



DAIRY

EXECUTIVE SUMMARY

Kansas is one of the fastest growing dairy regions in the U.S. in terms of milk production, due to a variety of factors that make the state a prime location for dairy operations. Land availability, a ready supply of feed and an ideal climate provide a good foundation for dairy growth, and the efforts being made toward proactive water policies enhance the viability of future dairy farm expansion. Recent additions to processing operations within the state have significantly increased the ability for dairy farmers to process their product within the state, rather than exporting milk for processing. Several facilities within Kansas have actively worked to develop innovative strategies to add value to their product and to maximize their water use in order to increase efficiency and long-term viability.

Despite the growth seen in recent years, several challenges remain which serve as barriers to future dairy expansion. Water rights continue to be in demand in many areas of the state, and obtaining land with sufficient water rights can be difficult. Attracting a qualified workforce is a continual concern, as well as managing the challenges of an immigrant workforce, and issues of wastewater disposal and transportation impact the dairy industry on a regular basis. Opportunities to grow as a result of exports are impeded by fluctuating prices and international policies that affect milk products.

To build on the factors that have led to success in the dairy industry and to overcome these barriers to future growth will require collaboration among the public and private stakeholders in the industry. Identifying new technologies and strategies to conserve water in regions of Kansas that would be conducive to new dairies would positively impact the dairy industry, and adjustments to transportation policy could have a similar impact. Increased focus on education and workforce issue specific to the dairy industry could also enhance possibilities for growth of the dairy sector in Kansas.

STATUS

Kansas is the 16th-ranked dairy state for milk production and is home to 152,000 dairy cows on 290 dairy farms. Approximately 80-85 percent of the milk produced in the state is produced in western Kansas on 29 large farms that originated since 1994. Milk processing capacity has grown in the state since 2012 with the addition of processing facilities in Rexford, Garden City and Hugoton. There are also milk plants of recognizable size in Hutchinson and Wichita. Currently, 75 percent of milk in Kansas is exported for processing; however, with the addition of a milk powder plant in Garden City to be completed in 2017, an estimated 75 percent of milk produced in Kansas will be processed within the state's borders.

The Kansas dairy industry is one of the fastest growing dairy states in terms of rate of milk production growth. Kansas has established itself as a prime location in the U.S. for dairies with its abundant land, feed supply, ideal climate, proactive water policies and positive business environment. Milk production in Kansas has doubled since 1994 and is now a one billion dollar industry. According to estimates prepared by the Kansas Department of Agriculture and based on the Implan economic data model, the Kansas dairy industry had a direct output of almost \$743.9 million and a total economic contribution of approximately \$1.33 billion. The industry creates 1,666.9 jobs directly, and with indirect and induced impacts the total number of jobs grows to 4,826.3.

OPPORTUNITIES

Kansas is considered to be a major dairy expansion state and likely will continue to expand. The following factors outline our comparative advantage and the opportunities that exist to influence the dairy industry's growth in Kansas.

| Factor | Implications for Growth and Development Opportunities |
|--|--|
| Feed Supply and Land Availability | <p>Kansas is the seventh-ranked corn producing state and produces over four million tons of corn silage annually. Distiller's grains are available from local ethanol plants. Kansas is also known for raising high-quality alfalfa hay, growing more than 650,000 acres. Kansas is home to many excellent custom forage growers with experience in producing top-notch forage for dairies and feedlots.</p> <p>Obtaining land for dairy farms is comparatively much cheaper than in other dairy states, reducing start-up costs for new operations. Despite a cheaper price, this land still produces high yields of feed and forages and has a good supply of water.</p> |
| Heifer Development | <p>The existing livestock industry and growing number of heifer raising operations provide local and regional replacement heifer options. Kansas also has a large number of empty feedyards for sale that can easily and profitably be converted to heifer development facilities for raising heifers for out-of-state dairies.</p> |

