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Wyoming Farm and Ranch Land Market: 1993-95

By:

Chris Bastian
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TABLES AND FIGURES

CONTENTS

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Chris Bastian and John P. Hewlett[1]

INTRODUCTION

The primary purpose of this report is to provide price information on Wyoming farm and ranch land sales occurring during 1993, 1994, and 1995. The objective is to show average sale prices for major types of agricultural land sold during this time period by regions within the state. This report does not, nor is it intended to, show values of specific land parcels. This report is an update of previous reports on Wyoming agricultural land prices (Bastian et al., 1994; Vanvig and Hewlett, 1990; Vanvig and Hewlett, 1988; Vanvig and Gleason, 1986; and Vanvig and Collins, 1984). Additionally, a brief discussion of factors affecting land values and recent trends in land prices for Wyoming and the United States is included. The intended audience for this report includes those who may be interested or affected by the Wyoming agricultural land market, including farmers, ranchers, realtors, appraisers, lenders, investors, and others.

PROCEDURE

Wyoming agricultural land sales information was collected from appraisers' sales reports from Farm Credit Services, the Wyoming Farm Loan Board, and the Bureau of Land Management. Report data came from 563 appraisal reports for sales of agricultural land, and included descriptions of individual tracts. Data was collected for the calendar years 1993, 1994, and 1995. Values were established for each of the following categories when included in a sale: 1) type of land (grazing land, irrigated and sub-irrigated pasture,

[1]Agricultural marketing specialist and farm/ranch management extension specialist, respectively,

irrigated meadow land, irrigated cropland, and dry cropland); 2) structural improvements; and 3) public and private grazing leases and permits. Additional sale details such as type of financing (owner, etc.), productivity, and method of irrigation were obtained from the sales reports when available.

Farm and ranch sale data used in the analysis are limited to those units that could be classified as true agricultural units. All land sale data was entered, and preliminary analysis was done to identify extremely high or extremely low sale prices. Those sales deemed as outliers, which did not represent true agricultural land sales, were excluded from analysis. Excluded from ranch unit analyses were ranch sales smaller than 50 animal units (AUs), rural home sales, and tracts with exceptionally high recreational and/or scenic value that caused prices to be significantly higher than the value of the land's agricultural production would justify. Sales less than 50 AUs, but still representing purchases for agricultural use, were included in analyses of cropland or pasture land.

Wyoming land values vary by region and are influenced by such factors as climate, elevation, availability of water, population, recreation, timber, mining, oil, and gas production. In this study, Wyoming is divided into six regions based upon climatic and other factors (listed above) and on the predominant types of agricultural production in each area (Figure 1).

The six regions of the state and the predominant agricultural enterprises within each region are as follows:[2]

Department of Agricultural Economics, University of Wyoming, Laramie.
[2] Teton county and Yellowstone National Park are not included.

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Counties	Region	Primary Ag Enterprises
Johnson, Sheridan	1	Beef cattle, sheep, hay
Campbell, Converse, Crook, Niobrara, Weston	2	Beef cattle, sheep, hay, wheat
Albany, Goshen, Laramie, Platte	3	Beef cattle, sheep, wheat, sugar beets, corn, dry beans, barley, hay, and other irrigated crops
Sweetwater, Carbon, Natrona	4	Sheep, beef cattle, hay
Lincoln, Sublette, Uinta	5	Beef cattle, sheep, hay, dairy cattle
Big Horn, Fremont, Hot Springs, Park, Washakie	6	Beef cattle, sheep, barley, sugar beets, oats, hay, dry beans, other irrigated crops

