





Saving Tomorrow's Agriculture Resources

NACD EXECUTIVE DIRECTOR CONFERENCE

September 2019 | Presented by Grant Hammer

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KEY S.T.A.R. CONCEPTS

- S.T.A.R is a means to **EVALUATE**.
- S.T.A.R. provides a means to **VERIFY**.
- S.T.A.R. provides a means to **RECOGNIZE**.
- S.T.A.R. provides a means to engage **CONSERVATION DRIVERS**.



WHAT IS S.T.A.R.?

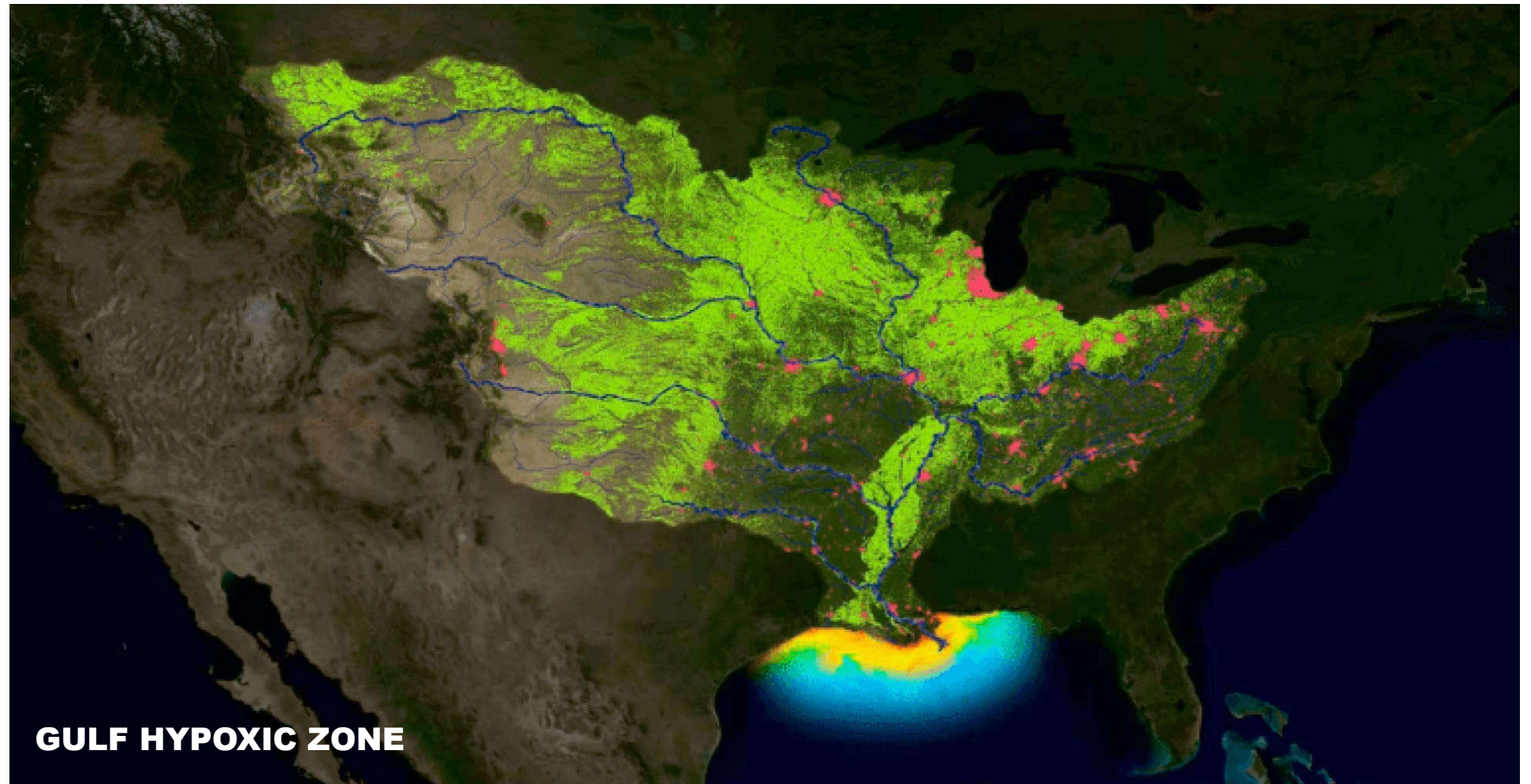
S.T.A.R. is a FREE tool to assist farm operators and landowners to evaluate their nutrient and soil loss management practices on individual fields and to promote “conservation management practices”.

