2018

LIVESTOCK REPORT

Revealing the TRUTH About Illinois Livestock Farms
Executive Summary

For too long, livestock farms in Illinois have faced undue criticism by a vocal minority. For the first time ever, this report gathers facts and data from publicly available sources to reveal several truths about Illinois livestock farms.

1 ENVIRONMENTAL ISSUES ARE UNCOMMON ON ILLINOIS LIVESTOCK FARMS.
   • Livestock farmers in Illinois face multiple layers of regulation involving state and federal agencies, giving Illinois a very comprehensive, robust regulatory program.
   • Many of today’s livestock farms are classified as Concentrated Animal Feeding Operations (CAFOs) AND are family farms.
   • The number of complaints submitted to the Illinois Environmental Protection Agency (IEPA) regarding livestock farms reached an all-time low in 2017.¹
   • There are a declining number of Violation Notices being issued by IEPA to Illinois livestock farms with only 5 in 2017, the lowest number in the past 20 years.²
   • Livestock farmers are voluntarily investing in improving their environmental performance with $10 million invested in 2017 alone.³
   • Illinois’ livestock industry continues educational efforts by developing and distributing more than 6,000 resource guides since January 2017 to explain IEPA’s livestock rules.

2 ILLINOIS LIVESTOCK FARMS ARE ENVIRONMENTALLY SUSTAINABLE.
   • Manure is a valuable resource that builds soil health.
   • Illinois livestock farmers continuously improve their farms and produce more food with fewer resources.
   • University research supports farmers as they continue to innovate and find additional ways to become more environmentally sustainable.

3 LIVESTOCK FARMS ARE ECONOMIC ENGINES FOR ILLINOIS.
   • Livestock production, along with meat and dairy processing, contributes $14.1 billion annually in economic activity in Illinois and is responsible for 52,124 jobs throughout rural and urban areas of the state.⁴
   • Livestock farmers invest in Illinois’ rural communities. An estimated $68 million was invested in construction costs for new or expanding livestock farms in 2017 alone.⁵
   • Livestock creates demand for Illinois’ top two commodities – corn and soybeans – consuming an estimated 112 million bushels⁶ and 36 million bushels⁷ respectively.
   • Several Illinois-based companies have grown and added jobs due to livestock.

4 LIVESTOCK FARMS CREATE OPPORTUNITIES TO BRING THE NEXT GENERATION BACK TO ILLINOIS’ RURAL COMMUNITIES.
   • Opportunities exist for all types of livestock production, and Illinois is well positioned to take advantage of the growing worldwide demand for food.
   • Livestock creates opportunities for young people to return to or stay on their family farm.
   • Illinois continues to lose population. We need to support livestock farms that are actually keeping young people in rural communities.
NOW IS THE TIME to STAND UP and SUPPORT a THRIVING livestock INDUSTRY for the FUTURE OF ILLINOIS’ environment, economy, family farms and rural communities.

FOR MORE INFORMATION, PLEASE VISIT WWW.ILFB.ORG/LIVESTOCKTRUTH
Introduction

Livestock farms provide many benefits. Far too often, these positives are overshadowed by misconceptions and misinformation from a few, vocal opponents. Now is the time to stand up and be vocal in support of Illinois livestock farms and promote the TRUTH that too often goes untold.

This report reveals four main TRUTHS about Illinois’ livestock farms and the farmers who provide daily care for their animals, the environment and the communities in which they live.

TRUTH #1: Environmental Issues are Uncommon on Illinois Livestock Farms

TRUTH #2: Illinois Livestock Farms are Environmentally Sustainable

TRUTH #3: Livestock Farms are Economic Engines for Illinois

TRUTH #4: Livestock Farms Create Opportunities to Bring the Next Generation Back to Illinois’ Rural Communities

Data from this report includes publicly available information that has been compiled for the first time into one location by the Illinois Beef Association (IBA), Illinois Farm Bureau (IFB), Illinois Milk Producers’ Association (IMPA) and the Illinois Pork Producers Association (IPPA.)

The term “livestock” is used to describe domestic animals raised for food and products. Illinois is home to several types of livestock; however, when the term “livestock” is mentioned in this report, it refers to Illinois’ top three species - beef cattle, swine and dairy cattle.
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Truth #1

Environmental Issues are Uncommon on Illinois Livestock Farms

In Illinois, the combination of existing, robust regulations, ongoing industry educational efforts and farmer investment have significantly improved the environmental performance of today’s livestock farmers over the past several decades. Due to these factors, there are minimal environmental issues that occur on livestock farms throughout the state.

ILLINOIS LIVESTOCK FARMS MUST COMPLY WITH SEVERAL REGULATIONS THAT PROTECT THE ENVIRONMENT AND CITIZENS

Livestock farmers have multiple layers of regulations with which to comply in Illinois. Multiple agencies, at both the federal and state level, govern livestock production, giving Illinois a comprehensive regulatory program.

The majority of the regulation of livestock farms in Illinois occurs at the state level.

- **ILLINOIS DEPARTMENT OF AGRICULTURE (IDOA)** governs the siting, design and construction of new and expanding livestock farms through the Livestock Management Facilities Act (LMFA).

- **ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA)** administers the United States Environmental Protection Agency’s (USEPA) livestock program under the Clean Water Act (CWA), and also has authority to administer and enforce the Illinois Environmental Protection Act.

- **ILLINOIS DEPARTMENT OF NATURAL RESOURCES (IDNR)** addresses any issues related to impacted wildlife and aquatic life.

- **ILLINOIS DEPARTMENT OF PUBLIC HEALTH (IDPH)** permits and inspects dairy farms in Illinois to ensure milk is produced from healthy cows that are raised in a healthy environment.

- **ILLINOIS ATTORNEY GENERAL’S OFFICE (AGO)** has independent authority with regard to any livestock related pollution and can enforce against livestock farmers through the Illinois Pollution Control Board (IPCB) or in circuit court.

On the federal level:

- **UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA)** is an active participant in IEPA’s program, and can also address issues and inspect livestock farms.

- **UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) - NATURAL RESOURCES CONSERVATION SERVICE (NRCS)** is a federal agency that has standards farmers must follow for voluntary, incentive-based conservation practices, which address manure management.

