



CRIMSON CLOVER CROP COVER,  
COURTESY OF JOE ROTHERMEL.

OCTOBER 2024 NEWSLETTER

# AGROECOLOGY + INNOVATION MATTERS

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The Capacity Building Initiative promotes bottom-up agroecology, fostering sustainable innovation at the local level, and sharing progress through Agroecology + Innovation Matters (AIM) initiative communications.



# AIMING FORWARD

## UPDATES FROM AIM

It was a busy summer for AIM and the Capacity Building Initiative team!

If you came to the Illinois State Fair in Springfield (August 8 – August 18) or the DuQuoin State Fair in DuQuoin (August 23 – September 2), you might have seen our booth. We hosted a Scavenger Hunt across the fairgrounds for children ages 2-13, encouraging them to visit different areas of the Fair. Scavenger Hunt locations they might not normally frequent. This included Conservation Area, Livestock Hall of Champions, the Butter Cow, FFA Petting Zoo, Grandstand Museum, and the Extension Garden.



AIM's Booth at the Illinois State Fair.

AIM is committed to inspiring all generations to become involved with Conservation. By visiting these areas, children were exposed to the different conservation efforts that are practiced across the state. One parent remarked, "It took us to parts of the fair we would not normally go to!" Another said, "The kids loved [the scavenger hunt], they saw the post on Facebook and were excited to come and participate!"

All participants received farm animal themed lunch boxes as well as entered into the grand prize drawing of a Kindle tablet per age group. Across both Fairs, we had 596 participants! We saw more participation in DuQuoin over the State Fair. The most popular age range was 10-13, with 48 at the State Fair and 187 at the DuQuoin Fair. The second most popular range, totaling 184 at the DuQuoin Fair and 34 at the State Fair, was 2-5. Our middle age range of 6-9 had 32 at the State Fair and 111 at the DuQuoin Fair. We hope take part in the 2025 State Fair and the 2025 DuQuoin Fair, so be on the look out for our booth next summer!

Our Capacity Building Initiative team currently has 35 Conservation Planners on staff throughout the state, with a new Conservation Planner starting in November, and actively filling empty positions. One of the goals of Agroecology + Innovation Matters and the Capacity Building Initiative is to take aim forward. We are developing a workforce trained in agroecology methods, certified in various conservation techniques, and incentive programs offered by USDA and the State of Illinois. Our Conservation Planners are continually being promoted to positions in other agencies, so we are always on the lookout for people interested in agroecology careers – both with our initiative and affiliated organizations. If you're interested in a job with AIM, submit a resume to [Kristen.Heaton@illinois.gov](mailto:Kristen.Heaton@illinois.gov).

We also hired a new Communications Coordinator, welcome Kayla Jeffers! Kayla was previously with the Township Officials of Illinois before coming to the Capacity Building Initiative team. You can send her your conservation stories, questions about the AIM Newsletter, and ideas to [kayla@aimillinois.org](mailto:kayla@aimillinois.org).

As part of the Agroecology + Innovation Matters initiative's three-prong strategy, a Capacity Building Initiative team was created. The Capacity Building Initiative consists of Conservation Planners throughout the state to provide technical assistance services to landowners at Illinois' 98 Soil & Water Conservation Districts (SWCD) and 102 National Resources Conservation Service centers.

**Region 1**

- Boone SWCD | Ashley Barry
- JoDaviess SWCD | Alexis Zimmerlein
- Kane SWCD | Olivia Winters
- LaSalle SWCD | Kasey Ellis
- McHenry SWCD | Aidan Woltman
- Rock Island SWCD | Leticia Taliafero
- Will SWCD | Wyatt Dozier
- Winnebago SWCD | Hunter Cejka

**Region 2**

- Adams SWCD | Andrew Parks
- Calhoun SWCD | Brittany Logan
- Cass SWCD | Alexander Daniel
- Knox SWCD | Tim Blackwell
- Logan SWCD | Norval Taliafero
- Montgomery SWCD | Chris Emerson
- Pike SWCD | Stacey Burnett
- Sangamon SWCD | Nicholas Werries
- Scott SWCD | Courtney Lercher

