

# 2021 ACCOMPLISHMENTS



# MISSION

The mission of the Indiana Conservation Partnership is to provide technical, financial and educational assistance needed to implement economically and environmentally compatible land and water stewardship decisions, practices and technologies.

# VISION

The ICP's land and water stewardship assistance will improve the quality of Indiana's streams, rivers and lakes; protect our drinking water; and increase soil quality to boost food and fiber production.

# MEMBERS

Indiana Association of Soil and Water Conservation Districts and our 92 SWCDs

Indiana Department of Environmental Management

Indiana Department of Natural Resources

ISDA Division of Soil Conservation

Purdue Cooperative Extension Service

State Soil Conservation Board

USDA Farm Service Agency

USDA Natural Resources Conservation Service





The Indiana Conservation Partnership (ICP) Training and Certification Program strives to improve efficiency in training amongst all ICP technical employees. Employees from each agency are represented on the program team. In 2021, based on statewide training needs from ICP assessment, several virtual trainings were held, including Wetland Restoration Planning and Design, Tree and Shrub Identification, and Backyard Habitat Planning.

In its 29th year, the *Pathway to Water Quality Exhibit* at the Indiana State Fair was maintained and staffed by ICP partners once again this summer. Using funding from an Indiana American Water grant, the steering committee expanded the exhibit into the previously existing Boy Scout area. With new signage and seating, the area was the perfect home for the USDA NRCS soil health trailer and staff demonstrations of soil health.



# Focus Area: Soil Health and Nutrient Management

## Conservation Cropping Systems Initiative (CCSI)

CCSI continues to provide training, outreach, and other soil health education support for partners across Indiana – contributing to the State’s leadership in adoption of cover crops and other soil health practices.

### Staffing

- Lisa Holscher, Director  
lisa.holscher@in.nacdnet.net
- Sheila Schroeder, Northern Program Manager  
sheila.schroeder@in.nacdnet.net
- Jessica Hoehn, Southern Program Manager  
jessica.hoehn@in.nacdnet.net
- Purdue Extension is investing heavily in soil health education and on-farm research and a team of specialists is being formed to lead that effort. The CCSI Agronomist will be part of that team. Joe Rorick, former CCSI Agronomist, is moving to a role supporting on-farm research in partnership with Indiana Corn Marketing Council and Indiana Soybean Alliance. CCSI and Purdue are in the process of filling the vacant CCSI Agronomist position.



### Financial Implications of COVID

Even though the CCSI team continued a strong soil health outreach program through COVID restrictions, event support expenses (speaker fees, travel, general event support) were negligible from March 2020 onward. With an USDA-NRCS Agreement expiring on September 30, 2021 and far exceeding deliverables for that agreement, a decision was made by the CCSI Oversight Committee, with NRCS approval, to direct these funds to support Purdue Ag Center Demonstrations and to open a request for proposals for soil health outreach projects.

- Purdue Ag Centers – Working with the Purdue Ag Center Administration and local Superintendents, a number of projects were identified that included soil health practices, especially cover crops. In addition to directing funds to support these projects, CCSI staff and partners worked with cover crop seed and equipment suppliers to secure further discounts. , allowing all existing funds to be stretched further. CCSI staff were also able to connect cover crop seed breeders and suppliers with researchers opening additional doors to partnerships.

- Local Partnership Support - A request for proposal was launched at the end of April and applications were accepted for support of projects that targeted improved soil health (including edge-of-field practices of a soil health system such as buffers, pollinator habitat, etc.) on Indiana cropland with an emphasis on farmers new(er) to those systems. The funds could not be used for cost-share, food, or the purchase of equipment. Applications were reviewed by a CCSI subcommittee on weekly basis as they were received until available funds were allocated. At the end of the process, 19 projects totaling \$40.7K were approved. Note – because of the success of the process and “incubator style” of proposals, CCSI partners are seeking funds to replicate the program.

## Training

Due to ongoing Covid-19 restrictions, the full scope of CCSI-SARE Soil Health Trainings was again reduced.

- Core Cover Crops and Soil Health Systems Training was held as a series of 3 virtual events. 77 total attendees. These will continue to be held as virtual events in the future.



