



PORK

The pork industry is an important component of the Kansas economy, providing pork products locally, nationally and internationally. As swine production has become more specialized, and environmental impacts have played an increasingly larger role in operational decisions, the pork industry in Kansas has seen adjustments in size and location of hog operations. Growth in the pork industry can result from an increasingly concentrated supply chain, and the readily available supply of feed in Kansas assists that effort. Leaders in the pork industry in Kansas are dedicated to support of swine farmers and to advancement of the industry. Swine producers strive to minimize production costs while optimizing productivity and product quality all while reducing environmental impact and avoiding social impacts on their communities. Modern swine production has become very specialized and farm sizes have grown as economies of scale are sought.

Several challenges face the pork industry, which pose potential barriers to success in Kansas in the future. A variety of policies at the local, state and federal level can slow the growth of individual operations, and public support for hog operations

is lacking in some communities. Attracting a skilled workforce is a continual concern, as well as managing the challenges of an immigrant workforce. The lack of a large-scale processing facility raises transportation costs, and acquiring sufficient water supply is difficult in some areas of the state. The threat of foreign animal disease (FAD) entering the U.S. swine herd is real and would cause billions in losses to the industry.

Growth in the pork industry will require the collaborative effort of public and private stakeholders across the state. Investigation into expansion of the processing options would open up new opportunities for growth of existing and new operations. Additional efforts to maximize efficient water use will benefit hog operations in the short term and protect the industry's long-term future as well. Continued communication with policymakers and the public to improve understanding of the pork industry is critical. Being progressive in advancing FAD preparedness and enhancing biosecurity statewide will be crucial in keeping this industry safe. A great deal of potential exists for growth in this sector, as key leaders work together to identify strategies for future development.

STATUS

Kansas ranks 11th nationwide in hog inventory, producing about 2.7 percent of the nation's total. There are about 1,000 hog farms in Kansas. Of these operations, 150 produce over 99% of the state's pork. In 2019, Kansas producers sold 3,714,494 market hogs, feeder pigs and seedstock with a gross market value of \$494.7 million. These hogs produced more than 600 million pounds of pork which helps feed millions of people in the United States and abroad through exports (KPA Kansas Pork Stats, 2022).

The pork industry is important to the Kansas economy. Kansas pork farms consume more than 30 million bushels of grain. Primarily, these operations utilize Kansas-grown grain sorghum and corn. At January 2019 prices, the pork industry spends over \$90 million on grain sorghum and corn annually. Kansas pork farms also consume the equivalent of more than eight million bushels of soybeans through soybean products. At January 2019 prices, the pork industry spends over \$64 million on soybean products annually (KPA Kansas Pork Stats, 2022).

According to a Kansas Department of Agriculture IMPLAN economic model, the estimated direct impact of the pork industry is \$529.5 million in output and 2,722 jobs. Including indirect and induced effects, the total impact of the industry on the Kansas economy reaches \$861.6 million in output and 4,505 jobs.

Modern swine production has become very specialized and farm sizes have grown as economies of scale are sought. Environmental regulations and litigations have put pressure on some producers to relocate.

The trend toward fewer, larger and more productive hog operations will likely continue into the foreseeable future.

OPPORTUNITIES

In order to develop a strategic growth plan for the pork industry, it is important to understand the areas where Kansas has a comparative advantage and the best opportunities for growth or expansion.

Factor	Implications for Growth and Development Opportunities
Biosecurity and Foreign Animal Disease Traceability	The Kansas pork industry has been progressive in advancing biosecurity and foreign animal disease preparedness. In addition to participation in KDA-led foreign animal disease exercises, hog operations throughout the state are working with KDA to update or develop biosecurity plans through the Secure Pork Supply Plan program. As of May 2022, there are over 2.1 million head of swine across 422 sites covered by Secure Pork Supply Plans. Kansas can continue to be at the forefront of development of biosecurity plans throughout the pork supply chain. The KDA Division of Animal Health has worked with veterinarians and swine industry partners to develop protocols to address disease concerns.