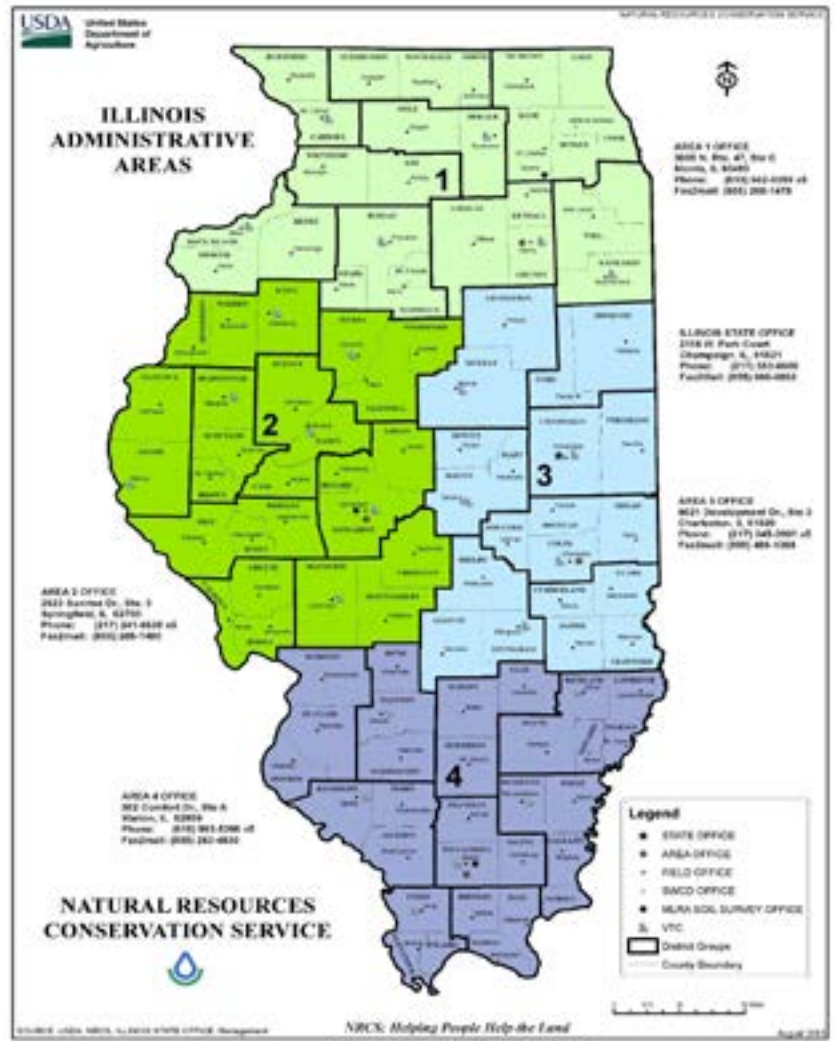
**Region 3**

- Clark SWCD | Jamie Harris
- Crawford SWCD | Brad Buchanan
- Edgar SWCD | Cole Crawford
- Fayette SWCD | Morgan Cauble
- Livingston SWCD | Michael Devine
- Macon SWCD | Erin Hoover
- McLean SWCD | John Anians
- Moultrie SWCD | Shannon Kuffel
- Piatt SWCD | Adam Sickles
- Shelby SWCD | Reed Best
- Vermilion SWCD | John McNally

**Region 4**

- Bond SWCD | Brad Duft
- Clay SWCD | Taylor Hartke
- Gallatin SWCD | Chaurda Hathaway
- Jackson SWCD | Grace Clark
- Monroe SWCD | Jason McKinley
- Union SWCD | Caitlin Allen
- Wayne SWCD | Davonne Long

