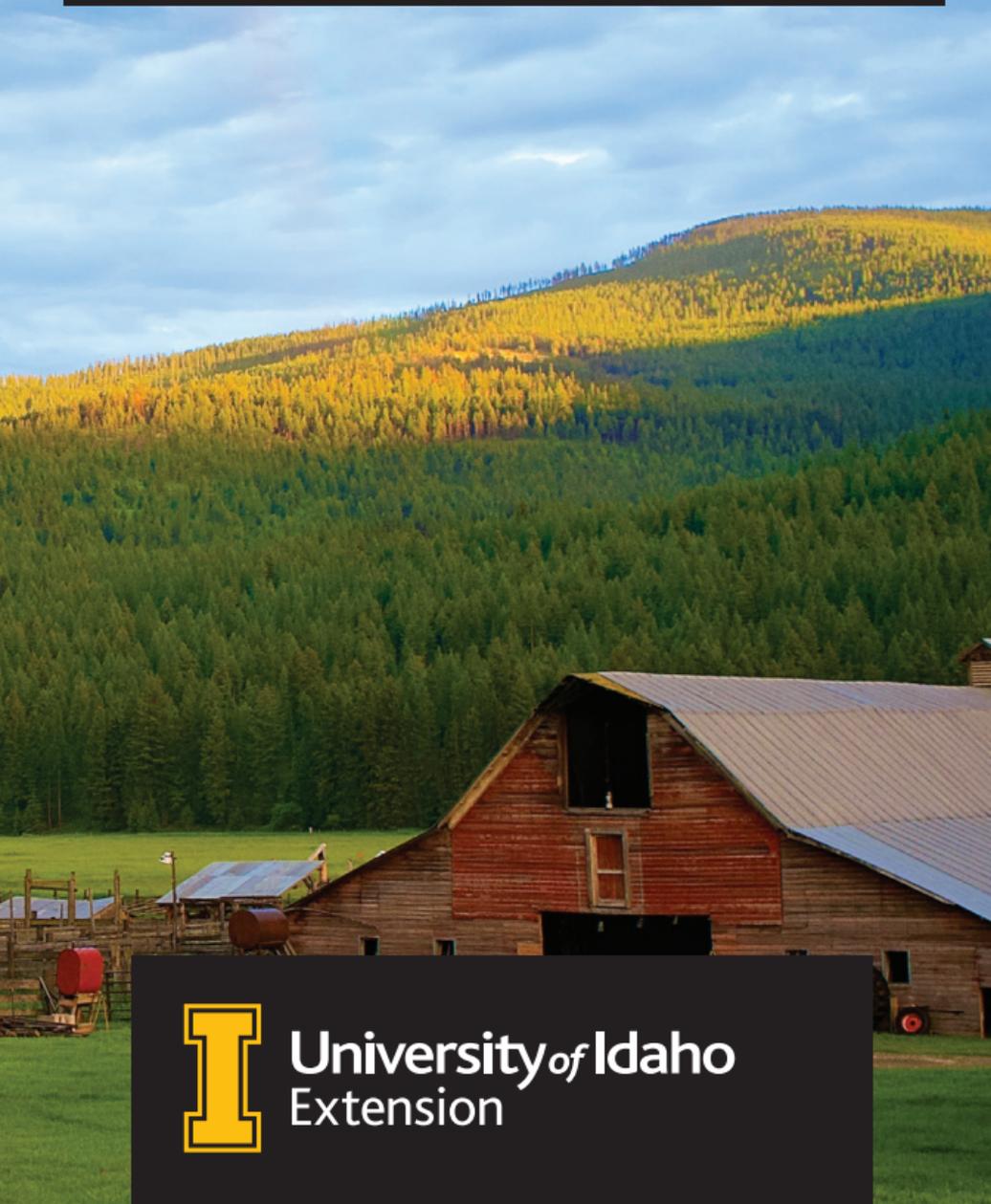


Economic Contribution of Idaho Agribusiness 2021



University of Idaho
Extension



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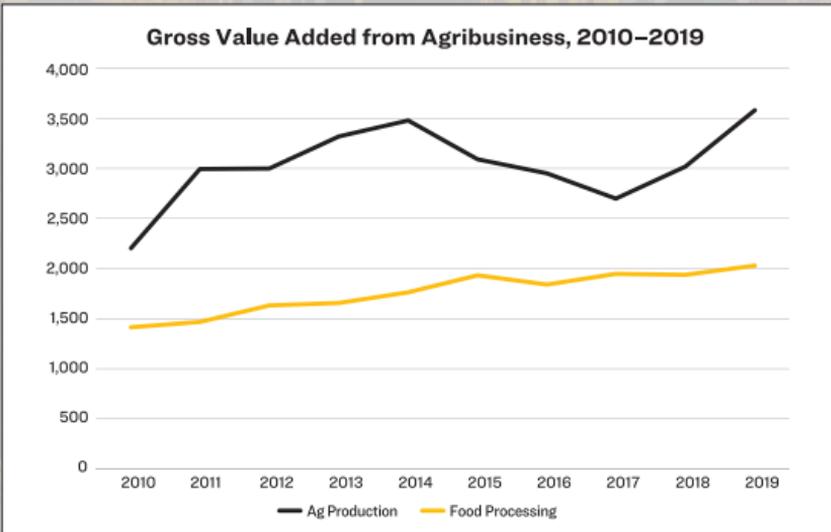
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Gross Contribution of Idaho Agribusiness, 2019

In Idaho in 2019, agribusiness alone (not including linked sectors) contributed

- **\$21.0 billion in sales**
- **75,700 Idaho jobs**
- **\$6.1 billion in value added¹**

Source: Author calculations using IMPLAN data



Source: US Bureau of Economic Analysis Regional Data, GDP by State and Industry, 2010-2019

¹Value added is the sum of employee compensation, proprietary income, returns to capital, and indirect business taxes and is a measure of a sector's contribution to gross state product (GSP).

Base Contribution of Idaho Agribusiness, 2019

In addition to these direct contributions to the Idaho economy, agribusiness exports generate economic activity in other sectors of the Idaho economy. Accounting for these linkages between agribusiness and other sectors, Idaho agribusiness and the economic activity it generates in other sectors accounted for

- **\$29.3 billion in sales** or over 17% of Idaho's total economic output
- **129,500 Idaho jobs** or approximately 1 in every 8 jobs in the state
- **\$10.5 billion in value added** or over 12.5% of total Idaho GSP

Source: Author calculations using IMPLAN data

Definitions

Agribusiness is the vertically integrated industrial complex comprising all production agriculture—crop farming and livestock production—and the processing of agricultural products.

The total economic contribution of agribusiness to the Idaho economy can be described in two ways, using gross values and base values.