Factor	Implications for Growth and Development Opportunities
Contract Production and Nutrient Utilization	<p>Contract production is believed to have aided the expansion of hog operations by facilitating the accumulation of capital necessary for operations to adopt new technologies and achieve economies of size.</p> <p>Some farmers have opted to contract grow hogs which not only allows them to diversify their operation, but also allows them access to manure to use on their crops. Manure management and the nutrient utilization capacity of crops grown on large Kansas farms fit well into the business model for Kansas farmers.</p>
Environment	<p>Although most hog production is indoors, and hogs can adapt to some degree to different thermal environments, there is a cost to production associated with housing hogs outside their comfort zones. The semi-arid climate and mild ambient temperatures make Kansas well-suited for hog production.</p> <p>Kansas is taking significant proactive steps to preserve and extend the usable life of the water supply in Kansas. In recent years, voluntary, flexible and producer-driven water conservation tools have been implemented to help farmers and livestock producers manage their water rights while continuing to raise crops and livestock. Kansas has developed a <i>Vision for the Future of Water Supply in Kansas</i> with goals and specific action items to help ensure a reliable water supply while continuing to grow the economy.</p> <p>The Kansas Pork Association has its own environmental firm, Kansas GOLD™. The Kansas GOLD™ program is designed to help pork farmers ensure they are prepared for an inspection by the state's regulatory agencies. Kansas GOLD™ also offers nutrient management planning as well as soil and manure sampling.</p>
Human Capital	<p>Kansas is home to world-renowned leaders in animal agriculture. Industry consultants, veterinarians and research leaders at Kansas State University are continually working to improve the swine industry and are looked at as leaders in their field.</p>
Policy Environment	<p>Kansas tax law allows sales tax exemption on the construction, reconstruction and remodeling of livestock facilities for projects greater than \$50,000; a sales tax exemption for farm machinery and equipment and various ag-based inputs; and reinstatement of the ability to offset capital gains from the sale of breeding livestock with schedule C, E and F ordinary income losses. These state tax code provisions make Kansas a more attractive state for growth or expansion.</p>
Public Outreach	<p>Kansas Pork Association staff work on marketing and outreach both online via social media platforms and at events around the state.</p>

Factor	Implications for Growth and Development Opportunities
Supply Chain	Rapid growth and concentration of the swine industry has been attributed to the development of supply chains more closely linking producers, packers and consumers. Kansas benefits from a readily available supply of grain and readily available transportation to get hogs to processing facilities located across state lines.
Supporting Institutional Infrastructure	<p>Kansas is recognized as one of the best exercised states in foreign animal disease response. The construction of the National Bio and Agro-Defense Facility and the existing Biosecurity Research Institute at K-State enhance the research capabilities for animal health and biosecurity for the state, U.S. and global swine industry.</p> <p>BRI became the first non-federal facility to be approved for work with African Swine Fever (ASF) virus. ASF is one of the diseases anticipated to be researched at NBAF.</p>

CHALLENGES

While Kansas is poised for major expansion in the pork sector, the following factors represent challenges serving as barriers to achieving the objective of the strategic growth plan.

Challenge	Details of Challenge
Biosecurity and Foreign Animal Disease Traceability	<p>Foreign animal diseases (FAD) entering the U.S. swine herd, such as foot-and-mouth disease, African Swine Fever (ASF), or Classical Swine Fever would cause billions in losses and cause export markets to close immediately.</p> <p>Premises ID systems are not required in Kansas. Some states are transitioning or have already transitioned to a premises ID system. A system with proper trace back and trace forward capabilities would provide timely response to minimize the economic impact in the event of an animal disease outbreak.</p>
Critical Infrastructure	<p>Swine production is often located in rural communities, many of which have an inadequate supply of affordable housing for the workforce needed to expand or grow businesses.</p> <p>Marketing hogs in parts of Kansas can be challenging. There are no large-scale processors in Kansas which means hogs must be hauled out of state. Two-lane roads can make transporting hogs challenging at times.</p>
Industry Support	At permit hearings, there is a greater voice in opposition of hog farms than in support.