WHY WAS S.T.A.R. CREATED?

S.T.A.R. was created by two central Illinois farmers involved with soil and water conservation to support the state of Illinois’ Nutrient Loss Reduction Strategy (NLRS). The strategy guides state efforts to improve water quality at home and downstream by reducing nitrogen and phosphorus levels in our lakes, streams, and rivers. The strategy lays out a comprehensive suite of best management practices for reducing nutrient loads from wastewater treatment plants and urban and agricultural runoff.

S.T.A.R. conservation practices are a voluntary solution to natural resource concerns!





HOW DOES S.T.A.R. WORK?

The program utilizes a field form that requests information from a farmer or non-operator landowner concerning individual fields for a given crop year.

The S.T.A.R. evaluation program assigns points for each cropping, tillage, nutrient application, and soil conservation activity on individual fields in addition to other “best management practices” as established by the United States Department of Agriculture's Natural Resource Conservation Service (USDA-NRCS).

S.T.A.R. relies on the expertise of a science committee, made up of university researchers and other experts, to model ranking systems and ensure the field form is reflective of the specific and varying resource factors in the state.

Once the field form is completed by a participant, the information is entered into a spreadsheet that assigns various points for the different practices used on that field. The summary of those points is then compared to a scale of points to give that field a “Star Rating” of one to five stars. Farm operators and landowners start by completing a field form.



S.T.A.R. EVALUATION SYSTEM



Listed are some practices used in the rating system and the points that may be assigned:*

Use of a winter hardy cover crop, no tillage in fall or spring, rotation that includes small grain or forage

5-7 points

No nitrogen applied in fall or spring, low nitrogen rate, at least 50% of phosphorus applied banded & subsurface

4 points

Strip tillage on non-HEL and/or shank type fertilizer bar if no other tillage

3 points

At least 75% of nitrogen applied in spring, winter kill cover crop, VRT, filter strips, waterways, etc.

2 points

MAP or DAP applied, full-width tillage (shallow), written nutrient plan, or other

1 point

**Some practices reduce the total points! Not all management practices considered are listed above.*

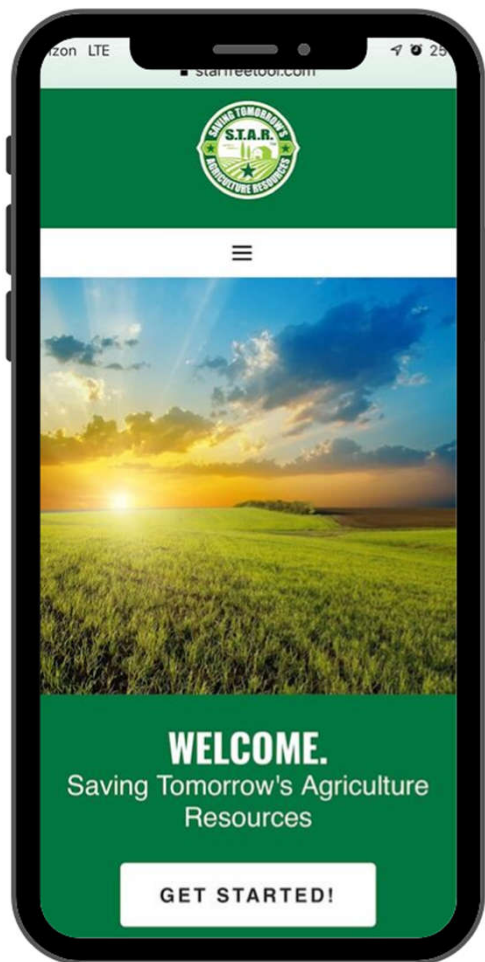




POTENTIAL S.T.A.R. BENEFITS

- Increased net farm income
- Promotes a positive image of farmers and agriculture in the community
- Inspires other farmers and landowners to act in helping to meet nutrient loss reduction goals
- Decreases nutrient loss
- Promotes producers for new farmland leases
- Assists producers in securing local conservation cost share
- Assists producers in obtaining future market incentives for crops grown using conservation cropping practices.
- Assists producers in obtaining documentation in support of water quality issues





HOW DO YOU GET STARTED?

