ECONOMIC IMPACT OF AGRICULTURE

MONTANA STATE UNIVERSITY

EXTENSION

Daniels County



January 2021

Daniels County is a rural sparsely populated county located in the very northeastern part of the state. Over 84% of land in Daniels County is classified as farm land.

Overview (2017 Data)	
Population	1,747
County Size (acres)	912,650
Land in Farms (%)	84.3
Number of Farms	277
Median Farm Size (acres)	1,220
Average Farm Size (acres)	2,779
Source: <u>Census of Agriculture</u> : Table 1: Highlights: 2017	County Summary

Farm Revenue

Farm revenue (which includes the market value of products sold, government payments, and farm-related income) were nearly \$62 million while production expenses were \$54 million. Government payments were 12.4% of farm revenues.

\$42,187,000
\$7,683,000
\$11,945,000
\$54,085,000
\$7,729,000

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

Taxation

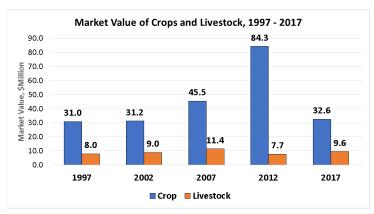
The market value of all property in Daniels County was approximately \$360 million in 2019. The taxable value assigned by the Montana Department of Revenue was \$7.4 million. Agricultural Property (as defined by Montana Department of Revenue as Class 3 property) comprised 45% of the county's taxable value.

Property Tax Summary	2019	2014
Market Value of All	\$360,396,873	\$223,312,645
Property		
Taxable Value of All	\$7,386,180	\$5,496,858
Property		
Taxable Value of	\$3,313,490	\$2,541,099
Agricultural Property		
Ag Taxable Value as	44.86%	46.23%
% 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

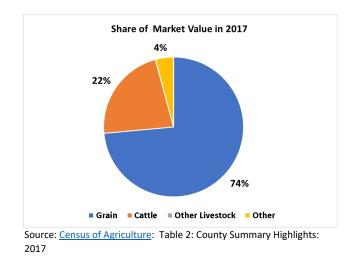
After adjusting for inflation, the market value of crops increased by 5%, while the market value of livestock increased by 19%, from 1997 to 2017.



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

Crops and Livestock

Grain (74%) and cattle (22%) comprised 96% of total crop and livestock sales in 2017.



Farm Size by Acres

The percentage of smaller farms, less than 500 acres, increased from 28% to 32%, while the percentage of larger farms, 500 acres or more, decreased from 72% to 68% from 2012 to 2017.

	2017		2012	
	Number		Number	
Farm Size by Acres	of Farms	%	of Farms	%
1 to 9	5	2	3	1
10 to 49	6	2	10	3
50 to 179	15	5	21	6
180 to 499	65	23	63	19
500 to 999	35	13	73	22
1,000 or more	151	55	168	50
TOTAL	277	100	338	100

Source: Census of Agriculture: Table 2: 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 63% to 66%, while the proportion of total sales from the

largest farms with sales of \$100,000 or more decreased from 37% to 34% from 2012 to 2017.

	2017		2012	
Farm Size by	Number		Number	
Sales	of Farms	%	of Farms	%
Less than 2,500	122	44	138	41
2,500 to 4,999	6	2	4	1
5,000 to 9,999	8	3	8	2
10,000 to 24,999	14	5	13	4
25,000 to 49,999	14	5	19	6
50,000 to 99,999	20	7	30	9
100,000 or more	93	34	126	37
TOTAL	277	100	338	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	61	22	81	24
Reduced tillage	49	18	50	15
Intensive tillage	27	10	48	14
Cover crops	5	2	8	2
TOTAL FARMS	277		338	

Source: Census of Agriculture: Table 41 Land Use Practices

Producer Profile

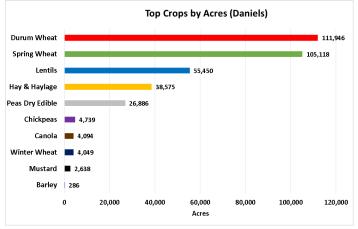
The county producer population was older than the Montana producer population. Twenty-eight percent of county producers were under 55 years of age, while 43% were over 65 years of age. Thirty-four percent of the Montana producer population were under 55, while 36% were over 65 years of age. Sixtytwo percent of producers in the county were males, while 60% of Montana producers were males. Farming was the primary occupation for 51% 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	1	0	570	1
25 to 34	16	3	3,285	7
35 to 44	44	9	5,179	11
45 to 54	83	16	7,309	15
55 to 64	146	28	13 <i>,</i> 838	29
65 to 74	128	25	11,469	24
75 and older	95	19	5,587	12
Sex				
Male	317	62	28,563	60
Female	196	38	18,673	40
Primary Occupation				
Yes	260	51	23,847	50
No	253	49	24,314	50
TOTAL PRODUCERS	513	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 durum and spring wheat, lentils, hay & haylage, peas dry edible, chickpeas, canola, winter wheat, mustard, and barley.



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

Top Livestock

The top livestock were cattle, chickens-layers, and sheep.

Livestock	Number of Head		
Cattle	14,412		
Sheep	286		
Chicken – Layers 110			
Source: Census of Agriculture: Tables 11 (Cattle), 13 (Sheep)			

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

Employment Impact

Agricultural production employed 316 workers, or 35% of the county's labor force. According to IMPLAN, economic impact model, 209 of the workers were directly employed in production agriculture. An additional 106 workers were employed in businesses supporting agricultural production, such as feed and fertilizer dealers, and 1 additional worker was 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	907	
Direct Impact	209	
Indirect Impact	106	0.51
Induced Impact	1	0.00
Total Impact	316	0.51
Agriculture's Share (%)	35	

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

Value Added Impacts

Farms and ranches generated \$14.2 million of valueadded, or 12% of the county's total gross domestic product of \$117 million in 2017. According to IMPLAN, \$6.9 million was directly contributed by farmers and ranchers. An additional \$7.3 million was generated by businesses supporting agricultural production and by other related businesses. Each dollar of value-added in agriculture by a farmer or rancher contributes an additional \$1.06 of valueadded in other sectors of the county's economy.

Impact Type	Value-Added (\$1 million)	Impact Multipliers
County GDP*	117.0	
Direct Impact**	6.9	
Indirect Impact**	7.3	1.06
Induced Impact**	0.0	0.00
Total Impact**	14.2	1.06
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 <u>https://www.nass.usda.gov/Publications/AgCensus/2017/Full</u> <u>Report/Volume 1, Chapter 1 State Level/Montana/mtv1.p</u> <u>df</u>
- Dept. of Revenue "Montana Taxes by County in 2014" <u>https://mtrevenue.gov/wp-</u> <u>content/uploads/2018/01/2014-Taxes-by-County.pdf</u>

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

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