

# Lease Rates for Privately Owned, Non-Irrigated Pasture in 2015 and $2016{ }^{1}$ Jeffrey E. Tranel and Norman Dalsted ${ }^{2}$ 

Leasing is a valuable strategy for farmers and ranchers to gain access to 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 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 animal unit month (AUM) is considered to be the number of acres needed for one beef cow to graze for one month. A yearling beef animal is generally 0.74 AUM, and one ewe sheep is 0.20 AUM.

The Colorado Board of Land Commissioners (or State Land Board) "was established in 1876 to manage the land and mineral rights given by the federal government to Colorado to generate revenue for public education and some of the state's institutions."

At the request of the State Land Board, Colorado State University surveyed 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 2015 and 2016. A similar survey was conducted for the 2010 and 2013 grazing years.

## Methodology

The survey questionnaire was designed by Agricultural and Business Management Economists at Colorado State University in collaboration with professional staff members of the State Land Board. The survey collected data pertaining to the county in which the land exists, types of animals allowed to graze on the rented land, number of acres within each lease, lease rate, length of the lease, and whether the landowner or the tenant paid for various services associated with the lease.

The questionnaire was distributed by mail to 2,377 farmers, ranchers, landowners, renters and others. Of the questionnaires mailed, 49 were returned due to invalid mailing addresses, and 129 recipients indicated they did not have leased land.

A total of 645 questionnaires were returned. Questionnaires with incomplete information and responses outside expected norms were excluded from analysis. Specifically, incomplete data included, but was not limited to: number of acres

[^0]in the lease and AUMs not reported for leases with associated "dollars per animal unit month" rates. Data on returned questionnaires for which the applicable county was not indicated were included in state-wide results but were not included in district specific analysis. There were 633 returned questionnaires with "usable" data. See Table 1.

As per State Land Board policy, survey data were collected, analyzed, and reported for six districts.


- District 1, Northwest (Eagle, Garfield, Grand, Jackson, Moffat, Rio Blanco, Routt, and Summit Counties)
- District 2, North Central (Adams, Arapahoe, Boulder, Broomfield, Clear Creek, Denver, Douglas, Elbert, Gilpin, Jefferson, Larimer, Morgan, and Weld Counties)
- District 3, Northeast (Logan, Phillips, Sedgwick, Washington, and Yuma Counties)
- District 4, Southwest (Alamosa, Archuleta, Chaffee, Conejos, Costilla, Dolores, Gunnison, Hinsdale, Huerfano, La Plata, Lake, Las Animas, Mesa, Mineral, Montezuma, Ouray, Pitkin, Rio Grande, Saguache, San Juan, and San Miguel Counties)
- District 5, South Central (Crowley, Custer, El Paso, Fremont, Lincoln, Otero, Park, Pueblo, and Teller Counties)
- District 6, Southeast (Baca, Bent, Cheyenne, Kiowa, Kit Carson, and Prowers Counties)

Colorado State University conducted similar surveys in 2010 and 2013 at the requests of the State Land Board. Survey recipients and respondents of each survey may or may not have been the same. Different respondents are one factor of year to year differences.

Most leases of privately owned, non-irrigated pasture land in Colorado are for cattle grazing. The carrying capacity of these pastures is 20 acres per AUM for a 6-month grazing period.

Median parcel size of leases reported did not change from 2010 to 2015 - 640 acres per lease, but did increase to 730 acres in 2016. Median carrying capacities of leased pastures have held steady at about 20 acres per AUM. See Table 2.

Lease rates for privately owned, non-irrigated pasture land - according to survey results - were $\$ 3.73$ per acre and $\$ 14.82$ per AUM in 2010, $\$ 4.96$ and $\$ 16.49$ in 2013, $\$ 5.38$ and $\$ 17.83$ in 2015, and $\$ 6.29$ and \$17.53 in 2016.

## Survey Results

Survey responses were received for leases in 55 counties. Those counties for which there were no questionnaires returned or data was not usable were: Boulder, Costilla, Denver, Gilpin, Hinsdale, Phillips, San Juan, Sedgwick, and Summit.

Data from 301 leases were analyzed to determine the purpose of the lease, lease size, carrying capacities, and lease rates in 2015. Data from 332 leases for 2016 were similarly analyzed. Of the 633 leases, 620 had a county identified in which a majority of the leased land existed. Thus, a total of 13 questionnaires did not have a county identified but contained otherwise usable data.

Lease Size: There was significant variation in the size of pasture leases in 2015. The largest parcel consisted of 29,150 acres, while the smallest parcel was 15 acres. The average parcel size of leased privately owned, non-irrigated pasture was 1,666 acres for all such leases in Colorado. The median parcel size was 640 acres. See Table 3.

