ECONOMIC IMPACT OF AGRICULTURE

Valley County

January 2021

Valley County is a rural county located in the northeastern part of the state, and contains some of the Fort Peck Reservation. About 51% of land in Valley County is classified as farm land.

Overview (2017 Data)

Population	7,347
County Size (acres)	3,152,703
Land in Farms (%)	51.7
Number of Farms	557
Median Farm Size (acres)	872
Average Farm Size (acres)	2,926

Source: <u>Census of Agriculture</u>: 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 \$136 million while production expenses were nearly \$113 million. Government payments were 9.9% of farm revenues.

Market Value of Products Sold	\$96,553,000
Government Payments	\$13,469,000
Farm-Related Income	\$25,998,000
Total Farm Production Expenses	\$112,756,000
Net Cash Farm Income	\$23,263,000

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

Taxation

The market value of all property in Valley County was approximately \$1 billion in 2019. The taxable value

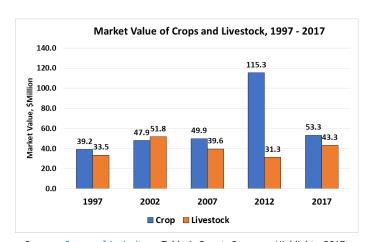
assigned by the Montana Department of Revenue was \$31 million. Agricultural Property (as defined by Montana Department of Revenue as Class 3 Property) comprised 18% of the county's taxable value.

Property Tax Summary	2019	2014
Market Value of All	\$1,186,624,361	\$674,183,984
Property		
Taxable Value of All	\$31,548,550	\$25,731,407
Property		
Taxable Value of	\$5,561,293	\$4,987,234
Agricultural Property		
Ag Taxable Value as	18%	19%
% 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

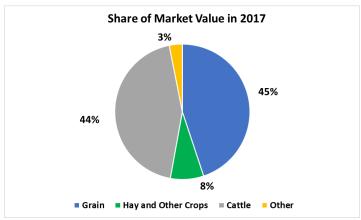
After adjusting for inflation, the market value of crops increased by 36%, while the market value of livestock increased by 29%, from 1997 to 2017.



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 (44%) and grain (45%) comprised 89% 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 37% to 40%, while the percentage of larger farms, 500 acres or more, decreased from 63% to 60% from 2012 to 2017.

	2017		2017 2013		2012	
	Number		Number			
Farm Size by Acres	of Farms	%	of Farms	%		
1 to 9	11	2	26	4		
10 to 49	41	7	31	5		
50 to 179	76	14	82	13		
180 to 499	97	17	105	16		
500 to 999	62	11	115	18		
1,000 or more	270	48	295	45		
TOTAL	557	100	654	100		

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

Farm Size by Sales

The percentage of the smallest farms with less than \$100,000 in sales decreased slightly from 62% to 61%, while the percentage of the largest farms with sales of \$100,000 or more increased from 38% to 39% from 2012 to 2017.

	2017		2012	
Farm Size by	Number		Number	
Sales	of Farms	%	of Farms	%
Less than 2,500	150	27	207	32
2,500 to 4,999	28	5	14	2
5,000 to 9,999	32	6	23	4
10,000 to 24,999	34	6	40	6
25,000 to 49,999	46	8	64	10
50,000 to 99,999	52	9	56	9
100,000 or more	215	39	250	38
TOTAL	557	100	654	100

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

Tillage and Land Use

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

	2017		2012	
	Number		Number	
Tillage	of Farms	%	of Farms	%
No tillage	135	24	173	26
Reduced tillage	102	18	95	15
Intensive tillage	49	9	148	23
Cover crops	5	1	11	2
TOTAL FARMS	557		654	

Source: Census of Agriculture: Table 41 Land Use Practices

Producer Profile

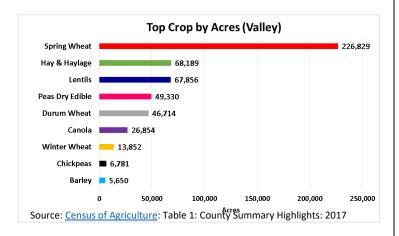
The county producer population was about the same age as the Montana producer population. Thirty-three percent of county producers were under 55 years of age, while 34% were over 65 years of age. Thirty-four percent of the Montana producer population were under 55, while 36% were over 65 years of age. Sixty-five 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.

	County		State	
	Number of		Number of	
Characteristics	Producers	%	Producers	%
Age				
18 – 25	6	1	570	1
25 to 34	63	7	3,285	7
35 to 44	102	11	5,179	11
45 to 54	148	15	7,309	15
55 to 64	251	26	13,838	29
65 to 74	191	20	11,469	24
75 and older	138	14	5,587	12
Sex				
Male	626	65	28,563	60
Female	336	35	18,673	40
Primary Occupation				
Yes	540	56	23,847	50
No	422	44	24,314	50
TOTAL PRODUCERS	962	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 & haylage, lentils, peas dry edible, durum wheat, canola, winter wheat, chickpeas, and barley.



Top Livestock

The top livestock were cattle, sheep, and poultry (chicken –layers and broilers).

Livestock	Number of Head
Cattle	61,831
Sheep	554
Chicken-Layers	442
Chicken-Broilers	12

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

Employment Impact

Agricultural production employed 887 workers, or 21% of the county's labor force. According to IMPLAN, economic impact model, 654 of the workers were directly employed in production agriculture. An additional 203 workers were employed in businesses supporting agricultural production, such as feed and fertilizer dealers, and another 30 workers were employed in other related businesses, such as grocery and drugs stores. For every 10 jobs on farms and ranches, 4 additional jobs are generated in the county.

Impact Type	Labor Force	Impact Multipliers
County Labor Force	4,158	
Direct Impact	654	
Indirect Impact	203	0.31
Induced Impact	30	0.05
Total Impact	887	0.36
Agriculture's Share (%)	21	

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

Value Added Impacts

Farms and ranches generated \$39.3 million of value-added, or 12% of the county's total gross domestic product of \$318 million in 2017. According to IMPLAN, \$25.4 million was directly contributed by farmers and ranchers. An additional \$12.2 million was generated by businesses supporting agricultural production and \$1.8 million was generated by other related businesses. Each dollar of value-added in agriculture by a farmer or rancher contributes an additional \$0.55 of value-added in other sectors of the county's economy.

Impact Type	Value-Added (\$1 million)	Impact Multipliers
County GDP*	318.0	
Direct Impact**	25.4	
Indirect Impact**	12.2	0.48
Induced Impact**	1.8	0.07
Total Impact**	39.3	0.55
Agriculture's Share (%)	12	

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

Report produced by MSU Extension:

- George Haynes, MSU Extension, Professor and Specialist
- Joel Schumacher, MSU Extension, Associate Specialist
- Jeff Peterson, Economic Impact Analyst, Impacts Montana

Contact Us:

MSU Extension Economics P.O. Box 172800 Bozeman, MT 5971 406-994-3511



For more information: www.montana.edu/agimpact

Montana State University Extension is an ADA/EO/AA/Veteran's Preference Employer and Provider of Educational Outreach.