Farm operators and landowners start by completing a field form.

Field forms can be accessed online by visiting **STARFREETOOL.COM**, or by visiting one of more than 40+ county-based Illinois Soil and Water Conservation Districts to complete a field form in person.



S.T.A.R. - Field Form - 2019 Crop Year (after harvest in '18 through harvest of '19) Farmer/Owner Information:

1. Name Henry Jones Street/City/ZIP Version 1
 Phone () Email

2. Crop Corn 3. Field name & number/tract 4. Acres
 5. County 6. Township & Range 7. Section 8. Owner

Instructions: Check ALL THAT APPLY in each category, and were used on this individual field.

9. Cover Crops (Summer 2018 - Fall 2018): Established with NRCS guidelines (must have some growth):

- ☐ Annual ryegrass *
- ☐ Clover
- ☐ Oats
- ☐ Tillage radish
- ☐ Cereal rye *
- ☐ Winter wheat * (even if intended for harvest)
- ☐ Other species

* Was a winter hardy cover crop terminated AFTER Spring 2019 planting? Yes or No

10. Soil Sampling: Use the previous 5-year history:

- ☐ Not Sampled
- ☒ Sampled every 4 years or less
- ☐ Spring or summer sampled
- ☐ Fall sampled
- ☒ GPS sampled (by grid or zone)

11. Nutrient Management (Fall 2018 - February 2019):

- ☒ No nitrogen was applied in this time frame (other than MAP or DAP, or February top-dress on wheat)
- ☐ No more than 50% of the total Nitrogen Program (from all sources) was applied as NH₃ with an inhibitor and when the 4-inch soil temperature was below 50 degrees
- ☒ MAP or DAP was applied before December 1st
- ☐ Manure/Biosolid injected or incorporated after Oct. 20th
- ☐ Manure applied, not incorporated

12. Nutrient Management (March 1st - Summer 2019):

- ☐ No nitrogen was applied in this time frame (and no prior Fall through February nitrogen other than MAP or DAP)
- ☐ Spring/summer nitrogen application(s) amounted to 50% - 74% of the total Nitrogen Program (all sources)
- ☒ Spring/summer nitrogen application(s) amounted to at least 75% of the total Nitrogen Program (all sources)
- ☒ A nitrogen side-dress (or top-dress) application was at least 25% of the total Nitrogen Program (all sources)
- ☐ Manure/Biosolid injected or applied and incorporated
- ☐ Manure applied, not incorporated

13. Additional Nutrient Activities:

- ☒ Nitrogen on corn after other crop = 181 to 200 lbs./acre OR on corn after corn = 201 to 220 lbs./acre
- ☐ Nitrogen on corn after other crop = 180 lbs. or LESS/acre OR on corn after corn = 200 lbs./acre or LESS
- ☐ At least 50% of phosphorus was banded subsurface Fall or Spring
- ☐ Used Triple Super Phosphate (0-45-0)
- ☐ Phosphorus and/or potassium rates applied based on removal rate and/or soil samples (may be zero)
- ☐ Used Variable Rate Technology application
- ☐ Any fertilizer source containing nitrogen or phosphorus was broadcast on frozen or snow covered ground

14. Crop Rotation: Use an "X" to indicate the crop history of this individual field for each year:

Crop	2019	2018	2017	2016	2015
Corn	X		X		X
Soybean		X		X	
Small Grain:					
Forage:					
Other:					

