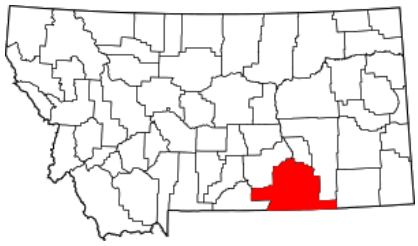
MONTANA STATE UNIVERSITY | EXTENSION

ECONOMIC IMPACT OF AGRICULTURE

Big Horn County



January 2021

Big Horn County is located in southern Montana, and contains a significant portion of the Crow Reservation. Over 99% of land in Big Horn County is classified as farm land.

Overview
(2017 Data)

Population	13,338
County Size (acres)	3,198,153
Land in Farms (%)	99.7
Number of Farms	353
Median Farm Size (acres)	721
Average Farm Size (acres)	9,032

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

Farm Revenue

Farm revenues (which includes the market value of products sold, government payments, and farm-related income) were just under $90 million while production expenses were $73 million. Government payments comprised 2.7% of revenues.

Market Value of Products Sold	$83,602,000
Government Payments	$2,444,000
Farm-Related Income	$3,769,000
Total Farm Production Expenses	$73,187,000
Net Cash Farm Income	$16,628,000

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

Taxation

The market value of all property in Big Horn County was approximately $954 million in 2019.

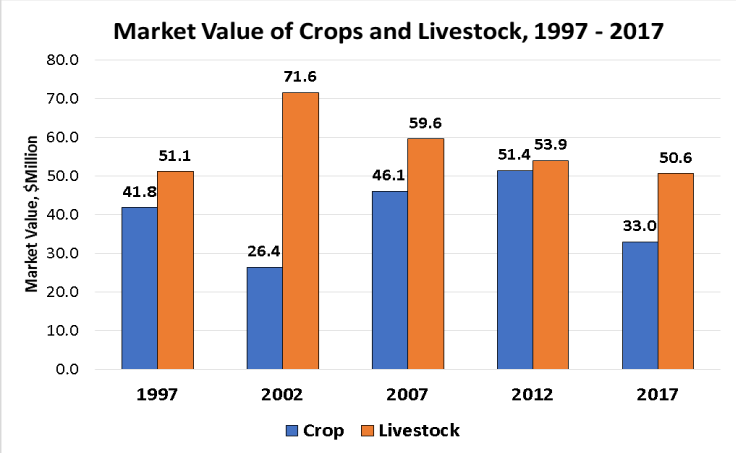
The taxable value assigned by the Montana Department of Revenue was $24 million. Agricultural Property (as defined by Montana Department of Revenue as Class 3 Property) comprised 13% of the county's taxable value.

Property Tax Summary	2019	2014
Market Value of All Property	$954,669,577	$890,527,934
Taxable Value of All Property	$24,240,695	$25,113,302
Taxable Value of Agricultural Property	$3,218,550	$3,285,009
Ag Taxable Value as % of All Property	13%	13%

Source: Montana Dept. of Rev. Montana Taxes by County in 2018 and Montana Taxes by County in 2014

Market Value of Crops and Livestock

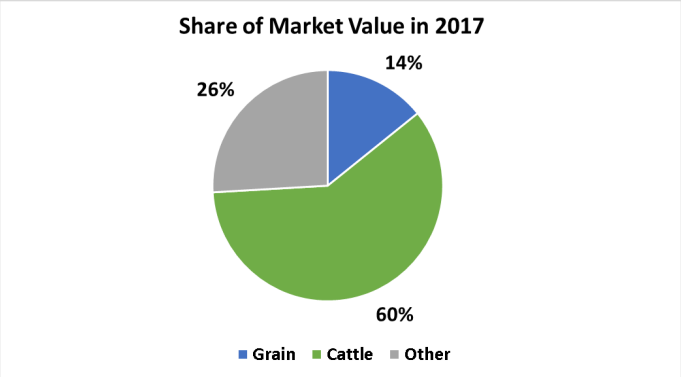
After adjusting for inflation, the market value of crops decreased by 21%, while the market value of livestock decreased by 1% from 1997 to 2017.



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

Crops and Livestock

Cattle (60%) and grain (14%) comprised over 74% of total sales.



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

Farm Size by Acres

The percentage of smaller farms, less than 500 acres, decreased from 55% to 46%, while the percentage of larger farms, 500 acres or more, increased from 45% to 54% from 2012 to 2017.

Farm Size by Acres	2017		2012	
	Number of Farms	%	Number of Farms	%
1 to 9	14	4	36	7
10 to 49	53	15	87	17
50 to 179	47	13	79	15
180 to 499	48	14	87	17
500 to 999	28	8	39	7
1,000 or more	163	46	199	38
TOTAL	**353**	**100**	**527**	**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 71% to 64%, while the proportion of total sales from the largest farms with sales of $100,000 or more increased from 29% to 36% from 2012 to 2017.