The number of acres associated with pasture leases varied more in 2016 than they did in 2015. The largest parcel size associated with a single lease was 45,000 acres, while the smallest parcel was 17 acres. The average parcel size of leased privately owned, non-irrigated pasture was 1,855 acres for all such leases in Colorado. The median parcel size was 730 acres. See Table 4.

Lease Purpose: Most leases in 2016 (79\%) were for grazing cows and calves, nine percent (9\%) were for yearling cattle, and another seven percent ( $7 \%$ ) were for beef cattle of any type. Very few leases pertain to grazing by other species. However, 25 percent ( $25 \%$ ) of the leases in District 1 are for grazing sheep and/or goats. See Table 4.

Lease Carrying Capacity: The "carrying capacity" of privately owned, non-irrigated pastures pertains to the number of acres required to produce the forage needed to graze 1.0 animal unit (AU) for a 6-month grazing period. Data for all 633 leases in 2015 and 2016 were analyzed together. The number of acres ranged from one acre per AU to 100 acres per AU. The average carrying capacity of reported leases was 25 acres per AU, while the median was 20 acres per AU. See Table 2.

Lease Rates: Cash rental rates in 2015 for privately owned, non-irrigated pasture in Colorado were paid on a "per acre" or "per head per month" (AUM) basis. Just more than half ( $56 \%$ ) of all reported leases in 2015 were paid on a per head per month basis. See Table 2.

The highest reported rates in 2015 were $\$ 87.50$ per acre and $\$ 45.00$ per AUM. The lowest rates were just lower than $\$ 1.00$ per acre and $\$ 2.00$ per AUM. Reported rates for 2015 averaged $\$ 5.38$ per acre and $\$ 17.83$ per AUM, while median rates were $\$ 4.00$ per acre and $\$ 16.25$ per AUM. See Table 3.

Just more than half (55\%) of all reported leases in 2016 were paid on a per acre basis. The range of lease rates were the same in 2016 as they were in 2015. However, the average rate per acre increased to $\$ 6.29$ while the average rate per AUM decreased slightly to $\$ 17.53$. Median rates
increased to $\$ 5.00$ per acre and $\$ 17.00$ per AUM. See Table 2.

The highest reported rates in 2016 were $\$ 87.50$ per acre and $\$ 45.00$ per AUM. The lowest rates were less than $\$ 1.00$ per acre and $\$ 1.12$ per AUM. Reported rates for 2016 averaged $\$ 6.29$ per acre and $\$ 17.33$ per AUM, while the median rates were $\$ 5.00$ per acre and $\$ 17.00$ per AUM. See Table 4.

Most leases (88\%) were not discounted for reasons such as leasing to a family member. Further, most leases (77\%) did not include any marketable rights such as hunting and fishing.

Provider of Services: Within many leases of privately owned, non-irrigated pasture is language regarding whether the landowner or the tenant bears the cost of maintaining infrastructure (e.g. fences and watering systems), providing water, animal care, and providing salt and mineral.

For leases in 2015 and 2016, tenants generally paid for the labor to maintain fences ( $73 \%$ of all reported leases), oversee the animals (90\%), and provide the salt and minerals consumed by the grazing animals ( $97 \%$ ). The landowner paid for the materials to construct new fences, livestock water supply pipelines, and water tank construction for most reported leases. See Table 7.

Comments by Respondents: The survey questionnaire allowed respondents to comment about their leases. The comments had significant variation, but multiple comments pertained to two topics:

1) The extended drought in Colorado has caused an increase in weeds, and thus, lower carrying capacities of pastures.
2) Lease rates increased as cattle prices increased but have not declined with decreasing cattle prices.

## NASS Survey Results

USDA's National Agricultural Statistics Service (NASS) conducts county level surveys of pasture lease rates. Pasture consists of permanent pasture
and grassland that is normally grazed by livestock, regardless whether the pasture is irrigated or not irrigated. In instances where an insufficient number of reports were received to produce reliable estimates for a county or district, reports are combined and published as "other (combined) counties".

NASS combines Colorado counties into six districts:
> East Central: Adams, Arapahoe, Cheyenne, Denver, Douglas, El Paso, Elbert, Kiowa, Kit Carson, Lincoln, Phillips, Washington, and Yuma.
> Northeast: Boulder, Broomfield, Jefferson, Larimer, Logan, Morgan, Sedgwick, and Weld.
> Northwest and Mountain: Chaffee, Clear Creek, Eagle, Gilpin, Grand, Gunnison, Jackson, Lake, Moffat, Park, Pitkin, Rio Blanco, Routt, Summit, and Teller.
> San Luis Valley: Alamosa, Conejos, Costilla, Mineral, Rio Grande, and Saguache.
> Southeast: Baca, Bent, Crowley, Custer, Fremont, Huerfano, Las Animas, Otero, Prowers, and Pueblo.