*Corn planted into Cover Crops  
(photo cred: Chris Lee, USDA-NRCS)*

- Soil Health and Sustainability for Midwestern Field Staff (3-Day Soil Health Training) was held in in-person. Attendance was limited to 25 participants to maintain social distancing.
- Advanced Trainings and In-field Diagnostics Trainings were cancelled.
- Other Trainings:
  - TNC Advanced Soil Health Training for Ag Professionals – CCSI provided virtual support through the winter of 2021 and logistical support for in-person events that were held in August and November. Attendance ranged from 15-20 individuals.
  - Hoosier Chapter Winter Meeting – The Social Science of Conservation. CCSI provided support to host the meeting virtually.



## Outreach Events

- Since its official inception in January 2010, CCSI has participated in over 700 events, reaching over approximately 42,300 attendees.
- In 2021, CCSI materially participated in 73 events, reaching approximately 4650 individuals, including a series of webinars and virtual farm visits.
- 2022 Webinars and Virtual Farm Visits are being organized. Registration is available on the CCSI website.

## Podcasts, Website, Social Media and Other Outreach

- In the fourth season of CCSI-Hoosier Ag Today Soil Health Podcasts, nine were produced. Since their launch, over 10,000 downloads have been made of the episodes.
- The Root Project – launched in the fall of 2020, downloads continue to grow. The Root Project was also featured in the Sept/Oct 2021 edition of the John Deere Furrow magazine, which has a circulation of approximately 500,000 in North America alone. A pilot project creating full-scale banners of select cover crop roots has been launched.
- Twitter posts continue to reach wide audiences, garnering just under 450,000 impressions in 2021.
- Facebook continues to reach audience in 2021 with engaged users totally 6,300, a total daily reach just under 152,000, and garnering 185,000 total impressions.



## Conservation Reserve Enhancement Program (CREP)

2021 marks the 16th year of the Conservation Reserve Enhancement Program (CREP) in Indiana.

The program covers eleven priority watersheds within the Wabash River System touching 65 counties with an acreage enrollment goal of 26,250 acres, and a goal to protect 3,000 linear miles of water bodies in the Wabash River System.

According to ISDA's tracking system, 2021 saw an enrollment of 1,149 acres in the Indiana CREP watersheds by interested landowners with approximately 428 acres being re-enrolled from CRP to CREP and 224 acres from CREP to CREP. This is the second year that acres within CREP were able to be re-enrolled back into CREP within the original three watersheds.

In 2021:

- Landowners completed a variety of conservation practices and buffers with approximately 1,477.6 acres completed.
- An estimated 198,660 trees have been planted through bottomland timber establishment in the Indiana CREP in 2021.
- Approximately 526.6 acres of wetland restorations were completed or re-enrolled.

- The state paid out \$1,197,528.50 in direct payments to participants for installation of practices, and \$119,752.85 in administrative fees to partnering SWCDs.

Estimated Nutrient Load Reductions for CREP practices completed in 2021:

- Sediment – 7,647 tons
- Phosphorus – 8,397 lbs.
- Nitrogen – 15,990 lbs.

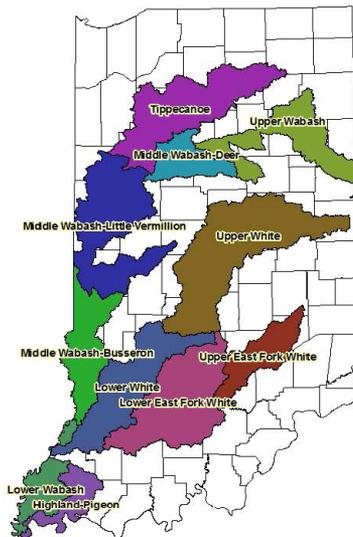
Since inception of the Indiana CREP in 2005 (according to the ISDA’s tracking system):

- Total acres completed are 21,507
- Total acres enrolled are 22,641 (86.25% of the goal)
- Total buffer lengths completed – 994.5 linear miles (5,250,673 feet) (33.15% of the goal)

Over \$9.8 million has been invested by the state and other non-federal partners to implement these conservation practices, and for every state dollar that is invested, depending on the practice, \$4-\$13 federal dollars are matched through the Conservation Reserve Program (CRP) incentives available through the FSA.

