



Alberta Public Land Grazing Lease 2016 Cost Survey Results

Alberta Environment and Parks

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1. Introduction

MNP LLP ("MNP") was engaged by the Government of Alberta to conduct an independent survey of financial and in-kind costs incurred by Alberta's farming and ranching industry in respect of their operations on public lands grazing leases for fiscal years that ended in 2015. Under long-term lease agreements with the government, farmers and ranchers pay fees, graze their cattle and undertake the development and management of the grazing resource on public land. These lease agreements, along with the supporting Acts and Regulations, management plans and operating guidelines result in land management activities that would be the responsibility of a private owner of leased grazing lands but that the lease holder undertakes on behalf of the province. These are termed "in-kind" costs.

2. Survey Approach and Methodology

Survey Scope

The survey was designed to determine the actual and in-kind costs of holding grazing leases, and specifically to identify the "in-kind" part of the fees paid by the industry for grazing cattle on public lands.

It listed common cost categories for investments and operating expenses that are incurred by farmers and ranchers that graze cattle, horses or bison on grazing leases and for each category sought information on the direct and indirect costs. The survey also collected information of interest on related production and operational data such as average weight gain for animals while on the lease. The range in cost data collected are summarized in in Exhibit I (following page). The survey forms sent to individuals and associations holding leases indicate the complete breadth of information collected and can be found in Appendix A and B respectively.

This survey was conducted through mail, email, and fax with follow-up telephone calls to clarify issues of interpretation and questions that respondents had.

Direct and Indirect Costs

Lease holders were requested to provide an accounting of expenditures by activity for "in-kind" work that that they undertook as a consequence of grazing cattle on public land in 2015. Direct costs were defined as those labour, service or contract costs that could be fully attributed to an activity.

Indirect costs included owner/operator, family or paid labour from the farm or ranch that was not accounted for in the direct costs. In our analysis, a portion of the farm labour cost was allocated to the lease based first on the proportion of farm/ranch expenses or revenue associated with the respondent's cattle operations; and, second on the proportion of the Animal Unit Months ("AUMs")¹ of forage from grazing leases versus all AUMs of forage available to the lease holder. The combination of indirect or allocated farm labour and direct lease costs provides a reasonable picture of the Alberta ranching and farming sector's in-kind grazing lease holder activities and costs.

¹ An Animal Unit Month is defined as the amount of forage needed by an "animal unit" (AU) grazing for one month. The quantity of forage needed is based on the cow's metabolic weight, and the animal unit is defined as one mature 1,000 pound cow with or without calf at foot.

More specifically:

- Direct operating expenditures were those annual costs that could be solely attributed to
 managing the lease, maintaining the grazing capacity and infrastructure, and tending the cattle.
 Typical operating expenditures incurred by leaseholders include rent, taxes, direct labour, road,
 fence and corral maintenance; range maintenance; fire protection, and the costs of managing
 multiple uses and multiple users of the land.
 - Rent includes amounts provided to Alberta for the use of the lands for grazing.
 - Fencing building and maintenance costs were determined using the reported miles of fence built / maintained in a period and the current costs of fence construction.
 - Multiple use costs referred to the time spent or cost of liaising with, managing and responding to other public users of the grazing land – for example, oil and gas interests, recreational users, hunters and others.
- Indirect expenditures included labour that was allocated from the overall farm or ranch operations to the lease operations. The final average labour allocation was based on:
 - First, the proportion of costs related to grazing cattle on all farm or ranch operations. In the case of mixed farming, this allowed separation of cattle costs from other farm costs.
 - Second, the lease are as a proportion of the total farm area. If land area was not available for a respondent, our calculations relied on the proportion of AUMs used on public leased land versus all AUMs of forage available to the farmer or rancher.

To develop a labour cost per person year for farm or ranch owner operators and their families, the total of 2015 family wages and net cash farm income for Alberta beef cattle ranching and mixed farming operations reported by Statistics Canada² was used. This total farm income was divided by the average number of person years worked on the farm as reported by the individual farmers or ranchers to arrive at a cost per person year.

Though the survey collected additional information on overall farm / ranch costs in this analysis only the labour was allocated to the lease operations. This approach recognizes that the labour cost is the most easily identified as being attributed to the lease. Having said that, the allocation of the labour or any other costs to lease operations is an approximation.

² Inflated using the Canada CPI on numbers from Statistics Canada 2011 Farm Financial Survey, Catalogue No. 21F0008X

Exhibit I In-Kind Costs

ltem	Direct	Indirect	Other ³
Capital Costs	20 -Year cumulative investment in:		
	 Fence building/rebuilding 		
	 Range improvement 		
	 Building/corral construction 		
	 Road construction 		
	 Fire protection 		
	 Dugout development 		
	 Watering system development 		
Annual	 Property taxes 	- Person years (including	- Repair and maintenance of
Operating	 Direct labour 	farmer/rancher time)	buildings, corrals,
Costs	 Supplemental feed costs 		equipment
	 Road maintenance 		- Fuel, utility, insurance costs
	 Fence maintenance 		 Interest costs
	 Range maintenance 		 Leasing costs
	- Fire protection		 Depreciation/amortization
	- Multiple use costs		of equipment, buildings and corrals

3. Public Grazing Lease Population and Sample Characteristics

Farmers, ranchers and grazing lease associations that operate 1,947 of the public land grazing leases in Alberta were contacted. Their participation in this survey determined the in-kind costs incurred by the industry as part of their 2015 public grazing tenure costs.