All of these agencies work together, via regular communication and established processes to protect the environment.
IDAID GOVERN SITING, DESIGN AND CONSTRUCTION OF NEW OR EXPANDING LIVESTOCK FARMS

In 1996, Illinois was one of the first states in the Midwest to pass legislation related to building livestock farms. The LMFA governs siting, construction and certain operating aspects of livestock farms in the state. It ensures that livestock farms are sited based on scientific, objective criteria, and that the rules are applied uniformly throughout the state. The LMFA provides a balanced approach that both protects the environment and allows farmers the ability to continue to raise livestock on their farms.

All new or expanded livestock farms in Illinois are regulated under the LMFA. The LMFA governs livestock farms and manure handling systems, requires certification and education of livestock producers and sets construction standards for buildings and manure storage structures.

Eight siting criteria must be met before a new farm can be built or an existing farm can be significantly expanded. The criteria addresses manure management, environmental protection, compatibility with the character of the surrounding area, odor control, traffic patterns and consistency with community growth and economic development. It is important to note that nothing in the LMFA impacts the applicability of environmental regulations.

In addition, farmers must be certified in manure management and must renew their certification every three years. Farms designed for 1,000 or more animal units must develop a manure management plan and certify to IDOA that they have one. Animal units are defined in the LMFA based on species. Farms with 5,000 or more animal units must submit manure plans to IDOA for approval.
A Notice of Intent to Construct (NOITC) form must be filed with IDOA for any new farm or planned significant expansion. The NOITC provides information to IDOA about the project location, size, type and compliance with setback provisions. Farm owners planning to construct or expand must notify all landowners within the applicable setback distance, typically one-half mile.

Under the LMFA, county government boards or a group of 75 residents may request a public informational meeting on proposed farms greater than 1,000 animal units. During the meeting, the operators of the planned farm must address the LMFA siting criteria. The county government board has the right to make a non-binding recommendation on the project to IDOA.

IDOA thoroughly reviews the information submitted by the proposed farm and collected at public informational meetings to ensure compliance with the LMFA. It is important to note that, by the time farmers submit a NOITC to IDOA, they have gone through months of planning and already invested several thousands of dollars in engineering costs. In addition, not all farms are approved for construction by IDOA. Since 1997, 19 of all NOITCs filed were not approved by IDOA. Between 1997 and 2017, IDOA received and evaluated 2,286 NOITCs for proposed new or expanding livestock farms. (See fig. 1.) The overwhelming majority of these were not controversial. Many counties that have the opportunity to hold a public informational meeting often do not hold one due to the absence of concern by neighbors and community members. According to IDOA data, 168 livestock projects qualified for a public informational meeting, but only 62 meetings were requested between 1997 and 2016. (See fig. 2.) The county government boards did not oppose 65 percent of the farms that had informational meetings.
IEPA REGULATES OPERATION OF ALL LIVESTOCK FARMS

All livestock farms in Illinois must comply with IEPA’s rules that require operation of the farm in a manner that does not cause air or water pollution. In August 2014, IEPA’s livestock rules were strengthened to meet federal requirements under the CWA. IEPA’s regulatory program focuses on location and protection of farms and manure handling facilities, handling and storage of manure, field application of manure, agency inspections, and federally enforceable permits.

USEPA has delegated its authority to IEPA as it relates to the regulation of livestock, but USEPA remains actively involved in the program. USEPA can also conduct on-site inspections and address environmental issues occurring at livestock farms on its own.

THE OVERWHELMING MAJORITY OF ILLINOIS’ LIVESTOCK FARMS OPERATE YEAR-ROUND WITHOUT ENVIRONMENTAL IMPACT

According to IEPA data, the number of environmental complaints submitted to IEPA regarding livestock farms is currently at an all-time low. From 1986 to 2017, the highest number of total complaints received by IEPA was in 1996 with 259, and the lowest number of total complaints was in 2017 with 24.11 (See fig. 3.) During this 32-year time frame, there is a trend showing a declining number of complaints submitted to IEPA regarding livestock farms.

The number of complaints is a valid measure of environmental performance since a complaint can be submitted to IEPA by any citizen for any type and size of livestock farm and requires IEPA follow up. It is also easier to file a complaint now than ever before.

99.9 PERCENT OF ILLINOIS LIVESTOCK FARMS DID NOT RECEIVE ANY WATER POLLUTION OR ODOR COMPLAINTS IN 2017.12 THIS DATA PROVES THAT ENVIRONMENTAL PROBLEMS ARE AN EXTREMELY RARE OCCURRENCE AND CURRENT ENVIRONMENTAL REGULATIONS ARE WORKING.

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**fig. 3**

Total Livestock Related Complaints to IEPA
(includes water pollution and odor complaints)

![Graph showing the number of livestock-related complaints to IEPA from 1986 to 2017](image-url)

Livestock farmers utilize Best Management Practices (BMPs) and new technologies to minimize odors from livestock farms and manure application, including feed additives, pit enzymes, tree buffers and the incorporation of manure during land application for the purpose of fertilizing crops.

While the total number of complaints submitted to IEPA continue to decrease, the number of unsubstantiated odor complaints (those proven to be invalid by further IEPA review) has been increasing.

In 1986, 9.7 percent of the odor complaints submitted to IEPA were unsubstantiated compared to 2011, most current year of data available, when 50 percent of the odor complaints received by IEPA were found to be unsubstantiated after follow up by the IEPA.  
(See fig. 4.)

Like the declining trend of complaints submitted to IEPA, IEPA data also demonstrates that there are a declining number of Violation Notices being issued to Illinois livestock farms by IEPA.  (See fig. 5.)
In 1998, there were 38 livestock farms which received Violation Notices. That number dropped by 86 percent in 2017, when there were only five livestock farms in the entire state that received Violation Notices. This was the lowest number of Violation Notices issued to livestock farms in the last 20 years.

ILLINOIS LIVESTOCK INDUSTRY EDUCATIONAL EFFORTS CONTINUE

When IEPA’s revised livestock rules became effective in August 2014, IBA, IFB, IMPA and IPPA jointly implemented an ongoing educational campaign for Illinois livestock farmers to explain IEPA’s regulations.

Starting in the fall of 2014, the group conducted meetings around the state and webinars that reached more than 1,100 farmers and educated them about the newly updated IEPA livestock rules. The group also collected questions from farmers and stakeholders and submitted them to IEPA for further clarification.