Gross values are the government-reported measures of economic activity in agribusiness—output (sales), jobs, and value added. Measuring gross values is an accounting task.

Base values include the agribusiness sector's export activity and the economic activity it spawns within other sectors and the state economy. The base sales contribution of the agribusiness sector, for example, is calculated as the sector's sales outside the state times the sector's multiplier. In gross analysis, the sale of a tire to a wheat producer would be credit to the state economy's retail trade sector; in base analysis, it would be credit to agribusiness.

In base analysis, the total economic contribution of agribusiness is made up of direct and indirect contributions:

Direct contributions are the jobs, value added, and output attributable to the out-of-state export of crop and livestock products.

Indirect contributions are generated when agribusiness firms purchase materials and services from other Idaho businesses to produce their exports.

Direct and indirect contributions are reported in terms of sales, jobs, wages, and value added:

Sales represent the output of the agribusiness sector.

Jobs represent wage-earning and salaried employees, including self-employed works, in agribusiness.

Wages are payments to workers, including benefits.

Value added is proprietary income and wages plus indirect taxes and other property-type income such as payments for rents, royalties, and dividends. Value added and gross state product (GSP) are equivalent measures in total but are estimated using different methods and data sources.

Sources:

English, L., J. Popp, and E.W. Miller. 2013. "Economic Contribution of the Agricultural Sector to the Arkansas Economy in 2011." Research Report 992. Fayetteville: Arkansas Agricultural Experiment Station, University of Arkansas System Division of Agriculture.