Two-hundred and eighty individuals and 28 associations responded, providing data for 461 leases and reflecting the in-kind costs associated with managing 171,681 AUMs of forage capacity on 647,531 acres of leased public land. Both the sample and the response populations are representative of the provincial geographic regions. The objective of this report is to review and summarize the findings. A further breakdown of costs in the Northern and Southern regions of Alberta can be found in section 5.

³ 'Other' describes operating and development costs that support farm and ranch operations, including operations on public grazing leases, but that have not been allocated as indirect in-kind grazing lease costs in this report.

Type of Grazing Lease	ltem	Number of Leases	Lease Area (acres)	Lease Capacity (AUMs)
Individual Leases	Population	5,807	4,412,492	1,085,493
	Sample	1,870	1,202,285	297,830
	Responses	428	370,349	100,154
Association Leases	Population	77	789,217	185,899
	Sample	77	789,217	185,899
	Responses	33	277,182	71,527
Total	Population	5,884	5,201,709	1,271,392
	Sample	1,947	1,991,502	483,729
	Responses	461	647,531	171,681

Exhibit II Survey Population, Sample Size and Response Rates

Exhibit III (following page) illustrates the average lease in each sub-population. The average size of association held leases contained in the response group is ten times that of the average individual held lease (8,399 vs. 865 acres). As a result, the associations may have economies of scale in regard to most costs.

The leased held by association that responded to the survey are close in average area and AUM capacity to the population and (8,399 vs. 10,250 acres and 2,167 vs. 2,414 AUMs respectively for the sample group). The individually held leases in the response group are marginally larger than the sample group (865 vs. 643 acres and 234 vs. 159 AUMs respectively). On this basis, both groups of respondents appear representative of the sample and of the population.

Exhibit III Average Sample Grazing Lease Size (Area and AUMs)

		Average Area (acres)	Average AUMs
Average Individual Lease Size	Population	760	187
	Sample	643	159
	Responses	865	234
Average Association Lease Size	Population	10,250	2,414
	Sample	10,250	2,414
	Responses	8,399	2,167

4. Summary of Results, All Respondents

Data received on the 461 individual and association leases represented by respondents⁴ to the survey is summarized in Exhibits IV, V and VI. All costs are calculated per AUM of lease capacity as per the grazing lease records provided by Alberta Environment and Parks.

Exhibit IV summarizes the annualized average 20-year investment costs per AUM of lease capacity for lease holders. The total annualized 20-year investment cost for all lease holders in 2015 is \$9.85 per AUM. This is also reported separately by individuals and associations. Investment costs for individual leaseholders are higher in most categories – notably for fence construction. As noted, grazing association leases are larger in area than leases held by individuals and this difference on costs may reflect the economies of scale. The one exception is range improvement, where associations spent \$3.68 per AUM, \$1.21 per AUM more that individual leaseholders.

Exhibit IV

2015 Annualized 20-Year Investment Costs⁵ for Individual and Association Held Public Land Grazing Leases

	Dollars/AUM/Year				
Cost Item	Individual Leaseholders	Associations	Combined		
Fence Built or Rebuilt	\$4.32	\$2.26	\$3.46		
Range Improvement	\$2.47	\$3.68	\$2.98		
Building/Corral	\$1.32	\$1.22	\$1.28		
Road Construction	\$0.31	\$0.09	\$0.22		
Fire Protection	\$0.34	\$0.05	\$0.22		
Dugout Development	\$0.99	\$0.75	\$0.89		
Watering System Development	\$0.76	\$0.38	\$0.60		
Other ⁶	\$0.30	\$0.08	\$0.21		
Total	\$10.80	\$8.51	\$9.85		

⁴ 308 individuals and associations responded to the survey. They reported on the 461 leases that they held.

⁵ Except in the case of fence costs, average annual investment costs have been determined by taking 1/20th of the 20 year total investment reported by respondents. Average annual fence building costs have been determined by multiplying the miles of fence built (as reported by respondents) by an independently determined average 2016 cost of fencing. This was compared to the costs of custom fencing as reported by respondents and found to be representative. The fence costs in 2016 dollars were discounted using CPI to reflect expenditures over the 20 year period.

⁶ Other costs include items such as miscellaneous equipment purchases (brush mowers, water hauling), veterinary costs, salt/minerals, power installations, gates and security, miscellaneous buildings, and fence line clearing.

