, IN, "Climate Change in Morgan County" (48 attendees) (SA)
- 07/11 Ag Econ Advisory Board, West Lafayette, IN "Diverse Corn Belt and IMPACT2 Initiatives" (22 attendees) (SA)
- 07/12 WLEB Legislative Tour Soil Health Demonstrations (NA); 24 attendees

# G2. Local Level Partnership Support

# 1. Facilitate and Support Local Level Partnership's Outreach and Education

<u>Quarterly Target</u>: CCSI as a group materially participate in / support average of 15 LLP Outreach Efforts groups (CCSI Team Goal)

Workshops Completed

- 07/12 WLEB Legislative Tour; 24 attendees
- 07/14-20 Adams County Fair Root Banners
- 07/14-20 Randolph County Fair Root Banners
- 07/18 Clark County Fair Root Banners
- 07/22 Pollinator Fest Brown and Monroe Counties

# Workshops in Progress:

- 08/02 DeKalb County Agronomy Day
- 08/08 Improving Water Quality Through Farming, Kosciusko County
- 08/08-09 Pilot National Training
- 08/09 Roger Wenning Round Table
- 08/10 Roger Wenning Field Day
- 08/17 Aaron Krueger/ACAM Field Day
- 08/22 Miami Co Soil Health Workshop
- 08/25 Lawrence County Soil Health Field Day
- 08/29 Pay Dirt cover crop workshop, Goshen
- 08/30 and 31 Manure Spill Demonstrations, WLEB and Kankakee
- 08/30 Bartholomew County PARP
- 08/31 Warren County

- 09/06 Roemke Farms Field Day, Harlan
- 09/06 Porter County
- November Sand County Foundation Event
- 01/08-09 IASWCD Annual Conference
- 2021 23 Kankakee Basin and WLEB series of events to support existing RCPP (WLEB) and proposed RCPP (Kankakee) (NPM)

# 2. Consistent Soil Health Messaging

<u>Annual Target</u>: Outlined in fall with training team. Foundational Soil Health Trainings / Awareness, Knowledge and Understanding of Soil Health <u>Completed Trainings</u>

 06/27-29 Soil Health and Sustainability for Midwestern Field Staff (3-Day Soil Health) (36 attendees)

Trainings in Progress:

- 08/08-09 Pilot National Soil Health Training
- 11/14 MCCC Cover Crop Training
- Soil Health Signature Program Curriculum Development 1<sup>st</sup> Draft Complete
- Soil Health PARP Regulatory Topic Development

# **Professional Development Opportunities**

<u>Annual Target</u>: Outlined in fall with training team. Advanced Soil Health Trainings / Applied Soil Health Knowledge and Skills <u>Completed Trainings:</u>

Trainings in Progress

- 09/5, 7, 19, 21 Grow More Engaging New Audiences
- 11/30 CCSI-SARE Continuing Education: Economics of Soil Health

# 4. Messaging to/from Local Level Partnerships

Monthly Targets: 2-3 LLP visits. 1 Teleconference / Region (Each - NWPM, NEPM, SWPM, SEPM)

- Mondays US Drought Monitor Coordinating Calls (SA)
- 07/03 Pulaski SWCD (NEPM)
- 07/03 VUJC Field Plots and Tillage Research Sampling (SA)
- 07/05 ANR Monthly Update (SA, NA)
- 07/06 Pike SWCD (SWPM)
- 07/10 Soil Health ANR Newsletter, Email (SA, NA)
- 07/11 Starke Co SWCD (NWPM)
- 07/12 Tippecanoe Co SWCD (NWPM)
- 07/12 Tippecanoe Co Extension (NWPM)
- 07/12 Fountain Co Extension (NWPM)
- 07/12 Kylie Wheeler, ISDA (NEPM, SEPM)
- 07/14 IASWCD Board of Directors (D)
- 07/14 Benton Co SWCD (NWPM)
- 07/17 Miami Co SWCD, NRCS, and ISDA (NEPM)
- 07/18 SSCB (D)

- 07/18 St Joseph SWCD and NRCS (NEPM)
- 07/25 Soil Health Team Meeting (NWPM)
- 07/25 NE Soil Health Team Meeting (NEPM)
- 07/31 SW/SE CCSI Regional Teleconference
- 07/31 NW/NE CCSI Regional Teleconference
- Fulton, Marshall, and Porter County SWCDs / NRCS introductions (NA)
- New NEPAC Farm Manager introduction (NA)

# G3. General CCSI Outreach / Communication

# 1. Marketing

<u>Quarterly Targets</u>: 3-4 "formal" CCSI Updates (CCSI Team Goal) <u>Annual Target:</u> 1-2 New External Partners

Ensure LLPs understand CCSI resources available to them; Ensure external partners are aware of CCSI strengths, tools, and opportunities.

- July 1 Events Newsletter; 2353 delivered; 43% open rate; 12% click rate
- July 15 Events Newsletter; 2254 delivered; 39% open rate; 11% click rate

# 2. Soil Health Messaging

<u>Quarterly Targets</u>: 3 Podcasts; 3-6 Blog Posts; 6 Newsletters;

Use social networks and other media tools to deliver soil health messaging and information. Completed Materials:

- Podcasts
  - (Recorded) Ray McCormick, SW Indiana Farmer, and Phil Neeham, Needham Ag The importance of combine adjustments and seeding cover crops with a combine
  - (Recorded) Pat Bittner and his father John + father, Aaron Krueger and his grandfather Ronald + grandfather. How the older generation supported transition to soil health systems. Podcast will be a two-parter
- Social Media
  - o Twitter (only automated postings as platform reorganizes)
  - Facebook: 969 reach, 736 followers
  - Instagram: 92 reach, 309 followers
  - o LinkedIn: building presence as replacement for Twitter
- Website: 412 users, 550 sessions

# Completed Materials:

• HO-203, Effect of Cold Weather on Horticultural Plants in Indiana, submitted to AgComm for formatting (SA)

Materials in Progress:

- Regulatory Pesticide Considerations for Soil Health Systems, by Hans Schmitz and Matt Pearson, OISC
- Indiana Prairie Farms Crops Corner (NA)

### G4. Research

Quarterly Targets: None

CCSI no longer leads research projects; CCSI provides connectivity between researchers and cooperators; potential research needs.