15. Tillage Practices: Starting after harvest of the 2018 crop:

- ☐ Fall- No tillage or low disturbance fertilizer toolbar
- ☐ Fall- Strip tillage on non-HEL field and/or shank type fertilizer bar, and no other fall tillage performed
- ☒ Fall- Any full width operation not exceeding a 3" depth
- ☒ Fall- Any full width operation exceeding a 3" depth
- ☒ Fall- Any full width tillage operation on soybean stubble
- ☒ Spring- No tillage or low disturbance fertilizer toolbar
- ☐ Spring- Strip tillage or Strip Freshener on non-HEL field, and/or shank type fertilizer bar and no other spring tillage
- ☐ Spring- Any full width operation, limited to a single pass, where no fall tillage was performed
- ☐ Spring- Any full width operation, two or more passes, where no fall tillage was performed
- ☐ Spring- Any full width operation, one or more passes, where fall tillage was performed

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

- ☐ Saturated Buffers
- ☐ Bioreactor
- ☐ Constructed Wetland
- ☐ Terraces/Contours/WASCOb
- ☐ Grass Filter Strip/Riparian Buffer
- ☒ Grass Waterway
- ☐ Pollinator Planting (a 1/2 acre minimum)
- ☐ Windbreak
- ☐ Conservation Plan that reduces sheet & rill erosion to "T"
- ☐ Nitrogen rate study
- ☒ Attended soil or nutrient management meeting/field day
- ☒ Have a written nutrient management plan and/or farm is under CCA advisement
- ☐ Enrolled in a Federal, State, or Local Conservation Program
- ☐ Completed S.T.A.R. Form in 2018

17. STAR Rating:

40+ = 5 Stars
 32 - 39 = 4 Stars
 23 - 31 = 3 Stars
 16 - 22 = 2 Stars
 0 - 15 = 1 Star

I understand my field may be randomly selected for verification. To the best of my knowledge, this information is correct.

Signature: Henry Jones
 Date: 1/20/20

6/12/19 version Champaign County Soil and Water Conservation District

SAMPLE S.T.A.R. FIELD FORM

The S.T.A.R. field form scores points to assign a field's star rating.

Total Points:

40+ = 5 Stars
 32 - 39 = 4 Stars
 23 - 31 = 3 Stars
 16 - 22 = 2 Stars
 0 - 15 = 1 Star



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COMPLETE A FIELD FORM

OPTION 1: COMPLETE ONLINE

Download the S.T.A.R. Field Form at the bottom of this page and complete the form for each field you wish to submit for this FREE service, saving each with a different name. Email those forms to star@ccswcd.com. The FAQ (link also below) will be helpful in completing the form and to understand what changes should be considered by the participant to improve the S.T.A.R. rating.

Also, S.T.A.R. collaborates with Precision Conservation Management (PCM) to allow farmers and landowners to enter S.T.A.R. data on-line and save it in the PCM system. Together, we hope to grow and support our respective programs and expand to meet future needs of farmers and farm businesses in our communities.

[USE THE FREE ONLINE PORTAL](#)

OPTION 2: COMPLETE IN PERSON

More than 40+ Soil and Water Conservation Districts (SWCDs) in counties across Illinois support S.T.A.R. and can assist with the program. Visit your local SWCD to complete a field form. Please use the directory below to identify your local SWCD for support.

[FIND YOUR LOCAL SWCD OFFICE](#)

OPTION 3: COMPLETE AND RETURN

Download and print the S.T.A.R. Field Form and complete the form for each field you wish to submit. You can then scan them and email those forms to star@ccswcd.com OR just mail them to CCSWCD at 2110 W. Park Court, Suite C, Champaign, IL 61821.



LOCATED AT STARFREETOOL.COM

S.T.A.R STEERING COMMITTEE

- Megan Baskerville, Upper Sangamon River Watershed Manager Illinois | The Nature Conservancy
- Megan Dwyer, CCA, Nutrient Loss Reduction Manager | Illinois Corn Growers Association
- Kris Reynolds, Midwest Deputy Director | American Farmland Trust
- Dr. Emily Bruner, Midwest Conservation and Stewardship Program Manager | American Farmland Trust
- Elliott Lagacy, Regional Representative | Bureau of Land and Water Resources, Illinois Department of Agriculture
- Dr. Carol Hays, President | The Strategic Collaboration Group, Inc.
- Ivan Dozier, Illinois State Conservationist | Natural Resources Conservation Service
- Mike Wilson, Incoming Board Chair | Illinois Certified Crop Advisor Program
- Steve Steirwalt, President | Association of Illinois Soil and Water Conservation Districts
- Joe Rothermel, Chair and Farmer | Champaign County Soil and Water Conservation District
- Erin Bush, Resource Conservationist | Champaign County Soil and Water Conservation District
- Grant Hammer | Executive Director | Association of Illinois Soil and Water Conservation Districts