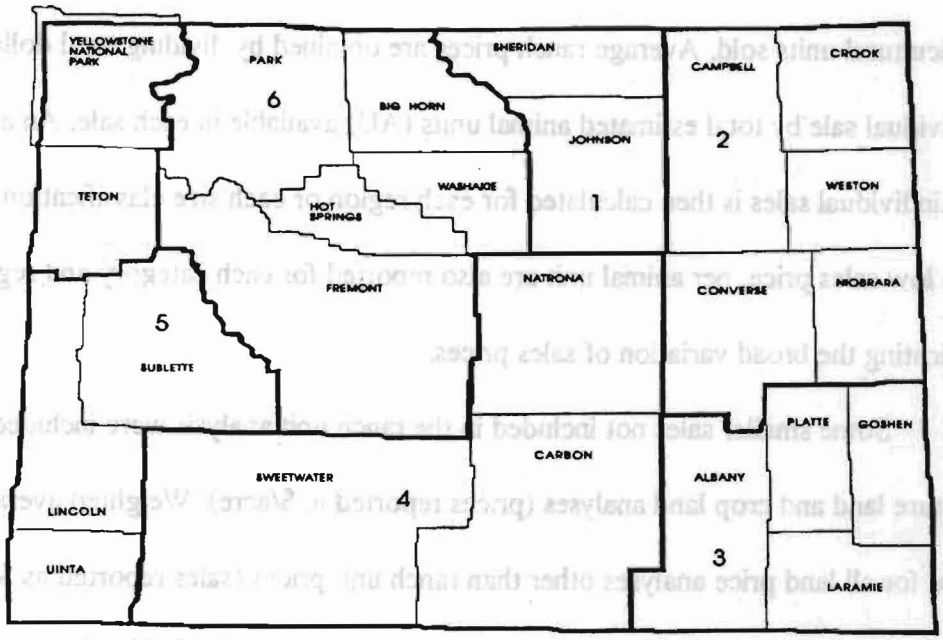

Figure 1. Regional boundaries for reported agricultural land market prices.

Variations among counties within each region do exist, but the regions identified are relatively homogeneous. Yellowstone National Park is excluded from this report because no privately owned agricultural land exists within the park. Teton County is also

excluded because of significant recreation and development factors resulting from its scenic beauty and the extent of public land holdings (96 percent). Thus, agricultural production potential is of little or no significance in establishing market values for land in the Teton County area.

Agricultural land prices are summarized and reported for ranch units and various land categories and regions. Average values are reported on a per animal unit or per acre basis. However, it should be noted that simple averages of ranch sales prices ($/AU) (reported by region and size) are reported to be consistent with work done by Vanvig and Hewlett (1990). Reporting simple averages could cause average values to be overstated in a region with a large number of small sales, representing only a small percentage of total agricultural units sold. Average ranch prices are obtained by dividing total dollars for each individual sale by total estimated animal units (AU) available in each sale. An average of the individual sales is then calculated for each region or each size classification. The high and low sales price, per animal unit are also reported for each category and region, indicating the broad variation of sales prices.

Some smaller sales not included in the ranch unit analysis were included in the pasture land and crop land analyses (prices reported in $/acre). Weighted averages were used for all land price analyses other than ranch unit prices (sales reported as $/AU). Averages are based on total dollars of sales within a region divided by the total number of acres sold representing the type of land for which an average is being reported. For example, average prices reported for grazing land includes mountain pasture, foothills pasture, dry pasture, and crested wheatgrass. Total sales dollars for these types of grazing land were summed within a region and then divided by the total acres in this grazing land

category for the region. This is also consistent with Vanvig and Hewlett (1988; 1990) and Bastian et al. (1994).

MARKET PRICES FOR WYOMING AGRICULTURAL LAND

Average market prices by type of land and region for 1993-95 are reported in this section. This includes ranches, grazing land, irrigated and sub-irrigated pasture, irrigated meadow land, irrigated cropland, and dry cropland.

Ranch sale prices are reported on a dollar value per animal unit ($/AU) basis. For purposes of this report, an AU is defined as the feed required to maintain one 1,000-pound cow with or without a calf for one 12-month period. Ranch prices per animal unit include the value of structural improvements (buildings), public grazing permits, and private leases transferred with the deeded land. Thus, reported prices reflect the value of ranch operations on an animal unit basis.[3]

Per acre prices shown for grazing land, irrigated pasture, irrigated cropland, and dry cropland do not include the value of any buildings, wasteland, or grazing leases associated with the sale. However, fixed improvements such as fences, stock-water developments, sprinklers, and ditches for gravity irrigation were included where relevant to the per-acre land sale prices.

