National Association of Conservation Districts

North Central Region STAR Report

January 10, 2022

What is STAR?

- Farmer-led, simple, **FREE** tool
- Locally identified resource concerns
- Based on practices on individual fields
- Local technical assistance

STAR News

STAR Annual Report

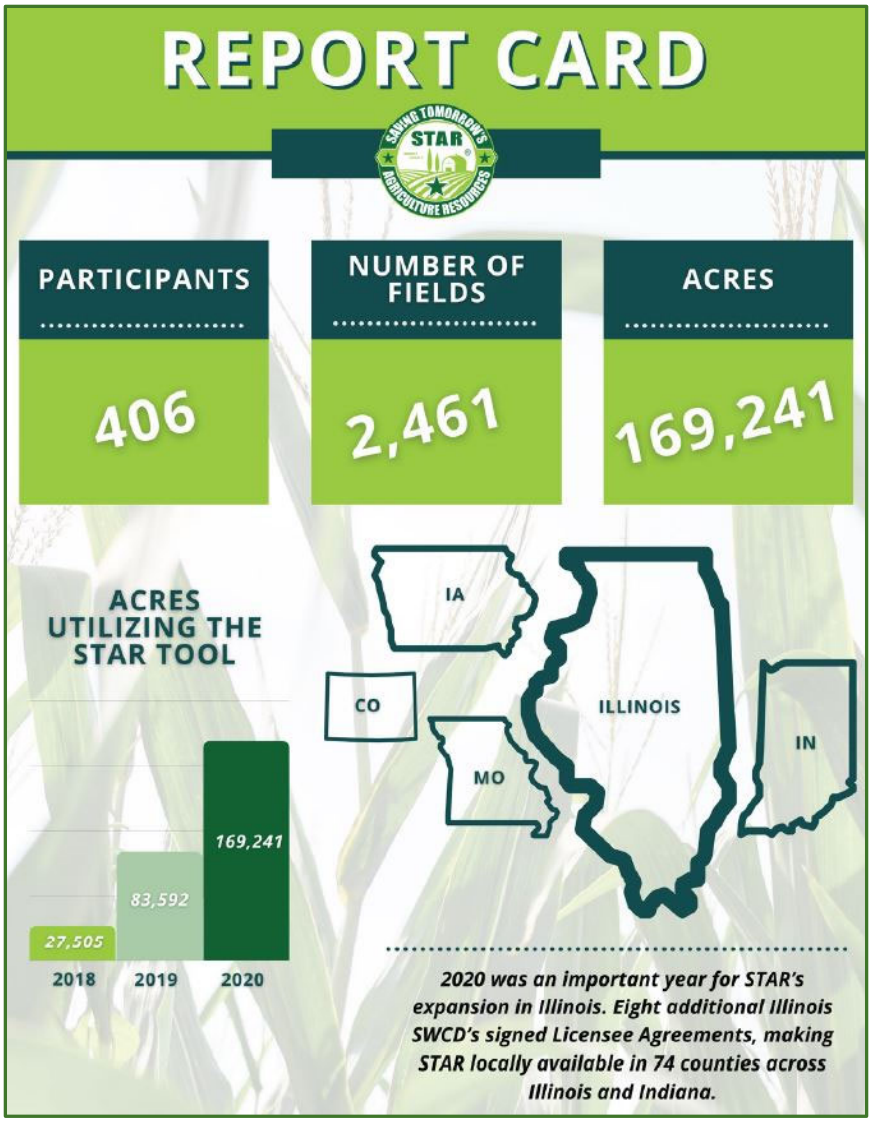
New staff in February:

- **STAR Operations Manager**
- **IL STAR Coordinator**

PILOT INCENTIVE PROGRAM - PfP

STAR Web Application

STAR Expansion



STAR Web Application & API

For the Farmer

- Smart phone, tablet, or computer friendly
- Simple field form entry
- Immediate STAR Rating & Report
- Customized field Improvement Plan
- Connection with local technical assistance

For the Partner

- Application Programming Interface (API) connections (PCM, MyFarm, Bunge's Centerfield, John Deere)
- Data management and protection
- Outcomes & metric reporting

STAR Expansion

Interested states:

Minnesota	Wisconsin	Indiana
Ohio	Michigan	Arkansas
Utah	Maryland	Delaware
Arkansas	South Dakota	Massachusetts

Colorado connections: Regional?