Exhibit V shows itemized direct annual operating costs reported by individual and association lessees for 2015. As above, costs are expressed in terms of the capacity or the number of allowable AUMs on the lease as per Alberta Environment and Parks records. The total annual average operating cost for all types of lease holders in 2015 is \$29.92 per AUM. Again, favourable economies of scale for the larger association grazing leases may contribute to lower unit costs for fence, road and fire protection, and particularly for labour.

Exhibit V 2015 Itemized Annual Operating Costs for Individual and Association Held Public Land Grazing Leases⁷

		Dollars/AUM/Year	
Cost Item	Individual Leaseholders	Associations	All
Allocated Farm/Ranch or Association Member Labour	\$7.05	\$1.09	\$4.57
Direct Labour	\$1.78	\$5.61	\$3.37
Interest Expense	-	\$0.15	\$0.06
Utilities	-	\$0.09	\$0.04
Fuel	-	\$0.45	\$0.19
Insurance	-	\$0.36	\$0.15
Supplemental feed	-	\$1.34	\$0.56
Building / Corral maintenance	-	\$2.99	\$1.25
Road Maintenance	\$0.75	\$0.21	\$0.52
Fence Maintenance	\$6.54	\$3.71	\$5.36
Range Maintenance	\$5.54	\$2.83	\$4.41
Property Taxes	\$2.36	\$1.53	\$2.01
Multiple-Use	\$3.46	\$0.43	\$2.20
Building / Equipment Lease Cost	\$1.80	\$0.22	\$1.14
Fire Protection	\$0.96	\$0.10	\$0.60
Other ⁸	\$2.42	\$4.98	\$3.49
Total	\$32.66	\$26.08	\$29.92

While direct labour costs on the association leases are higher (the associations' hired staff provides almost all of the required labour), this is offset on individually held leases by the calculation of allocated labour based on the StatsCan numbers and the estimate of manpower, expenses, revenue and total

⁷ Individual leaseholder costs remain blank in this exhibit as the data gathered for interest expense, utilities, fuel, insurance, supplemental feed and building/corral maintenance cost categories in the allocation process were not suitable for use based on statistical analysis.

⁸ Other includes legal, accounting, banking, secretarial and administrative costs including office supplies; member meeting expenses; miscellaneous equipment expenses including solar and windmill power generators; cattle loss (wolves, poison weeds), watering fees; fence line brush control; fly control; fertilizing and spraying (weeds); and, wildlife damage (e.g. beaver dam removal).

grazing capacity provided by the owner/operator. In total, individually held leases appear incur about 25% higher average costs than association held leases (\$32.66 versus \$26.08/AUM per year).

Finally, Exhibit VI summarizes the total annual investment and operating costs for individual and association that held grazing leases in 2015. The total 2015 annual investment costs including grazing fees for individual and association held leases, and for all leases combined, are \$46.52, \$39.93 and \$42.52 per AUM respectively.

Exhibit VI 2015 Total Public Land Grazing Costs (In-Kind Costs and Grazing Fees)

	Dollars/AUM/Year Reported By					
Cost Item	Individual Leaseholders	Associations	All			
Annualized 20-Year Grazing Lease Investment Costs (Exhibit IV)	\$10.80	\$8.51	\$9.85			
Annual Grazing Lease Operating Costs (Exhibit V)	\$32.66	\$26.08	\$29.92			
Total Annual In-kind Costs	\$43.46	\$34.59	\$39.77			
Provincial Grazing Fees	\$3.05	\$2.34	\$2.75			
Total Public Land Grazing Costs	\$46.52	\$36.93	\$42.52			

5. Summary of Results, Northern and Southern Alberta

MNP was asked to undertake and report on an analysis of the costs associated with running grazing leases in Northern as compared to Southern Alberta. For this we defined North as those grazing leases found in grazing rental zone C, while South constitutes grazing rental zones A and B (Appendix C contains a map of the grazing rental zones). We excluded two individual observations as their location could not be determined. For this reason, the tables in this section are not immediately comparable to those in the previous section. Exhibit VII and VIII show the breakdown of the two populations in terms of acres and AUMS of lease capacity. The population, sample and responses from both regions are similar in terms of numbers or leases. The Southern leases cover a larger area and proportionately more AUMs than the Northern leases. Association held leases in the North and South are very similar both in size and AUM capacity on the aggregate level.

Population Category	ltem	Number of Leases	Lease Area (acres)	Lease Capacity (AUMs)	
North	Population	2,858	1,615,013	360,727	
	Sample	1,082	668,370	149,643	
	Responses	222	162,067	36,188	
South	Population	2,949	2,797,479	724,766	
	Sample	788	533,915	148,187	
	Responses	206	208,282	63,966	
Overall	Population	5,807	4,412,492	1,085,493	
	Sample	1,870	1,202,285	297,830	
	Responses	428	370,349	100,154	

Exhibit VII Survey Population, Sample Size and Response Rates for Individual Held Leases

Exhibit VIII Survey Population, Sample Size and Response Rates for Association Held Leases

Population Category	ltem	Number of Leases	Lease Area (acres)	Lease Capacity (AUMs)
North	Population	32	277,566	70,741
	Sample	32	277,566	70,741
	Responses	15	142,016	35,649
South	Population	45	511,651	115,158
	Sample	45	511,651	115,158
	Responses	18	135,167	35,878
Overall	Population	77	789,217	185,899
	Sample	77	789,217	185,899
	Responses	33	277,182	71,527

Exhibit IX shows that individual leases held by respondents from the South are 38% larger in area and have a 90% higher AUM capacity than Northern leases included in the responses. Association responses are more consistent, with the Northern leases actually being 25% larger in size and having 20% higher AUM capacity.