The 2021 CREP Annual Report can be found on the ISDA website at <https://www.in.gov/isda/divisions/soil-conservation/conservation-reserve-enhancement-program/annual-reports/>.

**FIGURE 1: 11 CREP ELIGIBLE WATERSHEDS**



Watersheds include: Highland-Pigeon, Lower Wabash, Lower East Fork White, Lower White, Middle Wabash-Busseron, Middle Wabash-Deer, Middle Wabash-Little Vermillion, Tippecanoe, Upper East Fork White, Upper Wabash and Upper White.

# INfield Advantage



*INFA Cover Crop Trial, Oats & Radish Mix (Photo Credit: Andrea Gogel, ISDA)*

INfield Advantage has been providing trial-based management practice evaluations since 2011. Through the program’s agronomic partners, farmers have access to the highest quality assessment technology and expertise allowing them to leverage real, personalized, on-farm data to understand how field-specific practices can influence input use, soil health and ultimately yields or input cost savings.

INFA, as it is often dubbed, has a dual purpose, provide insights that drive beneficial practice changes for Indiana farmers while positively impacting soil health

and water quality. The next step in collecting and analyzing personalized, on-farm data is to make implementation improvements that reach these goals.

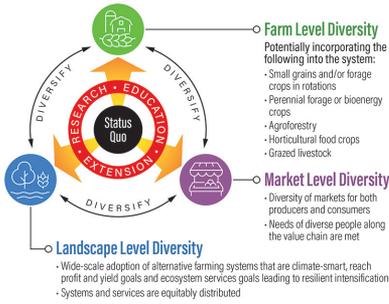
Currently, the program is funded through a Conservation Innovation Grant administered by the Indiana Soybean Alliance, funding from Indiana Corn and Soybean checkoff dollars, the Indiana State Department of Agriculture, and the Natural Resource Conservation Service. With support from key partners such as Soil and Water Conservation Districts, Purdue Extension, Beck’s Hybrids and Ceres Solutions the program has experienced growth and success in 2021.

In 2021, INFA offered three trial protocols: a Cover Crop Trial, a Nutrient Input Trial, and a Tillage Practice Trial. The cover crop trial at this time has had over 100 participants, who received cover crop seed, soil testing, biomass sampling, soil health assessment, and field reports generated through the TruTerra Insights Engine.

In early 2022 INFA will open the Nutrient Input Trial and Tillage Practice Trial for enrollment, as well as hold winter meetings with growers, agronomists, and conservation staff. Moving forward, we hope to collaborate further with our Indiana Conservation Partnership members, and more growers. Please consider using the QR code below to join our mailing list to receive program updates and additional information.



# Purdue



The USDA National Institute of Food and Agriculture selected the Purdue Project titled “#Diverse Corn Belt: Resilient Intensification through Diversity in Midwestern Agriculture” “to work with farmers to evaluate alternative cropping systems that can be used in the Midwest” states Dr. Linda Prokopy. Select members of the ICP are on the project advisory committee.

The Science Assessment for the Indiana Nutrient Reduction Strategy is a statewide effort to quantify water quality benefits of conservation practices. Purdue is leading Component 2 in collaboration with a Core Team from six organizations, and a Science Committee of researchers from five academic institutions in Indiana and two federal science agencies who conduct research related to nutrients and water quality in Indiana.

Joe Rorick, Soil Health Specialist, has an enhanced outreach for greater soil sustainability efforts thanks to a partnership with Purdue University, the Indiana Soybean Alliance and the Indiana Corn Marketing Council.

**PURDUE UNIVERSITY**  
Extension

**EARN YOUR URBAN AGRICULTURE CERTIFICATE ONLINE**



Purdue Urban Agriculture Programming Efforts are tied closely to other ICP initiatives to promote soil health and conservation with urban farmers.