**Illinois NRCS Area Map**



**Agroecology + Innovation Matters**



# THE STAR REPORT

## SAVING TOMORROW'S AGRICULTURE RESOURCES

The Illinois STAR (Saving Tomorrow's Agriculture Resources) program was developed by farmers, for farmers. In 2017, two Illinois farmers teamed up with the Champaign County Soil and Water Conservation District (CCSWCD) to come up with a simple, free, and useful tool (the STAR tool) that farmers could use to evaluate conservation on their fields and tap into the benefits of conservation practices through a field level Conservation Innovation Plan. Practically speaking, farming operations are not simple (or free), so the STAR tool accommodates the unique operations occurring on each field while prioritizing local natural resource concerns. A major goal was to encourage farmers to implement new conservation practices, so the STAR tool takes into consideration financial, technical, and informational barriers to conservation adoption. Conservation partners across the state participated in the IL STAR Steering and Science Committees and ultimately produced a single page field evaluation form and scoring system that gives a field-level 1-5 STAR rating. Producers answer questions that are used to customize next steps for practice adoption and resources to help with implementation as part of a Conservation Innovation Plan. This provides clear direction for improvement and functions as a mechanism for communicating conservation progress to buyers and supply chain partners. The STAR tool also offers farmers a free field sign with their STAR rating as a way to recognize their accomplishments and share them publicly. The program grew across Illinois, into other midwestern states, and out west to Colorado and Washington. In September 2023, STAR was officially launched as a national scale non-profit organization to establish a consistent and standardized tool across all regions and production systems in the US. National STAR establishes individual STAR Affiliate agreements with state-specific organizations who work together with the state Steering and Science Committees to develop and administer the STAR program within their state.



Joe Rothermel with 4 STAR sign in 2022.

In Illinois, both the CCSWCD and the Illinois Department of Agriculture (IDOA) are STAR affiliates and therefore are responsible for the development and operation of the Illinois STAR program. The Illinois STAR program is run by Illinois STAR Coordinator Natalie Kerr (hired through IDOA's capacity building program, Agroecology & Innovation Matters (AIM)) and Illinois STAR Assistant Coordinator Bruce Henrikson (contracted by CCSWCD), under the direction of the Illinois STAR Steering Committee. The Steering Committee has volunteer members from CCSWCD, IDOA, Terra Economics LLC, The Nature Conservancy, Illinois Corn Growers Association, Illinois Soybean Association, American Farmland Trust, and National STAR, as well as farmers. The Illinois STAR Science Advisory Committee has members from the University of Illinois Extension, American Farmland Trust, Piatt County SWCD, USDA NRCS, and Illinois Fertilizer and Chemical Association, as well as farmers. These committees are responsible for establishing goals; maintaining the STAR tool, scoring system, and resources provided to farmers; developing and implementing rewards programs; and aligning with other conservation efforts across the state.

Participation in STAR is free and enrollment is available online through the STAR Web Tool; a paper copy is also available as a downloadable form or from local SWCDs. Farmers' data are protected through a strict data use and privacy policy. Soil and Water Conservation District employees in 30 counties in Illinois and 3 counties in Indiana have signed agreements with CCSWCD to be Illinois STAR Navigators and either already have or will soon be trained on the STAR tool to support producers in completing field forms and/or using the STAR Web Tool, and have agreed to provide technical support and facilitate connections to resources to support farmers implement conservation practices. STAR is also meant to be a resource for professionals to use when engaging farmers in conversations on conservation who can provide guidance

and technical advice based on a field's Conservation Innovation Plan. Currently, the Illinois STAR field form is required by the Illinois Department of Agriculture as part of the application process for the Partners-for-Conservation Cost Share funding, which SWCD employees help farmers complete. Illinois STAR also partnered with Siemer Milling Company this year to offer a producer rewards payment program, and the Illinois STAR Field Form was required as part of that application process. The Illinois STAR field form for crop year 2024 is currently available to all farmers in Illinois online at [www.startool.ag](http://www.startool.ag), via pdf at [www.IllinoisSTAR.org/get-started](http://www.IllinoisSTAR.org/get-started), and through Precision Conservation Management (PCM) specialists.