Wyoming	Montana
New Mexico	Washington
Nebraska	

STAR for Grazing Lands

- Assessment is focused on the process of decision-making and incentivizes 1) Planning, 2) Monitoring, and 3) Adaptive decision-making
- Consistent with the STAR goal of rewarding producer effort
  - Unlike croplands, grazing lands and operations are too diverse to assess based on practices
- Major sections:
  1. Management plan
  2. Grazing Plan
  3. Record Keeping
  4. Drought Management Plan
  5. Drought Preparedness & Response
  6. Monitoring
- Developed by a committee of rangeland specialists from USDA NRCS & ARS, CSU Extension & Soil Scientists, state agencies, consultants, and producers with additional feedback from >10 producers

Collaboration & Support

NACD

- ✓ Support via education and promotion
- ✓ Seeking active collaboration & alignment with existing programs

STAR Complements Programs

- ★ Gathers information
- ★ Provides roadmap
- ★ Pays for use of good practices

Next Steps

STAR can be the basis of rewarding those already doing conservation

FSA should collect from farmers their practices – on a voluntary basis!

NACD resolution?

Questions?

info@starfreetool.com

@STARfreetool

@STARfreetool

STARfreetool.com

Who does STAR Benefit?

CONSERVATION PROFESSIONALS

- Benchmarks progress towards local environmental and conservation goals
- Entry point to engage farmers in soil health and conservation planning

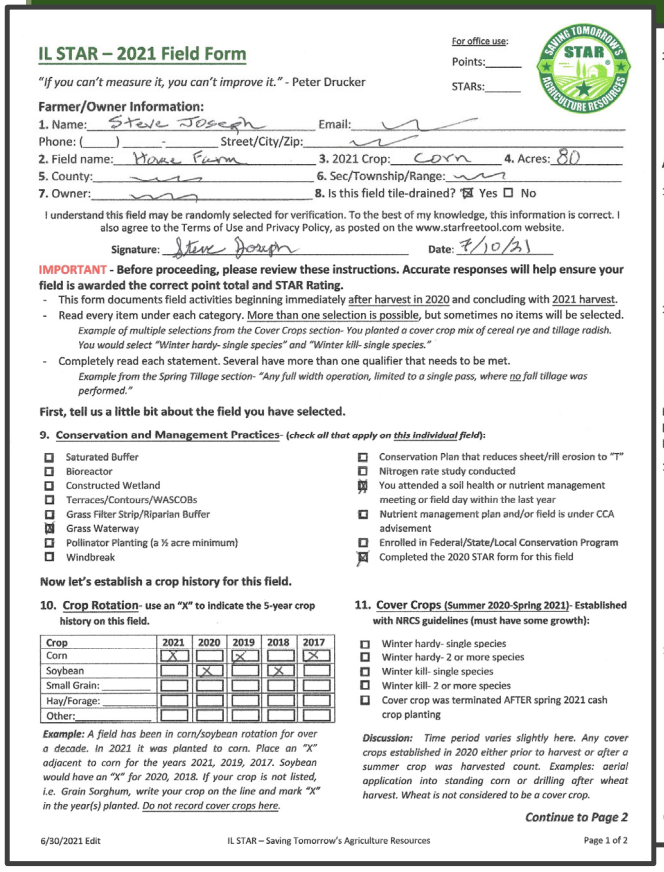
FARMERS & RANCHERS

- Quick and confidential self-assessment
- Road map to increase farm resiliency and soil health
- Connect with conservation professionals

INDUSTRY PARTNERS

- Simple tool to document continuous improvement and provide client recognition
- Creation of common language across supply chain

Evaluation



IL STAR – 2021 Field Form

For office use:
Points:_____
STARs:_____

"If you can't measure it, you can't improve it." - Peter Drucker

Farmer/Owner Information:

1. Name: Steve Joseph Email:
Phone: ( ) - Street/City/Zip:
2. Field name: Home Farm 3. 2021 Crop: Corn 4. Acres: 80
5. County: 6. Sec/Township/Range:
7. Owner: 8. Is this field tile-drained? ☒ Yes ☐ No

I understand this field may be randomly selected for verification. To the best of my knowledge, this information is correct. I also agree to the Terms of Use and Privacy Policy, as posted on the www.starfreetool.com website.

Signature: Steve Joseph Date: 7/10/21

IMPORTANT - Before proceeding, please review these instructions. Accurate responses will help ensure your field is awarded the correct point total and STAR Rating.

- This form documents field activities beginning immediately after harvest in 2020 and concluding with 2021 harvest.
- Read every item under each category. More than one selection is possible, but sometimes no items will be selected.
  Example of multiple selections from the Cover Crops section- You planted a cover crop mix of cereal rye and tillage radish. You would select "Winter hardy- single species" and "Winter kill- single species."
- Completely read each statement. Several have more than one qualifier that needs to be met.
  Example from the Spring Tillage section- "Any full width operation, limited to a single pass, where no fall tillage was performed."

First, tell us a little bit about the field you have selected.