In 2017, the effort continued and resource guides were developed for swine, beef and dairy farms to serve as a “first-step” for a farmer to understand how the IEPA livestock rules apply to their farm and how to ensure compliance. The free resource guides use real-world examples and highlight BMPs. From January 2017 to present, more than 6,000 of the resource guides have been distributed to farmers at meetings and events.

In addition to the resource guides, many other efforts are currently in place including manure-hauler workshops and compliance support. The Illinois livestock industry is committed to continuing and expanding its educational efforts into the future.

ILLINOIS SURFACE WATER QUALITY IS IMPROVING

According to IEPA’s 2016 Illinois Integrated Water Quality Report and Section 303(d) List, surface water quality in Illinois is improving. Continuous environmental improvement at Illinois’ livestock farms has contributed to this trend. The number of assessed stream miles reported in good condition has improved from 34.7 percent in 1972 to 57.8 percent in 2016, while during that same period, the stream miles reported in poor condition declined from 11.3 percent to 4.9 percent. The lake acreage assessed in good condition for aquatic life use has also improved from 17.8 percent in 1972 to 90.0 percent in 2016. During the same time period, the lake acreage assessed in poor condition has declined from 27.8 percent in 1972 to 0 percent in 2016.

THE TERM “CAFO” IS NOT A BAD FOUR-LETTER WORD

The term CAFO is often used to paint a negative image of today’s modern livestock farms. In reality, CAFO IS NOTHING MORE THAN A REGULATORY TERM. USEPA uses the acronym CAFO to refer to CONCENTRATED ANIMAL FEEDING OPERATIONS, a definition that is complicated and based on several elements including species, number of animals on-site, housing, and whether there is a discharge to certain waters. There is often a misperception that a farm is either a CAFO or a family farm, when in reality many are both.
IDNR HAS AUTHORITY TO PROTECT WILDLIFE AND AQUATIC LIFE

In addition to IEPA efforts to regulate water quality, IDNR is also involved when water quality negatively affects wildlife and aquatic life.

According to IDNR Division of Fisheries data, between 2003-2017, the total miles of waterways affected by “pollution-caused fish kills” was 752 miles. During this same time frame, “agriculture” affected 169 total miles of waterways, which amounts to only 22 percent of the total miles affected. (See fig. 6.) For comparison, sources identified as “Industrial” affected the largest number of miles with 392 miles. It must be noted that, IDNR did not have specific data on livestock related fish kills, but rather listed agriculture as a whole.

ILLINOIS LIVESTOCK FARMERS ARE VOLUNTARILY INVESTING IN THEIR OWN ENVIRONMENTAL PERFORMANCE

The NRCS Environmental Quality Incentives Program (EQIP) assists farmers in addressing natural resource concerns on their farms by working to develop a conservation plan that meets their goals and vision for the land. This becomes a road map for the farmer and helps them decide which conservation practices best meet their needs. Farmers can apply for financial assistance from EQIP. Applications are ranked based on national, state, and local conservation priorities. The financial assistance covers part of the costs for implementing conservation practices. The farmer must provide the remaining funds, which is typically 25 percent to 50 percent of the total project cost.

TOTAL EQIP FUNDING ALLOCATED BY ILLINOIS NRCS

fig. 6: IDNR, Division of Fisheries, Miles of Water Affected by Pollution-Caused Fish Kills (2003-2017).

fig. 7: Illinois NRCS EQIP data (FY2013-FY2017).
According to NRCS data, between 2013 to 2017, Illinois allocated between $10 to $13 million to farmers every year. (See fig. 7.) Adding in the cost-share that farmers invested increases the amount of total investment in environmental improvement projects to approximately $12.5 to $16 million per year. In Fiscal Year (FY) 2017, 59 percent of the total EQIP funds in Illinois were spent on livestock-related projects. This amounted to a total of approximately $10 million invested: $7.8 million of EQIP funds, plus $2 million of farmers’ cost share. Types of projects funded were new manure storage facilities, roofs and covers for feedlots, and facilities to manage animal mortalities. (See fig. 8.) In addition, more than $86,000 was invested to help farmers develop Comprehensive Nutrient Management Plans (CNMPs).

**REAL WORLD**

“We were scrutinized by IDOA during the construction process and had to meet stringent NRCS engineering requirements for the new barns. This ensured that we met high environmental standards, and built better barns for the cows and the people caring for them. The barns will allow us to better utilize the nutrients in the manure as fertilizer for our crops. It’s a very sustainable and environmentally friendly system.”  – Rick Dean

**STATE OF THE ART BARNs FOCUS ON COW COMFORT AND ENVIRONMENTAL SUSTAINABILITY**

**DEAN FAMILY – LEROY, ILL.**

The Dean family has a long history as a successful family business for more than 100 years. Rick and Barb and their son, Derek, along with Randy and Chris and their son, Brack, are partners in Dean Bacon & Beef, raising corn, soybeans, hay, pigs and cattle. In 2015, the Deans built a new state-of-the-art barn, and utilized EQIP funding to decrease their environmental impact.
Truth #2

Illinois Livestock Farms are Environmentally Sustainable

LIVESTOCK FARMS ARE PART OF AN ENVIRONMENTSAL SUSTAINABLE SYSTEM

Sustainability is a term that is used in today’s society by many different groups. Sustainability, as it relates to livestock production, is not just a buzz word, but rather a way of life and doing business for today’s livestock farmers.

LIVESTOCK MANURE IS A VALUABLE RESOURCE

One of the beneficial by-products of livestock production is manure, which has been used as a fertilizer source for thousands of years. Over the decades, farmers have become more efficient and sophisticated in their collection and containment of manure. Modern livestock farms are designed and operated to have zero discharge of manure into the environment.

In Illinois, lagoons continue to be phased out as a common manure storage practice, with the majority of livestock farms now using concrete pits under roofs or storage tanks designed by professional engineers and built according to government-approved construction standards. (See fig. 9.)

Manure is contained and collected until it is applied as an organic fertilizer at rates based on the nutrient needs of the crops. Liquid manure is often injected 6-8 inches into the soil to prevent runoff, minimize odor and place nutrients in the root zone of the crops.

Livestock manure reduces the amount of commercial fertilizer farmers apply to their crops, saving them money and increasing their profitability. Farmers utilize manure management plans to balance the nutrients in the manure with the nutrient needs of the crop and the current nutrients in the soil providing a very sustainable system.