Southwest: Archuleta, Delta, Dolores, Garfield, Hinsdale, La Plata, Mesa, Montezuma, Montrose, Ouray, San Juan, and San Miguel.


The average rent in 2016 for pasture ranged from $\$ 3.50$ per acre in the Northwest and Mountain

District to $\$ 8.11$ in the East Central District, according to NASS. Further, there was significant variation in the reported cash rents within each district - as much as $\$ 8.30$ per acre in the East Central District. See Table 8.

According to NASS, the state-wide average rental rate in 2016 was $\$ 5.63$ per acre - an increase from $\$ 4.51$ in 2013. The study conducted by Tranel and Dalsted showed the state-wide average rental rate to be $\$ 6.29$ and median rate to be $\$ 5.00$ per acre.

District average rental rates increased from 2013 to 2016 in four districts and decreased in the other two districts. Averages increased from $\$ 6.21$ per acre to $\$ 8.11$ per acre in the East Central District; $\$ 5.03$ to $\$ 7.94$ per acre in the Northeast District; $\$ 3.37$ to $\$ 4.05$ per acre in the Southeast District; and $\$ 3.79$ to $\$ 4.90$ per acre in the Southwest District. Conversely, average rental rates decreased from $\$ 3.66$ to $\$ 3.50$ per acre in the Northwest and Mountain District and $\$ 5.40$ to $\$ 5.32$ per acre in the San Luis Valley District.

There are at least four primary reasons for not comparing average rental rates for pasture across the two surveys:

1. The districts are different. Counties may be in one State Land Board district and in another NASS district.
2. The NASS report does not distinguish between irrigated and non-irrigated pasture.
3. Tranel and Dalsted did not combine the data for counties within a district which did not have sufficient survey responses. NASS combined such responses into an "other" category for each district.
4. The NASS report does not indicate who (land owner or tenant) pays the costs of associated services; i.e. which party pays for building fences.

Table 1. The Number of Survey Questionnaires Included in the Survey and Usable for Analyzing Data for 2015 and 2016.

|  | D1 | D2 | D3 | D4 | D5 | D6 | Colorado |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Questionnaires Mailed | 277 | 503 | 319 | 607 | 497 | 312 | 2,515 |
| Questionnaires Returned with <br> "Usable" Data | 70 | 96 | 107 | 122 | 145 | 74 | $627^{\mathrm{A}}$ |

A There were 620 returned questionnaires with the county in which a majority of the leased land existed was identified. A total of 13 questionnaires did not have a county identified but contained otherwise usable data.

Table 2. Leases of Privately Owned, Non-Irrigated Pastures in Colorado in 2010, 2013, 2015, and 2016. 1,2,3,

|  | 2010 | 2013 | 2015 | 2016 |
| :---: | :---: | :---: | :---: | :---: |
| Lease Parcel Size (acres) <br> Average <br> Median | $\begin{gathered} 2,051 \\ 640 \end{gathered}$ | $\begin{gathered} 1,985 \\ 640 \end{gathered}$ | $\begin{gathered} 1,666 \\ 640 \end{gathered}$ | $\begin{gathered} 1,855 \\ 730 \end{gathered}$ |
| Lease Purpose (species) Cattle Sheep and Goats | $\begin{gathered} 97 \% \\ 2 \% \end{gathered}$ | $\begin{gathered} 94 \% \\ 2 \% \end{gathered}$ | $\begin{gathered} 94 \% \\ 3 \% \end{gathered}$ | $\begin{gathered} 92 \% \\ 3 \% \end{gathered}$ |
| Lease Carrying Capacity (acres/aum) <br> Average <br> Median | $\begin{aligned} & 23 \\ & 10 \end{aligned}$ | $\begin{aligned} & 23 \\ & 20 \end{aligned}$ |  |  |
| Basis for Computing Lease Rates <br> Dollars Per Acre (\$/acre) <br> Dollars Per Animal Per Month (\$/aum) | $\begin{aligned} & 62 \% \\ & 38 \% \end{aligned}$ | $\begin{aligned} & 51 \% \\ & 49 \% \end{aligned}$ | $\begin{aligned} & 44 \% \\ & 56 \% \end{aligned}$ | $\begin{aligned} & 55 \% \\ & 45 \% \end{aligned}$ |
| Length of Lease <br> Month to Month <br> Annual <br> Multiple Years | $\begin{aligned} & 21 \% \\ & 51 \% \\ & 28 \% \end{aligned}$ | $\begin{aligned} & 17 \% \\ & 51 \% \\ & 32 \% \\ & \hline \end{aligned}$ |  |  |
| Lease Rates (\$/acre) <br> Average <br> Median | $\begin{aligned} & \$ 3.73 \\ & \$ 5.00 \end{aligned}$ | $\begin{aligned} & \$ 4.96 \\ & \$ 4.00 \end{aligned}$ | $\begin{aligned} & \$ 5.38 \\ & \$ 4.00 \end{aligned}$ | $\begin{aligned} & \$ 6.29 \\ & \$ 5.00 \end{aligned}$ |
| Lease Rates (\$/aum) <br> Average <br> Median | $\begin{aligned} & \$ 14.82 \\ & \$ 15.00 \end{aligned}$ | $\begin{aligned} & \$ 16.49 \\ & \$ 15.00 \\ & \hline \end{aligned}$ | $\begin{aligned} & \$ 17.83 \\ & \$ 16.25 \end{aligned}$ | $\begin{aligned} & \$ 17.53 \\ & \$ 17.00 \\ & \hline \end{aligned}$ |

