



Douglas County, Kansas

2023 ECONOMIC CONTRIBUTION REPORT
NOVEMBER 15, 2023

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 Douglas County, Kansas, economy. For the estimated current year (2023), 36 agriculture and agriculture-related sectors directly contribute \$623 million in output and 2,049 jobs to the Douglas County economy. Including indirect and induced effects, agriculture and agriculture-related sectors have a total impact of \$743 million in output, 2,725 jobs and 6% of the total Gross Regional Product (GRP).

Estimated Economic Contribution of Agriculture.

Methodology and Glossary on final page

Results

In this model, the 36 agriculture and agriculture-related sectors have a total direct output of \$623 million and account for 2,049 jobs in Douglas County, as shown in the following table:

Table 1: Agriculture and Agriculture-Related Sectors' Contribution to Douglas County Economy

Contribution Type	Employment	% Employment	Total Value Added	% of Gross Regional Product	Output
Direct Effect	2,050	3%	\$276,392,000	5%	\$623,331,000
Indirect Effect	368	0%	\$36,071,000	1%	\$76,566,000
Induced Effect	307	0%	\$25,594,000	0%	\$44,066,000
Total Effect	2,725	3%	\$338,058,000	6%	\$743,965,000

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

The agriculture and agriculture-related sectors provide a total estimated impact of \$743 million in output. These sectors also support a total of 2,725 jobs, or 3% of the county'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 36 agriculture and agriculture-related sectors is \$338 million, or 6% of the Gross Regional Product.

Top Ten Sectors by Output

The table below shows Douglas County's top ten sectors by output, including direct, indirect and induced effects. The *dog and cat food manufacturing* sector is the top contributor in output to the Douglas County economy, with \$171 million in total output.

Table 2: Top Ten Sectors by Output, Douglas County

Sector	Total Output
Dog and cat food manufacturing	\$171,154,000
Tobacco product manufacturing	\$62,446,000
Other snack food manufacturing	\$38,030,000
Landscape and horticultural services	\$36,561,000
Frozen specialties manufacturing	\$36,485,000
Oilseed farming	\$35,375,000
Grain farming	\$32,913,000
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$23,296,000
Nitrogenous fertilizer manufacturing	\$17,910,000
Chocolate and confectionery manufacturing from cacao beans	\$17,910,000

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 county with 400 jobs. Table 3 illustrates the top ten sectors by total employment, including direct, indirect, and induced effects in Douglas County.

Table 3: Top Ten Sectors by Employment, Douglas County

Sector	Total Employment
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	400.94
Landscape and horticultural services	391.26
Grain farming	183.57
All other crop farming	153.44
Dog and cat food manufacturing	139.41
Veterinary services	124.85
Other snack food manufacturing	92.35
Frozen specialties manufacturing	90.67
Bread and bakery product, except frozen, manufacturing	76.92
Frozen cakes and other pastries manufacturing	71.92

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 Douglas County 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, Douglas County

Sector	Total Output	Total Employment
Dog and cat food manufacturing	\$171,154,000	400.94
Tobacco product manufacturing	\$93,800,000	391.26
Other snack food manufacturing	\$62,446,000	183.57
Landscape and horticultural services	\$38,030,000	153.44
Frozen specialties manufacturing	\$36,561,000	139.41
Oilseed farming	\$36,485,000	124.85
Grain farming	\$35,375,000	92.35
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$32,913,000	90.67
Nitrogenous fertilizer manufacturing	\$23,296,000	76.92
Chocolate and confectionery manufacturing from cacao beans	\$17,910,000	71.92
Dehydrated food products manufacturing	\$13,696,000	59.02
Bread and bakery product, except frozen, manufacturing	\$12,859,000	57.43
Veterinary services	\$10,198,000	29.14
Frozen cakes and other pastries manufacturing	\$7,151,000	24.45
All other food manufacturing	\$5,645,000	21.80
Roasted nuts and peanut butter manufacturing	\$4,748,000	19.95
Other animal food manufacturing	\$3,997,000	19.10
All other crop farming	\$3,820,000	17.84
Greenhouse, nursery, and floriculture production	\$2,346,000	13.19
Support activities for agriculture and forestry	\$1,589,000	11.94
Animal production, except cattle and poultry and eggs	\$1,553,000	10.24
Commercial logging	\$1,311,000	9.85
Breweries	\$1,248,000	4.82
Forestry, forest products, and timber tract production	\$998,000	4.80
Wineries	\$978,000	3.72
Commercial hunting and trapping	\$785,000	3.58
Vegetable and melon farming	\$648,000	3.55
Poultry and egg production	\$523,000	2.88
Fruit farming	\$332,000	2.12
Tree nut farming	\$226,000	2.00
Dairy cattle and milk production	\$197,000	1.00
Animal, except poultry, slaughtering	\$195,000	0.90
Meat processed carcasses	\$158,000	0.31
Rendering and meat byproduct processing	\$129,000	0.31

DOUGLAS COUNTY, KANSAS
2023 ECONOMIC CONTRIBUTION REPORT

Sector	Total Output	Total Employment
Other leather and allied product manufacturing	\$15,000	0.31
Cheese manufacturing	\$2,000	0.23

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 county
- *Induced effect*: the contribution from employees of farms, agricultural businesses, and supporting industries spending their wages on goods and services within the county
- *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