



Overview of Agricultural Land Valuation



MONTANA DEPARTMENT OF REVENUE

Agricultural Land – Class 3

- Class 3
 - 50+ million acres
 - Includes
 - Agricultural land
 - Nonqualified agricultural land
 - Nonproductive patented mining claims

Agricultural Land Valuation

- Income Approach

- $V = I/R$

$$\text{Productivity Value} = \frac{\text{land productivity} \times \text{commodity price} \times \text{crop share}}{\text{rate of return}}$$

$$\text{Value} = (\text{Productivity} \times \text{Price} \times \text{Crop Share}) / 6.4\%$$

Productivity

- Natural Resource Conservation Service (NRCS) Soil Survey

$$\text{Value} = (\text{Productivity} \times \text{Price} \times \text{Crop Share}) / 6.4\%$$

Commodity Price

- Grazing Land
 - private grazing fee
- Non-irrigated farm land (Summer fallow & continuous crop farmland)
 - spring wheat
- Irrigated land & Non-irrigated hay land
 - alfalfa hay

$$\text{Value} = (\text{Productivity} \times \text{Price} \times \text{Crop Share}) / 6.4\%$$

2017 Commodity Prices

2017 Olympic Average	Indicates price not included in the average		
Commodity	Spring Wheat	Alfalfa	Private Grazing Fee
2015	\$4.80	\$100.00	\$23.00
2014	\$6.08	\$101.60	\$23.00
2013	\$6.70	\$112.80	\$21.00
2012	\$8.39	\$116.80	\$20.50
2011	\$8.36	\$78.40	\$19.40
2010	\$6.87	\$63.20	\$18.40
2009	\$5.72	\$76.80	\$18.00
2008	\$7.36	\$93.60	\$18.10
2007	\$7.49	\$63.20	\$17.80
2006	\$4.58	\$62.40	\$16.20
2017 Average	\$6.67	\$86.20	\$19.53
<i>2015 Average</i>	<i>\$6.36</i>	<i>\$76.50</i>	<i>\$18.08</i>
<i>% change from 2015</i>	<i>4.9%</i>	<i>12.7%</i>	<i>8.0%</i>
Value = (Productivity X Price X Crop Share)/6.4%			

Crop Share & Capitalization Rate

Crop Share

- 15-7-201, MCA
- typical business practices
- MSU study

Capitalization Rate

- 15-7-201, MCA
- 6.4%

$$\text{Value} = (\text{Productivity} \times \text{Price} \times \text{Crop Share}) / 6.4\%$$

Valuation Example

Summer Fallow Farmland

Land productivity = 22 bu./ac

Average price for spring wheat = \$6.67/bu.

Crop share = 12.5%

Capitalization rate = 6.4%

$\frac{22 \text{ bu./ac} \times \$6.67/\text{bu} \times 12.5\%}{6.4\%} = \$286.60/\text{acre}$

Valuation Example

Grazing Land

Land productivity = .21aum/ac

Average price for spring wheat = \$19.53/aum

Expenses = 25%

Capitalization rate = 6.4%

.21 aum/ac X (\$19.53/aum – (19.53 x 25%)) = \$48.13/acre

6.4%

Value = (Productivity X (Price – Expenses))/6.4%

Agricultural Eligibility

- Application process
 - parcels less than 160 acres
 - 15-7-202, MCA
- Basis for agricultural eligibility
 - \$1,500 annual gross agricultural income
 - 1985 legislature, SB 431
 - 15-1-101, MCA



Agricultural Eligibility

- 160 acres or more
 - automatic ag
- 20 acres to less than 160 acres
 - nonqualified agricultural land
 - apply for agricultural classification
- less than 20 acres
 - market land
 - apply for agricultural classification

Grazing Land Eligibility

- Carrying capacity
 - animal unit months (AUMs)
 - based on the NRCS soil survey
- Requirement
 - minimum of 31 AUMs
 - MCA 15-7-202
 - hobby horses or other hobby animals. 15-7-202, MCA

Specialty Crops

- fruit tree orchards, vineyards, cultivated Christmas trees, sod farms, gardens and nurseries
 - valued at highest productivity of continuously cropped farmland
- 60 bushels per acre (\$1,563)

Nonqualified Agricultural Land

Parcels 20 acres to less than 160 acres

- 15-6-133, MCA
- created by 1993 legislature
- application not required
- agricultural use not required
- average grazing value (2017 value = \$48/Acre)
- 7 times the agricultural tax rate (15.12%)

Agricultural Parcel Numbers

Agricultural Parcels by Size

Less Than 20 Acres			20 to 159.999 Acres			160 and greater Acres			Non Qual Acres		
# Parcels	Total Acres	Avg Size	# Parcels	Total Acres	Avg Size	# Parcels	Total Acres	Avg Acres	# Parcels	Total Acres	Avg Size
22,700	181,805	8	83,919	6,138,715	74	115,871	42,801,216	360	44,306	1,106,688	29

1 Acre Beneath a Residence

- on agricultural land
 - valued at the highest productive value of agricultural land (2017=\$2,302)
 - 15-7-206, MCA
 - 1995 legislature SB 138
- on nonqualified agricultural land
 - valued at market value
 - 15-6-134, MCA

1 Acre Beneath a Residence

- Agricultural home site comparison

Agricultural Productive Value			Market Value			
2017 total value	taxable value	homesite acre value	2017 total value	taxable value	average market value	total acres
67,951,483	1,467,752	2,302	905,819,038	12,228,557	33,449	29,634