Taylor, G., B. Eborn, P. Watson, and A. Rodriguez. 2012. *Contribution of Agribusiness to Idaho's Economy, 2010*. University of Idaho Extension CIS 1186.

Watson, P., S. Cooke, D. Kay, and G. Alward. 2015. A Method for Improving Economic Contribution Studies for Regional Analysis. *Journal of Regional Analysis and Policy*, 45(1):1-15.

Contribution of Agribusiness to Idaho's Economic Base

*Sales Contribution of the Agribusiness Sector in Idaho, 2019**

	Direct Sales (Domestic and International Exports)	Indirect Sales	Total
Crop production	\$2.5 billion	\$2.2 billion	\$4.7 billion
Livestock and dairy production	\$2.9 billion	\$2.9 billion	\$5.8 billion
Agricultural processing	\$9.6 billion	\$9.2 billion	\$18.8 billion
Total	\$15.0 billion	\$14.3 billion	\$29.3 billion

*Value Added Contribution of the Agribusiness Sector in Idaho, 2019**

	Direct Value Added	Indirect Value Added	Total
Crop production	\$1.4 billion	\$1.2 billion	\$2.6 billion
Livestock and dairy production	\$0.9 billion	\$1.3 billion	\$2.2 billion
Agricultural processing	\$1.8 billion	\$4.0 billion	\$5.8 billion
Total	\$4.0 billion	\$6.5 billion	\$10.5 billion*

**Individual values may not sum to total due to rounding*

Source: Author calculations using IMPLAN data

Agribusiness contributed:

- **\$29.3 billion in total sales**, which means that agribusiness was responsible for generating 17% of the state's total sales in 2019.
- **\$10.5 billion in value added** or 13% of total Idaho GSP.
- **129,500 jobs**, which is approximately 1 in every 8 jobs in the state.
- **\$4.6 billion in wages**, which is approximately \$1 of every \$10 of wages paid in the state of Idaho.

Source: Author calculations using IMPLAN data





Agribusiness in Idaho vs. Neighboring States

The agribusiness sector accounts for a greater share of the state economy in Idaho than in all of its neighboring states and the United States as a whole.²

Even without including the indirect effects, agribusiness contributes 7% to Idaho GSP. In comparison to neighboring states, this is

- 4.3 times greater than in Washington
- 2.8 times greater than in Oregon
- 12 times greater than in Nevada
- 4.5 times greater than in Utah
- 4 times greater than in Wyoming
- 2 times greater than in Montana
- 3.7 times greater than in the United States as a whole

Source: Author calculations using US Bureau of Economic Analysis Regional Data, GDP by State and Industry data, 2019

²Based on calculations of the percent contribution of the agribusiness sector to each state's GSP.

National Rankings: Crop and Livestock Production

Idaho has been the top producer of potatoes, barley, peppermint oil, and trout among all US states, based on 2019 production levels. Idaho ranks among the top 9 states in production of 28 crop and livestock commodities, including

No. 1 in Potatoes

No. 1 in Barley

No. 1 in Trout

No. 1 in Peppermint Oil

No. 2 in Sugar Beets

No. 2 in Hops

No. 3 in Cheese

No. 3 in Milk

No. 3 in Alfalfa

No. 3 in Milk Cows

No. 4 in Onions

No. 4 in Lentils

No. 4 in Wheat (Spring)

No. 5 in Dry Beans

No. 5 in Dry Peas

No. 6 in Haylage

No. 6 in Wheat (All)

No. 7 in Corn (Silage)

No. 7 in Wheat (Winter)

No. 7 in Sheep and Lambs

No. 8 in Wool

No. 9 in Hay (All)

Source: National Agricultural Statistics Service, 2020 Idaho Annual Statistical Bulletin

National Rankings: Gross Production and Market Value of Agricultural Products Sold

According to the 2017 Census of Agriculture, Idaho ranked

- No. 21 in **value of crops sold**, including nursery and greenhouse
- No. 17 in **value of livestock**, poultry, and their products
- No. 20 in **total value of agricultural products** sold and had 24,996 farms on 11,691,912 acres (22.1% of Idaho's total 52,891,860 acres)

In 2019, Idaho cash receipts from all agricultural commodities totaled approximately \$8.43 billion, with approximately \$5.05 billion from animals and their products and \$3.37 billion from crops.