REAL WORLD

“We have utilized manure from our beef farm to improve the health of our soils and increase our crop production. There’s no better complete fertilizer source available.”

– Lynn Martz, beef producer in DeKalb County

sustainability  suh-stey-nuh-bil-i-tee/ n.
meeting the needs of the present without compromising the ability of future generations to meet their own needs. – United Nations
IEPA Inspected Livestock Farms Utilizing Lagoons & Holding Ponds 1997-2011

A farmer injects manure into the soil as a vital nutrient source for crop production.

Fig. 9: IEPA, Livestock Facility Investigation Reports (1986-2017) *No data available 2012-2017.

New concrete manure pit.
Source: Maurer-Stutz, Inc.
Livestock manure supplies crop nutrients and builds soil health

Manure supplies a crop with Nitrogen (N), Phosphorus (P), and Potassium (K). In addition, manure improves soil quality and builds soil health by increasing: water holding capacity, organic matter, and micro-nutrients such as calcium, magnesium, sulfur, zinc, iron, manganese, and copper.18 With those characteristics, manure is an ideal material for soils with low to moderate soil fertility.

The impact of manure on soil health characteristics has been studied by many different groups. One such group, the Soil Health Nexus, was initiated in 2015 with funding from the North Central Region Water Network. Representatives from 12 land-grant universities, including the University of Illinois Extension, Sustainable Agriculture Research & Education (SARE), InterTribal Ag Council, National Soil Health Partnership, and NRCS, are working together to increase access to soil health-related research and educational programs.

As part of this effort, a study titled “Manure Land Application and Soil Health Indicators” was initiated to correlate important soil health variables and land application of manure. The collaborating team included agricultural engineers, soil scientists, and personnel from the University of Missouri Soil Health Assessment Center. The team assembled and analyzed data of soil health related variables and manure land application details collected under the Missouri Cover Crop Cost-Share Program. The study compared field plots that received full commercial fertilizer, no fertilizer, and manure application.

The results found that the manure application resulted in higher soil organic carbon, active carbon, Phosphorus, and water stable aggregate, and lowered the soil bulk density.19 These findings confirm that the benefits of manure application, in adding soil organic materials and improving soil aggregate stability, can easily be seen from fields that were consistently treated with manure. The findings regarding manure use and soil health indicators are important for managing the soil and for increasing food production on a limited land base.

Manure also reduces erosion potential. When manure is applied to fields at appropriate agronomic rates, it will also act like field residue and reduce the risk of soil erosion occurring in that field.20

Compared with 50 years ago, farmers are using less land & water to produce pork & they are doing it with a smaller carbon footprint per unit basis, such as pound of pork produced.


2% Energy use
10% Impacts on water
2% Resource consumption
7% Impacts on soil
3% Water use
32% Occupational illness & accidents

Source: Beef Industry Sustainability Lifecycle Assessment (The Beef Checkoff).

MIDWEST DAIRY FARMERS ARE COMMITTED TO SUSTAINABILITY

OUR PROGRESS
In the last 60 years, the dairy industry has increased milk yield 4X while

cropland use 90% decreased
manure production 76%
water use 65%
carbon emissions 63%

OUR IMPACT
Cows in Midwest Dairy states produce enough milk to supply the needs of all residents, as well as another 18 million people.

85,000 TONS of vegetables could be fertilized from the nutrients from the manure produced by dairy cows in the Midwest

Source: U.S. Census Bureau. State & County Quickfacts (2010); U.S. Dairy Sustainability Report (2013); MIDWESTDAIRY.COM
RESEARCH EFFORTS IN ILLINOIS ARE HELPING LIVESTOCK FARMERS FIND INNOVATIVE WAYS TO CONTINUALLY IMPROVE THEIR FARMS

Farmers look to scientific research in order to learn new ways of producing food using fewer resources. The University of Illinois (U of I) is the state’s land grant institution and is a leading research university. U of I, along with other Illinois universities, provides important information to farmers. Here are some highlights of current research efforts.

**DR. PHIL CARDOSO**, Assistant Professor, Animal Sciences, at the University of Illinois, is transforming the way that Illinois dairy farmers access scientific research. Dr. Cardoso has initiated a Dairy Focus Team of graduate and undergraduate students that focus on nutrition, reproduction, young stock and management. The team visits dairy farms to collect information and then offers recommendations on ways farmers can improve their farms. Cardoso also utilizes the information collected from the farms to determine what types of research need to be conducted.

**DR. JOSH MCCANN**, Assistant Professor, Animal Sciences, at the University of Illinois, has studied ways to improve raising beef cattle. His research of beef cattle feedlots has found that the use of feed additive technology called beta-agonists can reduce nitrogen excretion by 13 percent, while actually increasing meat output. By converting dietary protein into more meat and reducing manure nitrogen, beef feedlots are becoming more sustainable and profitable. Improvements in efficiency also normally improve sustainability by more judicious use of inputs.

**DR. MIKE ELLIS**, Professor, Animal Sciences, at the University of Illinois, performs fundamental studies carried out in specialist university facilities and applied studies carried out on existing farms in collaboration with pork producers within the state. A major focus of this research is on improving the efficiency of swine production, which both reduces production costs and also minimizes nutrient output in manure. Nutrition research aims to optimize the balance between the supply of nutrients in the diet fed to the pig with the animal’s requirements for nutrients. Research in this area has resulted in an improved understanding of the nutritional properties of corn, soybean meal, and corn co-products, such as distillers dried grains with solubles (DDGS) and corn germ meal, that are the major feed ingredients used for pigs in Illinois. A substantial amount of research has focused on the use of in-feed enzymes, such as phytase, which increases the availability of phosphorus in swine diets thereby greatly reducing phosphorus levels in manure. This ultimately has led to a reduction in the amount of phosphorus applied to soils in Illinois.

In addition, research on processing of swine feeds, particularly the use of pelleting, has produced major improvements in feed efficiency. These improvements reduce the total amount of feed needed to produce a pig, which reduces the nutrient output in manure.
PARKS LIVESTOCKS’ USE OF SOLAR PANELS ON HOG BARNs IN VERMILION COUNTY

Parks Livestock chose to install a solar array at a hog finishing barn built in 2017 in Vermilion County. Electricity is very important in keeping pigs healthy and comfortable. It powers lights, augers that bring feed to the pigs, and fans that keep the air fresh and at temperatures the pigs prefer. The Parks’ solar array includes 480 solar modules (panels) on one south-facing barn roof. The 170-kilowatt solar array is forecast to generate approximately 100 percent of the anticipated 237,000-kilowatt hours of electricity used by the new barns.