[^1]Table 3. Leases of Privately Owned, Non-Irrigated Pastures in Colorado in 2015 by State Land Board Districts. ${ }^{1,2,3}$

|  | D1 | D2 | D3 | D4 | D5 | D6 | Colorado |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| This lease was for what species and type animal? |  |  |  |  |  |  |  |
| Cows and Calves | 55\% | 75\% | 85\% | 78\% | 79\% | 85\% | 76\% |
| Yearling Cattle | 17\% | 10\% | 10\% | 7\% | 6\% | 12\% | 10\% |
| All Cattle | 12\% | 4\% | 5\% | 10\% | 10\% | 3\% | 8\% |
| Cattle and Sheep | 5\% | 0\% | 0\% | 0\% | 0\% | 0\% | 1\% |
| Sheep and Goats | 12\% | 0\% | 0\% | 3\% | 2\% | 0\% | 3\% |
| Other | 0\% | 10\% | 0\% | 0\% | 3\% | 0\% | 2\% |
| What is the size of the lease parcel (in acres)? |  |  |  |  |  |  |  |
| Largest | 13,000 | 7,800 | 29,150 | 14,000 | 12,000 | 22,000 | 29,150 |
| Smallest | 80 | 17 | 40 | 40 | 15 | 80 | 15 |
| Average | 2,316 | 1,044 | 2,078 | 1,374 | 1,286 | 2,610 | 1,666 |
| Median | 1,000 | 622 | 640 | 640 | 480 | 900 | 640 |
| What is the "carrying capacity" of this lease (acres per animal unit for a 6-month grazing period)? |  |  |  |  |  |  |  |
| Highest | 2 | >1 | 5 | 1 | 2 | 8 | >1 |
| Lowest | 75 | 90 | 80 | 100 | 80 | 80 | 100 |
| Average | 20 | 24 | 21 | 29 | 25 | 25 | 25 |
| Median | 15 | 20 | 15 | 25 | 20 | 20 | 20 |

${ }^{1}$ Select data from Colorado State University's survey of farmers, ranchers, and landowners in June 2016.
${ }^{2}$ Averages are simple averages rather than weighted averages.
${ }^{3}$ The counties in specific State Land Board districts changed from 2013 to 2015.

Table 4. Leases of Privately Owned, Non-Irrigated Pastures in Colorado in 2016 by State Land Board Districts. ${ }^{1,2,3}$