Source: US Bureau of Economic Analysis, CAINC45 Farm Income and Expenses, 2019

Idaho Agricultural Exports

Idaho ranked 21st nationally in total international agricultural exports in 2020, with a value of \$2.315 billion. Plant product exports accounted for \$1.56 billion of total Idaho agricultural exports and animal product exports accounted for \$754 million.

Idaho ranked in the top five in the nation for international exports of four major commodities:

- **No. 3 in dairy**, with international exports valued at \$473.7 million
- **No. 4 in fresh vegetables**, with international exports valued at \$160.3 million
- **No. 4 in processed vegetables**, with international exports valued at \$264.6 million
- **No. 5 in wheat**, with international exports valued at \$392.3 million

Source: USDA Economic Research Service, 2020



Agricultural Commodities: Gross Receipts and Production

Cash Receipts for Idaho's Crop and Livestock Commodities, 2020

Commodity	Cash Receipts, 2020 Nominal (Current Dollars, Thousands)
Dairy products, Milk	2,979,328
Cattle and calves	1,583,060
Potatoes	924,713
Wheat, all	549,710
Hay	459,679
Barley	260,647
Misc. Crops	427,947
Sugar Beets	333,585
Corn	126,463
All other animals and products	65,875
Dry edible beans (includes pintos and chickpeas)	63,639
Trout	7,956
Onions	68,331
Peppermint Oil	34,650
Chicken Eggs	55,975
Hogs	20,290
Turkeys	20,437
Mink pelts	5,729
Hops	99,703
Dry edible peas	11,560

Source: USDA Economic Research Service, 2020 Cash Receipts by Commodity

Agricultural Commodities: Production

Production and Rank of Idaho Crop and Livestock Commodities, 2019

Commodity	Production (Thousands)	Units	Rank among US States
Barley*	55,120	1,000 bushels	1
Potatoes*	130,900	1,000 cwt	1
Trout*	37,416	value of fish sold	1
Peppermint Oil*	2,040	1,000 pounds	1
Sugar Beets*	6,435	1,000 tons	2
Hops*	17,003	1,000 pounds	2
Cheese	1,008,065	1,000 pounds	3
Dairy Products, Milk	15,631	million pounds	3
Milk cows	635,000	head	3
Hay, alfalfa	4,444	1,000 tons	3
Onion, dry	8,938	1,000 cwt	4
Wheat, spring	39,160	1,000 bushels	4
Lentils	363	1,000 cwt	4
Dry edible beans	1,067	1,000 cwt	5
Dry edible peas	513	1,000 cwt	5
Haylage	1,798	1,000 tons	6
Wheat, all*	98,755	1,000 cwt	6
Corn silage	6,580	1,000 tons	7
Wheat, winter	59,160	1,000 cwt	7
Sheep and lambs	230,000	head	7
Wool	1,500	1,000 pounds	8
Hay, all	5,111	1,000 tons	9
Cattle and calves, all*	2,490,000	head	12
Honey	2,944	1,000 pounds	12

*Among top 25 Idaho commodities in terms of total cash receipts, 2019

Source: National Agricultural Statistics Service, 2019 Idaho Annual Statistical Bulletin, 2019 Production Year

Gross Economic Contribution: Idaho Crops

Idaho's crops sector includes all activities in the production and support of potatoes, sugar beets, food and feed, grains, hay and pasture, fruits, nuts, vegetables, and oil-bearing crops and support services for crop farming such as custom harvester operations.

Gross Contribution of Crop Production to the Idaho Economy, 2019

Jobs	42,000
Wages	\$1.0 billion
Value Added	\$2.4 billion

Based on the gross contribution of crop farming to the Idaho economy, crop farming is responsible for

- 55% of all agribusiness jobs
- 40% of all agribusiness wages
- 39% of all agribusiness value added



Source: Author calculations using IMPLAN data

Gross Economic Contribution: Idaho Livestock

Idaho's animal livestock sector includes the production of beef, dairy products, poultry, eggs, trout, and other animals and their products.