Exhibit IX Average Sample Grazing Lease Size for Individual Held Leases (area and AUMs)

		Individual He	eld Leases	Association Held Leas	
		Average Area (acres)	Average AUMs	Average Area (acres)	Average AUMs
Average Northern Lease Size	Population	565	126	8,674	2,211
	Sample	618	138	8,674	2,211
	Responses	730	163	9,468	2,377
Average Southern Lease Size	Population	949	246	11,370	2,559
	Sample	678	188	11,370	2,559
	Responses	1,011	311	7,509	1,993

Based on the data available and our analysis, Northern individual leaseholders responding to the survey reported an average of \$14.33/ AUM of leas capacity in annualized investment costs (Exhibit X). This compares to \$8.83/AUM per year for Southern leases. The difference is mainly in the higher fence building and range improvement costs (collectively \$10.96/AUM per year in the North vs. \$4.45/AUM per year in the South). Fencing costs appear similar for Northern and Southern associations, however the difference in range improvement costs persists. Northern leases may experience higher range development costs due to a greater and more recent investment in land clearing.

Exhibit X

2015 Annualized 20-Year Investment Costs for Individual and Association Held Public Land Grazing Leases in Northern and Southern Alberta

	Dollars/AUM/Year Individually Held Leases		Dollars/AUM/Year Association Held Leases		Dollars/AUM/Year Combined	
Cost Item	North	South	North	South	North	South
Fence Built or Rebuilt	\$5.56	\$3.62	\$2.65	\$1.87	\$4.11	\$2.99
Range Improvement	\$5.40	\$0.83	\$5.21	\$2.17	\$5.30	\$1.31
Building/Corral	\$0.76	\$1.63	\$1.04	\$1.39	\$0.90	\$1.54
Road Construction	\$0.43	\$0.24	\$0.08	\$0.10	\$0.25	\$0.19
Fire Protection	\$0.22	\$0.40	\$0.06	\$0.04	\$0.14	\$0.27
Dugout Development	\$1.06	\$0.94	\$0.71	\$0.79	\$0.89	\$0.89
Watering System Development	\$0.33	\$1.01	\$0.44	\$0.33	\$0.38	\$0.76
Other	\$0.56	\$0.16	\$0.14	\$0.02	\$0.35	\$0.11
Total	\$14.33	\$8.83	\$10.33	\$6.70	\$12.33	\$8.06

For individual leases in the North respondents reported higher operating costs, than Southern respondents (\$41.88/AUM/year versus \$27.48/AUM/year – Exhibit XI). As with investment costs, the difference is driven in part by fencing and range maintenance. There is an additional significant allocation of labour costs. Collectively the total direct in-kind lease costs are \$29.62/AUM/year in the North and \$13.26/AUM/year in the South.

While both allocated labour costs and fencing costs are similar between Northern and Southern associations, the difference in range maintenance costs is consistent. Two costs that are consistently higher for Southern farmers are property taxes and building / equipment leases.

Exhibit XI 2015 Itemized Annual Operating Costs for Individual and Association Held Public Land Grazing Leases in Northern and Southern Alberta⁹

	Dollars/AUM/Year Individually Held Leases		Individually Held Association Held		Dollars/AUM/Year Combined	
Cost Item	North	South	North	South	North	South
Allocated Farm/Ranch or Association Member Labour	\$10.96	\$4.91	\$1.20	\$0.98	\$6.10	\$3.50
Direct Labour	\$1.93	\$1.69	\$3.56	\$7.64	\$2.74	\$3.83
Interest Expense	-	-	\$0.29	\$0.00	\$0.15	\$0.00
Utilities	-	-	\$0.17	\$0.01	\$0.09	\$0.00
Fuel	-	-	\$0.48	\$0.43	\$0.24	\$0.15
Insurance	-	-	\$0.39	\$0.33	\$0.19	\$0.12
Supplemental Feed	-	-	\$1.59	\$1.09	\$0.79	\$0.39
Building / Equipment Lease Costs	-	-	\$1.30	\$4.67	\$0.65	\$1.68
Road Maintenance	\$0.82	\$0.68	\$0.24	\$0.18	\$0.53	\$0.50
Fence Maintenance	\$9.35	\$4.94	\$3.63	\$3.78	\$6.50	\$4.52
Range Maintenance	\$9.31	\$3.41	\$4.46	\$1.20	\$6.90	\$2.62
Property Taxes	\$1.80	\$2.67	\$1.37	\$1.69	\$1.59	\$2.32
Multiple-Use	\$2.97	\$3.72	\$0.55	\$0.32	\$1.76	\$2.50
Building / Equipment Lease Costs	\$1.56	\$1.94	\$0.09	\$0.35	\$0.83	\$1.36
Fire Protection	\$0.73	\$1.10	\$0.13	\$0.07	\$0.43	\$0.73
Other	\$2.44	\$2.42	\$5.14	\$4.81	\$3.79	\$3.28
Total	\$41.88	\$27.48	\$24.61	\$27.55	\$33.28	\$27.50

