



Overview

The Kansas Department of Agriculture’s Economist creates annual economic contribution reports to estimate the impact of agriculture on the Kansas economy. The purpose of these reports is to provide information to stakeholders, policymakers, and the general public. In this report, the model analyzes the effects of agriculture on the State of Kansas. For the estimated current year (2023), 72 agriculture and agriculture-related sectors directly contribute \$57 billion in output and 140,055 jobs to the Kansas economy. Including indirect and induced effects, agriculture and agriculture-related sectors have a total impact of \$81.2 billion in output, 253,614 jobs and 14% of the total Gross Regional Product (GRP).

Estimated Economic Contribution of Agriculture.

Methodology and Glossary on final page

Results

In this model, the 72 agriculture and agriculture-related sectors have a total direct output of \$57 billion and account for 140,055 jobs in Kansas, as shown in the following table:

Table 1: Agriculture and Agriculture-Related Sectors’ Contribution to Kansas Economy

Contribution Type	Employment	% Employment	Total Value Added	% of Gross Regional Product	Output
Direct Effect	140,055	7%	\$14,943,292,000	8%	\$56,981,132,000
Indirect Effect	63,533	3%	\$7,606,561,000	4%	\$15,526,618,000
Induced Effect	50,027	3%	\$4,837,371,000	3%	\$8,648,665,000
Total Effect	253,614	13%	\$27,387,224,000	14%	\$81,156,414,000

Note: Individual effects may not equal the total effect due to rounding.

The agriculture and agriculture-related sectors provide a total estimated impact of \$81 billion in output. These sectors also support a total of 253,614 jobs, or 13% of the state’s entire workforce. Another metric used to calculate the importance of sectors in the economy is their value added as a percentage of the Gross Regional Product. Total value added by the 72 agriculture and agriculture-related sectors is \$27.4 billion, or 14% of the Gross Regional Product.

Top Ten Sectors by Output

The table below shows Kansas' top ten sectors by output, including direct, indirect and induced effects. The *beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming* sector is the top contributor in output to the Kansas economy, with \$10 billion in total output.

Table 2: Top Ten Sectors by Output, Kansas

Sector	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$10,042,212,000
Grain farming	\$8,393,127,000
Animal, except poultry, slaughtering	\$7,381,201,000
Meat processed from carcasses	\$4,234,461,000
Dog and cat food manufacturing	\$3,780,663,000
Farm machinery and equipment manufacturing	\$3,106,355,000
Oilseed farming	\$2,507,861,000
Other real estate	\$2,305,517,000
Wholesale - Other nondurable goods merchant wholesalers	\$2,290,130,000
Other animal food manufacturing	\$1,839,752,000

Top Ten Sectors by Employment

Of the agriculture and agriculture-related sectors, *beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming* supports the most jobs in the state with 34,505 jobs. Table 3 illustrates the top ten sectors by total employment, including direct, indirect and induced effects in Kansas.

Table 3: Top Ten Sectors by Employment, Kansas

Sector	Total Employment
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	34,505.64
Grain farming	18,134.68
Other real estate	11,536.22
Animal, except poultry, slaughtering	11,527.80
Support activities for agriculture and forestry	9,762.08
Landscape and horticultural services	9,548.18
Meat processed from carcasses	8,353.56
Truck transportation	7,910.37
Wholesale - Other nondurable goods merchant wholesalers	6,819.09
Farm machinery and equipment manufacturing	5,810.54

All Direct Agriculture Sectors

Table 4 is a summary of agriculture sectors represented with output and employment levels. These values estimate the value of output and the jobs these agriculture sectors support in the Kansas economy. Generally, this analysis includes three categories: production, manufacturing or processing, and services. Note, the model does not include ethanol production nor wholesale and retail sales of final products.

Table 4: All Direct Agriculture Sectors, Kansas

Sector	Total Output	Total Employment
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$10,042,212,000	34,505.64
Grain farming	\$8,393,127,000	18,134.68
Animal, except poultry, slaughtering	\$7,381,201,000	11,527.80
Meat processed from carcasses	\$4,234,461,000	8,353.56
Dog and cat food manufacturing	\$3,780,663,000	3,303.24
Farm machinery and equipment manufacturing	\$3,106,355,000	5,810.54
Oilseed farming	\$2,507,861,000	1,872.90
Other animal food manufacturing	\$1,839,752,000	1,623.76
Flour milling	\$1,616,653,000	1,277.94
Landscape and horticultural services	\$1,616,653,000	9,548.18
All other food manufacturing	\$961,526,000	2,079.54
Animal production, except cattle and poultry and eggs	\$891,356,000	4,293.12
Other snack food manufacturing	\$827,492,000	1,108.81
Fats and oils refining and blending	\$738,321,000	473.88
Dairy cattle and milk production	\$644,396,000	822.56
Confectionery manufacturing from purchased chocolate	\$614,869,000	1,440.44
Soybean and other oilseed manufacturing	\$606,463,000	138.80
Support activities for agriculture and forestry	\$582,015,000	9,762.08
Bread and bakery product, except frozen, manufacturing	\$577,084,000	2,997.98
Bottled and canned soft drinks and water	\$566,855,000	748.59
Spice and extract manufacturing	\$552,615,000	692.23
Distilleries	\$507,932,000	348.95
Frozen specialties manufacturing	\$401,605,000	1,071.15
Cookie and cracker manufacturing	\$363,656,000	679.46
Nitrogenous fertilizer manufacturing	\$349,540,000	251.45
Lawn and garden equipment manufacturing	\$332,899,000	581.43
Fluid milk manufacturing	\$327,417,000	416.93
All other crop farming	\$306,919,000	5,478.73
Veterinary services	\$301,435,000	3,790.16
Wet corn milling	\$298,768,000	179.30
Food product machinery manufacturing	\$211,550,000	673.87
Frozen cakes and other pastries manufacturing	\$148,651,000	1,481.78
Dry, condensed, evaporated dairy product manufacturing	\$148,313,000	119.83
Cheese manufacturing	\$135,742,000	124.08
Frozen fruits, juices, and vegetables manufacturing	\$114,230,000	162.21

