

SUSTAINABILITY ANALYSIS

2022 PORK CARES SNAPSHOT REPORT

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.



› Animal Well-Being	PQA+ Provided	84%
	TQA Provided	25%
	PQA+ Site Assessment Provided	83%
› Our Communities	Charitable Donations	\$510,403
		26,654 lbs
	Community Presentations	48
	Volunteer Hours	12,390
	Volunteers Trained	25
	Jobs/Internships Given	434
› Our People	Scholarships Offered	6
	Additional Leadership Opportunities Offered to Employees	10
	Renewable Energy Generation	4.8 million kWh
› Environment	Area of Land for Pork Production*	1,018 acres
	Conservation Practices Adjacent to Barn Site	285 acres
	Acres*	

To learn more about the U.S. Pork Industry Sustainability Goals and Metrics, please visit porkcares.org.



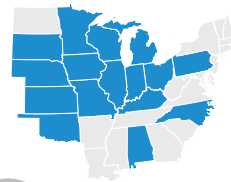
Powered by **ECO PRACTICES**

Data provided by 113 pork producers in the United States through a program funded by the Pork Checkoff. Usage per head is based on swine inventory.

*Metrics approved for additional reporting after data collection completion for portion of farms. This summary must not be edited or altered in any way without the involvement and consent of Sustainable Environmental Consultants, LLC.

About National Pork Board

The pork industry has had a legislative checkoff program since 1986. NPB desires to help pork producers share their sustainability story to support individual businesses across the country as well as represent the sustainability of the entire industry. Currently there are programs in place for promotion, research and education.



100,323 acres from **2,425 fields**



Swine Inventory:

1.2 million from **209 sites**

Defined as Sow and/or Finished Pigs per Year

WATER USAGE

Tracking water usage is important to quantify the amount of water utilized within swine facilities to water the pigs, clean the barns and function as needed.



405 gallons per head

ENERGY USAGE

General energy use in a barn includes lighting, fans, feeders and temperature control.



53 kilowatt hours per head

MANURE PRODUCTION

335 million gallons of manure are produced each year. This provides an estimated **\$4.8 million** in nutrients that are applied to crop fields as fertilizer.



Sustainable Continuous Improvement Plan™

MOVING THE NEEDLE ON REGENERATIVE AGRICULTURE



The SCIP aligns with the We Care® Ethical Principles to look at progress points, which are practices the farms are currently incorporating on their operation. Goals are organized by Key Performance Indicators to look at opportunities to make improvements on the sustainability reporting metrics. Progress points show the progress of the pork industry as a whole while goals are specific to National Pork Board. Above all, safety, personal wellbeing and animal welfare are the highest priorities.



INDUSTRY PROGRESS

- › **190 producers** participated in program with a total of **129,785 acres** across **455 sites**
- › **\$615,568, 15,831 hours** and **28,419 lbs of pork** were donated to local communities by pork operations
- › **38% of acres** in a no-till system and **40% of acres** in a reduced till system
- › **18% of acres** planted with a cover crop
- › **51% of fields** with updated soil tests
- › **37% of acres** received a liquid manure application
- › **8,181 acres** in conservation practices such as buffers, waterways, forests, etc.

Economics



SHORT TERM GOALS

- › Split applications of nitrogen can reduce input costs and prevent overapplication of nutrients¹
 - If applying supplemental nitrogen, apply in-season close to crop uptake
- › Routinely calibrate manure application equipment prior to use
 - Toolbars, knives, disk openers, coulters and hoses
- › Plan the financial impact of practice implementation with the innovative R3™ Return on Investment (ROI) tool with SEC
- › Invest in precision technology to track various metrics on-farm such as manure, fertilizer and chemical applications to reduce your cost at an average of \$80 per acre²
 - Investing will improve efficiency and productivity, create easier cost controls, manage operating risk and assist in making more informed decisions through data management³
 - Update GPS to RTK to enable planting and spraying with up to 1" accuracy. Incorporate VRT for planting to save on seed and ensure proper seed placement. Utilize latest technology in boom section controls for spraying to reduce overlap and save on chemicals
- › Increase energy efficiency on farm to reduce costs
 - Complete daily, monthly and yearly checks on the barns to ensure equipment is working properly⁴