Ranches

Ranch prices per animal unit (AU) are reported by region in Table 1 for the eastern plains area, the mountain-valley desert area, and statewide. The eastern plains area includes regions 1, 2, and 3. The mountain-valley desert area covers regions 4, 5, and 6.

[3] Information on animal unit carrying capacity for individual ranches were provided by the appraiser

Prices for eastern plains ranches averaged $2,420 per AU. Ranch prices for the mountain valley-desert area averaged $1,695 per AU, and the statewide average was $2,151 per AU.

Region 1, which includes Johnson and Sheridan counties, had the highest average with $3,292 per AU. Average prices in region 1 ranged between $204 per AU and $7,881 per AU. Sales in this region averaged 12 percent of the total Animal Unit Months (AUMs) coming from leased foraged. The eastern plains area had an average of 7 percent of the forage provided by leases, while the mountain-valley area had an average percentage of leased forage equaling 13 percent. Higher values are also due in part to the scenic and recreational value of ranch land in the area around the Big Horn mountains. The lowest average was in region 6 with $1,465 per AU and a range between $73 per AU and $6,140 per AU.

These prices indicate a dampened rate of appreciation for ranch properties compared to the 1990-92 period that is likely due to lower cattle prices. Figure 2 compares Wyoming ranch prices on a per AU basis by region for the 1990-92 and 1993-95 periods. It is important to note that these averages have not been adjusted for inflation. Comparing the nominal (unadjusted for inflation) average prices for the two periods indicates an overall increase of nearly 11 percent in ranch prices statewide. The biggest average

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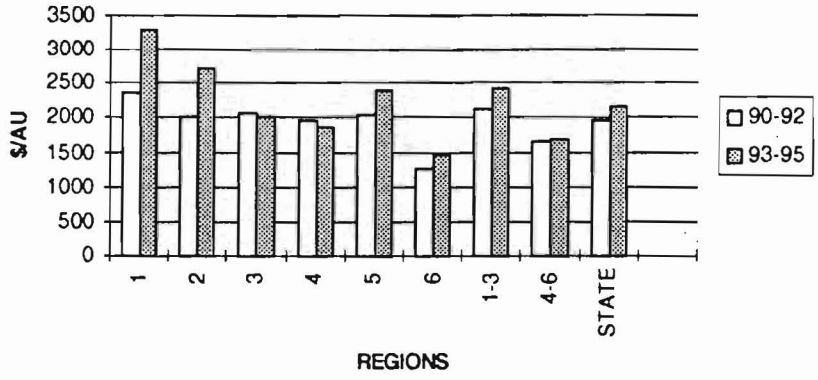
reports of land sales transactions used in the analysis.

Table 1. Price per animal unit for Wyoming ranches by region, 1993-95.

	Region/Counties	Number of Sales	Average Size	Average Sales Price	Sales Price Range Low	Sales Price Range High	Average Percentage Leased Forage
			(AU)s	----------Dollars Per AU----------			(% of Total AUMs)
1	Johnson, Sheridan	30	316	3,292	204	7,881	12
2	Campbell, Converse, Crook, Niobrara, Weston	54	247	2,718	248	8,852	8
3	Albany, Goshen, Laramie, Platte	103	306	2,010	174	15,343	5
4	Carbon, Natrona, Sweetwater	19	418	1,862	719	3,622	36
5	Lincoln, Sublette, Uinta	21	165	2,405	817	4,630	8
6	Big Horn, Fremont, Hot Springs, Park, Washakie	75	337	1,465	73	6,140	9
1,2,3	Eastern Plains	187	291	2,420	174	15,343	7
4,5,6	Mtn-valley desert	115	319	1,695	73	6,140	13
1-6	Statewide	302	300	2,151	73	15,343	9

increase took place in region 1, which had a nominal increase of 40 percent from 1990-92 to 1993-95. The lowest average increase was in region 6 with a nominal average increase of 16 percent. Regions 3 and 4 actually experienced a slight drop in ranch prices over that time period, -3 percent and -5 percent, respectively. Ranch prices increased an average of 30 percent in the 1990-92 period compared to the 1988-90 period (Bastian et al., 1994). Additionally, the number of sales is down slightly compared to 1990-92 according to Bastian et al. (1994). The slight decrease in the number of sales, plus the lower increases or perhaps slight decreases in price suggest a slightly dampened demand for ranch property.