Challenge	Details of Challenge
International Trade	<p>Global demand is key for pork producers' profitability. With Kansas' partnerships in U.S. Meat Export Federation and commodity groups, the state can help increase global demand for red meat. In 2021, U.S. pork exports reached a record \$8.1 billion, which equated to \$62.86 per head slaughtered. Through April, export value equated to \$59.58 per head in 2022. Kansas must work with elected officials to keep export markets open and accessible for producers.</p>
Labor Availability	<p>Growth in the swine industry will require a skilled workforce, which continues to be a significant challenge through the entire agricultural industry. Although the implementation of technology may help reduce labor needs, the education and skill sets needed to operate technically advanced facilities now require individuals who have different education levels and work experiences than have been required in the past.</p> <p>Immigration and visa challenges continue to be a problem. When recruiting and processing non-citizens to relocate and work in the Kansas pork industry, producers would have less of a problem going through the process of hiring foreign workers if they knew the visa programs had stability.</p> <p>A lack of adequate housing in rural areas compounds the issue of a shortage of agricultural workers.</p> <p>The demand for agricultural engineers and consultants is strong in Kansas, especially in the swine industry.</p>
Policy	<p>County regulations vary across the state. In some counties, the board of county commissioners may submit a vote to allow corporate-owned hog facilities to relocate to their counties.</p> <p>Environmental regulations (minimum setbacks, maximum farm sizes as defined by animal unit capacity, Kansas Statute 65-171d), corporate ownership, and processor ownership of hogs could be perceived as inhibitors to industry growth.</p>
Public Outreach	<p>Many Kansans may have misperceptions about how hogs are grown and raised. In order for a swine operation to be welcome in the community, the public must be educated on modern hog production.</p>
Supply Chain	<p>Kansas currently lacks a large-scale processing facility in the state. Although transportation is readily available, transportation costs to processing facilities out of state can become cost prohibitive for producers. If electronic data logging regulations are put into effect, long hauls of animals may require two drivers or staged drivers, adding to the cost of transportation.</p> <p>Pork is currently imported from other states and processed into value-added products in Kansas.</p>
Water	<p>Critical to growing any livestock operation is access to an abundant and reliable water supply. This can prove challenging in many areas of western Kansas that are closed to new water appropriations. New or expanding swine operations in these regions will have to purchase land with sufficient water rights.</p>

SUCCESSSES

Key successes in the pork industry:

- The Kansas Department of Health and Environment has worked to strengthen the livestock waste management section. They have improved efficiency of the permitting process by implementing new internal policies that involve the engineering workflow.
- Kansas is a national leader in the development of Secure Food Supply Plans for swine, cattle feeding and dairy operations. As of May 2022, over 2.1 million head of pigs across 422 sites are covered under Secure Pork Supply Plans.
- In 2020, KPA focused on digital programs in an effort to reach consumers during a time when more people were cooking at home due to the COVID-19 pandemic. KPA has over 92,000 social media followers, with a monthly average of over 100,000 engagements from followers. KPA is continuing to focus on digital outreach for 2021.
- Several of the state's agricultural organizations cooperated to successfully encourage citizens in Rush County to pass a measure allowing corporate ownership of hog farms. Newspaper advertising was developed, and the Kansas Pork Association utilized targeted social media advertising in the county.
- Over 6,000 students from across Kansas and other states participated in KPA's live virtual field trips since the program's inception in 2016. Pre- and post-trip surveys continue to show positive shifts in regard to animal welfare, environmental effects of raising animals, and knowledge about pig farming. Several new lesson plans have also been developed for classrooms. The virtual field trip program and resource development are supported by several other ag groups.
- KPA, in cooperation with other agricultural groups, provided tours for influencers including bloggers and dietitians. These tours work to make positive impacts about food and farming on the participants. The topics include pig farming, antibiotic and hormone use in food animals, GMOs, and meat processing.
- State legislators are receiving a periodic e-newsletter featuring a video showcasing a Kansas pig farm or a part of the swine industry.
- Operation Main Street presentations facilitate conversations with consumers statewide about pork production, health and nutrition information, and current technologies in agriculture. Kansas currently has 37 trained speakers who present to high school classes, civic organizations, dietetic groups, vet techs, educators and more.
- Expansion of a large pork operation in north central Kansas is expanding economic growth of that region.
- Several national meat processing companies are importing meat to Kansas for value-added processing.
- A large hog operation in southwest Kansas expanded its business.
- Revised consumptive use regulations were adopted in 2017, and created an equitable, science-based process for converting from irrigation to stockwater or any other water use.
- An existing operation in west central Kansas is renovating and expanding for producing breeding stock.
- The Kansas Department of Agriculture received funds to conduct training courses to increase the number of livestock compost subject matter experts (SMEs) that could be utilized in the event of a livestock disease outbreak. In 2021, two composting courses as well as a depopulation exercise and demonstration were carried out and nine additional SMEs were trained.