The Urban Agriculture Certificate is a program where students receive in-depth instruction for urban crop production from farm design through harvest techniques. It is 100% online which provides students the flexibility to earn their certificate from anywhere, anytime.

The 2022 Indiana Small Farm Conference and trade show will return in person at the Hendricks County Fairgrounds March 3 & 4 in Danville Indiana. The conference features keynote, breakout tracks and networking opportunities. Breakout tracks include Soil Health, Regenerative Ag, Urban Ag, Pollination and others.

Purdue Extension Specialists worked with the ICP Training Committee to provide high priority trainings to ICP staff.

The Indiana Watershed Leadership Academy will hold its 17th class from January to May 2022. This year's class will have a hybrid structure with both virtual and in person sessions. The Academy has trained over 425 watershed leaders since its inception in 2006, expanding Indiana's capacity for successful watershed management. Graduates are engaged throughout Indiana and beyond in improving environmental stewardship and water quality (<http://www.purdue.edu/watersheds>).



Purdue Agricultural Centers are conducting research on many aspects of cover crops, nutrient management and cropping systems to address the needs of Indiana agriculture

Purdue Extension specialists and Educators developed resources and provided outreach to address challenges producers faced in the 2021 cropping season.



*fall+frost seed,  
(photo credit: CCSI)*



*corn growing in terminated  
cover crops (photo credit:  
St. Joseph SWCD)*

## Focus Area: Special Projects and Initiatives

The ICP continued to coordinate and partner on special projects and initiatives across Indiana, including:

- Encouraged new proposals for all ICP and outside funding opportunities, and provided support and leveraged funding.
- Provided staff and other resources to support landscape and partnership projects.
- Supported implementation of the State Nutrient Reduction Strategy and the State Science Assessment.
- Supported implementation of the Great Lakes Domestic Action Plan for the Western Lake Erie Basin.
- Supported partnership efforts to support Urban Agriculture and Small Farms, leveraging staff and funding.
- Integrated priorities to control Invasive Species into programs and initiatives.



*Image: Aerial view of cultivated cropland acreage (in green) in the Western Lake Erie Basin. Provided by Resource Assessment Division, Soil Science and Resource Assessment, Natural Resources Conservation Service, U.S. Department of Agriculture. Created March 23, 2017. Aerial data source: Environmental Systems Research Institute (ESRI), DigitalGlobe Aerial Imagery. Cropland data source: National Land Cover Database (NLCD), 2011, U.S. Geological Survey, Land Cover Institute.*

# Focus Area: Monitoring, Reporting Outcomes, and Outreach

## Conservation Accomplishments

The ICP continues as a national leader in conservation data sharing to identify statewide impacts, efficiently target resources, and demonstrate outcomes.

In 2020, the Indiana Conservation Partnership installed a record number of new conservation practices. Over 32,000 conservation and farm best management practices were implemented, outpacing the previous record in 2013 by over 1,000.

17,191 of these practices were modeled to quantify reductions of sediment and nutrients entering Indiana's waterways.

282,000 cover crop acres were also modeled to quantify carbon sequestration equivalents.

1,076,400 tons of sediment were saved from entering Indiana's waterways, equivalent to a football field covered to a depth of 467 feet, which is 37 feet taller than the Great Pyramid of Giza.



2,253,200 lbs. of Nitrogen were kept out of Indiana's waterways, enough to fill 11 fifty-foot freight cars. One would need 27 billion gallons of water to dilute this amount of nitrogen to meet drinking water standards.

1,126,700 lbs. of Phosphorus were saved from entering Indiana's waterways, enough to fill 5.6 fifty-foot freight cars. This reduction is enough to prevent over 560,000,000 pounds of surface algae from growing.

Cover crops planted with ICP assistance in 2020 sequestered 147,695 tons of carbon, which is equal to the emissions of 28,960 cars.

Top 10 counties for installing new conservation practices in 2019:

- |            |                |
|------------|----------------|
| 1. Whitley | 6. DeKalb      |
| 2. Putnam  | 7. Posey       |
| 3. Starke  | 8. Rush        |
| 4. Adams   | 9. Hendricks   |
| 5. Decatur | 10. Washington |

Total public conservation funding in 2020 totaled \$114,270,582.