9. Conservation and Management Practices- (*check all that apply on this individual field*):

- ☐ Saturated Buffer
- ☐ Bioreactor
- ☐ Constructed Wetland
- ☐ Terraces/Contours/WASCOBs
- ☐ Grass Filter Strip/Riparian Buffer
- ☒ Grass Waterway
- ☐ Pollinator Planting (a ½ acre minimum)
- ☐ Windbreak
- ☐ Conservation Plan that reduces sheet/rill erosion to "T"
- ☐ Nitrogen rate study conducted
- ☒ You attended a soil health or nutrient management meeting or field day within the last year
- ☐ Nutrient management plan and/or field is under CCA advisement
- ☐ Enrolled in Federal/State/Local Conservation Program
- ☒ Completed the 2020 STAR form for this field

Now let's establish a crop history for this field.

10. Crop Rotation- use an "X" to indicate the 5-year crop history on this field.

Crop	2021	2020	2019	2018	2017
Corn	X		X		X
Soybean		X		X	
Small Grain:					
Hay/Forage:					
Other:					

Example: *A field has been in corn/soybean rotation for over a decade. In 2021 it was planted to corn. Place an "X" adjacent to corn for the years 2021, 2019, 2017. Soybean would have an "X" for 2020, 2018. If your crop is not listed, i.e. Grain Sorghum, write your crop on the line and mark "X" in the year(s) planted. Do not record cover crops here.*

11. Cover Crops (Summer 2020-Spring 2021)- Established with NRCS guidelines (must have some growth):

- ☐ Winter hardy- single species
- ☐ Winter hardy- 2 or more species
- ☐ Winter kill- single species
- ☐ Winter kill- 2 or more species
- ☐ Cover crop was terminated AFTER spring 2021 cash crop planting

Discussion: *Time period varies slightly here. Any cover crops established in 2020 either prior to harvest or after a summer crop was harvested count. Examples: aerial application into standing corn or drilling after wheat harvest. Wheat is not considered to be a cover crop.*

Continue to Page 2

6/30/2021 Edit — IL STAR – Saving Tomorrow's Agriculture Resources — Page 1 of 2

12. Soil Sampling- Use the previous 4-year field history:

- ☐ Not sampled in the last 4 years
- ☒ Sampled every 4 years or less
- ☒ Spring or Summer sampled
- ☐ Fall sampled
- ☒ GPS sampled (by grid or zone)

Discussion: *Here is a great example of why you should read every item in each category. If a respondent simply marked "Sampled every 4 years or less" they may have missed points if they didn't indicate when the field was sampled or if GPS was used.*

Almost done. The next category is tillage practices broken down into Fall 2020 and Spring 2021 categories.

13. Fall Tillage- Starting after harvest of the 2020 crop:

- ☐ No tillage or low disturbance fertilizer toolbar
- ☐ Strip tillage on field classified as non-HEL
- ☐ Shank type fertilizer bar and no other tillage performed
- ☒ Any full width operation not exceeding a 3" depth
- ☐ Any full width operation exceeding a 3" depth
- ☒ Any full width operation on soybean stubble

Discussion: *With numerous possibilities for soil preparation, we elected to keep the options fairly simple. No tillage and strip tillage are easily definable. Full-width tillage can be tricky. In the fall, focus on the depth of machine operation and also note if soybean residue was tilled. In the spring, how many passes were made and was fall tillage performed?*

14. Spring Tillage- 2021 field operations:

- ☒ No tillage or low disturbance fertilizer toolbar
- ☐ Strip tillage or Strip freshener on non-HEL field, or shank type fertilizer bar, and no other Spring tillage
- ☐ Any full width operation, limited to a single pass, where no fall tillage was performed
- ☐ Any full width operation, two or more passes, where no fall tillage was performed
- ☐ Any full width operation, one or more passes, where fall tillage was performed

Finally, your nutrient management strategies are a large component of your overall score. Like tillage, we've broken these into two sections defined by specific time periods. A third section reviews activities that may have occurred at any time during the crop year being reviewed.

15. Nutrient Management (Fall 2020 – February 2021):

- ☒ No Nitrogen was applied in this time frame other than MAP or DAP
- ☐ Wheat topdress
- ☒ MAP or DAP was applied before December 1st
- ☐ NH_3 was applied when the soil temperature was below 50 degrees, and amounted to no more than 50% of the total Nitrogen program, and included an inhibitor
- ☐ Manure/Biosolid injected or applied and incorporated when soil temperature was below 50 degrees.
- ☐ Manure applied, not incorporated

16. Nutrient Management (March 1st - Summer 2021):

- ☐ No Nitrogen was applied in this time frame AND no prior Fall 2020-February 2021 Nitrogen other than MAP or DAP
- ☐ Spring/Summer nitrogen application(s) amounted to 50% - 74% of the total N Program (from all sources)
- ☒ Spring/Summer nitrogen application(s) amounted to at least 75% of the total N Program (from all sources)
- ☒ In-season N application (top or sidedress) was at least 25% of the total N Program (from all sources)
- ☐ Manure/Biosolid injected or applied and incorporated
- ☐ Manure applied, not incorporated