Sector	Total Output	Total Employment
Cotton farming	\$107,998,000	598.37
Sugar cane mills and refining	\$104,388,000	82.02
Breweries	\$101,031,000	321.21
Tobacco product manufacturing	\$93,800,000	21.80
Canned fruits and vegetables manufacturing	\$93,168,000	154.45
Poultry and egg production	\$82,918,000	85.02
Paper mills	\$78,837,000	97.36
Greenhouse, nursery, and floricultural production	\$76,292,000	477.94
Pesticide and other agricultural chemical manufacturing	\$74,800,000	57.10
Fertilizer mixing	\$71,953,000	125.47
Roasted nuts and peanut butter manufacturing	\$63,538,000	140.55
Dry pasta, mixes, and dough manufacturing	\$55,406,000	75.34
Chocolate and confectionery manufacturing from cacao beans	\$50,169,000	84.80
Nonchocolate confectionery manufacturing	\$44,690,000	81.04
Paperboard mills	\$43,607,000	54.28
Wineries	\$37,542,000	137.81
Tortilla manufacturing	\$37,428,000	119.28
Poultry processing	\$35,671,000	107.82
Other chemical and fertilizer mineral mining	\$35,510,000	109.87
Ice cream and frozen dessert manufacturing	\$32,722,000	77.24
Rendering and meat byproduct manufacturing	\$30,081,000	69.25
Phosphatic fertilizer manufacturing	\$29,987,000	34.37
Vegetable and melon farming	\$27,831,000	127.87
Commercial logging	\$24,093,000	309.82
Commercial hunting and trapping	\$16,728,000	231.38
Coffee and tea manufacturing	\$15,716,000	25.96
Dehydrated food products manufacturing	\$13,697,000	24.45
Forestry, forest products, and timber tract production	\$12,195,000	135.23
Fiber, yarn, and thread mills	\$8,176,000	28.13
Sawmill, woodworking, and paper machinery	\$7,281,000	27.46
Leather and hide tanning and finishing	\$4,733,000	26.11
Tree nut farming	\$4,151,000	26.95
Other leather and allied product manufacturing	\$3,939,000	42.36
Fruit farming	\$3,599,000	24.07
Sawmills	\$3,543,000	10.25
Knit fabric mills	\$3,184,000	15.66
Narrow fabric mills and schiffli machine embroidery	\$1,789,000	10.86

Methodology

Using the economic software IMPLAN, the equilibrium displacement model calculates the estimated output and employment of all 546 different economic sectors if the current economy experiences no shocks within the agriculture and agriculture-related industries. IMPLAN sectors are based on North American Industry Classification System (NAICS) codes. The results of this model are broken down into direct, indirect and induced effects, and the IMPLAN framework avoids double counting. All agriculture and agriculture-related sectors represented in this model use the most recent IMPLAN data available (2021), adjusted for 2023 dollars. For this model, key statistics are defined as follows: total employment refers to the annual average of the sum of full and part time jobs held attributed to the 72 agricultural sectors, total gross regional product is the sum of the value added of all industries across the state, and total output is the total annual value of production for an industry or area.

Notes and Glossary

These results are based on estimated production and employment numbers, along with estimated potential sector-, industry- and economy-wide effects. Therefore, these results will differ from actual events.

Due to confidentiality policies that exist within several agencies from which IMPLAN collects their data, some sectors in some regions may not have all data available.

The model provides results in relation to the agriculture and agriculture-related sectors. These results are not equal to the total effects of all 546 sectors but rather the total effects relative to agriculture.

The following terms are used throughout this report:

- *Direct effect*: the contribution from agricultural and food products
- *Indirect effect*: the contribution from farms and agricultural businesses purchasing inputs and services from supporting industries within the state
- *Induced effect*: the contribution from employees of farms, agricultural businesses, and supporting industries spending their wages on goods and services within the state
- *Value added* = labor income + indirect business taxes + other property type income
- *Gross Regional Product* = final demand of households + government expenditures + capital + exports – imports – institutional sales
- *Output* = intermediate inputs + value added
- *Employment*: full-time/part-time annual average, i.e., 1 job lasting 12 months = 2 jobs lasting 6 months each = 3 jobs lasting 4 months each. A job is neither full-time nor part-time.

Contact

Tori Laird

Agency Economist

AgEconomist@ks.gov

785-564-6726

Division of Agricultural Marketing, Advocacy, and Outreach

Kansas Department of Agriculture

1320 Research Park Drive, Manhattan, Kansas 66502

agriculture.ks.gov