|  | D1 | D2 | D3 | D4 | D5 | D6 | Colorado |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| This lease was for what species and type animal? |  |  |  |  |  |  |  |
| Cows and Calves | $54 \%$ | $81 \%$ | $86 \%$ | $80 \%$ | $77 \%$ | $85 \%$ | $79 \%$ |
| Yearling Cattle | $14 \%$ | $8 \%$ | $9 \%$ | $10 \%$ | $9 \%$ | $7 \%$ | $9 \%$ |
| All Cattle | $7 \%$ | $6 \%$ | $3 \%$ | $8 \%$ | $10 \%$ | $7 \%$ | $7 \%$ |
| Cattle and Sheep | $0 \%$ | $0 \%$ | $0 \%$ | $0 \%$ | $1 \%$ | $0 \%$ | $>1 \%$ |
| Sheep and Goats | $25 \%$ | $0 \%$ | $0 \%$ | $2 \%$ | $1 \%$ | $0 \%$ | $3 \%$ |
| Other | $0 \%$ | $4 \%$ | $2 \%$ | $0 \%$ | $2 \%$ | $0 \%$ | $2 \%$ |
| What is the size of the lease parcel (in acres)? |  |  |  |  |  |  |  |
| Largest | 13,000 | 10,115 | 29,150 | 45,000 | 15,000 | 22,000 | 45,000 |
| Smallest | 160 | 17 | 40 | 40 | 20 | 110 | 17 |
| Average | 2,771 | 1,344 | 1,174 | 2,277 | 1,545 | 3,004 | 1,855 |
| Median | 1,150 | 640 | 610 | 720 | 678 | 1,200 | 730 |
| What is the "carrying capacity" of this lease (acres per animal unit for a 6-month grazing period)? |  |  |  |  |  |  |  |
| Highest | 2 | $>1$ | 5 | 1 | 2 | 8 | $>1$ |
| Lowest | 75 | 90 | 80 | 100 | 80 | 80 | 100 |
| Average | 20 | 24 | 21 | 29 | 25 | 25 | 25 |
| Median |  |  |  |  |  |  |  |

[^2]Table 5. Lease Rates for Privately Owned, Non-Irrigated Pastures in Colorado in 2015 by State Land Board Districts. ${ }^{1,2,3}$

|  | D1 | D2 | D3 | D4 | D5 | D6 | Colorado |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| What was the rate paid for the lease (dollars per acre)? |  |  |  |  |  |  |  |
| Highest | $\$ 12.00$ | $\$ 12.00$ | $\$ 30.00$ | $\$ 87.50$ | $\$ 14.00$ | $\$ 6.00$ | $\$ 87.50$ |
| Lowest | $>\$ 1.00$ | $>\$ 1.00$ | $\$ 3.00$ | $>\$ 1.00$ | $>\$ 1.00$ | $\$ 4.00$ | $>\$ 1.00$ |
| Average | $\$ 4.03$ | $\$ 4.32$ | $\$ 9.38$ | $\$ 7.68$ | $\$ 3.40$ | $\$ 4.60$ | $\$ 5.38$ |
| Median | $\$ 3.00$ | $\$ 4.35$ | $\$ 8.50$ | $\$ 2.50$ | $\$ 3.50$ | $\$ 4.50$ | $\$ 4.00$ |
| What was the rate paid for the lease (dollars per animal unit month)? |  |  |  |  |  |  |  |
| Highest | $\$ 33.50$ | $\$ 40.00$ | $\$ 31.00$ | $\$ 45.00$ | $\$ 26.00$ | $\$ 25.00$ | $\$ 45.00$ |
| Lowest | $\$ 3.10$ | $\$ 2.00$ | $\$ 9.00$ | $\$ 9.00$ | $\$ 8.00$ | $\$ 8.00$ | $\$ 2.00$ |
| Average | $\$ 16.44$ | $\$ 20.99$ | $\$ 19.80$ | $\$ 18.40$ | $\$ 16.51$ | $\$ 14.33$ | $\$ 17.83$ |
| Median | $\$ 15.00$ | $\$ 20.00$ | $\$ 18.00$ | $\$ 17.00$ | $\$ 16.00$ | $\$ 13.00$ | $\$ 16.25$ |

${ }^{1}$ Select data from Colorado State University's survey of farmers, ranchers, and landowners in June 2016.
${ }^{2}$ Averages are simple averages rather than weighted averages. .
${ }^{3}$ The counties in specific State Land Board districts changed from 2013 to 2015.

Table 6. Lease Rates for Privately Owned, Non-Irrigated Pastures in Colorado in 2016 by State Land Board Districts. ${ }^{1,2,3,4}$

