
Lease Rates for Privately Owned, Non-Irrigated Pasture for 2013¹

Leasing is a valuable strategy for farmers and ranchers to gain access and to use land. A lease is an agreement giving use of an asset to another person for a specific period of time at a specified rate. A lease does not transfer title of ownership nor an equity interest in the asset. For the purposes of this report, leasing and renting are considered to be the same.

Leasing pasture allows a livestock owner to use land for livestock grazing purposes for a fee. The fee is typically based on the number of acres in the arrangement (\$/acre) or the number of animals allowed to graze the land (\$/AUM). An AUM – animal unit month – is considered to be the number of acres needed for a beef cow to graze for one month. A yearling beef animal is generally 0.74 AUM, and one sheep is generally considered to be 0.20 AUM.

The Colorado Board of Land Commissioners (also known as the State Land Board) “was established in 1876 to manage more than three million acres of land and four million acres of mineral rights that the federal government gave to Colorado to generate revenue for public education and some

of the state’s institutions.”

At the request of (and funded by) the State Land Board, Colorado State University conducted a survey of people leasing privately owned, non-irrigated grazing land in Colorado. The purpose of the survey was to discover and report lease rates paid by livestock owners and received by land owners in 2013.

The authors thank all those who responded to the survey and those who assisted with distribution of the questionnaire.

Methodology

The survey questionnaire was designed and completed by Agricultural and Business Management Economists at Colorado State University Extension in collaboration with professional staff members of the Land Board. The survey was conducted in September 2013 with questionnaires distributed to farmers, ranchers, and other land owners and renters. Extension agents and the Colorado Cattlemen’s and Wool Growers Associations assisted with distribution of the survey.

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The survey collected relevant data for determining the range of rates and average rates received by owners of non-irrigated grazing lands and paid by livestock owners. Survey results do not pertain to publicly owned nor irrigated pastures.

Returned questionnaires with incomplete information and responses outside expected norms were excluded from analysis. Specifically, incomplete data included, but was not limited to: the county not indicated (unable to include in results for specific regions); number of acres in the lease; and AUMs not reported for leases with “dollars per head per month” rates. Thus, the survey results may not be statistically valid. The results are intended to accurately reflect the typical rates being charged or paid in Colorado. Reported rates are not recommended rates.

Colorado has 64 counties. There were returned, usable questionnaires from all but 13 counties (Chaffee, Costilla, Dolores, Gilpin, Mineral, Montezuma, San Juan, Adams, Boulder, Broomfield, Denver, Jefferson, and Phillips).

Results According to Regions

According to State Land Board policy, survey data are to be collected, grouped, analyzed, and reported for five regions:

- Southwest (27 counties)
- Northwest (8 counties)
- Northeast (14 counties)
- East Central (7 counties)
- Southeast (8 counties)

Data from 487 returned questionnaires were included in the analysis: 103 in the Southwest, 56 in the Northwest, 113 in the Northeast, 123 in the East Central, and 92 in the Southeast.

Most (76%) leases of privately owned, non-irrigated pasture were used for grazing cows and calves. Another 12 percent of such leases were



used for grazing yearling cattle. Very few pasture leases in Colorado were used for grazing sheep and/or goats. See Table 2.

There was significant variation in the size of leased pasture in Colorado. The largest parcel, consisting of 70,000 acres was located in the Southeast region. Conversely, the smallest parcel size was five acres (Northeast region). The average parcel size of leased privately owned, non-irrigated pasture was 1,985 acres for all such leases in Colorado. Median parcel size ranged from 480 acres (Southwest region) to 900 acres (Northwest region).

There was tremendous variation in the “carrying capacity” of privately owned, non-irrigated pastures across Colorado. The lowest capacity was one acre per animal unit month (AUM) for a six-month grazing season. The highest carrying capacity was 113 acres per AUM for a 6-month grazing period. The average carrying capacity across all regions was 23 acres per AUM for a 6-month grazing period.