Over the course of one year, the electricity produced by the Parks’ solar array is expected to prevent 176 metric tons of carbon dioxide emissions. This is equivalent to:

• The amount of carbon sequestered by 208 acres of forests in one year.
• Replacing the burning of 192,975 lbs. of coal per year.
• Taking 37.8 cars off the road each year.
• Switching 5,903 incandescent lamps to LED’s.

In addition to the environmental benefits, installation of the solar array is also an economically beneficial decision as it will save the farm on electricity costs. By lowering operating expenses, Parks Livestock can boost their bottom line and use the cost savings to re-invest in other aspects of their farms. Another key benefit is the protection a solar array provides from the risk of increasing electricity prices during the next 30 to 40 years that their solar system will be in operation. This safety will help preserve the long-term viability of the family farm.
Over the course of one year, the electricity produced by the Parks’ solar array is expected to **PREVENT 176 METRIC TONS** of carbon dioxide emissions.
Livestock Farms are Economic Engines for Illinois

LIVESTOCK FARMS ARE GOOD FOR THE STATE AND LOCAL ECONOMIES OF ILLINOIS

Agriculture is one of Illinois’ largest industries. Livestock adds value to existing agriculture in our local communities and provides significant income and jobs in Illinois. The livestock industry, which includes raising livestock, processing meat and dairy, and producing animal feed, is an economic engine for Illinois. The dollars generated from livestock production ripple through the state’s economy. For every $100 of output created by livestock in Illinois, an additional $80 of economic activity is created outside the industry. These dollars support local taxing bodies, such as roads, schools, fire districts, community colleges and county government.

LIVESTOCK HAS BEEN A BEACON OF LIGHT FOR AN OTHERWISE BLEAK STATE ECONOMY AND HAS INVESTED MILLIONS OF DOLLARS IN ILLINOIS’ LOCAL COMMUNITIES. For example, in 2017, there were 89 swine farms that submitted a NOITC to IDOA. These farms planned to invest an estimated $56 million in new construction, which includes building materials such as lumber, metal, concrete, and equipment such as feeders and gates. By adding in the NOITCs for 17 beef farms, 14 dairy farms and 3 poultry/turkey farms received by IDOA in 2017, an estimated $68 million was planned to be invested in construction costs for new or expanding livestock farms in 2017 alone.

The success of Illinois livestock has a large impact on the state and local economies. For example, in 2014 alone, livestock contributed the following to the Illinois economy:

- $1.2 billion in earnings
- $300.7 million in income taxes paid at local, state, and federal levels
- $321.3 million in the form of property taxes

From 2004 to 2014, livestock in Illinois increased economic output by more than $1.4 billion, boosted household earnings by $255.8 million, contributed 6,059 additional jobs and paid $64.8 million in additional tax revenues.

LIVESTOCK PRODUCTION, ALONG WITH MEAT AND DAIRY PROCESSING, CONTRIBUTES $14.1 BILLION ANNUALLY IN ECONOMIC ACTIVITY IN ILLINOIS AND IS RESPONSIBLE FOR 52,124 JOBS THROUGHOUT RURAL AND URBAN AREAS OF THE STATE.

Pike County is a great example of how growth of pork production has been positive for the local economy and has been able to coexist with neighbors and communities. According to data from the Pike County Economic Development Corporation from 2004 to 2012, tourism increased by 34 percent at the same time hog numbers increased by 101 percent.
A GROWING LIVESTOCK INDUSTRY MEANS A GROWING ILLINOIS ECONOMY

A growing livestock industry is good for Illinois and supports many sectors of the economy. Those that benefit from a growing livestock industry include:

LIVESTOCK FARMERS:
A strong livestock industry gives Illinois farmers a greater competitive edge through efficiencies in technology, transportation, marketing, and more. This growing ag sector attracts livestock-related industries and companies, which further strengthens Illinois’ position in the global marketplace.

GRAIN FARMERS:
Livestock creates demand for Illinois’ top two commodities – soybeans and corn.

Livestock is the #1 customer of Illinois soybeans. In 2014, Illinois livestock consumed an estimated 875.7 thousand tons of soybean meal, which is the equivalent to more than 36.8 million bushels of soybeans.28

Livestock is also one of the strongest domestic markets for Illinois corn. For the 2017-2018 crop year, the state’s livestock consumed an estimated 112 million bushels of Illinois corn and 845,000 tons of DDGS.32

It is in the best interest of grain farmers to keep their best customers as neighbors. A thriving livestock industry boosts profit potential for Illinois grain farmers who benefit from: higher demand for Illinois corn and soybeans, more local customers, and lower transportation costs.

ILLINOIS RESIDENTS:
Our nation’s food security depends on domestic production. Food produced on Illinois livestock farms will benefit consumers in Illinois, the United States and around the world.

In 2017, there were 89 hog barns that filed a NOITC with IDOA to build a new barn. These barns have the capacity to raise enough pigs to produce more than 31.7 million pork chops AND more than 450 million slices of bacon on an annual basis.33

CURRENT ILLINOIS LIVESTOCK FARMS
- Illinois ranks 4th in the U.S. in pork production, producing 1.9 billion pounds of pork each year.29
- In Illinois, about 23 percent of farms raise beef cows - 12,646 farms with a total of nearly 344,000 cattle.30
- There are approximately 650 dairy farms in Illinois with 94,000 dairy cows producing nearly 2 billion pounds of milk each year.31
“Livestock has been a mainstay in our family for seven generations and the future of our family business depends on the continued success of livestock. We’re always looking for new ways to add value to our business and expand our line of products.” – Amy Marcoot

MARCOOT JERSEY CREAMERY – GREENVILLE, ILL.

Seven generations of the Marcoot family, in Greenville, have milked Jersey dairy cattle since 1842, when the family came to America from Switzerland. The seventh generation – sisters Amy and Beth – have transitioned the dairy farm into a successful artisan cheese business.