Figure 2. Comparison of Wyoming Ranch Prices Per AU: 1990-92 versus 1993-95

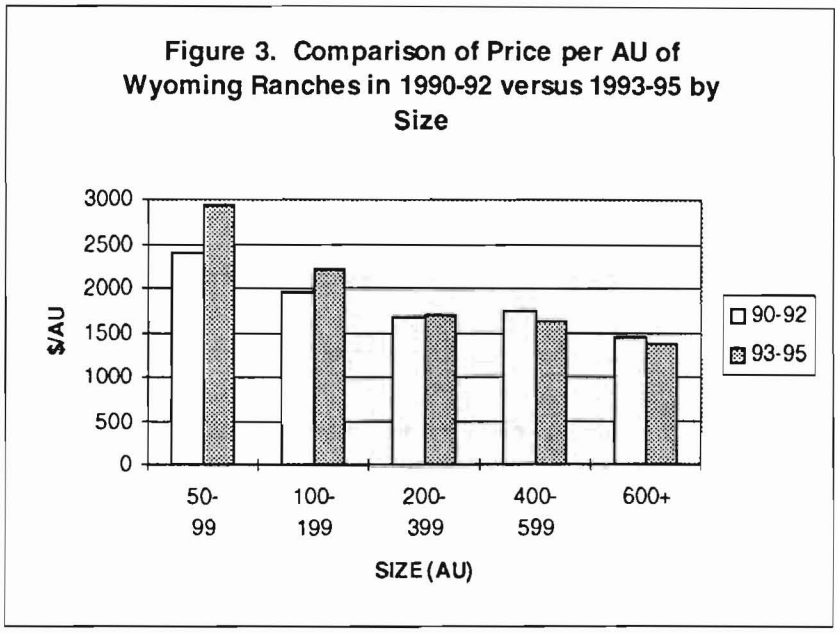


The relationship of ranch prices to the total number of animal units and the percentage of those animal units supplied by leased lands can be seen in Table 2. As the size of ranches increased (measured by AUs), price per AU decreases. Average prices per animal unit ranged from $2,928 for the smallest ranches (50-99 AUs) to $1,368 for the largest (600+ AUs).

The percentage of leased forage had a similar effect on ranch prices. Average price per AU for ranches with no leased ground was $1,856. Price increased to $2,858 per AU for ranches with leased forage of up to 24 percent of total forage. However, as the percentage of leased forage increased beyond 24 percent the price per AU declined. This may be due to risks associated with having a large percentage of leased forage from public rangeland, given the political uncertainty about public range policy. The

Table 2. Price per animal unit of Wyoming ranches based on size and percentage of forage provided by public and private leases, 1993-95.

Size Range (AUs)	Number of Sales	Average Size (AUs)	Average Price ($/AU)	Average Leased Forage (Percent)
50-99	81	74	2,928	5
100-199	93	142	2,220	8
200-399	80	285	1,693	12
400-599	26	478	1,635	11
600 & Over	25	1,476	1,368	17
Leased Forage (Percent)				
0	175	206	1,856	0
1-24	82	349	2,858	12
25-49	28	396	2,195	37
50-74	7	244	1,633	60
75 & Over	4	524	866	84



proportion of forage leased varied from zero in the sample to an average of 84 percent in the category of 75 percent and over of leased forage. Ranches in the 75 percent and over category had an average price of $866 per AU. Large ranches tend to have higher percentages of leased forage. These relationships are similar to those found in an earlier study of ranch sales for the period 1975-88 (Vanvig and Hewlett, 1990).