The overall annualized investment and operating costs associated with grazing leases in the North and South are \$47.52/AUM/year and \$38.92/AUM/Year respectively (Exhibit XII). On this basis Northern lessees incurred 22% higher costs than Southern lessees. Some of this difference may be driven by a

⁹ Individual leaseholder costs remain blank in this exhibit as the data gathered for interest expense, utilities, fuel, insurance, supplemental feed and building/corral maintenance cost categories in the allocation process were not suitable for use based on statistical analysis.

difference in scale. Overall association costs are similar for the two regions. However, we recognize that farmers in Northern and Southern Alberta may face different cost constraints, such as for instance higher range maintenance costs in the north and higher property taxes in the south. It is also important to note that Northern leaseholders currently pay lower grazing fees than those who operate in the South.

Exhibit XII 2015 Total Public Land Grazing Costs (In-Kind Costs and Grazing Fees) In Northern and Southern Alberta

	Dollars/AUM/Year Individually Held Leases		Dollars/AUM/Year Association Held Leases		Dollars/AUM/Year Combined	
Cost Item	North	South	North	South	North	South
Annualized 20-Year Grazing Lease Investment Costs (Exhibit III)	\$14.33	\$8.83	\$10.33	\$6.70	\$12.33	\$8.06
Annual Grazing Lease Operating Costs (Exhibit IV)	\$41.88	\$27.48	\$24.61	\$27.55	\$33.28	\$27.50
Total Annual In-Kind Costs	\$56.20 ¹⁰	\$36.30	\$34.93 11	\$34.25	\$45.61 ¹²	\$35.56
Provincial Grazing Fees	\$1.62	\$3.84	\$2.20	\$2.48	\$1.91	\$3.35
Total Public Land Grazing Costs	\$57.83	\$40.14	\$37.13	\$36.73	\$47.52	\$38.92

¹⁰ Total costs for Northern and Southern individual leaseholders are statistically different at the 1% level.

¹¹ Total costs for Northern and Southern association leaseholders are not statistically different

¹² Total costs for Northern and Southern leaseholders overall are statistically different at the 1% level – however this difference is wholly explained by the difference in costs for individual leaseholders.

6. Weight Gain and Distance to Markets

Exhibit XIII summarizes much of the non-financial data¹³ collected through the survey. The numbers follow a similar pattern. Associations are quite consistent both in terms of market distance and weight gain. Southern individual lease holders reported weight gain and distance to markets that were marginally different from the North.

Exhibit XIII Weight Gain and Distance to Markets

Area	Variable	Individual	Association
North	Distance to Market (km) Spring Fall Average daily weight gain (lbs) while on the lease	164 km 232 km 1.71 lbs/day	172 km 172 km 1.70 lbs
South	Distance to Market (km) Spring Fall Average daily weight gain (lbs) while on the lease	102 km 104 km 2.06 lbs/day	189 km 189 km 1.73 lbs/day
Overall	Distance to Market (km) Spring Fall Average daily weight gain (lbs) while on the lease	135 km 170 km 1.88 lbs/day	180 km 180 km 1.72 lbs/day

7. Data Testing and Statistical Interpretation

Reasonableness tests were performed on each individual's or association's submission. The tests included:

- Reviewing key line items and testing reasonableness by line item across all responses to assess consistency.
- Further follow-up with individuals or association personnel where appropriate.
- Testing the AUM total used in developing unit costs.

Basic statistical tests were also conducted to assess the reliability of the estimates and to further analyze the data and results. Relying on the variation of the weighted-average prices, a confidence interval was

¹³ Not all respondents included distance to market and average daily weight gain. The data in the above table is based on the subset of our respondents (50%, 94% and 43% of all respondents for distance to market in the spring and fall, and weight gain, respectively) that included the information in their survey responses.

calculated at the 95 percent level. The interpretation of the confidence interval is that 95 percent of the time the true mean will lay within the calculated confidence interval for the sample mean. For the average total public land grazing costs for all leases not including lease costs (\$39.77 per AUM), the confidence interval is between \$35.69 and \$44.03 per AUM.

The coefficient of variation was calculated to be 5%. The coefficient of variation is a standardized or normalized form of expression that can be used to indicate the relative reliability of the estimated weighted averages presented. The coefficient of variation calculated indicates that the estimated weighted averages are a good representation of the data. Additional explanation and values of the tests are provided in Exhibit XIV.