Additional information regarding Indiana's conservation accomplishments can be found here: <http://icp.iaswcd.org/>

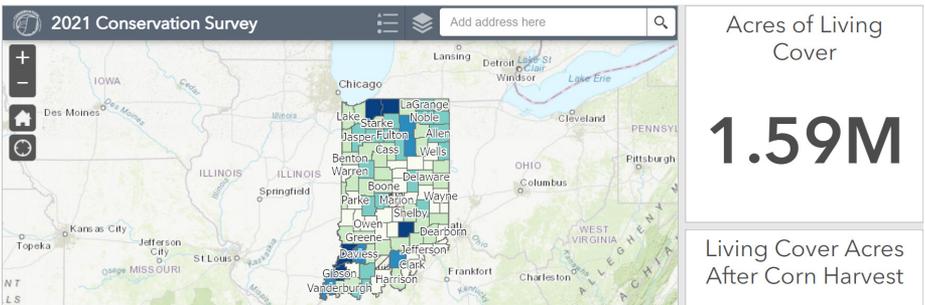
# Indiana Conservation Survey

The ICP revamped its longstanding cover crop and tillage transect to focus more heavily on cover crop emergence through improved timing and streamlined data collection. Conservation surveys consist of taking windshield observations of a sample of agricultural fields throughout Indiana counties between late February and early March.

In 2020, The ICP observed that Indiana farmers have set a conservation record this year by planting an estimated 1.5 million acres of overwinter living covers, the largest amount ever recorded by an Indiana Conservation Partnership survey.

- » 15.6% of Indiana's soybean acres managed with overwinter living covers planted in them
- » 10.9% of Indiana's corn acres were managed with overwinter living covers planted in them
- » 13.6% of Indiana's row crop acres were managed with overwinter living covers planted in them
- » 68% of Indiana's soybean acres had residues and soils undisturbed at the time of observation
- » 62% of Indiana corn acres had residues and soils undisturbed at the time of observation

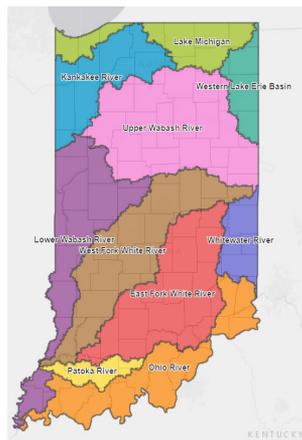
Additional information regarding Indiana's Cover Crop and Tillage Transect Survey can be found here: <https://www.in.gov/isda/divisions/soil-conservation/cover-crop-and-tillage-transect-data/>



## Interactive Web Tools

ISDA created a simple webpage that centralizes ICP data products in one place. This “data hub” makes it easy to find county level conservation reports, sediment and nutrient load reduction deliverables, funding information, dashboards, program information, and more. Visit the data hub at <https://www.in.gov/isda/divisions/soil-conservation/data-hub/>.

**Indiana Conservation Reports:** ISDA creates county level conservation reports for each of Indiana’s SWCDs. These reports show conservation implementation and funding data from Federal, State, and local sources to show sediment and nutrient load reductions and funding sources <https://www.in.gov/isda/indiana-conservation-partnership-reports/>



**ICP Funding Dashboard:** ISDA created the ICP funding dashboard to show the breakdown of conservation program funding from Federal, State and local sources. The dashboard shows the data going back to 2010. Users can see a comparison of funding sources and can filter by individual programs to see trends. <https://www.in.gov/isda/divisions/soil-conservation/indiana-conservation-partnership-funding/>

**Indiana’s Sediment and Nutrient Load Reductions Web Application :** ISDA receives numerous requests throughout the year for nutrient load reduction and conservation workload data pertaining to smaller HUC 12 watersheds.