Gross Contribution of Livestock Production, Including Dairy, to the Idaho Economy, 2019

Jobs	11,000
Wages	\$173 million
Value Added	\$1.5 billion

Based on the gross contribution of livestock production to the Idaho economy, livestock production is responsible for

- 15% of all agribusiness jobs
- 7% of all agribusiness wages
- 25% of all agribusiness value added

Source: Author calculations using IMPLAN data



Gross Economic Contribution: Idaho Agricultural Processing

Idaho's agricultural processing sector makes products from both crops and livestock. Examples include grain milling, sugar beet processing, and cheese manufacturing.

Gross Contribution of Agricultural Processing to the Idaho Economy, 2019

Jobs	22,800
Wages	\$1.3 billion
Value Added	\$2.2 billion

Based on the gross contribution of agricultural processing to the Idaho economy, agricultural processing is responsible for

- 30% of all agribusiness jobs
- 53% of all agribusiness wages
- 36% of all agribusiness value added

Source: Author calculations using IMPLAN data

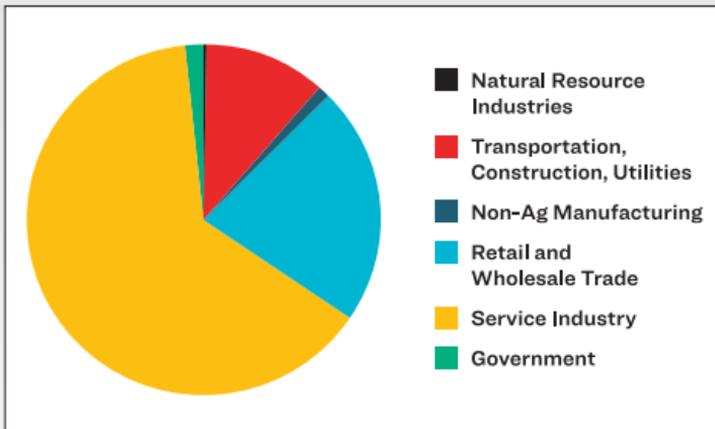


Indirect Contribution of Agribusiness to Idaho Jobs

Idaho agribusiness operations generated 59,800 jobs in other sectors of the Idaho economy in 2019.

Contribution of Agribusiness to Jobs in Other Sectors

Sectors	Indirectly Created Jobs
Natural Resource Industries	170
Transportation, Construction, Utilities	6,800
Non-Ag Manufacturing	530
Retail and Wholesale Trade	13,200
Service Industry	38,200
Government	860
Total	59,800



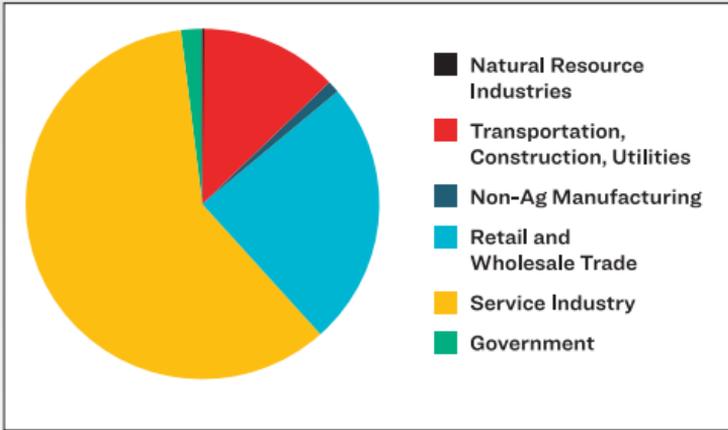
Source: Author calculations using IMPLAN data

Indirect Contribution of Agribusiness to Value Added

Idaho agribusiness generated \$4.4 billion in value added in other sectors of Idaho’s economy in 2020.