### September Illinois STAR Updates

The Illinois STAR program held its September Steering Committee meeting with participation from members representing Illinois STAR farmers, Affiliates IDOA and CCSWCD, and Illinois STAR partners including American Farmland Trust, Illinois Soybean Association, Illinois Corn Growers Association, The Nature Conservancy, and Terra Consulting. Here are the key updates and decisions from the meeting:

#### Conservation Innovation Plan Progress

The committee reviewed mockups for the upcoming Conservation Innovation Plan feature, which is being developed for integration into the STAR Web Tool. This tool aims to enhance user experience and provide guidance on additional conservation opportunities, more streamlined access to conservation resources, and a direct connection to technical assistance.

#### Contractor Positions Approved

The Steering Committee approved the search for two contractors to be hired through CCSWCD. The first contract will be for approximately 15 hours per week for 10 months. This contractor will conduct the literature review and data extraction component of the STAR science development process, with a focus on adding new tool capabilities for urban agriculture, diversified food systems, and specialty cropping systems in Illinois. The second contractor will sign a data use agreement and analyze aggregated crop year 2023 data to provide insights for future planning, training, outreach and education strategy. Official job postings will be out shortly, and anyone interested in the contracts can contact [natalie@starconservation.org](mailto:natalie@starconservation.org).

#### Expansion of the Science Committee

Six new members will be invited to join the Science Committee, expanding the expertise and capacity of the group. This will help drive the development and refinement of the STAR program's initiatives, ensuring robust scientific backing for conservation practices.

#### National STAR Updates

National STAR is conducting a comprehensive literature review focused on the North Central and Midwest CEAP region. This review will produce a matrix that quantifies the impact of conservation practices on natural resources. Additionally, a desktop evaluation will be conducted to highlight the priority natural resource concerns, cropping systems, and conservation practices in Illinois, along with other relevant agronomic and agricultural information, to help guide future field form and scoring system revisions and development. . The results will guide the Science Committee in setting revision and development priorities for crop year 2025. The next Science Committee meeting will be scheduled for the week of October 21st.

In other exciting news, National STAR has been accepted into the Illinois Sustainable Agriculture Partnership (ISAP). Illinois STAR Coordinator Natalie Kerr, STAR Program Director Jake Deutmeyer, and IL STAR Steering Committee President Steve Stierwalt will represent STAR in ISAP working groups, further integrating STAR's conservation efforts into state-wide sustainability initiatives.

#### Enrollment Success in the Siemer Producer Rewards Payment Program

The Producer Rewards Payment program offered through Siemer Milling Company has seen significant growth this year, with 13 farmers submitting fields for enrollment, up from a single applicant last year. The team is currently verifying eligibility and expects to process payments by December. The next step will involve a verification process, where a random selection of fields, determined by the square root of the total enrolled fields, will be reviewed. Fields not associated with the Siemer program enrolled after the priority deadline (November 1st) will be included in the next Illinois STAR verification round, tentatively scheduled for Spring 2025.

A verification FAQ and checklist of criteria have been provided to assist participants. Verification will be conducted by IDOA Conservation Planners, who will ensure confidentiality of the information collected in accordance with STAR's privacy policy.

# SOIL HEALTH

## COVER CROPS

The Conservation Capacity Building Initiative was created in response to the [Illinois Nutrient Loss Reduction Strategy \(NLRs\)](#) to promote conservation practices throughout the state. The goal of this publication is to spread awareness about conservation practices and programs that will assist farmers and those who advise them in decreasing nutrient losses while also improving their yields. Each month we will feature a Frequently Asked Question about soil health and present information and resources from some of the key stakeholders involved in this initiative. For more FAQs, resources, and upcoming events, please visit our [AIM Soil Health page](#).

A common question about soil health is regarding the importance of cover crops. When deciding to plant cover crops, there are a few things to take into consideration: identify goals and species selection, planting methods and establishment, management and termination, and financial considerations.