|  | D1 | D2 | D3 | D4 | D5 | D6 | Colorado |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| What is the length of leases?        <br> Month to Month $12 \%$ $7 \%$ $8 \%$ $18 \%$ $17 \%$ $11 \%$ $12 \%$ <br> Annual $48 \%$ $61 \%$ $54 \%$ $45 \%$ $50 \%$ $30 \%$ $48 \%$ <br> Multiple Years $40 \%$ $32 \%$ $37 \%$ $37 \%$ $32 \%$ $59 \%$ $40 \%$ <br> Was the lease discounted for any reason?        <br> Yes $22 \%$ $10 \%$ $5 \%$ $9 \%$ $10 \%$ $25 \%$ $12 \%$ <br> No $78 \%$ $90 \%$ $95 \%$ $91 \%$ $90 \%$ $75 \%$ $88 \%$ <br> What was the rate paid for the lease (dollars per acre)?        <br> Highest $\$ 15.00$ $\$ 20.00$ $\$ 15.00$ $\$ 87.50$ $\$ 10.93$ $\$ 8.18$ $\$ 87.50$ <br> Lowest $>\$ 1.00$ $\$ 1.00$ $\$ 1.25$ $>\$ 1.00$ $>\$ 1.00$ $\$ 1.00$ $>\$ 1.00$ <br> Average $\$ 3.24$ $\$ 5.90$ $\$ 8.33$ $\$ 11.55$ $\$ 4.11$ $\$ 5.35$ $\$ 6.29$ <br> Median $\$ 2.70$ $\$ 5.38$ $\$ 8.50$ $\$ 5.00$ $\$ 4.00$ $\$ 5.00$ $\$ 5.00$ <br> What was the rate paid for the lease (dollars per animal unit month)?        <br> Highest $\$ 25.00$ $\$ 45.00$ $\$ 40.00$ $\$ 30.00$ $\$ 26.00$ $\$ 36.00$ $\$ 45.00$ <br> Lowest $\$ 3.10$ $\$ 8.00$ $\$ 1.12$ $\$ 9.00$ $\$ 8.00$ $\$ 7.00$ $\$ 1.12$ <br> Average $\$ 15.68$ $\$ 21.08$ $\$ 19.22$ $\$ 17.34$ $\$ 15.35$ $\$ 15.32$ $\$ 17.53$ <br> Median $\$ 18.00$ $\$ 17.50$ $\$ 18.00$ $\$ 17.00$ $\$ 15.00$ $\$ 12.00$ $\$ 17.00$ |  |  |  |  |  |  |  |

${ }^{1}$ As reported by respondents to a survey conducted by Colorado State University in June 2016.
${ }^{2}$ Averages are simple averages rather than weighted averages. .
${ }^{3}$ The counties in specific State Land Board districts changed from 2013 to 2015.
${ }^{4}$ Percentages may not sum to 100 due to rounding.

Table 7. Percentage of Landowners and Tenants Providing Services Associated with Leases of Privately Owned, Non-Irrigated Pastures in Colorado in 2015 and 2016 by State Land Board Districts. 1, 2, 3, 4