Figure 3 compares 1990-92 average ranch prices with the 1993-95 period. This comparison is based on average prices for each period and have not been adjusted for inflation. The largest average increase between the two periods is for the 50-99 AU classification. Average sales price per AU increased 23 percent from 1990-92 to 1993-95. The smallest increase in average price for Wyoming ranches was in the 200 to 399 AU size. Nominal prices increased slightly over 1 percent between the two periods for ranches in that middle-size category. There was a significant decrease in the number of sales across size categories between the two periods. Overall, Figure 3 also indicates a dampened demand for ranch property in Wyoming from 1990-92 to 1993-95, particularly

for those ranches supporting greater than 199 AUs. Those ranches in the 400 to 599 AU and 600 or more AU categories actually experienced slight decreases in average price according Figure 3. This is likely a function of decreased cattle prices. Those purchasing the smaller ranch units could likely offset lower ranch income with off-ranch income, but purchasers of the bigger ranches would likely not be able to meet debt and labor requirements with off-ranch income. Thus, lower cattle prices mean lower ability to pay for the ranch.

Table 3 reports average value of improvements and the frequency of ranches with a specified number of structures, such as the percentage of ranches sold with zero, one, two, three, or more houses. Table 3 indicates that as the size of the ranch unit increased so did the average value of improvements. Those ranch units in the 50-99 AU size category had an average value of improvements equal to $44,440. Houses, livestock buildings or shelters, and/or corrals tended to be the most common type of improvement in this size category. Approximately 44 percent of the ranches sold in this size category had one or more houses. Livestock buildings or shelters were the next most common type of improvement as 24 percent of the ranches have one or more livestock buildings. The frequency of reported improvements and number of structures increased with size and average value of improvements. As with ranch prices, value of improvements varied greatly within size categories.

Average value of improvements for ranches in the 600 AU and over category was $121,109. In this size category, 66 percent of the ranches had one or more houses, 60 percent had one to three shops, 56 percent had one or more livestock buildings, 56

Table 3. Average value of improvements and percentage of Wyoming ranches with the specified type and number improvements based on size (AUs), 1993-95.

					Type and Number of Improvements																							
		$ Value of Improvements			# of Houses					# of Shops				# of Livestock Buildings						# of Granaries			# of Corrals				# of Lvstck. Scales	
Size (AUs)	No. of Sales	Avg.	Low	High	0	1	2	3	4+	0	1	2	3+	0	1	2	3	4	5+	0	1	2	0	1	2	3	0	1
					---Percent of Ranches with Type and Number of Improvements---[a/]																							
50-99	81	44,440	0	502,020	56	40	2	1	1	73	17	7	2	75	11	6	6	1	0	91	9	0	80	20	0	0	100	0
100-199	93	49,509	0	425,000	43	44	11	3	0	65	24	11	1	60	19	15	3	2	1	83	17	1	63	37	0	0	98	2
200-399	80	59,752	0	586,000	30	43	20	6	1	56	28	13	4	43	36	6	10	1	4	86	14	0	58	39	4	0	98	2
400-599	26	70,049	0	372,000	31	35	23	4	8	50	27	15	8	58	15	15	4	0	8	81	19	0	69	31	0	0	92	8
600 & Over	25	121,109	0	535,500	24	20	28	12	16	40	40	12	8	44	28	12	12	0	4	92	8	0	44	44	12	0	96	4

[a/]Total percentage of ranches with that type of improvement may add to more than 100 because percentages are rounded to nearest whole number.

percent had at least one set of corrals, and 4 percent had livestock scales. Value of improvements in the 600 AU and over category ranged from $0 to a high of $535,500.

Prices for smaller ranches have shown continued strength since early 1990, but prices for the larger ranch units have begun to slow in appreciation. This likely reflects lower returns to cattle producers in the mid-1990s, as well as other factors. Brokers and lenders report continued demand for smaller agricultural units for several other reasons, such as increased interest in recreational and scenic values of Wyoming cattle ranches, and more people from outside the state purchasing small tracts as investments and possible retirement locations. Ranch land with significant private timber lands have also been increasingly of interest to buyers, reportedly due to decreasing availability of west coast timber from public lands due to environmental concerns.