Exhibit XIV Meaning, Application and Values for the Statistical Tests Used

Test	Meaning and Application						
Variance	A measure of the spread value in an absolute sens	or dispersion of a set of dat e.	a around an expected				
Confidence Interval	•	An estimated range of values which is likely to include an estimated population parameter, such as a population mean, at a given probability level.					
Coefficient of Variation	A measure of the spread or dispersion of a set of data as a proportion of its mean, usually expressed as a percentage.						
	Values, Total Annual In-kind Costs						
Test	North	South	All				
Variance	\$6.70	\$8.09	\$4.44				
95% Confidence Interval	\$40.49 - \$50.74	\$29.80 - \$41.06	\$35.69 - \$44.03				
Coefficient of Variation	6%	8%	5%				

Appendix A – Individual Grazing Lease Survey

Part 1—General Background Data

					1.1		
Note that all the data collected Leaseholder name:	cted will be treated as co	nfidential. Thank yo	u in advance	e for your participation an Contact phone number:	d input.		
Contact name:				Contact email address:			-
Leasing Zone (if known):	Zone A1	Zone A2		Zone B	Zone C		-
Part 2—Total Farm Info	ormation (includes ov	vned, leased and	rented are	as)	_		
This Total Farm Information s will be allocated by MNP LLP that relate to many activities a overall management, coordina	to your public grazing leas and that cannot be easily sp ation and operation of the far	e(s) based on the inform plit into or identified with rm.	mation that yo	ou provide. In this survey, To	otal Farm costs are	those expenditures	
(a) Total Farm Data (inclusi		i <u>se):</u>		T			
Total grazing AUMs operated Kind and class of animals gra			AUMs	Total area of farm operati % of total farm revenue fr			_Acres %
How far do you transport cattl fall?	-		 Km	% of total farm expenses			_^^ %
How far do you transport cattl spring?	e from the market in the		Km		nom outlo.		
Do you operate an integrated	feedlot operation?*	Yes		No			
* If you operate an integrated fe feedlot.	edlot operation, please provi	de the % of total farm rev	venue that you	would have received from all	cattle had you sold ti	hem prior to entering a	
(b) Total Farm data on labo	our and other farm costs f	or 2015 (information	in this Sectio	on should reflect the costs	attributed to the	Total Farm):	
Total person years** worked:			Years	Interest costs (loans for of farm buildings, corrals or			
Total repairs and maintenance	e (buildings, corrals,			improvements only - excl	•		
equipment, etc.):		\$	_	and residences): Marketing costs (costs d	educted from sales	\$	-
T				proceeds to cover comm	ission and		
Total supplemental feed costs Crown grazing leases (purcha		\$		inspection fees associate cattle):	ed with selling	\$	_
				Depreciation & amortizat	ion*** of equipment		
Total fuel costs:		\$	_	costs:		\$	-
Total utilities costs:		\$	_	Depreciation & amortizat and corral costs:	ion*** of building	\$	_
Insurance costs:		\$		Building and/or equipmer	nt licensing costs	\$	_
** For example the farm owner 2.5 years. One person year ass						ed in 2015 would equal	
*** CCA (Capital Cost Allowand	e) may be used in lieu of De	preciation & Amortization	า.				
Part 3—Public Land G	razing Lease Informa	tion					
(a) Public grazing lease ide Lease number(s) (please	entification, capacity and	proximity to your far	<u>m:</u>				
list all leases held in 2015):			_	Total lease area held in 2			Acres
				Average distance that the from the farm headquarte			Km
Total allowable AUMs under t 2015:	erms of lease(s) held in		AUM	Total AUMs grazed on th	e lease(s) in 2015:		AUM
(b) Lease acquisition costs	(choose relevant categor	ies as appropriate)***	*.				
Total cost of acquiring these I	eases through government	allocation or tender:			\$	_	
Total cost of government assi	gnment fees paid to acquire	these leases:			\$	_	
(c) Expected weight gain fo	or a yearling grazed on p	ublic leases:					
Number of days that livestock	are typically on the lease:					Days / Year	
Expected weight g	ain of yearlings while on the	e lease***** (see definiti	ons):			Ibs gained / day	
(d) Of the person years spe	nt on public land grazing	leases what percent	was:	what now	timo prost c=		
Spent on cattle operations?	(<i>(i)</i>	%	what percent of the cattle operations was o time? (0-100%)	,		_%
Spent on multiple use****** a	ctivities?	(ii)		what percent of the multiple use activities	,		
		(i + ii) = 100%	%	time? (0-100%)			%
**** Consider lease acquisition	costs incurred over the past 2	. ,					

***** If no yearlings are grazed, please make a best estimate or indicate 'n/a'.

****** Note that the paid and owner/manager time, and the direct costs spent on multiple use is intended to capture the additional cost that you may incur liaising with, managing and responding to the requirements of other users on the leased lands (i.e. grazing lease administration activities, seismic, oil & gas, recreation, hunters, etc.). This may be the time and cost of managing these interests or of mitigating their impact on your grazing lease operations.