|  | D1 | D2 | D3 | D4 | D5 | D6 | Colorado |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Who pays for the labor to maintain existing fences? |  |  |  |  |  |  |  |
| Landowner | 36\% | 26\% | 20\% | 20\% | 18\% | 24\% | 23\% |
| Tenant | 58\% | 74\% | 78\% | 68\% | 82\% | 73\% | 73\% |
| Landowner \& Tenant | 6\% | 0\% | 3\% | 12\% | 0\% | 3\% | 4\% |
| Who pays for the materials for maintaining existing fences? |  |  |  |  |  |  |  |
| Landowner | 58\% | 45\% | 71\% | 48\% | 51\% | 70\% | 56\% |
| Tenant | 31\% | 55\% | 25\% | 45\% | 49\% | 28\% | 41\% |
| Landowner \& Tenant | 11\% | 0\% | 4\% | 7\% | 0\% | 1\% | 3\% |
| Who pays for the labor for the construction of new fences? |  |  |  |  |  |  |  |
| Landowner | 77\% | 63\% | 49\% | 50\% | 44\% | 76\% | 57\% |
| Tenant | 18\% | 38\% | 46\% | 42\% | 56\% | 22\% | 39\% |
| Landowner \& Tenant | 5\% | 0\% | 5\% | 8\% | 0\% | 1\% | 4\% |
| Who pays for the materials for the construction of new fences? |  |  |  |  |  |  |  |
| Landowner | 87\% | 76\% | 80\% | 65\% | 62\% | 90\% | 74\% |
| Tenant | 5\% | 24\% | 19\% | 31\% | 38\% | 7\% | 23\% |
| Landowner \& Tenant | 8\% | 0\% | 1\% | 4\% | 0\% | 3\% | 3\% |
| Who pays for supplying water to grazing livestock? |  |  |  |  |  |  |  |
| Landowner | 76\% | 76\% | 71\% | 61\% | 69\% | 64\% | 68\% |
| Tenant | 21\% | 22\% | 29\% | 36\% | 30\% | 36\% | 30\% |
| Landowner \& Tenant | 3\% | 2\% | 0\% | 2\% | 1\% | 0\% | 1\% |
| Who pays for the construction of livestock water supply pipeline? |  |  |  |  |  |  |  |
| Landowner | 85\% | 83\% | 81\% | 55\% | 66\% | 84\% | 67\% |
| Tenant | 6\% | 17\% | 19\% | 40\% | 34\% | 16\% | 30\% |
| Landowner \& Tenant | 9\% | 0\% | 0\% | 5\% | 0\% | 0\% | 2\% |
| Who pays for the construction of earthen water tanks? |  |  |  |  |  |  |  |
| Landowner | 70\% | 78\% | 79\% | 66\% | 71\% | 85\% | 65\% |
| Tenant | 20\% | 22\% | 18\% | 30\% | 29\% | 13\% | 30\% |
| Landowner \& Tenant | 11\% | 0\% | 3\% | 4\% | 0\% | 2\% | 5\% |
| Who pays for the labor for construction of non-earthen water tanks? |  |  |  |  |  |  |  |
| Landowner | 79\% | 83\% | 81\% | 59\% | 73\% | 82\% | 74\% |
| Tenant | 13\% | 17\% | 19\% | 36\% | 26\% | 16\% | 23\% |
| Landowner \& Tenant | 8\% | 0\% | 0\% | 5\% | 1\% | 2\% | 2\% |
| Who pays for the materials for the construction of non-earthen water tanks? |  |  |  |  |  |  |  |
| Landowner | 90\% | 81\% | 76\% | 57\% | 70\% | 83\% | 72\% |
| Tenant | 5\% | 19\% | 24\% | 37\% | 30\% | 15\% | 25\% |
| Landowner \& Tenant | 5\% | 0\% | 0\% | 6\% | 0\% | 2\% | 2\% |
| Who pays for animal maintenance and oversight? |  |  |  |  |  |  |  |
| Landowner | 15\% | 14\% | 5\% | 6\% | 2\% | 8\% | 6\% |
| Tenant | 82\% | 78\% | 95\% | 86\% | 96\% | 92\% | 90\% |
| Landowner \& Tenant | 3\% | 8\% | 0\% | 8\% | 1\% | 0\% | 3\% |
| Who pays for the salt and minerals provided to the grazing animals? |  |  |  |  |  |  |  |
| Landowner | 2\% | 4\% | 3\% | 3\% | 1\% | 3\% | 2\% |
| Tenant | 98\% | 96\% | 97\% | 95\% | 98\% | 97\% | 97\% |
| Landowner \& Tenant | 0\% | 0\% | 0\% | 2\% | 1\% | 0\% | 1\% |
| ${ }^{1}$ As reported by respondents to a survey conducted by Colorado State University in June 2016. <br> ${ }^{2}$ Averages are simple averages rather than weighted averages. . <br> ${ }^{3}$ The counties in specific State Land Board districts changed from 2013 to 2015. <br> ${ }^{4}$ Percentages may not sum to 100 due to rounding. |  |  |  |  |  |  |  |

Table 8. Annual Lease Rates (Dollars Per Acre) by District and County for 2016 and 2013, according to NASS survey data. ${ }^{5}$

| 2016 |  | 2013 |  |
| :---: | :---: | :---: | :---: |
| NASS District, County | \$/Acre | NASS District, County | \$/Acre |
| East Central |  | East Central |  |
| Adams | \$8.40 | Adams | \$3.70 |
| Arapahoe | 8.90 | Arapahoe | 5.10 |
| Cheyenne | 7.50 | Cheyenne | 6.00 |
| Denver | n/a | Denver | n/a |
| Douglas | 6.40 | Douglas | 5.40 |
| El Paso | 4.70 | El Paso | 4.80 |
| Elbert | 6.70 | Elbert | 4.80 |
| Kiowa | 7.80 | Kiowa | 5.10 |
| Kit Carson | 11.50 | Kit Carson | 9.70 |
| Lincoln | 5.10 | Lincoln | 5.00 |
| Phillips | 8.00 | Phillips | 7.90 |
| Washington | 9.30 | Washington | 8.00 |
| Yuma | 13.00 | Yuma | 9.00 |
| Average | \$8.11 | Average | \$6.21 |
| Northeast |  | Northeast |  |
| Boulder | \$15.00 | Boulder | \$3.70 |
| Broomfield | $\mathrm{n} / \mathrm{a}$ | Broomfield | n/a |
| Jefferson | n/a | Jefferson | 3.60 |
| Larimer | 7.10 | Larimer | 4.10 |
| Logan | 7.50 | Logan | 6.30 |
| Morgan | 7.10 | Morgan | 6.70 |
| Sedgwick | 9.10 | Sedgwick | 6.00 |
| Weld | 8.00 | Weld | 4.80 |
| Other (Combined) Counties | 1.80 | Other (Combined) Counties | n/a |
| Average | \$7.94 | Average | \$5.03 |
| Northwest \& Mountain |  | Northwest \& Mountain |  |
| Chaffee | \$6.20 | Chaffee | \$3.70 |
| Clear Creek | n/a | Clear Creek | n/a |
| Eagle | n/a | Eagle | 3.10 |
| Gilpin | n/a | Gilpin | n/a |
| Grand | 3.40 | Grand | 6.20 |
| Gunnison | 5.60 | Gunnison | n/a |
| Jackson | 4.80 | Jackson | 5.30 |
| Lake | n/a | Lake | n/a |
| Moffat | 3.10 | Moffat | 4.30 |
| Park | 1.30 | Park | n/a |
| Pitkin | n/a | Pitkin | n/a |
| Rio Blanco | 1.40 | Rio Blanco | 2.40 |
| Routt | 6.40 | Routt | 3.60 |
| Summit | n/a | Summit | n/a |
| Teller | 1.50 | Teller | 1.30 |
| Other (Combined) Counties | 1.30 | Other (Combined) Counties | 1.30 |
| Average | \$3.50 | Average | \$3.66 |