- KDA hosted a public webinar to discuss feral swine control in Kansas. USDA–APHIS–WS works in collaboration with KDA to help monitor and control feral swine in Kansas. This webinar featured presentations from several USDA representatives including the head of field operations in Kansas along with a disease epidemiologist to provide an update on the work that is being done to control feral swine.
- Kansas State University leads the nation’s research surrounding African Swine Fever (ASF) transmission through livestock feed. This research has led to improvements in swine farm biosecurity procedures around the globe — further protecting the industry.
- With support from industry partners, KDA received funding to develop and build a full-scale CO2 euthanasia system, verify that it is operationally sound, and train personnel to safely operate the system prior to a livestock disease outbreak. This was a joint project with funding support from KPA.
- In 2021, the certified Swine Sample Collector program was stood up. An initial pilot program trained five veterinarians which then trained producers and caretakers to collect and submit samples. During an FAD outbreak, these trained producers and caretakers could be utilized to collect and submit samples for diagnostic and surveillance testing, alleviating the workload on Foreign Animal Disease Diagnosticians and swine veterinarians.
- COVID-19: Throughout this unprecedented time, KPA worked very closely with many state and national groups on behalf of the pork industry. This included:
 - Ensuring that U.S. food and agriculture was included among the critical industries.
 - Working to keep the processing plants open and functioning at the highest rate possible.
 - Ensuring pork farmers could take advantage of the COVID-19 financial relief programs.
 - Developing a state plan of action in the event that market-ready animals were unable to be processed.
- In October 2021, a hands-on immersion activity introduced 10 secondary students to careers within the pork sector. The activities provided a day-in-the-life experience for students and at the same time, provided the hog operation’s owners with an opportunity to connect directly with potential employees.
- An out-of-state sow producer expanded their operation in southeast Dickinson County.

Pork

GROWTH OBJECTIVE:

Through partnerships and collaboration, and eliminating barriers to growth, foster an environment that supports growth and expansion of the Kansas pork industry.



OUTCOMES & ACTION ITEMS

Leaders from throughout the Kansas pork industry will continue to collaborate in the development and implementation of a long-term strategic growth strategy with input and discussion among key partners. Industry-identified desired growth outcomes, initially developed in 2016 and expanded to include action items, will be implemented by industry and key partners and updated annually at the Kansas Governor's Summit on Agricultural Growth. Following are the proposed action items to continue building on the achievement of the pork sector desired outcomes.

High Priority Outcomes

Develop critical tools to manage a disease outbreak, protect food safety, and enhance consumer confidence and trust in Kansas livestock.

ACTION ITEMS:

- Continue to work with pork producers to increase the percentage of Kansas swine covered by a Secure Pork Supply Plan.
- Develop a regional approach to interstate movement during animal disease outbreak for business continuity while protecting the Kansas industry.
- Continue to train veterinarians and individuals through the certified sample collection program to either collect or oversee the collection of swine samples in the event of an FAD outbreak.

Alternative workforce programs to fill the talent and workforce needs of the industry — e.g., temporary workforce, H-2A, H-2B, family-based immigrant visas, NAFTA Professional (TN) visa, etc. — along with federal immigration reform with a focus on long-term visas for agricultural workers and a potential immigration pilot program in Kansas.

ACTION ITEMS:

- Develop a document describing alternative workforce programs currently available.
- Create public awareness of the impact that alternative workforce programs have on the economy.
- Create specialized programs to meet workforce needs of the Kansas pork industry (e.g., work release program, military service program).

Identify Kansas communities that express acceptance to and interest in understanding the economic benefits of swine facilities and are open to welcoming businesses into their region.

ACTION ITEMS:

- Engage with consumers and influencers about facts and realities of the pork industry to gain trust and confidence of consumers.
- Conduct an economic impact study for the Kansas swine industry and publish results.
- Work with economic development professionals in various communities to understand the economic impact of swine production at the local level and develop marketing/public relations materials.
- Initiate industry communication and education for local-level leaders on topics such as roadways, water resource availability, economic development incentives, and health and environment statutes and regulations.
- Work on all levels — state, regional and local — to be pro-business and open to agriculture development.

Expansion of talent development and educational training opportunities for students preparing for careers in the pork industry.

ACTION ITEMS:

- Work with the Kansas pork industry to identify specific skills and skill sets needed.
- Develop short-term programs that would introduce potential workers to the pork sector including distance learning opportunities.
- Develop promotional materials and activities (i.e., KPA virtual farm tours, field trips, and immersion activities) highlighting careers in the pork industry for 4-H and FFA members, middle school, high school, and college students.
- Further develop internship programs including a broader exposure to careers in the pork industry. Internship programs should include younger people such as high school students as well as college freshmen and sophomores.
- Develop swine industry certifications or degrees for community/technical colleges in rural areas such as southwest and southeast Kansas.
- Develop a veteran or military workforce program.
- Promote and support undergraduate swine clubs as a means to increase awareness of swine industry at the university level.
- Support faculty with swine industry emphasis at Kansas State University and other land grant universities across the nation to train the next generation interested in working in the swine industry through endowed chair positions.
- Support long-term maintenance and development of new research and teaching facilities for workforce training and development of undergraduate and graduate students. Students trained in modern facilities can more easily adapt as they move into the swine industry.