| Factor | Implications for Growth and Development Opportunities |
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| <p>Kansas State Univ. Educational Resources</p> | <p>Kansas State University offers a dairy teaching program to both undergraduate and graduate students. Courses offered range from fundamental to advanced genetics, nutrition, management, reproduction, animal health and milk processing. These classes, along with student programs, develop the next generation of leaders needed to maintain the state's dairies on a long-term basis. Nationally recognized faculty research programs at K-State directly support the dairy industry in the state along with K-State Research and Extension outreach programs in nutrition and management, physiology and dairy foods.</p> |
| <p>Milk Processing Expansion</p> | <p>The number of milk processing and production support businesses in Kansas continues to grow. This has created new market outlets for milk producers locally, which reduces the expense of transporting milk over long distances. Kansas dairy processing facilities are increasingly becoming vertically integrated as farmers capture more of the value of the supply chain.</p> |
| <p>Policies and Guides</p> | <p>Counties are not allowed to impose additional health and environmental regulations in excess of those mandated by the Kansas Department of Health and Environment Livestock Waste Management Section. This provides clarity and consistency for livestock producers in their ability to successfully manage their operations.</p> <p>A Relocation and Expansion Guide assisting in site selection and regulatory guidance is available for dairy producers, which expedites the process of opening a new facility within the state.</p> |
| <p>Water</p> | <p>Kansas is recognized nationwide for its proactive practices of conserving water for future generations. Kansas has existing water rights available and is implementing proactive water conservation practices allowing farmers and ranchers to manage their own water while still preserving the aquifer for generations to come. Kansas has developed a <i>Vision for the Future of Water Supply in Kansas</i>, which aligns the priority of growing the economy with the strategies and actions necessary to ensure a reliable water supply is available to support that growth.</p> <p>Dairies have access to available water rights as they are bought and sold as a personal property right. Many water rights have sufficient capacity to support large dairy farms. Resources are also available to farmers to determine where the best wells may be located and state water staff can assist in determining life expectancy of water in certain locations to ensure future farm viability.</p> |

SUCCESS STORIES

Several recent activities in Kansas have placed the state on a path toward success in expanding, attracting and retaining dairies and their associated industries in the state. Examples of these success stories include the following:

- The Kansas legislature, along with Governor Sam Brownback, approved a special permit for non-divisible loads of up to 90,000 pounds gross vehicle weight on non-interstate roads if the vehicle has six or more axles.
- There have been policy changes to allow fluid milk to be treated as a non-divisible load under federal transportation law.
- Addition of three milk processing facilities since 2011
- Consistent annual increase in milk production since 1994
- Recent tax structure enhancements, including:
 - Reinstatement of producers' ability to offset capital gains from the sale of breeding livestock, including cull cows, with schedule C, E, and F ordinary income losses.
 - Sales tax exemption on the construction, reconstruction and remodeling of livestock facilities for projects greater than \$50,000.
- In 2012, a dairy in northwest Kansas constructed a new milk condensing facility to add value to their milk for a direct marketing partnership with an international company. The farm now condenses the milk from their four farms to approximately 30% of original volume and ships it to processing facilities in Texas in a cost-plus model. This improves economic viability of the farm through more stable milk prices. Additionally, it enhances environmental sustainability through the recapture of water in a dry climate and reducing the number of trucks on the road.
- Dairies continue to utilize water numerous times resulting in great water conservation and long-term industry viability.
 - In 2015, a dairy in southwest Kansas became the first dairy in the state to implement a Water Conservation Area (WCA) management plan — a voluntary tool used to reduce water use in exchange for flexible water right management — at one of their three locations. Following the adoption of the consent agreement for this WCA, the dairy plans to implement WCAs at their other facilities.
 - Development of additional milk processing in western Kansas includes removing water from the milk for other use in the immediate area versus export of water in milk.

