ECONOMIC IMPACT OF AGRICULTURE

Phillips County

January 2021

Phillips County is a rural county located in the north central part of the state, bordering Canada to the north. Over 58% of land in Phillips County is classified as farm land.

Overview (2017 Data)

Population	4,074
County Size (acres)	3,289,889
Land in Farms (%)	58.9
Number of Farms	445
Median Farm Size (acres)	1,160
Average Farm Size (acres)	4,352

Source: Census of Agriculture: Table 1: County Summary Highlights: 2017

Farm Revenue

Farm revenue (which includes the market value of products sold, government payments, and farm-related income) were \$95 million while production expenses were nearly \$72 million. Government payments were 9.9% of farm revenues.

Market Value of Products Sold	\$74,636,000
Government Payments	\$9,471,000
Farm-Related Income	\$11,267,000
Total Farm Production Expenses	\$71,743,000
Net Cash Farm Income	\$23,631,000

Source: Census of Agriculture: Tables 2, 3, 4, 5 and 6: 2017

Taxation

The market value of all property in Phillips County was approximately \$640 million in 2019. The taxable

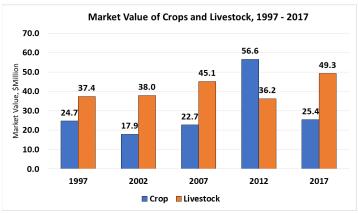
value assigned by the Montana Department of Revenue was \$16 million. Agricultural Property (as defined by Montana Department of Revenue as Class 3 property) comprised 24% of the county's taxable value.

Property Tax	2019	2014
Summary		
Market Value of All	\$640,665,783	\$550,570,959
Property		
Taxable Value of All	\$16,675,347	\$16,759,238
Property		
Taxable Value of	\$4,073,191	\$4,361,845
Agricultural Property		
Ag Taxable Value	24.43%	26.03%
as % of All Property		

Source: Montana Dept. of Rev. Montana Taxes by County in $\underline{2018}$ and Montana Taxes by County in $\underline{2014}$

Market Value of Crops and Livestock

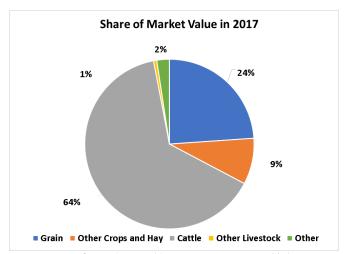
After adjusting for inflation, the market value of crops increased by 3%, while the market value of livestock increased by 32%, from 1997 to 2017.



Sources: <u>Census of Agriculture</u>: Table 1: County Summary Highlights: 2017 and <u>St. Louis Fed Producer Price Index</u>

Crops and Livestock

Cattle (64%) and grain (24%) comprised 88% of total crop and livestock sales in 2017.



Source: Census of Agriculture: Table 2: County Summary Highlights: 2017

Farm Size by Acres

The percentage of smaller farms, less than 500 acres, decreased slightly from 36% to 35%, while the percentage of larger farms, 500 acres or more, increased from 64% to 65% from 2012 to 2017.

	2017		2012	
	Number		Number	
Farm Size by Acres	of Farms	%	of Farms	%
1 to 9	20	4	30	6
10 to 49	31	7	36	7
50 to 179	45	10	50	10
180 to 499	58	13	66	13
500 to 999	50	11	58	11
1,000 or more	241	54	267	53
TOTAL	445	100	507	100

Source: Census of Agriculture: Table 1: County Summary Highlights: 2017

Farm Size by Sales

The proportion of total sales from the smallest farms with less than \$100,000 in sales decreased from 64% to 59%, while the proportion of total sales from the largest farms with sales of \$100,000 or more increased from 36% to 41% from 2012 to 2017.

	2017		2012	
Farm Size by	Number		Number	
Sales	of Farms	%	of Farms	%
Less than 2,500	90	20	139	27
2,500 to 4,999	24	5	19	4
5,000 to 9,999	37	8	25	5
10,000 to 24,999	42	9	42	8
25,000 to 49,999	38	9	52	10
50,000 to 99,999	33	7	48	9
100,000 or more	181	41	182	36
TOTAL	445	100	507	100

Source: Census of Agriculture: Table 1: County Summary Highlights: 2017

Tillage and Land Use

The percentage of farms using reduced tillage or cover crops increased, while the percentage of farms using no till or intensive tillage decreased from 2012 to 2017.