### IDENTIFY GOALS & SPECIES SELECTION

Think about your crop rotation and what you are wanting to achieve. Whether it is weed control, reducing compaction, or nitrogen fixation, each species has unique benefits. The Midwest Cover Crops Council has a very helpful [tool](#) that identifies which species may work



Common cover crops. Clockwise: cereal rye, forage radishes, crimson clover, ryegrass.

best based on your location, cash crops and personal goals. It is also important to consider which nutrients your cover crop will require compared to which ones your cash crop will need. If rye reaches maturity, for example, it can tie up nitrogen in the soil that would be needed by corn. The Illinois Nutrient Research and Education Council (NREC) has a very helpful [guide](#) on how to get started in cover crops, including planting and termination methods, best practices, and information on how they can reduce nutrient losses in soil. NREC and Precision Conservation Management (PCM) both recommend starting with cereal rye ahead of soybeans. PCM published a [case study](#) based on data from ten of the most profitable Illinois corn/soybean farms in their program using cover crops, and they found that choosing an effective species is more complicated ahead of corn, but progress is being made in this area. It is generally recommended to start small with just one or two species while figuring out what works for your operation.

### PLANTING METHODS & ESTABLISHMENT

Once you have selected which species you want to grow, the Illinois Sustainable Agriculture Partnership (ISAP), which also formed in response to the NLRs, has created a [Cover Crop Seed Dealers Directory](#). ISAP also has a very useful [guide](#) on cover crop seeding methods. No matter which method you're using, adequate moisture is required to for cover crops to successfully establish, and they should be watered regularly for the first 2 to 4 weeks. Cover crops are vulnerable to drying out until they reach 4 to 6 inches tall. Timing varies based on your planting method. For example, when aerial seeding into soybeans pre-harvest, be sure the leaves have not yet fallen, which would prevent seed to soil contact. Certain residual herbicides may also interfere with cover crop establishment. Researchers at the University of Wisconsin-Madison found that herbicide carryover injury is dependent upon weather conditions, application rate, and cover crop species. Their 2013-2014 [study](#) provides a chart of which common corn and soybean herbicides negatively impacted winter rye, radish, crimson clover, annual ryegrass, and

an oats/peas mixture when applied at full-label rate at the latest application timing. They noted that in 2014, a year that saw more precipitation and warmer temperatures, little to no carryover injury was observed.

### MANAGEMENT & TERMINATION

Mowing certain grass cover crops and allowing them to regrow may be helpful in enhancing the depth of the root systems, thereby maximizing nutrient recovery. In general, cover crops should reach 50-75% of the flowering stage before termination. This is when they tend to provide maximum benefits like adding nitrogen to the soil or breaking up compacted ground. Some species like oats and brassicas are winterkill, which means they will die on their own when the temperature gets low enough. With other species, the longer you can wait for termination, the better. Just be sure to terminate before they go to seed. It is generally recommended to terminate a couple weeks before planting your cash crop. The primary termination methods for larger acreage are herbicide and crimping. According to the NREC [guide](#), cereal rye needs to be in the reproductive stage for crimping to work effectively. Some methods for smaller acreage include mowing and/or silage tarping, but mowing is not always effective on its own, as many species will grow back.

### FINANCIAL CONSIDERATIONS

USDA-NRCS has a tool for calculating the economics of investing in cover crops, including estimates on how much money the benefits will save over time. There are many payment opportunities available to help with covering the cost. ISAP has assembled a [Cover Crop Incentives Directory](#), which includes a stacking matrix to help farmers navigate their eligibility when applying for multiple programs. Each program has unique criteria that must be followed. USDA-NRCS has its own [conservation practice standard](#) for cover crops, and their programs include Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and Regional Conservation Partnership Program (RCPP).

## UPCOMING EVENTS

### EVENTS FOR ALL LEVELS OF CONSERVATION

#### OCTOBER

- Oct. 4-5 Southern Illinois Beginning Forest Landowner Program Weekend 1 ([Information Here](#))
- Oct. 6-8 Savanna Institute's Perennial Farm Gathering ([Information Here](#))  
Madison, Wisconsin
- Oct. 9 IDNR 2024 Electric Mowing and Tool Field Day ([Information Here](#))  
Kickapoo State Recreation Area
- Oct. 16 Rend Lake Pollinator Garden Stewardship Days ([Information Here](#))  
Rend Lake Project Office and Visitor Center- 11981 Rend City Rd, Benton, IL 62812