Cash rental rates for privately owned, non-irrigated pasture in Colorado in 2013 were paid on a “per acre” or a “per head per month” basis. One half (51%) of all reported rates were calculated on a per acre basis. Further, 84

percent of all leases were not discounted for any reason, and 88 percent of the leases included no marketable rights (hunting, fishing, etc.). See Tables 3 and 6.

The highest “per acre” rate reported in the survey was \$18.75 per acre, while the lowest rate was \$0.50 per acre. The significant variation was a factor of parcel size, location, use, and other circumstances. Average “per acre” rates ranged from \$2.98 (Southeast region) to \$6.73 (Northeast region).

A majority (73%) of leases in the Northwest region were computed on a “per head per month” basis. Such rates across all regions ranged from \$3.72 to \$38.00. Average “per head per month” lease rates were highest in the Northeast region and lowest in the Southwest region. The average for the state was \$16.49, and the median rate was \$15.00 per head per month.

One half of leases of privately owned, non-irrigated pasture were renewed annually. Almost one-third of such leases were for longer than one year. The balance of reported lease rates was on a “month to month” basis.

The survey also asked questions pertaining to whether the land owner or livestock owner (tenant or renter) provided certain services associated with using the land for grazing purposes. Fence maintenance was typically performed by the livestock owner. The materials for routine fence maintenance were provided by either the land owner (51%) or the livestock owner (44%). New fence was typically paid for by the land owner. Water for grazing livestock was most often provided by the land owner. Animal maintenance and oversight was the responsibility of the livestock owner in 89 percent of the leases, while salt and minerals was provided by the livestock owner in almost all (93%) of the leases. See Tables 4 and 5.

The survey questionnaire allowed respondents to

comment about their leases. The comments had significant variation. However, multiple comments pertained to three topics:

- 1) Drought conditions caused fewer (or no) cattle to be grazed on the same number of acres as compared to historical averages.
- 2) Prairie dogs are an issue for both landowners and livestock owners. Costs to control prairie dogs, noxious weeds, and other pests are shared by both parties to the lease.
- 3) Trees and shrubs are increasing in number and thus reducing the carrying capacity of the pasture land.

Comparing 2013 Results with 2010 Result

Colorado State University conducted a similar survey in 2010 and reported the results to the Colorado Board of Land Commissioners. The recipients and respondents of each survey may or may not have been the same. Different respondents are one factor of year to year differences.

Average parcel size within each region changed somewhat but did not change across regions from 2010 to 2013. The state-wide average parcel size was 2,051 acres according to the 2010 survey and 1,985 according to 2013 survey responses.

A greater percentage of grazing leases were for yearling cattle in 2013 (12%) than in 2010 (9%). Additionally, fewer leases were based on “per acre” rates in 2013 (51%) than in 2010 (62%). Average rental rates were higher in 2013 than in 2010 for all five regions whether determined on a per acre basis or a per animal unit month basis.

Average cash rental rates for Colorado increased, regardless of how calculated, from 2010 to 2013. Survey results indicate that lease rates determined on a dollar per acre basis increased

by \$1.23 per acre. Lease rates, when determined on a dollar per animal unit month basis, increased by \$1.67 per AUM.

Table 1. Comparison of Selected Information From the 2010 and 2013 Surveys for Colorado.		
	2010	2013
Average Lease Size (acres)	1,985	2,051
Leases by Species		
Cows & Calves	81%	76%
Yearlings	9%	12%
Sheep/Goats	2%	2%
Basis for Computing Lease Rates		
\$ per acre	62%	51%
\$ per aum	38%	49%
Average Cash Rental Rates		
\$ per acre	\$3.73	\$4.96
\$ per aum	\$14.82	\$16.49

Results According to Land Board Districts

The State Land Board has seven administrative districts:

1. Northwest (13 counties)
2. North Central (5 counties)
3. Northeast (5 counties)
4. Southwest (16 counties)
5. South Central (5 counties)
6. Front Range (14 counties)
7. Southeast (6 counties)

No fewer than 64 percent of leases (Front Range District) of privately owned, non-irrigated pastures in 2013 were for cows and calves with 91 percent of such leases in the Southwest District were for cows and calves. The percentage of pasture leases in 2013 ranged from five percent (Southwest District) to 25 percent (Front Range District). See Table 7.