LONG TERM GOALS

- › Utilize Variable Rate Technology (VRT) to reduce cost of production by up to \$21 per acre⁵
- › Leverage local, state and federal funding opportunities to implement conservation practices
 - [EQIP](#), [CSP](#), [SWOF](#) and [Climate Smart](#)
- › Identify feasibility for renewable energy
 - Biodigesters, solar panels, wind turbines, etc.
- › Evaluate options for alternative manure management programs
 - Solid separators, composting manure, digesters, covered lagoons, etc.
- › Update barn infrastructure
 - Transition to LED lighting in barns to increase energy efficiency
 - Link Variable Speed Drives (VSD) to barn fans to reduce energy consumption
 - Complete energy audit to assess potential upgrades to barns
 - Upgrade from heat lamps to heat mats for a savings of up to \$56 per year, per stall⁶

Soil Health



SHORT TERM GOALS

- › Evaluate intensity of tillage depth, implement and number of passes to enhance soil aggregation, promote biological activity, increase water holding capacity and infiltration rates⁷
 - If using deep tillage implement, like a disk-ripper, switch to more shallow equipment like a field cultivator or vertical tillage
 - If tilling in the fall, switch to spring tillage
 - Switch from disk injection to knife injection
- › Reduce compaction during manure application
 - Properly pressurize tires
 - Control traffic patterns
 - Apply when soil temperature is less than 50°F or soil moisture is below field capacity

LONG TERM GOALS

- › Increase cover crops use to increase overall soil health and reduce nitrogen and phosphorus losses⁶
 - If no cover crop
 - Experiment with cover crop following soybean harvest
 - Experiment with winterkill cover crop (i.e., oats or radishes)
 - Experiment planting cover crop in-season at V4 or V6 corn or aerial seed before corn is harvested
 - If cover crops are winterkill only
 - Experiment with overwintering crop varieties (i.e., rye or winter wheat)
 - Cover crop termination
 - Terminate cover crops with herbicides or rollers 14 days prior to planting corn or 7 days prior to soybeans for best termination results⁸

Water & Air Quality



SHORT TERM GOALS

- › Apply nutrients using best management practices to ensure proper crop uptake
 - Choose fertilizers or manure types that match crop needs for the season or time of application
 - Ensure crop needs are met by combining manure and supplemental fertilizer if necessary
 - Apply fertilizer as close to crop needs as possible while taking into consideration manure application timing
 - Use precision technology and cultural practices to apply nutrients where crops can readily uptake
 - Ensure soil tests are up to date and use latest soil testing, such as Haney soil test to confirm nutrients in the soil
- › Nutrient application of commercial fertilizer and manure
 - Soil test on semi-annual basis to better inform nutrient applications
 - If located in an area with moderate to high amounts of precipitation, evaluate the use of nitrogen inhibitors to reduce nitrogen leaching
 - Sample manure when agitated, if liquid, as close to application date as possible

- › Install water meters to track consumption

- Water meters not only save on water consumption, but can be early signs of pig health as well⁹
- A 1,000 head swine finishing facility with 25% of waterers leaking once per second adds 43,800 gallons of water to manure storage, increasing overall cost in water and manure hauling¹⁰

LONG TERM GOALS

- › Expand edge-of-field practices such as waterways, filter strips and riparian buffers
- › Implement pollinator habitat or windbreaks to improve air quality around barns¹¹
- › Test the water entering the barn to identify any potential contaminants that would reduce pig rate of gain and/or increase water waste
 - Upgrade waterers with bowls to catch water that is wasted for lower investment and reduce overall water waste¹²
 - Transition barns or install wet/dry feeders in new barns to reduce water use by 30%¹¹
 - Determine optimal flow rate¹³
 - 1-2 cups/min for weaned pigs
 - 2-4 cups/min for feeder to market hogs
 - 4 cups/min for breeding herd

¹Indiana State Department of Agriculture, Indiana State Nutrient Reduction Strategy | ²University of Illinois farmdoc daily, Quantifying the Economic Benefits of On-Farm Digital Technologies | ³Purdue University Center for Commercial Agriculture, The Value of Data/Information and the Payoff of Precision Farming | ⁴Pork Checkoff, Daily Checks for Preventative Maintenance, Improved Efficiency and Cost Savings | ⁵USDA ERS, Cost Savings from Precision Agriculture Technologies on US Corn Farms | ⁶The Pig Site, Pig Heating Pads vs. Heat Lamps | ⁷UC Davis Sustainable Agriculture Research & Education Program, Conservation Tillage | ⁸Iowa State University Extension, Edge-of-Field Practices Bolster Farming Conservation Toolkit | ⁹National Hog Farmer, Monitor Water for Health | ¹⁰Pork Checkoff, Water Consumption and Conservation Techniques Currently Available for Swine Production | ¹¹National Pork Board, We Care | ¹²The Pig Site, Water Management | ¹³Pork Information Gateway, Water Systems for Swine