The family milks 65 head of Jersey cows. They utilize all of the milk from the farm for the family business, Marcoot Jersey Creamery. The creamery, which opened in 2010, produces 23 different cheeses in a manufacturing facility and ages the cheeses in an underground aging cave.

The family business delivers to as many as 170 restaurants and grocery stores in Missouri and Illinois. More than 35,000 visitors tour the farm and creamery on a yearly basis.
Here are stories of companies that are finding success due to the presence of livestock in Illinois.

**Automated Production (AP) – Taylorville, Ill.**

Automated Production Systems (AP) is a world leader in the production of livestock equipment.

AP takes pride in offering swine farmers a full-line of proven, reliable and efficient solutions for their swine farms. The Taylorville, Illinois facility produces feed delivery systems, feeders, fans and watering systems.

AP is one of AGCO’s Grain and Protein brands, which also include Cimbria seed processing solutions, Cumberland poultry solutions and GSI grain systems, whose North American Headquarters are in Assumption, Ill.

The Taylorville plant, which opened in 2007, employs more than 200 people and annually ships more than $100 million worth of livestock equipment. In 2017, AP completed an $8 million expansion to the plant, including a 40,000 square foot building, which houses five new state of the art plastic extrusion lines.

**Farmweld – Teutopolis, Ill.**

Farmweld manufactures swine equipment, including feeders, waterers, gates and flooring. Being a growing Illinois company since 1979, they have many great producer and builder relationships in Illinois, the Midwest and the United States. Farmweld currently employs 50 people in positions ranging from sales and marketing, to engineers, welders and general laborers.

Innovation is, and always has been, at the forefront of every business decision Farmweld makes. Three years ago, they added a powder coat line to improve quality and delivery times for their customers, as well as reduce labor. Already in 2018, they have added a state-of-the-art fiber laser for cutting material to bring more outsourced labor back into Illinois, while also adding more creative flexibility with their products and speeding up lead times for their customers.

Because of the pork industry growth, they have been able to give back. In 2017 alone, they provided 35 donations to organizations, benefits and people in need in Illinois. One such example is Farmweld’s donation of 1,000 pounds of pork to the Central Illinois Food Bank as part of IPPA Pork Power Program. That program, which is in its tenth year, has donated more than 625,000 pounds of pork to Illinois food banks.

“A growing livestock industry means Farmweld can continue to expand and provide more Illinois jobs. Farmweld’s ripple effect can be felt by more than twenty other Illinois companies, which supply materials such as hardware, parts, pallets, steel, stainless, marketing materials and more. In addition, Farmweld utilizes local owner operator trucking for the majority of loads, and the builders who install Farmweld equipment also employ a workforce.”

– Frank Brummer, President of Farmweld
Truth #4

Livestock Farms Create Opportunities to Bring the Next Generation Back to Illinois’ Rural Communities

OPPORTUNITIES EXIST FOR ALL TYPES OF LIVESTOCK PRODUCTION

Livestock production can provide opportunities for a variety of farms with different levels of investment and labor needs. These can include:

- **Niche production**
  locally grown, farm direct markets

- **Genetics**
  purebred breeders, animals for livestock shows

- **Commercial production**
  for domestic or export market

There is an opportunity for future livestock growth because of increased demand for food due to increasing world population and greater number of middle class people demanding more protein in their diets.

Livestock will need to be produced to meet this growing demand. Illinois is positioned to take advantage of this demand due to several factors:

- **ADEQUATE LAND BASE**
  Illinois is fortunate to be comprised of adequate space for livestock and communities to co-exist and enough land to utilize the manure for crop production.

- **ACCESS TO PLENTIFUL FEED SUPPLY**
  Illinois is number one in the nation in soybean production and number two in corn production. Soybean meal and corn are two main ingredients in livestock feed.

- **SUPPORTING INFRASTRUCTURE**
  Illinois has several meat processors in our state and several in nearby states, as well as a vibrant allied industry to support livestock production. Illinois also is centrally located with access to major Midwest consumer markets.

- **QUALIFIED & CARING PEOPLE**
  Illinois is blessed with many talented and compassionate farm families that have been raising livestock for many generations.
It is well known that Illinois is experiencing a population exodus. Based on United States Census Bureau data from July 1, 2016, to July 1, 2017, Illinois lost about 33,700 residents, dropping the total population to 12,802,023, the greatest numeric population loss of any state. This is the fourth year in a row that Illinois’ population has decreased.\(^3\)

One reason people are leaving Illinois is for employment opportunities. Livestock farmers are doing something to benefit Illinois by making a concerted effort to keep young people in our rural communities.

Rural communities benefit with young farmers actively involved in local schools, churches, organizations, local governments and more. They are the future leaders who will help address the many challenges being faced by Illinois’ rural areas.

Creating an opportunity for the next generation to take over a business that has been in the family for generations is a dream of many Americans. Many farmers would like to pass their farms on to the next generation and see their family legacy continue. However, it is extremely difficult for a young person to get started in farming due to the large amount of capital needed, tight profit margins and the competitive nature of buying or renting farmland.

Livestock helps diversify farms and creates opportunities for sons and daughters to return to the family farm.
LIVESTOCK HELPS YOUNG COUPLE SUSTAIN FAMILY FARM ON SMALLER ACREAGE

BRENT AND CARRIE POLLARD – ROCKFORD, ILL.

After growing up on his family dairy farm, Brent Pollard attended the University of Illinois for undergraduate studies in Animal Sciences and University of Arizona for graduate school where he studied Dairy Physiology. He then worked as a research scientist, before returning to the family farm and taking over when his parents retired.

Brent and his wife, Carrie, have two daughters, ages 5 and 2, and operate a 90 cow, 300-acre farm of primarily Black and White Holsteins, with the remainder being Red and White Holsteins and dairy Shorthorns. They grow corn, corn silage, soybeans, wheat, and alfalfa. Cows are housed in a three row, free stall barn with foam and water filled mattresses and milked in a single 12 parallel parlor.

“Our farm borders Illinois’ third largest city, so we are limited on the amount of land that is available to farm. Livestock has allowed our family to continue to farm on a smaller amount of acreage and provided the ultimate value-added opportunity of growing crops to feed to our cows, which in turn produces a wholesome, nutritious supply of milk.”

– Brent Pollard

LIVESTOCK HELPS CREATE FIRST GENERATION FARMER

JACOB SCHMIDT – CAMP POINT, ILL.