Average parcel size in 2013 ranged from 864 acres in the Front Range District to 3,192 acres in the Northwest District. Average carrying capacities ranged from 15 acres per animal unit in the Southwest District to 30 acres per animal unit in the South Central District.

Rental rates for Colorado averaged \$4.96 per acre and \$16.49 per animal unit month. Average rates ranged from \$3.93 in the Front Range District to \$8.07 in the Northeast District. Median rates across the state were \$4.00 per acre and \$15.00 per animal unit month. Median rental rates ranged from \$2.00 per acre in the Front Range District to \$8.10 per acre. Such rates, when computed on a dollar per animal unit month basis, ranged from \$12.73 in the Front Range District to \$20.49 in the Northeast District.

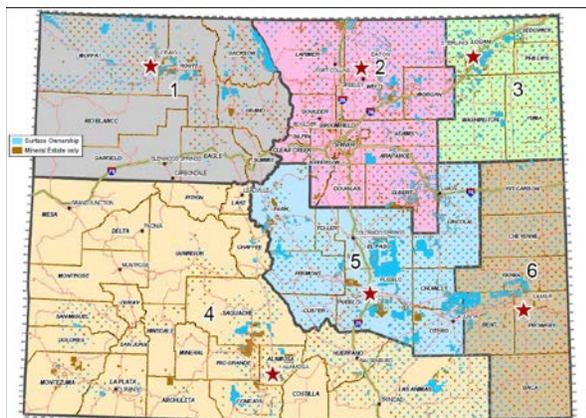


Table 2. Lease Types as Reported by Respondents of the 2013 Privately Owned, Non-Irrigated Pasture Lease Survey in Colorado, by Reporting Region.

	Southwest Region	Northwest Region	Northeast Region	East Central Region	Southeast Region	Colorado
Total Responses	103	56	113	123	92	487
Q1. This lease is for what animal species?						
Cows & Calves						
Number of Responses	77	40	93	83	78	371
Percent	75%	71%	82%	67%	85%	76%
Yearling Cattle						
Number of Responses	15	4	11	20	8	58
Percent	15%	7%	10%	16%	9%	12%
All Cattle						
Number of Responses	4	7	5	10	4	30
Percent	4%	13%	4%	8%	4%	6%
Cattle & Sheep						
Number of Responses	2	0	0	0	0	2
Percent	2%	0%	0%	0%	0%	0%
Sheep/Goats						
Number of Responses	3	5	5	0	0	8
Percent	3%	9%	9%	0%	0%	2%
Other Animals/Not Identified						
Number of Responses	2	0	0	4	2	18
Percent	2%	0%	0%	4%	2%	4%
Q2. How much land is in this lease? (acres)						
Largest Parcel Size	25,000	61,892	8,850	14,800	70,000	70,000
Smallest Parcel Size	12	22	5	10	80	5
Average Parcel Size	1,249	3,274	1,156	1,491	3,702	1,985
Median Parcel Size	480	900	635	640	800	640
Q3. What is the "carrying capacity" of this lease? (acres per animal unit for a 6-month grazing period)						
Highest Capacity	1	2	2	1	5	1
Lowest Capacity	100	113	70	90	80	113
Average Capacity	23	20	20	24	29	23
Median Capacity	16	12	16	20	28	20
<i>Note: Total number of responses for each section and total for Colorado may not sum to 100% due to unreported data for the particular question.</i>						

Table 3. Lease Rates as Reported by Respondents of the 2013 Privately Owned, Non-Irrigated Pasture Lease Survey in Colorado, by Reporting Region.

