

SUSTAINABILITY ANALYSIS

2021 PORK CARES SNAPSHOT REPORT

EXECUTIVE SUMMARY

About Illinois Pork Producers

The Illinois Pork Producers Association (IPPA) has served producers for more than 50 years. IPPA works to provide producers with opportunities and services that increase profitability and consumer preference for pork. There are currently more than 20 county associations throughout the state with more than 1,600 members.



Quantifying the Impact of Actual Farm Practices

The EcoPractices® platform determines environmental benefits through its unique process that can pinpoint specific influences of individual agricultural practices. While agricultural practices have progressed to better care for natural resources, the ability to quantify the influence these practices have on sustainability has not kept pace. Illinois Pork seeks to put evidence-based measurements to its farm practices. Having such data brings more depth to decision-making. Short- and long-term goals can be based upon more meaningful information.

CROP	YIELD
Cereal Rye	32 bu/ac
Corn Grain	199 bu/ac
Hay	5.1 T/ac
Horseradish	6 T/ac
Soybean	67 bu/ac
Winter Wheat	84 bu/ac

13,716 acres from **240** fields on **10** farms



Swine Inventory: 243,695

Defined as Sow and/or Finished Pigs per Year

WE CARE® ETHICAL PRINCIPLES

The We Care initiative was launched in 2008 as a joint effort of the National Pork Board, the National Pork Producers Council (NPPC) and state organizations representing farmers. Through the We Care initiative, they hope to earn the public's trust by making this industry better for all concerned — animals, farmers, food industry partners and consumers worldwide.



- › Food Safety
- › Animal Well-Being
- › Environment
- › Public Health
- › Our People
- › Our Communities

NATIONAL PORK BOARD'S ENVIRONMENTAL INITIATIVE



One pillar of the We Care Ethical Principles is Environment. This includes the use of manure as a valuable resource in a manner that safeguards air and water quality, includes air quality from production facilities to minimize the impact on neighbors and the community, and includes managing operations to protect the quality of natural resources.

- › Air Quality
- › Carbon Footprint
- › Emergency Action Plan
- › Manure & Site Management
- › Feed Management
- › Mortality Management
- › Water Conservation

Conservation Practice	Fields	Acres
 Buffer	15	111
 Forest	-	265
 Grassed Waterway	46	129
 Wetland	5	20

MANURE APPLICATION & SAVINGS

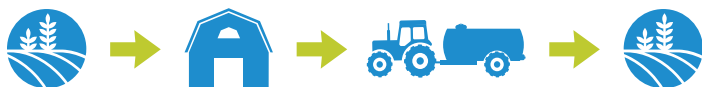
39% of acres received liquid manure fertilizer at an average rate of **17,240 gallons/ac.**



The average **cost savings** from manure applied to **5,596 acres** was estimated to be **\$106 per acre** based on a reduced need for commercial N, P & K resulting in a **total savings of \$591,644.**



Manure produced during pork production has many benefits. Manure provides macro- and micro-nutrients to the crops that are grown. The soils applied receive **organic matter** which increases **carbon storage**. In addition, **microbial activity** is stimulated. Producers prioritize **stewardship** by properly applying manure to benefit the fields that are applied.



IN-FIELD ENVIRONMENTAL OUTCOMES

The data is reflective of weather and soils influence in addition to implemented in-field management practices for the project year.[†]

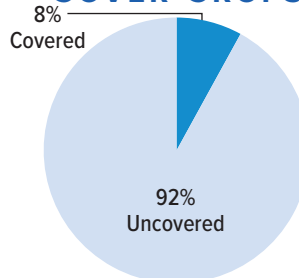
OVERALL FARM	
Net GHG Emissions	-0.48 T CO₂e/ac
Soil Carbon Sequestered	0.30 T C/ac
Soil Erosion Rate	1.15 T/ac

EROSION AVERAGE

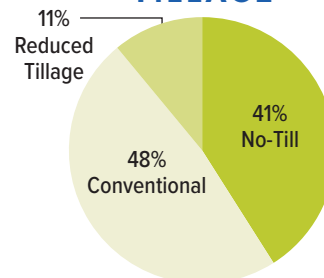
The USDA National Resources Inventory provides estimates on average erosion for different systems across the US.*



COVER CROPS



TILLAGE



According to the 2017 US Ag Census, the national average is **4% cover crop adoption**, **37% no-till adoption** and **35% reduced till adoption**.

SOIL CONDITIONING INDEX (SCI)

SCI is an NRCS tool that shows soil health trajectory. A positive SCI means a positive trajectory of soil health.

The fields in the project are an overall **+** trajectory for **SCI**.

CROPLAND

94%

FORAGE

6%

IN-FIELD PRACTICE COMPARISON IMPACTS

When compared to conventional practices (i.e. conventional tillage, no cover crop scenario), in-field farm practices generated:[‡]



8,275 fewer tons of CO₂e, which is the same as



1,607 average passenger cars off the road for a year



2,245 tons of soil carbon sequestered



6,030 tons of soil saved instead of being lost to erosion, which is the same as



377 dump trucks of soil



42 tons of nitrogen saved instead of being lost through leaching and runoff.



7 tons of phosphorus saved instead of being lost through runoff.



Powered by **EcoPRACTICES**

Data provided by 10 Illinois pork producers in the United States through a program funded by the Pork Checkoff.

*Sustainable Environmental Consultants, through its EcoPractices platform, estimates an environmental impact value for reducing greenhouse gas emissions, reducing soil erosion, and reducing nutrient loss due to reduced leaching. These estimates adhere to processes that are documented by the NRCS Technical Guides and publications from the EPA. These values are tailored to a specific location and participant's operation. Models used are supported by USDA, NRCS, other government agencies, and major universities. Modeled results include input data from public resources for weather, soils, and historical crop rotation. Greenhouse gas simulations were produced from the Greenhouse Gas Inventory (GGIT) tool developed by Soil Metrics, LLC (2021) <https://soilmetrics.co>. The GGIT tool implements the USDA-sanctioned greenhouse gas inventory methods described in Eve et al. (2014) "Quantifying Greenhouse Gas Fluxes in Agriculture and Forestry: Methods for Entity-Scale Inventory". The GGIT tool utilizes greenhouse gas modeling technology developed for the COMET-Farm tool, licensed by Colorado State University to Soil Metrics, LLC.

[‡]USDA, NRCS 2017 National Resource Inventory

This summary must not be edited or altered in any way without the involvement and consent of Sustainable Environmental Consultants, LLC.