Contribution of Agribusiness to Value Added in Other Sectors

Sectors	Indirect Value Added
Natural Resource Industries	\$6.7 million
Transportation, Construction, Utilities	\$620 million
Non-Ag Manufacturing	\$53 million
Retail and Wholesale Trade	\$1.2 billion
Service Industry	\$2.9 billion
Government	\$93 million
Total	\$4.8 billion



Source: Author calculations using IMPLAN data

Idaho's Top Agribusiness Counties

Total Cash Receipts for Agricultural Crops and Livestock by County

Agricultural Cash Receipts (Thousands of Dollars)

County	Crops	Percent of State Total	Livestock	Percent of State Total	Total Ag Cash Receipts (as percent of state total)
Cassia	\$784,436	15.50%	\$271,411	8.00%	12.50%
Gooding	\$850,591	16.80%	\$70,762	2.10%	10.90%
Twin Falls	\$578,203	11.40%	\$170,552	5.10%	8.90%
Jerome	\$610,367	12.10%	\$122,806	3.60%	8.70%
Canyon	\$306,078	6.10%	\$338,016	10.00%	7.60%
Bingham	\$113,629	2.20%	\$382,004	11.30%	5.90%
Elmore	\$359,028	7.10%	\$127,870	3.80%	5.80%
Minidoka	\$106,209	2.10%	\$282,344	8.40%	4.60%
Jefferson	\$141,088	2.80%	\$187,426	5.50%	3.90%
Owyhee	\$246,929	4.90%	\$63,729	1.90%	3.70%
Power	\$27,114	0.50%	\$227,065	6.70%	3.00%
Lincoln	\$192,995	3.80%	\$45,407	1.30%	2.80%
Payette	\$136,800	2.70%	\$53,206	1.60%	2.30%
Bonneville	\$63,911	1.30%	\$112,339	3.30%	2.10%
Madison	\$11,966	0.20%	\$156,155	4.60%	2.00%
Ada	\$105,448	2.10%	\$44,948	1.30%	1.80%
Fremont	\$22,691	0.40%	\$123,421	3.70%	1.70%
Caribou	\$37,327	0.70%	\$56,738	1.70%	1.10%
Franklin	\$65,830	1.30%	\$26,916	0.80%	1.10%
Latah	\$5,005	0.10%	\$69,774	2.10%	0.90%
Nez Perce	\$15,319	0.30%	\$54,225	1.60%	0.80%
Washington	\$32,228	0.60%	\$22,397	0.70%	0.60%
Teton	\$4,907	0.10%	\$43,153	1.30%	0.60%
Butte	\$7,349	0.10%	\$38,110	1.10%	0.50%

Total cash receipts by county, continued.

Gem	\$26,608	0.50%	\$14,587	0.40%	0.50%
Idaho	\$18,863	0.40%	\$22,009	0.70%	0.50%
Bannock	\$18,469	0.40%	\$21,906	0.60%	0.50%
Bear Lake	\$21,467	0.40%	\$18,821	0.60%	0.50%
Custer	\$30,680	0.60%	\$9,319	0.30%	0.50%
Lemhi	\$30,190	0.60%	\$6,451	0.20%	0.40%
Oneida	\$18,983	0.40%	\$17,317	0.50%	0.40%
Lewis	\$4,160	0.10%	\$31,775	0.90%	0.40%
Boundary	\$4,104	0.10%	\$29,413	0.90%	0.40%
Camas	\$4,757	0.10%	\$24,153	0.70%	0.30%
Clark	\$7,423	0.10%	\$20,410	0.60%	0.30%
Blaine	\$10,207	0.20%	\$17,583	0.50%	0.30%
Kootenai	\$4,252	0.10%	\$18,704	0.60%	0.30%
Benewah	\$685	0	\$18,150	0.50%	0.20%
Adams	\$10,545	0.20%	\$3,621	0.10%	0.20%
Valley	\$9,949	0.20%	\$930	0.00%	0.10%
Bonner	\$4,106	0.10%	\$6,167	0.20%	0.10%
Clearwater	\$4,747	0.10%	\$3,260	0.10%	0.10%
Boise	\$1,158	0.00%	\$1,749	0.10%	0.00%
Shoshone	\$121	0.00%	\$74	0.00%	0.00%

Source: US Bureau of Economic Analysis, CA45 Farm Income and Expenses, 2019





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