ISDA hosts an ArcGIS web application that allows users the ability to select watersheds of interest on a map and download the nutrient load reductions and conservation workload to a CSV file. The web application can be found here: <https://www.in.gov/isda/divisions/soil-conservation/indiana-state-nutrient-reduction-strategy/>

**Indiana’s Conservation Transect:** ISDA hosts an interactive web map which allows users to select a county and view a report featuring the latest no till and overwinter living cover acres for corn, soybean, and all row crops. Additionally, one can find all historical transect data maps and deliverables. The interactive map and additional info can be found here: <https://www.in.gov/isda/divisions/soil-conservation/cover-crop-and-tillage-transect-data/>.

# ICP Training and Certification Program

The Indiana Conservation Partnership (ICP) Training and Certification Program strives to improve efficiency in training amongst all ICP technical employees, resulting in a more highly skilled workforce and seamless delivery to customers. Employees from each agency, as well as the Indiana District Employees Association (IDEA), have representation on the committee that leads the initiative. Trainings hosted in 2021 include: Backyard Habitat Planning and Technical Assistance webinar, two Wetland Restoration Planning and Design webinars, Identification of Trees in IN webinar, Identification of Shrubs in IN webinar, and four in-person Tree and Shrub ID trainings.

Hosted by the Indiana Conservation Partnership

## BACKYARD HABITAT PLANNING AND TECHNICAL ASSISTANCE

MARCH 5, 2021 | 9-11:30 AM  
VIA ZOOM: [HTTPS://US02WEB.ZOOM.US/J/87174418866](https://us02web.zoom.us/j/87174418866)

Employees of the Indiana Conservation Partnership are invited to a training and technical assistance webinar. Considerations and assistance will be provided for establishing backyard habitats.

Aaron Stump- Indiana Wildlife  
Jessica Merking- IDNR  
Erin Basiger- IDNR  
Jared O'Brien- Pollinator Program  
equal opportunity providers, employees and lenders.

## Tree and Shrub ID Training for ICP Employees

9:30 AM-12:30 PM EDT

ICP Tree & Shrub ID training will be a free outdoor, hands-on training event. We will cover botanical characteristics useful for tree ID, field guide and ID key use, and walk through ID characteristics of trees and shrubs. Choose the date that works best for you. Led by Lenny Farlee, Purdue Extension.

<u>...ance County</u>	<u>Allen County</u>
...er 19	October 20
... Forest	Extension Office/Purdue Fort Wayne
...r: <a href="http://bit.ly/21IDTipeance">bit.ly/21IDTipeance</a>	Register: <a href="http://bit.ly/21IDAAllen">bit.ly/21IDAAllen</a>
.....	
<u>... County</u>	<u>Jennings County</u>
... P	October 27
... Forest	Southeast Purdue Ag Center
...y/21IDMartin	Register: <a href="http://bit.ly/21IDJennings">bit.ly/21IDJennings</a>

Hosted by the Indiana Conservation Partnership

## WETLAND RESTORATION PLANNING AND DESIGN

**Presenters**

- Dena Anderson, USDA-NRCS, Area Soil Scientist
- Stephen Ball, USDA-NRCS, Cultural Resources Specialist
- Brianna Lowe, USDA-NRCS, State Biologist
- Scott Wagner, USDA-NRCS, Agricultural Engineer

**PART 1: February 11 from 9-11:30 AM**  
<https://us02web.zoom.us/j/87191513087>

- Definitions: Restoration Enhancement, Creation
- Landowner Objectives and Expectations
- Biology and Ecology of Wetlands
- Soils Foundations and Interpretations
- Engineering within Expectations

**PART 2: February 18 from 9-11:30 AM**  
<https://us02web.zoom.us/j/86301096721>

- Recap and Carryover from Part 1
- Cultural Resource Considerations
- Permitting
- Post-Restoration Management
- Discussion and Q&A

Indiana Conservation Partnership logo and images of wetland restoration sites.

Equal opportunity providers, employees and lenders.

# Your Indiana Conservation Partnership

**Indiana Conservation Partnership**

[www.icp.iaswcd.org](http://www.icp.iaswcd.org)

**Indiana Conservation Partnership Reports**

[www.in.gov/isda/indiana-conservation-partnership-reports/](http://www.in.gov/isda/indiana-conservation-partnership-reports/)

**Pathway to Water Quality**

[www.pathwaytowaterquality.org](http://www.pathwaytowaterquality.org)