17. Additional Nutrient Activities:

- ☒ Total Nitrogen applied on corn that followed a different crop was 181 to 200 lbs./acre, OR corn-on-corn was 201 to 220 lbs./acre
- ☐ Total Nitrogen applied on corn that followed a different crop was 180 lbs. or LESS/acre, OR corn-on-corn was 200 lbs. or LESS/acre
- ☒ Phosphorus and/or Potassium application based on removal rates and/or soil samples (may mean zero applied)
- ☐ At least 50% of total applied phosphorus was banded subsurface
- ☐ Used Triple Super Phosphate (0-45-0)
- ☐ Used Variable Rate Technology application
- ☐ Any fertilizer source containing Nitrogen or Phosphorous was broadcast on ***frozen*** or ***snow-covered*** ground

6/30/2021 Edit — IL STAR – Saving Tomorrow's Agriculture Resources — Page 2 of 2

1. **Simple** Field Form completed for given crop year (CY 2021 = July 1, 2021 until January 31, 2022)
2. **Points** assigned for each practice
3. Summary of points convert to a **STAR Rating** of 1-5 STARs

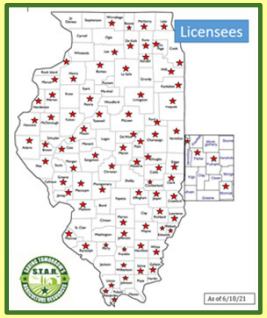
STAR Structure – Who Implements STAR?

Licensees

- County SWCD's
- Licensee agreement
- Local technical assistance

State affiliates implement STAR statewide according to local resource concerns

- Memorandum of Understanding



What is possible with Illinois STAR?

STAR Web App

- Ability to tag to projects/partners
- Efficient outcomes generation
- Conservation planning road map

Pay for Performance (PfP) framework developed

Enhanced **partnerships** with public and private entities

What's NEW for STAR?

Boring… but Necessary:

- Policies and procedures for protecting data
- Not-for-Profit startup
- Sustainable Funding Model

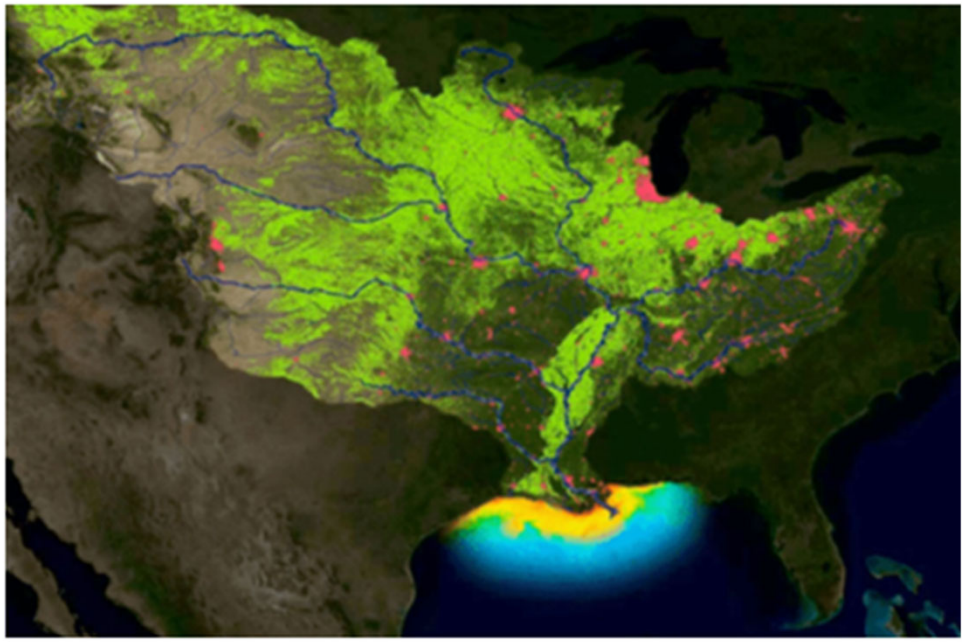
What else is NEW for STAR?

Progressive Web Application

Pay for Performance

Conservation Drivers

STAR at NACD in Chicago



Why was STAR created?

- **Illinois Nutrient Loss Reduction Strategy of 2015**
- **Two concerned farmers**
- **Voluntary solution to local natural resource concerns**

Why does STAR exist?

- EASY, FIELD-LEVEL SELF-ASSESSMENT
- INFORMED BY LOCAL RESEARCH
- ROADMAP TO DECREASE NUTRIENT AND SOIL LOSS
- RECOGNITION FOR CONSERVATION PRACTICES
- CONNECTION TO LOCAL TECHNICAL ASSISTANCE