CHALLENGES

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

| Challenge | Details of Challenge |
|----------------------------|---|
| Corporate Farming | Kansas corporate farming regulations inhibit the ability of Kansas dairy owners to find partners in financing and operating new dairy operations. They also prevent out-of-state dairy owners from expanding into Kansas in many of the 105 Kansas counties. |
| International Trade | The U.S. dairy industry is becoming increasingly affected by international dairy markets. A current surplus of milk supply worldwide has greatly suppressed domestic milk prices. While the U.S. must become more competitive on the world market, risk management strategies are needed to help protect from major price swings. The U.S. must also counter protectionist milk policies, such as a potential U.S. milk protein concentrate ban from Canada or Russian bans on dairy and ag products. |

CHALLENGES

| Challenge | Details of Challenge |
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| Processing Facility Wastewater Disposal | <p>A significant amount of wastewater is generated by dairy processing facilities, particularly those which condense or dry milk. Identifying suitable quantities of land for waste application and securing adequate storage when land application is not feasible is challenging and the cost of treatment for onsite reuse can be costly. However, if the challenges associated with storage and treatment can be addressed, the wastewater can represent an opportunity to address declines in the aquifer and drought conditions.</p> |
| Threatened and Endangered Species | <p>Threatened and endangered species reduce the pace or viability of new projects and expansions. An example of this includes the lesser prairie chicken, which until late 2015 was listed as a threatened species under the Endangered Species Act. While a court order vacated the listing of the chicken, future listings of this or other species may delay or stop construction of new and expanding dairy operations.</p> |
| Water | <p>Many areas of western Kansas are closed to new appropriations for water rights. Therefore, incoming or expanding operations needing water must purchase existing water rights. Obtaining tracts of land with sufficient water rights can prove challenging for large dairies because areas with excellent water rights do not experience land ownership turnover at high rates. When water rights are purchased from an irrigation or municipal use for animal agriculture, such as dairies, a consumptive use calculation is applied that reduces the available quantity of water available.</p> |
| Workforce Development | <p>Access to a sufficient workforce has been identified as a barrier to growth for many agricultural-related and rurally situated industries. Most immigrant visa programs for agriculture are for temporary workers which aren't effective in a dairy setting where cows must be cared for daily. (Some visas will allow for workers to feed cows, but will not allow for them to milk cows, which is the most common labor need on the farm.) Related workforce issues include the lack of available housing for all income levels and incredibly low unemployment rates. Attracting highly qualified dairy owners and upper management also proves challenging due to quality of life adjustments compared with California and the Colorado front range where access to amenities and entertainment is more readily available.</p> |

NEXT STEPS IN STRATEGIC DEVELOPMENT

Leaders from throughout the Kansas dairy 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, will be implemented by industry and key partners and updated annually at the Kansas Governor's Summit on Agricultural Growth.

DAIRY INDUSTRY OUTCOMES



Growth Objective:

Enable consistent annual growth in milk production by expanding access to milk markets, maintaining low feed costs and preserving a valued labor force, while also upholding a trustworthy perception of an industry that provides wholesome dairy products.

The following outcomes will be the result of industry collaboration and effort to grow the Kansas dairy industry:

Phase 1 (Begin within two years)

- Growth in milk production through the addition of new dairies or expansion of existing dairies.
- New university dairy teaching and research facilities that adequately meet research and educational needs and spur economic growth.
- Federal immigration reform with a focus on long-term visas for agricultural workers, and a potential immigration pilot program in Kansas.
- Comprehensive employee training programs to complement the needs of dairy processing facilities.
- Consumptive use regulations using simple, science-based methodology when converting from irrigation to stock watering or any other beneficial use.
- 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.
- Increased truck weights on state highways, specifically going to 90,000 pounds on six axles, to maximize efficient movement of fluid milk and reduce environmental impact.
- New facilities for export of shipping containers via railway directly from western Kansas to prevent wasteful backhauls across the state.
- 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.
- New dairy heifer development operations in Kansas, either by repurposing existing empty feedlots or by creation of new facilities.
- Expanded influence, presence and professional standing of the Kansas dairy industry with consumers and policy makers.
- Farm transition planning resources for farmers to utilize during preparations for intergenerational transfer or alternative forms of succession planning.
- Expanded partnerships between From the Land of Kansas trademark program and on-farm dairy processors.
- Membership in the United States Dairy Export Council.

DAIRY INDUSTRY OUTCOMES

Phase 2 (Begin within 2-4 years)

- Continued development of new milk processing facilities in Kansas through capital investments.
- Additional K-State Research and Extension dairy personnel, including dairy extension specialists and more active engagement in extension services by dairy farmers.

Items for further consideration

- Addition of dairy equipment and other industry-related services that may be needed to fill service gaps.