Medium Priority Outcomes

A fully staffed Kansas Department of Health and Environment livestock waste management section resulting in expedient permitting while effectively protecting the natural resources of the state.

ACTION ITEMS:

- Develop a branding strategy to inform the livestock industry that KDHE is ready and equipped to permit (KDHE public relations and livestock waste section).
- Hold a roundtable discussion with KDHE, KDA, and university engineering departments regarding student internships and employment.
- Review the public hearing process to seek ways to allow the environmental concerns to be brought to the table while mitigating the hostile environment they tend to create.
- Evaluate permitting process, including existing rules and regulations, to determine if efficiencies or streamlining could be gained without compromising compliance with federal standards or water quality conditions.
- Conduct outreach and education with livestock operations on waste permit regulations and permitting process to improve the quality and completeness of submitted applications. Continue to have more open dialogue from the start of the project.
- Expand available professional staff to review permit applications and nutrient management plans through the use of on-call engineering contracts, engineer position-sharing among state agencies, and recruitment of university engineering students.
- Develop a succession plan including the documentation of work processes for KDHE staff.
- Allow flexibility in permitting for those transitioning to new ownership or pivoting their business model (for example, flexibility for times when pigs are backing up in barns because of lack of processing capacity).

Continued proactive social and traditional media outreach about the pork production chain and about pork safety, quality and nutrition to encourage trust from consumers, influencers and media and a better understanding of the industry.

ACTION ITEMS:

- Work with industry partners, including KPA and others, to continue their successful social and traditional media outreach about the pork production chain and about pork safety, quality and nutrition.
- Secure industry support from key stakeholders to provide testimonials and/or inclusion in public campaigns.
- Drive pork demand through social media outreach.

Freedom for all business structures to do business in Kansas. Current corporate farming laws limit certain ownership structures from operating in Kansas which curtails investment and limits growth and modernization.

ACTION ITEMS:

- Update informational materials regarding farm structure, farm size, and land values comparing Kansas to states with similar agricultural industries but no laws restricting ownership.
- Prepare public information — including updated information materials, information from the judicial review highlighting the decision that the laws are likely unconstitutional, and more — to be distributed to dispel myths about the effects of corporate ownership in agriculture.
- Determine best option for sharing information from above and execute.
- Develop an “ag friendly communities” designation.

K-State Research and Extension engaging in applied research focused on innovative and scalable solutions for the state’s pork industry.

ACTION ITEMS:

- Support long-term maintenance and development of new research and teaching facilities for workforce training and development of undergraduate and graduate students Support growth of swine-focused faculty in areas of nutrition, feed processing, feed safety, reproduction, meat science, health, economics, engineering and nutrient management.

Address the lack of processing capacity and marketing disruptions

ACTION ITEMS:

- Support technology (i.e., automation) upgrades in existing plants to add capacity through processing efficiencies where labor has become an issue.
- Support construction of secondary plants such as fabrication or value-added processing facilities.
- Support new construction of smaller and medium-sized processing operations to increase daily slaughter capacity.

Low Priority Outcomes

Pre-identified building sites for swine facilities with available natural resources (e.g., water, waste disposal).

ACTION ITEMS:

- Identify attributes that are unique for recruiting facilities to the community to include land, infrastructure, transportation, housing, workforce, natural resources, ability to meet current CAFO set-back distances, etc.
- Finalize certified site selection program.
- Work strategically with Kansas Department of Commerce to identify locations in the state to fulfill needs of incoming inquiries.
- Assist in the development of a certified site selection program.

Intra-industry partnerships aimed at developing and expanding niche market opportunities for pork producers.

ACTION ITEMS:

- Develop guidance on finding local markets or how to market niche pork.
- Increase marketing of Kansas pork to consumers and restaurants.
- Organize cooperative for processing of niche pork.

Dedicated business development resources for the exploration and evaluation of value-added pork and sow processing opportunities within the state.

ACTION ITEMS:

- Evaluate all state incentives currently available.
- Meet with major pork processors to discuss expansion, relocation, value-added, or sow processing facilities. Learn which incentives work, which need to be adjusted, and what needs to be added to the list.
- Draft a white paper outlining challenges with current incentives for agriculture and propose an alternate plan that works for agriculture.

Competitive utility rates in Kansas that do not create a competitive disadvantage with other states and that allow Kansas to maintain existing enterprises and grow industry in the future.

ACTION ITEMS:

- Work with electric utilities to understand the most economical places to locate major processing facilities and what drives those economics.
- Include industrial electrical rate options and favorable locations in pre-selected site data.
- Evaluate options for adjusting the regulated nature of Kansas electricity such that rates can be more competitive.