	2017		2012	
	Number		Number	
Tillage	of Farms	%	of Farms	%
No tillage	95	21	142	28
Reduced tillage	48	11	32	6
Intensive tillage	72	16	96	19
Cover crops	25	6	26	5
TOTAL FARMS	445		507	

Source: Census of Agriculture: Table 41 Land Use Practices

Producer Profile

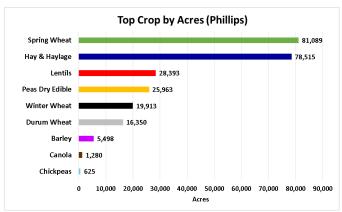
The county producer population was younger than the Montana producer population. Forty-two percent of county producers were under 55 years of age, while 25% were over 65 years of age. Thirty-four percent of the Montana producer population were under 55, while 36% were over 65 years of age. Sixty-four percent of producers in the county were males, while 60% of Montana producers were males. Farming was the primary occupation for 59% of county producers, while farming was the primary occupation for 50% of Montana producers.

	County		State	
Characteristics	Number of Producers	%	Number of Producers	%
Age				
18 – 25	5	1	570	1
25 to 34	97	12	3,285	7
35 to 44	111	14	5,179	11
45 to 54	125	15	7,309	15
55 to 64	261	32	13,838	29
65 to 74	127	15	11,469	24
75 and older	81	10	5,587	12
Sex		_		
Male	526	64	28,563	60
Female	296	36	18,673	40
Primary Occupation				
Yes	483	59	23,847	50
No	339	41	24,314	50
TOTAL PRODUCERS	822	100	48,161	100

Source: <u>Census of Agriculture</u>: Table 45 Selected Operation and Producer Characteristics

Top Crops by Acres

The top crops were spring wheat, hay and haylage, lentils, peas dry edible, winter wheat, durum wheat, barley, canola, and chickpeas.



Source: Census of Agriculture: Table 1: County Summary Highlights: 2017

Top Livestock

The top livestock were cattle, sheep, and poultry (chickens and turkeys).

Livestock	Number of Head
Cattle	76,901
Sheep	2,829
Chicken-Layers	342
Turkeys	13

Source: <u>Census of Agriculture</u>: Tables 11 (Cattle), 13 (Sheep) and 19 (Poultry)

Employment Impact

Agricultural production employed 822 workers, or 43% of the county's labor force. According to IMPLAN, economic impact model, 513 of the workers were directly employed in production agriculture. An additional 271 workers were employed in businesses supporting agricultural production, such as feed and fertilizer dealers, and another 38 workers were employed in other related businesses, such as grocery and drugs stores. For every 10 jobs on farms and ranches, 6 additional jobs are generated in the county.

Impact	Labor	Impact
Туре	Force	Multipliers
County Labor Force	1,890	
Direct Impact	513	
Indirect Impact	271	0.53
Induced Impact	38	0.07
Total Impact	822	0.60
Agriculture's Share (%)	43	

Source: Bureau of Labor Statistics, www.bls.gov/#cntyaa and IMPLAN Estimates

Value Added Impacts

Farms and ranches generated \$41.5 million of value-added, or 31% of the county's total gross domestic product of \$132 million in 2017. According to IMPLAN, \$24.9 million was directly contributed by farmers and ranchers. An additional \$14.6 million was generated by businesses supporting agricultural production and \$2 million was generated by other related businesses. Each dollar of value-added in agriculture by a farmer or rancher contributes an additional \$0.67 of value-added in other sectors of the county's economy.

Impact Type	Value-Added (\$1 million)	Impact Multipliers
County GDP*	132.0	
Direct Impact**	24.9	
Indirect Impact**	14.6	0.59
Induced Impact**	2.0	0.08
Total Impact**	41.5	0.67
Agriculture's Share (%)	31	

Sources: * St. Louis Federal Reserve Bank, ** IMPLAN Estimates

References

- 2017 Census of Agriculture, National Agricultural Statistics Service, Montana, State and County Data, Volume 1, Geographic Area Series, part 26 https://www.nass.usda.gov/Publications/AgCensus/2017/Full-Report/Volume 1, Chapter 1 State Level/Montana/mtv1.pdf
- Dept. of Revenue "Montana Taxes by County in 2014" https://mtrevenue.gov/wp-content/uploads/2018/01/2014-Taxes-by-County.pdf

- Dept. of Revenue "Montana Taxes by County in 2018" https://mtrevenue.gov/wp-content/uploads/2020/02/2018-Taxes-by-County.pdf
- St. Louis Federal Reserve Bank (2017). Current dollar gross domestic product by county for Montana, retrieved from https://fred.stlouisfed.org/release/tables?rid=397&eid=1062609&od=2017-01-01#
- St. Louis Federal Reserve Bank (2020). Producer price index for all commodities, St. Louis Federal Reserve Bank, retrieved from https://fred.stlouisfed.org/series/PPIACO
- Bureau of Labor Statistics (2017), Montana labor force, retrieved from https://bls.gov/lau/#cntyaa

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