	Southwest Region	Northwest Region	Northeast Region	East Central Region	Southeast Region	Colorado
Q1. What is the cash rental rate of this lease? (\$/acre)						
Number of Responses	42	15	58	69	63	247
Percent	41%	27%	51%	56%	68%	51%
Reported Rates						
Highest	15.00	12.50	15.00	18.75	10.00	18.75
Lowest	0.50	1.00	0.75	1.00	0.75	0.50
Average	4.34	4.39	6.73	5.79	2.98	4.96
Median	3.68	3.00	7.00	5.00	3.00	4.00
Q2. What is the cash rental rate of this lease? (\$/head/month)						
Number of Responses	61	41	55	54	29	240
Percent	59%	73%	49%	44%	32%	49%
Reported Rates						
Highest	38.00	30.00	35.00	35.00	32.50	38.00
Lowest	5.00	3.72	8.00	8.00	7.00	3.72
Average	14.67	15.12	21.18	15.16	15.82	16.49
Median	14.00	15.00	20.00	15.00	15.00	15.00
Q3. Is the cash rental rate discounted?						
Discounted						
Number	20	8	8	17	5	59
Percent	19%	14%	7%	14%	5%	12%
Not Discounted						
Number	77	46	101	104	82	410
Percent	75%	82%	89%	85%	89%	84%
Q4. What is the length of this lease?						
Month to Month						
Number	23	16	19	17	9	84
Percent	27%	29%	17%	14%	10%	17%
Annual						
Number	44	23	61	70	50	248
Percent	43%	41%	54%	57%	54%	51%
Multiple Years						
Number	36	17	33	36	33	155
Percent	35%	30%	29%	29%	36%	32%
<i>Note: Total number of responses for each section and total for Colorado may not sum to 100% due to unreported data for the particular question.</i>						

Table 4. Fencing Services Provided as Reported by Respondents of the 2013 Privately Owned, Non-Irrigated Pasture Lease Survey in Colorado, by Reporting Region.

	Southwest Region	Northwest Region	Northeast Region	East Central Region	Southeast Region	Colorado
Q1. Who provides "labor for fence maintenance"?						
Land Owner						
Number	28	23	31	25	18	125
Percent	27%	41%	27%	20%	20%	26%
Livestock Owner (tenant)						
Number	70	32	77	93	70	342
Percent	68%	57%	68%	76%	76%	70%
Shared						
Number	4	0	2	2	1	9
Percent	4%	0%	2%	2%	1%	2%
Q2. Who provides "materials for fence maintenance"?						
Land Owner						
Number	49	34	67	59	38	247
Percent	48%	61%	59%	48%	41%	51%
Livestock Owner (tenant)						
Number	47	21	42	55	50	215
Percent	46%	38%	37%	45%	54%	44%
Shared						
Number	5	0	1	4	1	11
Percent	5%	0%	1%	3%	1%	2%
Q3. Who provides "labor for new fence construction"?						
Land Owner						
Number	41	36	59	52	36	224
Percent	40%	64%	52%	42%	39%	46%
Livestock Owner (tenant)						
Number	41	10	39	49	40	179
Percent	40%	18%	35%	40%	43%	37%
Shared						
Number	2	1	1	1	0	5
Percent	2%	2%	1%	1%	0%	1%
Q4. Who provides "materials for new fence construction"?						
Land Owner						
Number	52	40	82	74	52	300
Percent	50%	71%	73%	60%	57%	62%
Livestock Owner (tenant)						
Number	28	6	14	30	23	101
Percent	27%	11%	12%	24%	25%	21%
Shared						
Number	3	1	0	0	0	4
Percent	3%	2%	0%	0%	0%	1%
<i>Note: Total number of responses for each section and total for Colorado may not sum to 100% due to unreported data for the particular question.</i>						

Table 5. Water and Water Supply Provided as Reported by Respondents of the 2013 Privately Owned, Non-Irrigated Pasture Lease Survey in Colorado, by Reporting Region.