S.T.A.R SCIENCE ADVISORY COMMITTEE

- Dan Schaefer, Director of Nutrient Stewardship | Illinois Fertilizer and Chemical Association
- Lowell Gentry, Principal Research Specialist in Agriculture | University of Illinois Natural Resources and Sciences
- Doug Gucker, Extension Educator, Local Food Systems and Small Farms | University of Illinois Extension
- Dr. Emily Bruner, Midwest Conservation and Stewardship Program Manager | American Farmland Trust
- Eric Miller | Piatt County farmer and SWCD Board Member
- Dr. Emerson Nafziger, Professor Emeritus | College of ACES, University of Illinois
- Brett Roberts, State Conservation Agronomist | Illinois Natural Resources Conservation Service
- Erin Bush, Resource Conservationist | Champaign County Soil and Water Conservation District
- Joe Rothermel, Chair and Farmer | Champaign County Soil and Water Conservation District



IL S.T.A.R. SUPPORTERS

- Illinois Department of Agriculture
- Illinois Environmental Protection Agency
- Association of Illinois Soil and Water Conservation Districts
- Soil and Water Conservation Districts
- The Nature Conservancy American Farmland Trust
- Illinois Sustainable Ag Partnership
- Precision Conservation Management
- Soil Health Partnership
- Various watershed project groups
- Illinois Nutrient Loss Reduction Strategy Committee
- Illinois Fertilizer and Chemical Association
- ADM
- Kellogg's
- Illinois Corn Growers
- Interested crop production retailers
- Interested county Farm Bureaus

BE-NCI13



Slide 15

BE-NCI13 Kellogg's too?

Bush, Erin - NRCS, Champaign, IL, 9/19/2019



S.T.A.R. 2018 RESULTS

PrairieFarmer Serving IL

Crops Livestock Markets & Quotes **Farm Business** Max Armstrong Regions Events

HOME > FARM BUSINESS > FARM OPERATIONS > CONSERVATION


Farm Business

What makes corn yield?
SEP 10, 2019

Theme of 2020 Growmark Essay Contest announced
SEP 10, 2019

Prairie Profile: Lynn Rohrschke
SEP 10, 2019

SPONSORED CONTENT



Are you a 5-STAR conservationist?

Conservation experts aim to move farmers to adopt more conservation practices with a rating system, encouraging communication (and possibly new requirements) with landowners.

CONSERVATION RATING: Illinois Farmer John Stenwald (left) displays his 5-STAR conservation rating from the STAR program with Joe Burkhead, chairman of the Champaign County Soil and Water Conservation District.


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S.T.A.R. Program Helping Farmers Develop More Sustainable Practices

By TIM SHELLEY • SEP 16, 2019

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Champaign County group hopes farmers reach for the STAR

By Ben Zipterman Sep 9, 2018



Latest News

- Public school theater teacher accused of sex assault
- Chick-fil-A sets Oct. 10 opening date
- Federal plan to end state mileage standards draws criticism
- Facebook still auto-generating Islamic State, al-Qaida pages


WJBC The Voice of Central Illinois

ON AIR NEWS SPORTS FEATURES EVENTS CONTESTS SWEET DEALS

The Scott Miller Show 6:00 a.m. - 10:00 a.m.

Sustainable farming catching on in Illinois

Posted on September 16, 2019





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**S.T.A.R. Program Helping Farmers Develop
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Saving Tomorrow's Agriculture Resources



NEWHERALD.NEWS

**S.T.A.R. Program Reaches 27,000 Acres
in 2018, Ready for Strong 2019 Season**

News for Lincoln IL and Logan County IL



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217-778-0272



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StarFreeTool.com

★★★★★ **THANK YOU.** ★★★★★

Slide 20

BE-NCI17 Not sure if I missed it, but might be worth mentioning the categories of practices that we use (crop rotation, cover crops, nutrient management, tillage, etc.)

Bush, Erin - NRCS, Champaign, IL, 9/19/2019