Part 4— Capital Costs (Costs incurred over the last 20 years and not included in Part 2 or 3)

The "Lease Investment Costs" refer to the financial investment made in your public grazing lease(s) to make them suitable for grazing cattle. These would be investments that typically have a useful life of greater than one year and that may require some level of ongoing maintenance. Note that the ongoing maintenance costs are captured in Part 5 - Annual Direct Public Land Grazing Lease Operating Costs.

For leases held in 2015 (listed above), describe the investments made in improvements to your public grazing lease(s) over the past 20 years.

If you purchased a lease in the past 20 ye at the time of purchase?	ars, what would your e	estimate	be of the value of the imp	provements	\$
Other improvement costs incurred within	the last 20 years:				
Range improvement costs:	\$	_	Fire protection costs:		\$
Building/corral costs:	\$	_	Dugout development cos	st:	\$
Road construction costs:	\$	_	Watering system develop	oment cost:	\$
Total miles of fence built or rebuilt:		miles			
In recent years, what would the ave custom fence be for the lease?	erage cost per mile of		\$	/ mile	
Other costs (identify cost type):					
(1)		_	\$		
(2)		_	\$		
(3)		_	\$		

Part 5—2015 Annual Direct Public Land Grazing Lease Operating Costs

The costs that are incurred on an annual or near annual basis in the operation of the public grazing lease are captured in this "Annual Direct Public Land Grazing Lease Operating Costs" section of the survey. These are direct expenditures that you make each year in order to operate on your public land grazing lease(s).

Note that the paid time and other direct costs spent on multiple use is intended to capture the additional cost that you may incur liaising with, managing and responding to the requirements of other users on the leased lands. This may be the time and cost of managing these interests or of mitigating their impact on your grazing lease operations.

Public grazing lease rental payment: Any direct hired labour not included in Part	\$	-	Property taxes:	-	\$
2:	\$	_	Multiple use costs*:	-	\$
Road maintenance:	\$	_	Building and/or equipment rental cos	sts:	\$
Range maintenance (seeding & weed/brush control):	\$	-	Fire protection costs:	-	\$
Miles of fence maintained: In recent years, what would the avera fence maintenance for the lease?	ge cost per mile of	-	Other costs (identify cost type):	¢	
fence maintenance for the lease?		(1)		<u>\$</u>	
	\$ / mile	(2)	·	\$	
		(3)	L	\$	

* Multiple use refers to the direct cost of liaising with, managing and responding to other public land users - i.e. seismic, oil & gas, recreation, hunters, etc.

Part 6—Survey Submission and Questions

Should you have any questions regarding the survey, please feel free to contact Knut Ulsrud at (780) 733-8669. If we have any questions regarding the information you provide, we will need to contact you. Please email, fax or mail your response to MNP LLP no later than <u>May 20, 2016</u>. Complete contact information for MNP LLP in Edmonton can be found below.

Thank you for your cooperation.

MNP LLP Attention: Knut Ulsrud Suite 1600 10235 101 Street NW Edmonton, Alberta T5J 3G1 Email: knut.ulsrud@mnp.ca Office: 780.733.8669 Fax: 780.454.1908 Appendix B – Association Grazing Lease Survey

Part 1—General Background Data

In order to assist in identification, grazing lease costs must be listed by grazing lease owner and public land grazing lease number. We would ask that you keep a hard copy or other record of your response and all back-up information and data.

Note that all the data collected will be treated as confidential. Thank you in advance for your participation and input.

Leaseholder name:			Contact phone nui	mber:		
Contact name:			Contact email add	ress:		
Leasing Zone (if known):	Zone A1	Zone A2	Zone B	Zone C		
Part 2—Public Land	Grazing Leas	e Information				
(a) Public grazing lease in Lease number(s) (please list all leases held in 2015):	identification, ca	apacity and distance to	o members' farms and ma	rkets:		
Total allowable AUMs unde	er terms of lease(s	s) held in 2015:		AUM		
Total AUMs grazed on the	lease(s) in 2015:*			AUM		
Average distance that the le headquarters:	ease(s) is (are) fro	om the member farm		KM		
Total lease area: To the extent that you are a	aware, what is the	e distance to most comn	nonly used cattle market in t	Acres		Km
*If the area included deede	d land, please all	ocate the total AUMs to	nonly used cattle market in t the leased land based on th			Km
(b) Lease acquisition cos	ts (choose relev	ant categories as appr	opriate)			
Total cost of acquiring thes	e leases through	government allocation or	tender:	\$		
Total cost of government as	ssignment fees pa	aid to acquire these lease	es:	\$	_	
(c) Expected weight gain	for a yearling g	razed on public lease	<u>s:</u>			
Number of days that livesto	ock are typically o	n the lease:			Days / Year	
Expected weight gain of ye	arlings while on th	ne lease (see definitions)	:		lbs gain / day	
Part 3—Public Land	Grazing Leas	e Investment Cost	S			

The "Lease Investment Costs" refer to the financial investment made in your public grazing lease(s) to make them suitable for grazing cattle. These would be investments that typically have a useful life of greater than one year and that may require some level of ongoing maintenance. Note that the ongoing maintenance costs are captured in Part 4 - Annual Direct Public Land Grazing Lease Operating Costs.