#### NOVEMBER

- Nov. 8-9 Southern Illinois Beginning Forest Landowner Program Weekend 2 ([Information Here](#))
- Nov. 13 Illinois Cover Crop on Farm Network Monthly Call ([Information Here](#))  
Virtual
- Nov. 13 Starting Native Plants from Seed ([Information Here](#))  
Virtual

#### DECEMBER

- Dec. 11 Illinois Cover Crop On Farm network Monthly Call ([Information Here](#))
- Dec. 17 Illinois Soybean Growers Farm Futures Business Summit ([Contact Ashley Barry](#))  
Malta, IL

# CONSERVATION IN THE CLASSROOM

## PREPARING THE NEXT GENERATION

We need to inspire, educate, and provide more opportunities for the next generation to enter the agroecology workforce. From elementary school to college, we need to foster interest in natural resources, teach the importance of conservation, and provide young people with the requisite tools and pathways to pursue further education or professional opportunities in related education, trade, science, etc. fields.

The goal of **Conservation in the Classroom** in the AIM Illinois newsletters is to provide classroom and community engagement resources regarding featured conservation agriculture topics. We “aim” to support educators in discussing these vitally important topics and fostering excitement for the future of agroecology with their students.



This month’s lesson plan is Pumpkin Pioneers: Exploring Pumpkin Production in Illinois. Illinois farmers grow more pumpkins than anywhere else in the world. Using collaborative research and presentation skills, students will learn about pumpkin production in Illinois. Students will also demonstrate their ability to apply agricultural concepts and communicate information clearly.

This lesson plan is designed for grades 6<sup>th</sup>-9<sup>th</sup>, and has an estimated time of two 50-minute classes. See the link below to download the full set of materials. It features a PowerPoint presentation, five worksheets (Varieties of Pumpkins, Pumpkin Growing Conditions, Farming Practices, Economic Impact of Pumpkin Production, Pumpkin Processing), and presentation rubric.

**[Pumpkin Pioneers Lesson Plan, Packets, PPT - DOXC](#)**

# IN THE FIELD

The Adams County SWCD had a booth at the Adams County Fair (July 24-30) held in Mendon, Illinois. Conservation Planner Andrew Parks and Adams County SWCD AC/RC Nicole Cook provided information about conservation to attendees. As well as offered the chance to children to use soil paints to fill in a painting of the State of Illinois. You can learn more about Painting with Soils on AIM's website, [Conservation Education](#).



Adams County SWCD Booth at the Adams County State Fair.



Painting with Soil, Before and After!



Painting with Soul seeks to combine art and science, as well as to inspire a deeper understanding of soils and a commitment to preserving the beauty and functionality of our environment. Child attendees of the Adams County Fair were given the opportunity to take part!



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## AGROECOLOGY + INNOVATION MATTERS

The AIM project was initiated through a state/federal leveraged funded Capacity Building Initiative between the Illinois Department of Agriculture and the USDA Natural Resource Conservation Services (NRCS). Our 40 Conservation Planners and Coordinators aim to enhance soil health, reduce nutrient loss, maintain clean waters, and bolster the advancement of best conservation practices by collaborating with NRCS field offices, soil and water conservation districts, producers, and landowners across the state.

Our team strives to communicate best practices stories and provide educational resources for our community. AIM empowers producers and landowners to explore agroecology and innovative infield and edge of field practices like cover crops, conservation tillage, vegetated buffers, grassed waterways, prairie strips, and constructed wetlands.

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## WEBSITE

[aimillinois.org](http://aimillinois.org)

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## EMAIL

[ilaimproject@gmail.com](mailto:ilaimproject@gmail.com)

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## FIELD STORIES

[kayla@aimillinois.org](mailto:kayla@aimillinois.org)

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## EDUCATION

[whitney@aimillinois.org](mailto:whitney@aimillinois.org)

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### FIND US ON:



CATTLE GRAZING IN CLARK COUNTY, COURTESY OF JAMIE HARRIS, CONSERVATION PLANNER