

# ECONOMIC IMPACT OF AGRICULTURE



## Petroleum County

January 2021

Petroleum County is a rural sparsely populated county located in the central part of the state. Over 55% of land in Petroleum County is classified as farm land.

### Overview (2017 Data)

Population	513
County Size (acres)	1,059,600
Land in Farms (%)	55.9
Number of Farms	104
Median Farm Size (acres)	2,500
Average Farm Size (acres)	5,698

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 over \$19 million while production expenses were over \$14 million. Government payments were 4.4% of farm revenues.

Market Value of Products Sold	\$17,761,000
Government Payments	\$861,000
Farm-Related Income	\$1,066,000
Total Farm Production Expenses	\$14,605,000
Net Cash Farm Income	\$5,082,000

Source: [Census of Agriculture](#): Tables 2, 3, 4, 5 and 6: 2017

### Taxation

The market value of all property in Petroleum County was approximately \$92 million in 2019. The taxable value assigned by the Montana Department of

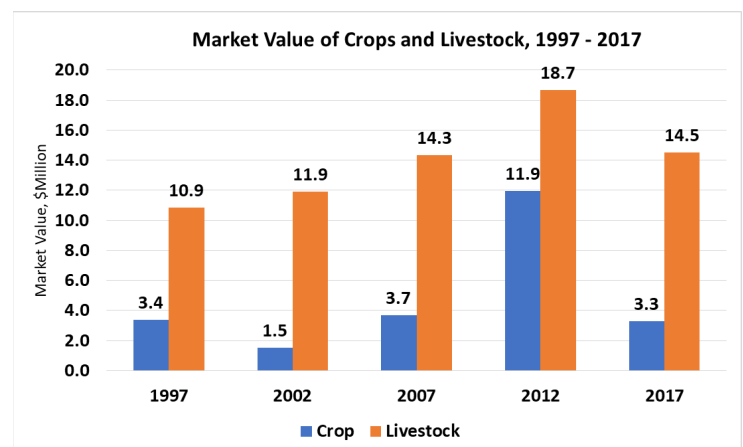
Revenue was \$1.7 million. Agricultural Property (as defined by Montana Department of Revenue as Class 3 property) comprised 55% of the county's taxable value.

Property Tax Summary	2019	2014
Market Value of All Property	\$92,706,249	\$65,793,935
Taxable Value of All Property	\$1,750,155	\$1,525,706
Taxable Value of Agricultural Property	\$967,200	\$967,825
Ag Taxable Value as % of All Property	55.26%	63.43%

Source: Montana Dept. of Rev. Montana Taxes by County in [2018](#) and Montana Taxes by County in [2014](#)

### Market Value of Crops and Livestock

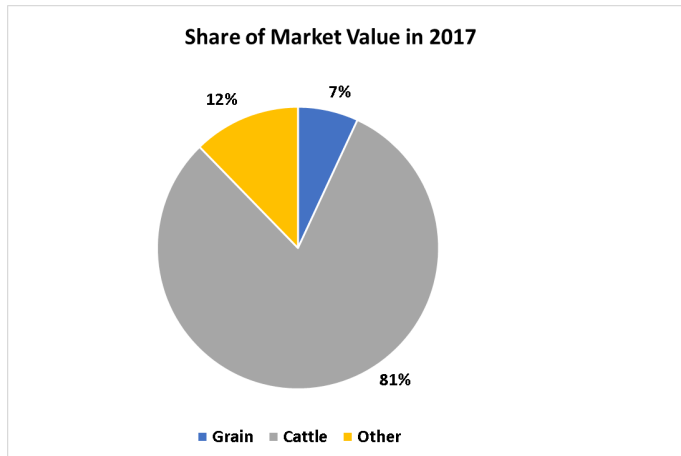
After adjusting for inflation, the market value of crops decreased by 4%, while the market value of livestock increased by 33%, from 1997 to 2017.



Sources: [Census of Agriculture](#): Table 1: County Summary Highlights: 2017 and [St. Louis Fed Producer Price Index](#)

## Crops and Livestock

Cattle (81%) and grain (7%) 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, increased from 22% to 28%, while the percentage of larger farms, 500 acres or more, decreased from 78% to 72% from 2012 to 2017.

Farm Size by Acres	2017		2012	
	Number of Farms	%	Number of Farms	%
1 to 9	5	5	2	2
10 to 49	8	8	4	4
50 to 179	5	5	7	7
180 to 499	11	11	9	9
500 to 999	8	8	6	6
1,000 or more	67	64	72	72
<b>TOTAL</b>	<b>104</b>	<b>100</b>	<b>100</b>	<b>100</b>

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 increased from 48% to 55%, while the proportion of total sales from the largest farms with sales of \$100,000 or more decreased from 52% to 45% from 2012 to 2017.