Jacob Schmidt did not grow up on a farm, but that did not stop him from pursuing and realizing his dream of being a farmer. With the help of family and neighbors, Jacob slowly worked his way into farming full-time.

Jacob developed an interest in cattle, started renting pasture right out of high school, and continued renting more pasture while attending Western Illinois University (WIU). He was fortunate to have help from his neighbor, Brent Obert. Jacob worked on Brent’s cattle operation in exchange for the use of machinery. After graduating from WIU, Jacob started renting row crop land.

Jacob and his wife, Alicia, have two daughters and farm 1,200 acres of corn and soybeans and raise cattle in Adams County. They partner with Brent Obert in the cattle operation. Jacob also owns and operates Schmidt Agri-Consulting that specializes in soil sampling.

In 2017, Jacob built a 250 head, bed-pack hoop barn to use for calving, backgrounding and finishing cattle.

“There’s no doubt that I would not be where I am today without livestock. Cattle have helped me become a first-generation farmer and now provide an opportunity for my children to be involved in agriculture.”

– Jacob Schmidt
TECHNOLOGY HELPS NEXT GENERATION SUSTAIN FAMILY DAIRY FARM

JOHN LAWFER – KENT, ILL.

John Lawfer is the third generation to milk cows on his family’s farm, Willow Valley Dairy Farm, near Kent. Rather than doing the milking by hand like his grandfather did, John utilizes robots to milk the cows. This technology helped John become a partner in the farm with his dad and mom, Ron and Julie.

In 2014, the Lawfers built a fabric-covered, free-stall barn and installed three milking robots. Cows enter the milking station on their own schedule, while a neck transponder identifies each animal and tracks various health and production statistics. Robotic feed pushers also help improve feed efficiency. The Lawfer family milks about 160 cows, including Holsteins, Jerseys, Brown Swiss and Ayshire. John and his fiancé, Elise, will be married in August.

“I wanted to continue the family tradition of the dairy, but trying to find reliable, physical labor to handle the milking became a struggle. We decided to invest in robotic milkers to help with the labor needs and improve our efficiency. This technology has helped me continue the farm and has improved our milk quantity and quality. I am blessed that my parents were willing to make a significant investment in the dairy.”

– John Lawfer

LIVESTOCK HELPS FARMER RETURN TO FAMILY FARM FULL-TIME

ASHTON GRONEWOLD – CARTHAGE, ILL.

Ashton Gronewold knew that getting started in farming would not be easy, but he was determined to make it work. After receiving a degree in Engineering and working away from the farm, Ashton realized that he wanted to return to the family farm full-time. Livestock provided an opportunity to be able to grow and allow multiple families to prosper.

Ashton farms with his father, Merlin, and his brother-in-law, Evan Davidson. They grow corn, soybeans and hay, along with their 350-head cow-calf operation. In 2017, the family built a new deep-pack cow-calf monoslope barn.

“Our family has raised cattle for many years, but the addition of the new cow-calf barn allowed us the opportunity to add 150 cows to our farm without increasing the number of acres of pasture.”

– Ashton Gronewold
There are many opportunities for young farmers to work with other farmers or companies when raising livestock.

Chad & Julia Krogman – Shannon, Ill.

Chad and Julia have been married 8 years and desired a farm lifestyle for their family where they could work together as husband and wife and build a legacy to pass on to their three sons. They both grew up on farms and have been involved in agriculture all their lives. Over the years they worked for other farms, for agricultural retail companies, hauled livestock and raised a few cattle as freezer beef for others.

In 2015, they had an opportunity to move to the Shannon community and began custom feeding with other farmers. In 2017, the Krogmans built a new 2,450 head wean to market hog barn.

“We enjoy raising and caring for livestock and the environment. As first-generation farmers, we see hog production as an opportunity to work into an agricultural realm that is very capital intense. We feel blessed to have the opportunity to pursue our goals in agriculture and desire to be good stewards of what we’ve been given.”

– Chad Krogman

Livestock helps young couple farm—full time

Caleb and Tarcie Corzine – Assumption, Ill.

Caleb and Tarcie Corzine have had many exciting changes in their lives. The addition of a new 2,400 head wean to market hog barn in September 2016 allowed Caleb, a fourth generation farmer, to farm full-time. The young couple welcomed their first child in November 2016. The new barn has allowed Tarcie to work part-time off the farm, while raising their daughter.

Caleb farms with his dad, Curt, raising corn and soybeans in Shelby County. They also operate a trucking and excavating business. Since returning to the family farm in 2009, Caleb had been looking for opportunities to expand their farm, but high land prices and volatile crop prices have made that difficult. The Corzines decided to contract with the Maschhoffs to raise small pigs to market size.

“I’ve always wanted to farm. My dad started farming right out of high school, and I wanted to follow in his footsteps. We looked at contract pork production as a way to expand and diversify our farm. Using this business model really helps a young farmer like me stay on the farm. We receive a steady income source, and it helps reduce our risk.”

– Caleb Corzine
REAL WORLD

THE MASCHHOFFS CREATE OPPORTUNITIES FOR YOUNG LIVESTOCK FARMERS

The history of the Maschhoff family farm started in the late 1930’s outside Carlyle. In 1961, Wayne and Marlene became the owners of a new 700-head finishing barn. Until that point, the Maschhoff family’s pigs were all raised outside. Wayne and Marlene’s sons, Dave and Ken, returned to the family farm in the late 1970’s after graduating from college. The family decided to focus on hog production. In 1979, they began construction on a project that boosted the sow herd from 150 to 700. They expanded further in the 1980’s and 1990’s.

The Maschhoffs decided to work with other family farmers to raise wean pigs to market weight. This has allowed the Maschhoff family to focus on sows and baby pigs and provided opportunities for other farmers to get involved in pig production. Currently, The Maschhoffs partner with about 500 independent farm partners. They have partnered with 29 young farmers in Illinois and have helped them return or stay on the family farm.

Today, The Maschhoffs is the largest family-owned hog producer network in North America, with nearly 215,000 sows along with market hog production sites in nine states. And yet, the family values remain embedded in the culture. Dave and his wife, Karen, along with Ken and his wife, Julie, are the sole owners of the company.

The Maschhoff family, as well as their 1,200 employees and farm partners, are passionate about pigs and strive every day to raise pigs in an environmentally and economically sustainable way.