For leases held in 2015 (listed above), describe the investments made in improvements to your public grazing lease(s) over the past 20 years:

If you purchased a lease in the past 20 years, what would your estimate be of the value of the improvements at the time of purchase?							
Other improvement costs incurred within the last 20 years:							
Range improvement costs:	\$	Fire protection costs:	\$				
Building/corral cost:	\$	Dugout development cost:	\$				
Road construction cost:	\$	Watering system development cost:	\$				
Total miles of fence built or rebuilt: What would the current average cost pe fence be for the lease?		niles \$ / mile					
Other costs (identify cost type):							
(1)		\$					
(2)		\$					
(3)		<u>\$</u>					

Part 4—2015 Annual Direct Public Land Grazing Lease Operating Costs

The costs that are incurred on an annual or near annual basis in the operation of the public grazing lease are captured in this "Annual Direct Public Land Grazing Lease Operating Costs" section of the survey. These are direct expenditures that you made in the 2015 fiscal year in order to operate on your public land grazing lease(s).

Note that the paid and donated time, and direct costs spent on multiple use is intended to capture the additional cost that you may incur liaising with, managing and responding to the requirements of other users on the leased lands. This may be the time and cost of managing these interests or of mitigating their impact on your grazing lease operations.

Public lease rental payment:		\$	_	Range maintenance (seeding & weed/brush control): Marketing costs (associated with selling	ו <u>\$</u>
Building and/or equipment lease costs:		\$	_	cattle):	\$
Donated time by association members: % of donated time spent on cattle			_days	Supplemental feed costs:	\$
operations:	(i)		%	Property taxes:	\$
% of donated time spent on multiple				Interest expense (loans for capital equip. &	
use*:	(ii)	<i>(i+ii)</i> = 100%	_ %	farm buildings only):	\$
Total paid labour & benefits:		\$	_	Multiple use* costs:	\$
% of paid labour time spent on cattle operations:			_%	Depreciation & amortization:	\$
% of paid labour time spent on multiple use*:	(ii)		_ %	Insurance costs:	\$
		<i>(i+ii)</i> = 100%			
Building/Corral maintenance:		\$	_		
Utilities costs:		\$	_		
Building and/or equipment licensing costs:		\$	_	Other costs (identify cost type):	
Fuel costs:		\$	_	(1)	\$
Road maintenance:		\$	_	(2)	\$
Fire protection costs:		\$	_	(3)	\$
Miles of fence maintained:			miles	(4)	\$

* Multiple use refers to the time spent or cost of liaising with, managing and responding to other public land users - i.e. seismic, oil & gas, recreation, hunters, etc.

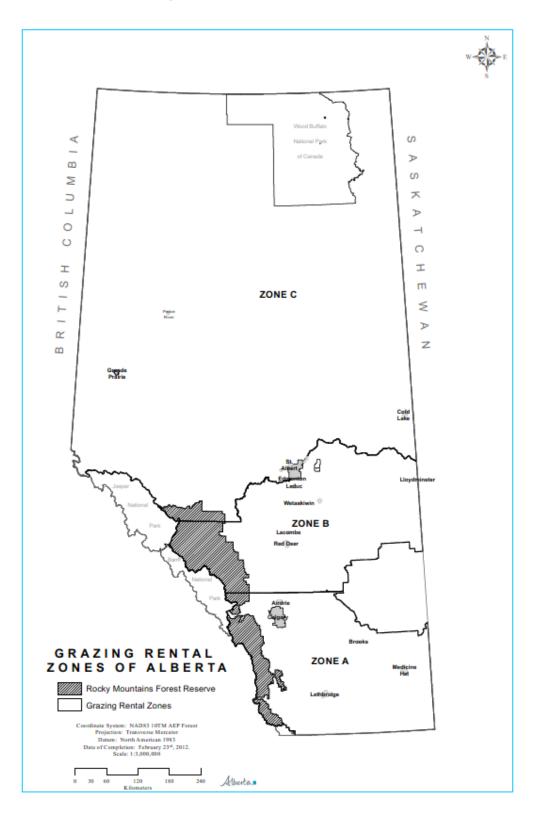
Part 5—Survey Submission and Questions

Should you have any questions regarding the survey, please feel free to contact Knut Ulsrud at (780) 733-8669. If we have any questions regarding the information you provide, we will need to contact you. Please email, fax or mail your response to MNP LLP no later than <u>May 20, 2016</u>. Complete contact information for MNP LLP in Edmonton can be found below.

Thank you for your cooperation.

MNP LLP Attention: Knut Ulsrud Suite 1600 10235 101 Street NW Edmonton, Alberta T5J 3G1 Email: knut.ulsrud@mnp.ca Office: 780.733.8669 Fax: 780.454.1908

Appendix C – Grazing Lease Rental Zones Map





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