Table 8, continued.

| 2016 |  | 2013 |  |
| :---: | :---: | :---: | :---: |
| NASS District, County | \$/Acre | NASS District, County | \$/Acre |
| San Luis Valley |  | San Luis Valley |  |
| Alamosa | \$4.00 | Alamosa | n/a |
| Conejos | 5.20 | Conejos | \$5.70 |
| Costilla | 3.70 | Costilla | n/a |
| Mineral | n/a | Mineral | n/a |
| Rio Blanco | n/a | Rio Blanco | n/a |
| Saguache | 6.00 | Saguache | n/a |
| Other (Combined) Counties | 7.70 | Other (Combined) Counties | 5.10 |
| Average | \$5.32 | Average | \$5.40 |
| Southeast |  | Southeast |  |
| Baca | \$5.00 | Baca | \$3.70 |
| Bent | 4.70 | Bent | 3.50 |
| Crowley | 3.60 | Crowley | 4.50 |
| Custer | 3.00 | Custer | 2.30 |
| Fremont | 1.30 | Fremont | 2.20 |
| Huerfano | 3.70 | Huerfano | 4.30 |
| Las Animas | 4.00 | Las Animas | 2.80 |
| Otero | 4.00 | Otero | 2.60 |
| Prowers | 7.30 | Prowers | 5.10 |
| Pueblo | 3.90 | Pueblo | 2.70 |
| Other (Combined) Counties | n/a | Other (Combined) Counties | n/a |
| Average | \$4.05 | Average | \$3.37 |
| Southwest |  | Southwest |  |
| Archuleta | \$3.20 | Archuleta | \$2.90 |
| Delta | 4.30 | Delta | 3.70 |
| Dolores | n/a | Dolores | n/a |
| Garfield | 1.90 | Garfield | 2.40 |
| Hinsdale | n/a | Hinsdale | n/a |
| La Plata | 10.00 | La Plata | 4.90 |
| Mesa | 5.20 | Mesa | 3.70 |
| Montezuma | 6.70 | Montezuma | 6.30 |
| Montrose | 7.10 | Montrose | 4.80 |
| Ouray | 3.40 | Ouray | n/a |
| San Juan | n/a | San Juan | n/a |
| San Miguel | 2.80 | San Miguel | 2.60 |
| Other (Combined) Counties | 4.40 | Other (Combined) Counties | 2.80 |
| Average | \$4.90 | Average | \$3.79 |
| ${ }^{5}$ United States Department of Agriculture - National Agricultural Statistics Service annual survey of rental rates for all privately owned pasture in Colorado. Data for counties in which there were insufficient survey responses were combined into a category titled "Other (Combined) Counties". |  |  |  |


[^0]:    ${ }^{1}$ A survey of ranchers, landowners, and others was conducted with the financial support of the Colorado State Board of Land Commissioners (State Land Board). This summary report and other information pertaining to myriad farm and ranch management issues are available at the ABM web site www.coopext.colostate.edu/ABM.
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[^1]:    ${ }^{1}$ Select data from Colorado State University's survey of farmers, ranchers, and landowners in June 2016.
    ${ }^{2}$ Averages are simple averages rather than weighted averages.
    ${ }^{3}$ Percentages may not sum to 100 due to rounding.

[^2]:    ${ }^{1}$ Select data from Colorado State University's survey of farmers, ranchers, and landowners in June 2016.
    ${ }^{2}$ Averages are simple averages rather than weighted averages.
    ${ }^{3}$ The counties in specific State Land Board districts changed from 2013 to 2015.