Farm Size by Sales	2017		2012	
	Number of Farms	%	Number of Farms	%
Less than 2,500	29	28	17	17
2,500 to 4,999	1	1	0	0
5,000 to 9,999	5	5	6	6
10,000 to 24,999	5	5	3	3
25,000 to 49,999	4	4	9	9
50,000 to 99,999	13	13	13	13
100,000 or more	47	45	52	52
<b>TOTAL</b>	<b>104</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: [Census of Agriculture](#): Table 1: County Summary Highlights: 2017

## Tillage and Land Use

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

Tillage	2017		2012	
	Number of Farms	%	Number of Farms	%
No tillage	23	22	23	23
Reduced tillage	10	10	13	13
Intensive tillage	13	13	44	44
Cover crops	5	5	6	6
<b>TOTAL FARMS</b>	<b>104</b>		<b>100</b>	

Source: [Census of Agriculture](#): Table 41 Land Use Practices

## Producer Profile

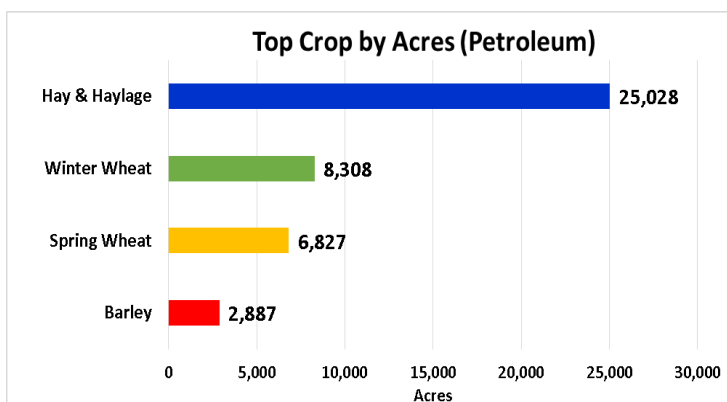
The county producer population was about the same age as the Montana producer population. Thirty-three percent of county producers were under 55 years of age, while 29% were over 65 years of age. Thirty-four percent of the Montana producer population were under 55, while 36% were over 65 years of age. Sixty-two percent of producers in the county were males, while 60% of Montana producers were males. Farming was the primary occupation for 68% of county producers, while farming was the primary occupation for 50% of Montana producers.

Characteristics	County		State	
	Number of Producers	%	Number of Producers	%
<b>Age</b>				
18 – 25	3	2	570	1
25 to 34	12	7	3,285	7
35 to 44	17	10	5,179	11
45 to 54	25	14	7,309	15
55 to 64	69	39	13,838	29
65 to 74	27	15	11,469	24
75 and older	24	14	5,587	12
<b>Sex</b>				
Male	110	62	28,563	60
Female	67	38	18,673	40
<b>Primary Occupation</b>				
Yes	121	68	23,847	50
No	56	32	24,314	50
<b>TOTAL PRODUCERS</b>	<b>177</b>	<b>100</b>	<b>48,161</b>	<b>100</b>

Source: [Census of Agriculture](#): Table 45 Selected Operation and Producer Characteristics

## Top Crops by Acres

The top crops were hay and haylage, winter and spring wheat, and barley.



Source: [Census of Agriculture](#): Table 1: County Summary Highlights: 2017

## Top Livestock

The top livestock was cattle.

Livestock	Number of Head
Cattle	22,138

Source: [Census of Agriculture](#): Tables 11 (Cattle)

## Employment Impact

Agricultural production employed 159 workers, or 54% of the county's labor force. According to IMPLAN, economic impact model, 103 of the workers were directly employed in production agriculture. An additional 49 workers were employed in businesses supporting agricultural production, such as feed and fertilizer dealers, and another 7 workers were employed in other related businesses, such as grocery and drugs stores. For every 10 jobs on farms and ranches, 5 additional jobs are generated in the county.

Impact Type	Labor Force	Impact Multipliers
County Labor Force	292	
Direct Impact	103	
Indirect Impact	49	0.48
Induced Impact	7	0.07
<b>Total Impact</b>	<b>159</b>	<b>0.54</b>
Agriculture's Share (%)	54	

Source: [Bureau of Labor Statistics](#), [www.bls.gov/#cntyaa](http://www.bls.gov/#cntyaa) and IMPLAN Estimates

## Value Added Impacts

Farms and ranches generated \$10.5 million of value-added, or 56% of the county's total gross domestic product of \$19 million in 2017. According to IMPLAN, \$6.6 million was directly contributed by farmers and ranchers. An additional \$3.3 million was generated by businesses supporting agricultural production and \$0.7 million was generated by other related businesses. Each dollar of value-added in agriculture by a farmer or rancher contributes an additional \$0.61 of value-added in other sectors of the county's economy.

Impact Type	Value-Added (\$1 million)	Impact Multipliers
County GDP*	19.0	
Direct Impact**	6.6	
Indirect Impact**	3.3	0.51
Induced Impact**	0.7	0.10
Total Impact**	10.5	0.61
Agriculture's Share (%)	56	

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](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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