

# Nemaha 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 Nemaha County, Kansas, economy. For the estimated current year (2023), 31 agriculture and agriculture-related sectors directly contribute \$887 million in output and 1,813 jobs to the Nemaha County economy. Including indirect and induced effects, agriculture and agriculture-related sectors for the total Gross Regional Product (GRP).

# Estimated Economic Contribution of Agriculture.

Methodology and Glossary on final page

### Results

In this model, the 31 agriculture and agriculture-related sectors have a total direct output of \$887 million and account for 1,813 jobs in Nemaha County, as shown in the following table:

Contribution Type	Employment	% Employment	Total Value Added	% of Gross Regional Product	Output
Direct Effect	1,814	24%	\$306,315,000	42%	\$887,207,000
Indirect Effect	474	6%	\$52,806,000	7%	\$109,344,000
Induced Effect	308	4%	\$23,191,000	3%	\$47,949,000
Total Effect	2,596	34%	\$382,312,000	52%	\$1,044,500,000

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

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

The agriculture and agriculture-related sectors provide a total estimated impact of \$1.04 billion in output. These sectors also support a total of 2,596 jobs, or 34% 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 31 agriculture and agriculture-related sectors is \$382 million, or 52% of the Gross Regional Product.

## Top Ten Sectors by Output

The table below shows Nemaha 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 Nemaha County economy, with \$385 million in total output.

#### Table 2: Top Ten Sectors by Output, Nemaha County

Sector	Total Output
Dog and cat food manufacturing	\$385,299,000
Animal production, except cattle and poultry and eggs	\$93,717,000
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$75,294,000
Other animal food manufacturing	\$63,467,000
Grain farming	\$60,222,000
Farm machinery and equipment manufacturing	\$56,705,000
Oilseed farming	\$32,104,000
Wholesale - Other nondurable goods merchant wholesalers	\$20,587,000
Dairy cattle and milk production	\$20,438,000
Truck transportation	\$20,438,000

## Top Ten Sectors by Employment

Of the agriculture and agriculture-related sectors, *animal production, except cattle and poultry and eggs* supports the most jobs in the county with 407 jobs. Table 3 illustrates the top ten sectors by total employment, including direct, indirect, and induced effects in Nemaha County.

#### Table 3: Top Ten Sectors by Employment, Nemaha County

Sector	Total Employment
Animal production, except cattle and poultry and eggs	407.90
Dog and cat food manufacturing	337.04
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	336.67
Support activities for agriculture and forestry	208.31
Grain farming	129.69
Farm machinery and equipment manufacturing	114.44
Wholesale - Other nondurable goods merchant wholesalers	107.25
Truck transportation	93.27
Other animal food manufacturing	65.57
Food product machinery manufacturing	53.87

## 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 Nemaha 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, Nemaha County

Sector	Total Output	Total Employment
Dog and cat food manufacturing	\$385,299,000	407.90
Animal production, except cattle and poultry and eggs	\$94,471,000	337.04
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	\$93,717,000	336.67
Other animal food manufacturing	\$75,294,000	208.31
Grain farming	\$63,467,000	129.69
Farm machinery and equipment manufacturing	\$60,222,000	114.44
Oilseed farming	\$56,705,000	65.57
Dairy cattle and milk production	\$20,587,000	53.87
Food product machinery manufacturing	\$17,020,000	38.37
Support activities for agriculture and forestry	\$9,618,000	30.05
All other crop farming	\$2,732,000	27.33
Landscape and horticultural services	\$2,201,000	22.91
Bread and bakery product, except frozen, manufacturing	\$1,201,000	14.27
Veterinary services	\$949,000	8.55
Meat processed from carcasses	\$940,000	8.55
Frozen cakes and other pastries manufacturing	\$743,000	2.36
Greenhouse, nursery, and floriculture production	\$460,000	1.92
Poultry and egg production	\$333,000	1.64
Dry, condensed, and evaporated dairy product manufacturing	\$270,000	1.37
Other snack food manufacturing	\$239,000	0.46
Roasted nuts and peanut butter manufacturing	\$164,000	0.46
Vegetable and melon farming	\$117,000	0.38
Bottled and canned soft drinks & water	\$107,000	0.38
Commercial logging	\$105,000	0.36
Animal, except poultry, slaughtering	\$76,000	0.28
Rendering and meat byproduct processing	\$54,000	0.25
Commercial hunting and trapping	\$44,000	0.23
Forestry, forest products, and timber tract production	\$28,000	0.10
Other leather and allied product manufacturing	\$15,000	0.10
Fruit farming	\$12,000	0.06
Tree nut farming	\$3,000	0.02

# 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