YOUNG LIVESTOCK FARMERS ACCESS FINANCIAL SUPPORT

Compeer Financial is a member-owned, Farm Credit cooperative serving and supporting agriculture and rural communities throughout 144 counties in Illinois, Minnesota and Wisconsin. With $18 billion in loan and lease assets, Compeer Financial is one of the largest cooperatives in the Farm Credit System. Livestock is a significant part of their business. Compeer has more than 20,500 livestock loans with a value of more than $7.145 billion. 2,154 of their livestock loans are to farmers under the age of 35 and have a value of more than $359 million. Livestock specialists provide assistance to young farmers looking to add or expand livestock to their farms.

“We at Compeer Financial have seen contract finishing as a way to either allow young people to come back to the farm or stay on the farm. Those young farmers have limited capacity to expand on the grain side of the business through buying or renting land, so the contract finishing provides an opportunity for them to build their own farming operation with limited financial risk.”

- Mark Ray, Senior Swine Lending Specialist, Compeer Financial
Conclusion

It is time to stand up and tell the truth about today’s Illinois livestock farms and the farmers who care for their animals, their environment, their neighbors and their communities.

• Data from state regulatory agencies show the declining trend of livestock-related environmental issues proving that livestock production is a professional industry with established rules that are being followed.

• Existing regulations, such as the LMFA and IEPA livestock rules, are working. New livestock laws and regulations are not needed for problems that do not exist.

• Individual farmers and the livestock industry are investing time and resources to educate farmers to further improve environmental performance and compliance.

• Livestock has proven to be part of an environmentally sustainable system.

• Manure is a valuable, renewable resource that improves crop productivity and soil health.

• Livestock is a bright spot for rural communities and the state economy by supporting jobs and economic activity.

• Livestock creates opportunities for young people to return to the family farm and rural communities.

Supporting a thriving livestock industry is essential to the future of Illinois’ environment and economy.

Livestock supports young farmers, our rural and urban communities and the future of Illinois agriculture.
Sources

For the first time ever, this report gathers facts and data from publicly available sources to reveal several truths about Illinois livestock farms.


4 Decision Innovation Solutions, LLC, 2015 Illinois Agriculture Economic Contribution Study (Feb. 2015).

5 NOITCs submitted to IDOA for FY 2017 (89 swine farms with 86,864 animal units = 217,160 pig spaces X estimated construction cost of $260/pig space = $56,461,600; 17 beef farms with 3,897 head X estimated construction cost of $1,200/head = $4,676,400; 14 dairy farms with 1,129 head X estimated construction cost of $5,500/head = 6,209,500; 3 poultry/turkey farms with 414.5 animal units X estimated construction cost of $2,200/animal unit = $911,900 = estimated total construction cost of new livestock farms of $68,259,400)


7 Decision Innovation Solutions, LLC, Economic Analysis of Animal Agriculture in Illinois 2004-2014 (Sept. 2015) (875,700 tons of soybean meal consumed by Illinois animal agriculture in 2014; 875,700 tons X 2,000 pounds = 1,751,400,000 pounds of soybean meal/47.5 pounds of soybean meal per bushel of soybeans = 36,871,579 bushels of soybeans consumed by Illinois animal agriculture).

8 IDOA, LMFA Program Summary (2017) (2,286 total NOITCs received, of which 425 NOITCs expired or became inactive & farms were never constructed: 425/2286 = 18.6 percent).

9 IDOA, NOITCs, LMFA Program Summary (2017).

10 IDOA, Public Informational Meetings Conducted, LMFA Program Summary (2017).


12 IEPA, Livestock Inspection Data (2017); USDA National Agricultural Statistics Service (NASS), Census of Agriculture Illinois data (2012) (There were 24 total complaints, including water and odor related complaints, filed to IEPA for all livestock between October 1, 2016 through September 30, 2017. According to the 2012 Census data, there were a total of 35,647 farms in Illinois having even one animal present. This number includes beef and dairy cattle, swine, sheep, goats, equine, and poultry, including layers, broilers and turkeys. 24 total complaints/35,647 livestock farms = 0.07 percent of farms received complaints; 100 percent - 0.07 percent = 99.93 percent of farms not receiving complaints).


16 IDNR, Division of Fisheries, Miles of Water Affected by Pollution-Caused Fish Kills (2003-2017).

18 Hayes and Pepple, University of Illinois, Fertilizer Values Saving Money by Using Manure (2016).


20 Hayes and Pepple, University of Illinois, Fertilizer Values Saving Money by Using Manure (2016).

21 Tick Tock Energy, Inc.


23 NOITCs submitted to IDOA for FY 2017 (89 swine farms with 86,864 animal units = 217,160 pig spaces X estimated construction cost of $260/pig space = $56,461,600; 17 beef farms with 3,897 head X estimated construction cost of $1,200/head = $4,676,400; 14 dairy farms with 1,129 head X estimated construction cost of $5,500/head = $6,209,500; 3 poultry/turkey farms with 414.5 animal units X estimated construction cost of $2,200/animal unit = $911,900 = estimated total construction cost of new livestock farms of $68,259,400)


26 Decision Innovation Solutions, LLC, 2015 Illinois Agriculture Economic Contribution Study (Feb. 2015).

27 Pike County Economic Development Corporation & National Ag Statistics Service (Total hog inventory in Pike County increased 101 percent from 2004 to 2012, increasing from 119,300 head in 2004 to 240,000 head in 2012).

28 Decision Innovation Solutions, LLC, Economic Analysis of Animal Agriculture in Illinois 2004-2014 (Sept. 2015) (875,700 tons of soybean meal consumed by Illinois animal agriculture in 2014; 875,700 tons X 2,000 pounds = 1,751,400,000 pounds of soybean meal/47.5 pounds of soybean meal per bushel of soybeans = 36,871,579 bushels of soybeans consumed by Illinois animal agriculture).


30 USDA NASS (Feb. 2017).


33 NOITCs submitted to the IDOA for FY 2017 (89 swine farms with 86,864 animal units = 217,160 pigs X 2 turns per barn = 434,320 total pigs produced per year X 73 pork chops per pig = 31,705,360 pork chops per year; 434,320 total pigs produced per year X 1,036 slices of bacon per pig = 449,955,520 slices of bacon per year).