- Support Indiana University SARE Participatory Farmer Monitoring on Nitrate Loss (Yoder)
- Support Purdue University SARE Precision Winter Hardy Cover Cropping for Improving Farm Profitability and Environmental Stewardship (Armstrong)
- Support Purdue University NIFA Empowering Indiana's Organic Farmers Assessing Regional and Farm Scale Soil Health with a Farmer Network (Rui)
- Support 1000 Farms Project, Ecdysis Foundation (Lundgren) 2023 sampling coordination in W IN
- Purdue On The Farm led efforts:
  - Kingma comparisons of weed pressures, disease presence, insects, and tissue samples
  - Scott comparisons of three tillage situations for weed pressure, disease presence, insects, and tissue samples

# OTHER

Professional Development:

• 08/19 Emerging Professionals Leadership Program (SWPM)

Other:

- 07/05 Cargill / Success from the Ground Up project (D)
- 07/06 Walton Family Foundation (D)
- 07/06 Halsemas Hemp Farm with ANR Leadership Team (NA)
- 07/11 Purdue Farm Management Tour Hackman Farms and Rowland Farms (D, SWPM)
- <u>https://www.insideindianabusiness.com/articles/dubois-county-farm-receives-15-million-grant-to-expand-climate-smart-production (SA)</u>
- <u>https://extension.entm.purdue.edu/newsletters/pestandcrop/article/heat-continues-through-the-near-future/</u> (SA)
- Garden Site Judging for Vanderburgh County 4-H (SA)
- Garden Project Judging for Vanderburgh County 4-H (SA)
- Soil and Water Conservation, Forestry Judging for Posey County 4-H (SA)
- Livestock Auction Announcer for Posey County 4-H (SA)
- Poultry Blood-Testing Assistance for Gibson County 4-H (SA)
- Late Entry Project Judging for Indiana State Fair (SA)



# Join the 1000 Farms Initiative

-A Regenerative Agriculture Study-

Ecdysis Foundation <u>www.ecdysis.bio</u>

### What do we need?

<u>1000 farmers and ranchers to participate in</u> the largest agricultural study ever conducted.

### The issue

Conventional food production is failing to support rural communities. The economic and natural resource health of farm country is in decay. The way we farm must change if rural vitality is to be restored.

### The solution

We need more producers across the globe to adopt the regenerative pathway!

Regenerative agriculture improves soil health and increases biodiversity while growing nutritious food profitably.

Regenerative producers limit agrichemicals, plant living covers, hedgerows, and pollinator strips, incorporate composts, compost teas, and integrate adaptive livestock management.

# How to participate?

- 1. Contact us via phone or email.
- 2. Answer a short, 10 question survey so we can begin to know about your farm or ranch.
- 3. Provide a field or pasture location.
- 4. Allow us to access the location one time per year for 3 years.
- 5. Answer an end-of-season survey on management and economics (COMPLETELY ANONYMOUS!)



### What part can you play in this study?

We are recruiting 1000s of producers to partake in this effort. Our goal is to answer two important questions:

How do regenerative management practices affect soil health, biodiversity, yield, and profit on the farm/ranch?

What is the best "blueprint" for transitioning to a regenerative operation?

If you are a regenerative producer or are considering a transition to regenerative production, please contact us.

We have a limited amount of funding which will be used to support this research. Funding is available on a first-come first-serve basis.



To participate, please contact: Dr. Jonathan Lundgren, PhD EMAIL: Jonathan.lundgren@ecdysis.bio <u>PHONE:</u> 605-695-9878

# What are we measuring on your farm or ranch?

(All information provided to participants)

# Soils\*

\*Probe to 15 cm, unless otherwise noted

- Soil organic matter (SOM)
- Total Soil Carbon (TSC) (to 60 cm)
- Total Soil Nitrogen (TSN) (to 60 cm)
- Soluble salts
- Nitrate-Nitrogen
- Phosphorus
- Potassium
- Calcium
- Magnesium
- Sodium
- Sulfur
- > Zinc
- > Iron
- Manganese
- Copper
- Bulk density
- ≻ рН
- Texture analysis

# Soil water

- Water infiltration rates
- Water holding capacity
- Wet aggregate stability





# Soil health/Microbial community

- PLFA
- Fungal and bacterial community sequencing
- Haney Soil Health test

# Soil surface characteristics

- % Ground cover
- Plant community richness/biomass

# **Crops and forage**

- Leaf tissue analysis/Brix levels
- Nutrient density/diversity of yield
- Yield/biomass

# Insects and other invertebrates\*

\*Communities will be characterized from the soil surface, and within the crop foliage.

- Biomass
- Abundance
- Species richness
- Species diversity
- Functional groups (pollinators, predators, granivores, etc.)
- Pest abundance

# Avian (Bird) community

- Total bird abundance
- Species richness
- Species diversity
- Functional guilds (insectivores, rodent predators, granivores, etc.)

# **Economics**

Gross and net profit