




RESILIENT AGRICULTURE



Our partners at Zumwalt Acres in Sheldon, IL, who use biochar and basalt soil amendments to improve carbon capture.

delta institute



Delta Institute supports **1,000 farmers** as they transition to sustainable and regenerative practices, thus improving the environment, mitigating the impacts of climate change, and strengthening a farmer's bottom line. We forecast that by **2025, one million Midwestern agricultural acres** will successfully transition to conservation-focused farming practices, so our region's primary economic driver can be more environmentally and financially sound.

Agriculture as a climate solution — and a marketplace driver.

Soil is the underlying resource for agricultural working lands in the United States. It presents one of the most promising opportunities for large-scale climate action in the country. More sustainable food and agriculture solutions can provide approximately 30% of total global climate mitigation, through both emissions reduction and carbon sequestration.

While the environmental benefits of regenerative agriculture are plentiful, these practices provide significant economic benefits for rural communities. Farmers can see increased profitability in the long-term by using less input costs like synthetic fertilizers. Using regenerative agriculture increases working lands' resilience to extreme events like flooding, ultimately leading to more profitable farms.

We can't talk about farming without talking about financing.

However, farmers seeking to make sustainable improvements to their land often face many challenges. Agricultural land management decisions are situated within a complex yet interconnected system, influenced by both social and economic factors. In the Midwest, nearly 50% of agricultural land is leased and therefore managed by farmers who do not own the land and operate on razor-thin margins.

Current land management practices often include using fertilizers and harmful chemicals which pollute local water systems. Watershed-scale conservation programs are typically time-restricted by funding source and do not have standard rollouts or implementation. While greenhouse gas programs and emerging carbon markets present more opportunities to

farmers, standardized soil health testing remains as the critical missing component. For our region's farmers, this means that there is no affordable, effective, or uniform way to utilize critical measurements in their operations.

Our Work and Goals

Our primary Resilient Agriculture goals/efforts include:

Standardize Soil Health Testing and Increase its Use as a Metric for Farm Management. Projects include:

Creating a soil health testing guide so that more farmers can benefit from carbon markets and incentive programs;

Addressing the perceived asset value—or lack thereof—of regeneratively farmed land; and,

Developing a land valuation approach that incorporates soil health, with a keen focus on farmland appraisals.

Create an Integrated Administration Program to Scale-up Conservation Practice Implementation. Projects include:

Assessing current conditions and providing strategic recommendations with regional expansion of conservation practices throughout Southeast Michigan, with statewide (and beyond) implications;

Evaluating the gaps, needs, and interconnectedness between conservation



**ONE MILLION
ACRES**



**ONE THOUSAND
FARMERS**

practice adoption and incentive programs;

Sequestering carbon, reducing nutrient pollution, and improving water quality through land management (including pay for performance in target watersheds); and,

Creating Midwest-specific value chains that center regeneratively produced materials while investing in local farmers.

In addition to their environmental and climate benefits, resilient agricultural practices provide significant economic benefits for rural communities, as demonstrated in our past and current work. Implementing conservation practices also increases working lands' resilience to extreme events like flooding and drought, ultimately leading to more profitable and resilient farms.

We work every day to create a more resilient region for all our Midwestern family, friends, and neighbors.

Please join our efforts and help us today.



Delta Institute collaborates with communities to solve complex environmental challenges throughout the Midwest.

35 E Wacker Dr Ste 1760 | Chicago, IL 60601 | delta-institute.org | 312-554-0900



DeltaGreatLakes



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Delta Institute is a 501c3 nonprofit with a 2023 Platinum Seal of Transparency from GuideStar and a Four-Star Rating from Charity Navigator for our strong financial health and accountability.