	Southwest Region	Northwest Region	Northeast Region	East Central Region	Southeast Region	Colorado
Q1. Who provides “water for grazing livestock”?						
Land Owner						
Number	54	32	79	83	47	295
Percent	52%	57%	70%	67%	51%	61%
Livestock Owner (tenant)						
Number	27	11	25	32	37	132
Percent	26%	20%	22%	26%	40%	27%
Q2. Who provides “water pipeline construction”?						
Land Owner						
Number	28	19	60	58	45	210
Percent	27%	34%	53%	47%	49%	43%
Livestock Owner (tenant)						
Number	13	4	11	19	15	62
Percent	13%	7%	10%	15%	16%	13%
Q3. Who provides “earthen water tank construction”?						
Land Owner						
Number	37	23	41	46	46	193
Percent	36%	41%	36%	37%	50%	40%
Livestock Owner (tenant)						
Number	13	4	4	17	15	53
Percent	13%	7%	4%	14%	16%	11%
Q4. Who provides “materials for non-earthen water tank construction”?						
Land Owner						
Number	25	21	61	60	43	210
Percent	24%	38%	54%	49%	47%	43%
Livestock Owner (tenant)						
Number	24	6	20	26	22	98
Percent	23%	11%	18%	21%	24%	20%
Q5. Who provides “non-earthen water tank installation”?						
Land Owner						
Number	23	16	56	55	42	192
Percent	22%	29%	50%	45%	46%	39%
Livestock Owner (tenant)						
Number	23	5	16	22	19	85
Percent	22%	9%	14%	18%	21%	17%
<i>Note: Very few leases allow for the costs of water and water supply to be shared by the land owner and the livestock owner. A significant number of returned surveys did not include data pertaining to questions about water.</i>						

Table 6. Marketable Rights Included in Leases as Reported by Respondents of the 2013 Privately Owned, Non-Irrigated Pasture Lease Survey in Colorado, by Reporting Region.

	Southwest Region	Northwest Region	Northeast Region	East Central Region	Southeast Region	Colorado
Q1. Are any “marketable rights” included in this lease?						
No Marketable Rights						
Number	98	55	95	103	78	429
Percent of Responses	95%	98%	84%	84%	85%	88%
Yes, Hunting is Allowed						
Number	2	1	5	14	14	36
Percent of Responses	2%	2%	4%	11%	15%	7%
Yes, Fishing is Allowed						
Number	0	0	0	0	0	0
Percent of Responses	0%	0%	0%	0%	0%	0%
<i>Note: Total number of responses for each section and total for Colorado may not sum to 100% due to unreported data for the particular question.</i>						

Table 7. Selected Results From 2013 Survey of Privately Owned, Non-Irrigated Pasture Leases According to State Land Board Administrative Districts.

	D1 Northwest	D2 North Central	D3 Northeast	D4 Southwest	D5 South Central	D6 Front Range	D7 Southeast	Colorado
Leases by Species								
Cows & Calves	69%	79%	82%	91%	67%	64%	84%	76%
Yearling Cattle	8%	7%	7%	5%	18%	25%	7%	12%
Sheep/Goats	9%	0%	0%	1%	0%	0%	0%	2%
Parcel Size (acres)								
Average	3,192	1,625	1,178	2,553	2,448	864	1,529	1,985
Median	1,000	640	665	640	800	355	540	640
Carrying Capacity (acres per aum for a 6-month grazing period)								
Average	19	24	17	15	30	21	27	23
Median	11	20	15	15	30	15	20	20
Rental Rates (per acre)								
Highest	\$12.50	\$12.71	\$15.00	\$15.00	\$15.00	\$18.75	\$14.00	\$18.75
Lowest	\$1.00	\$0.75	\$2.00	\$0.75	\$1.00	\$0.50	\$1.00	\$0.50
Average	\$5.15	\$4.61	\$8.07	\$3.40	\$4.70	\$3.93	\$4.80	\$4.96
Median	\$3.87	\$4.65	\$8.10	\$3.00	\$4.00	\$2.00	\$4.00	\$4.00
Rental Rates (per aum)								
Highest	\$30.00	\$35.00	\$35.00	\$38.00	\$35.00	\$30.00	\$32.50	\$38.00
Lowest	\$3.72	\$8.00	\$10.00	\$9.00	\$8.00	\$5.00	\$7.00	3.72
Average	\$15.35	\$20.44	\$20.49	\$16.78	\$16.10	\$12.73	\$14.13	\$16.49
Median	\$15.00	\$18.00	\$20.00	\$15.00	\$15.00	\$12.25	\$12.00	\$15.00