Farm Size by Sales	2017		2012	
	Number of Farms	%	Number of Farms	%
Less than 2,500	78	22	173	33
2,500 to 4,999	20	6	22	4
5,000 to 9,999	15	4	49	9
10,000 to 24,999	46	13	48	9
25,000 to 49,999	35	10	41	8
50,000 to 99,999	32	9	42	8
100,000 or more	127	36	152	29
TOTAL	**353**	**100**	**527**	**100**

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

Tillage and Land Use

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

Tillage	2017		2012	
	Number of Farms	%	Number of Farms	%
No tillage	51	14	38	7
Reduced tillage	24	7	23	4
Intensive tillage	60	17	102	19
Cover crops	8	2	11	2
TOTAL FARMS	**353**		**527**	

Source: Census of Agriculture: Table 41 Land Use Practices

Producer Profile

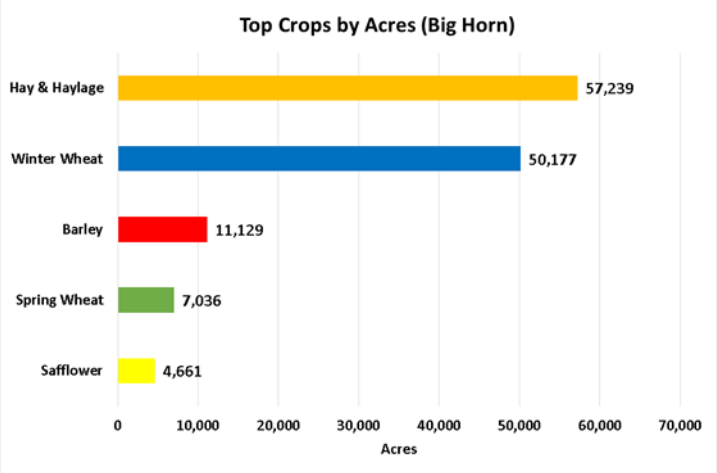
The county producer population was younger than the Montana producer population. Forty percent of county producers were under 55 years of age, while 35% were over 65 years of age. Thirty-four percent of the Montana producer population were under 55, while 36% were over 65 years of age. Sixty-six percent of producers in the county were males, while 60% of Montana producers were males. Farming was the primary occupation for 56% of county producers, while farming was the primary occupation for 50% of Montana producers.

Characteristics	County		State	
	Number of Producers	%	Number of Producers	%
Age				
18 – 25	15	3	570	1
25 to 34	35	6	3,285	7
35 to 44	71	12	5,179	11
45 to 54	110	19	7,309	15
55 to 64	144	25	13,838	29
65 to 74	132	23	11,469	24
75 and older	69	12	5,587	12
Sex				
Male	381	66	28,563	60
Female	200	34	18,673	40
Primary Occupation				
Yes	324	56	23,847	50
No	257	44	24,314	50
TOTAL PRODUCERS	**581**	**100**	**48,161**	**100**

Source: Census of Agriculture: Table 45 Selected Operation and Producer Characteristics

Top Crops by Acres

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



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

Top Livestock

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

Livestock	Number of Head
Cattle	83,734
Sheep	424
Chickens-Layers	395
Hogs	33
Turkeys	21

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

Employment Impact

Agricultural production employed 900 workers, or 16% of the county's labor force. According to IMPLAN, economic impact model, 767 of the workers were directly employed in production agriculture. An additional 108 workers were employed in businesses supporting agricultural production, such as feed and fertilizer dealers, and another 25 workers were employed in other related businesses, such as grocery and drugs stores. For every 10 jobs on farms and ranches, 2 additional jobs are generated in the county.

Impact Type	Labor Force	Impact Multipliers
County Labor Force	5,512	
Direct Impact	767	
Indirect Impact	108	0.14
Induced Impact	25	0.03
Total Impact	900	0.17
Agriculture's Share (%)	16	

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

Value Added Impacts

Farms and ranches generated $37.5 million of value-added, or 4% of the county's total gross domestic product of $935 million in 2017. According to IMPLAN, $30.1 million was directly contributed by farmers and ranchers. An additional $5.7 million was generated by businesses supporting agricultural production and $1.7 million was generated by other related businesses. Each dollar of value-added in agriculture by a farmer or rancher contributes an additional $0.25 of value-added in other sectors of the county's economy.

Impact Type	Value-Added ($1 million)	Impact Multipliers
County GDP*	935.0	
Direct Impact**	30.1	
Indirect Impact**	5.7	0.19
Induced Impact**	1.7	0.06
Total Impact**	37.5	0.25
Agriculture's Share (%)	4	

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

References

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