Assured Leases

Assured leases include transfers of public and private leases in conjunction with deeded land. Historically, in the case of public lease permits, the rancher owning the required commensurate property has been allowed to renew the permit attached to the land under the previous owner. Thus, the purchaser is assured the use of the resource. Some sales are outright sales of lease agreements. Even through public rangeland leases are not property rights, they are long-term leases awarded on prior use patterns. Quantity and type of assured leases transferred with ranches do seem to influence Wyoming ranch land sale prices. Value of assured leases per animal unit month (AUM)[4] transferred with ranches sold during 1993-95 are reported in Table 4. However, it is important to note that

[4] An animal unit month (AUM) is defined as the amount of forage required to maintain one 1,000-pound cow for 30 days (approximately equal to 780 pounds of forage on a dry matter basis). In the case of government leases, an AUM can also be defined as the amount of forage required to maintain one

for each category of lease (state, BLM, etc.) a weighted average approach has been used to calculate average value. The dollar values for all leases within a category were summed for all sales and divided by the total AUMs estimated for all leases within that category. This is consistent with Vanvig and Hewlett (1988; 1990) and Bastian et al. (1994).

The number of assured leases and permits transferred in agricultural land sales totaled 238 from 1993 to 1995, with some sales including more than one lease. This was down from 415 in the period of 1990 to 1992. This also indicates dampened demand for agricultural lands in Wyoming from 1993 through 1995. The number of AUMs transferred averaged from 0 for USDA Forest Service permits to 896 for railroad leases. BLM leases averaged 580 AUMs. BLM leases include Section 3 and Section 15 leases. Section 3 lands are grazing district lands, while section 15 leases include lands outside

Table 4. Value of assured leases per AUM transferred with ranches sold during 1993-95.

Agency Providing Lease	Number of Sales	Average AUMs	Average Value	Range	
				Low	High
			($ per AUM)		
State of Wyoming	107	353	70	40	330
BLM	115	580	41	29	295
USDA Forest Service	0	0	0	0	0
Private Leases	12	441	40	0	78
Railroad Leases	4	896	40	30	55
Avg. for all Leases	238	476	48	0	330

grazing districts. Values assigned to assured leases averaged $48 per AUM for the entire state. State of Wyoming leases averaged $70 per AUM and private leases averaged $40

cow/calf pair.

per AUM. There were no USDA Forest Service leases reported in the sales used for this analysis. BLM assured leases averaged slightly more than private leases at $41 per AUM.

Grazing Land Prices

Sales data were collected on 354 parcels of grazing land (dry pasture) in Wyoming during 1993-95. Prices ranged from a high of $1,500 per acre in region 3 to a low of $15 per acre in region 6 (Table 5). Average prices per acre ranged from $106 per acre in region 5 to $48 per acre in region 4.

Eastern plains sales averaged $88 per acre, which was $30 per acre higher than average prices of grazing land in the mountain-valley desert area. This was largely related to productivity differences between the two regions. Average productivity of lands sold according to appraisal reports was 0.32 AUMs per acre in the eastern plains, as opposed to an average productivity of 0.21 AUMs per acre in the mountain-valley desert area (Table 5). Statewide, the average price per acre of grazing land was $80 per acre.

Except for the high average price in region 5 and the low average price of $48 in region 4, other regions ranged between $73 per acre and $90 per acre. The low price in region 4 is partially explained by two factors. First, the average size of grazing land parcels sold was largest in region 4, with an average of 7,826 acres per sale. The second relates to productivity. Region 4 had the next to lowest average productivity of all the regions with 0.20 AUMs per acre. Also somewhat related to price is the fact that region 4 likely has fewer parcels of land that can be classified as scenic. The higher average

Table 5. Wyoming grazing land prices, 1993-95.

Region/Counties	Number of Sales	Average Size (acres)	AUMs/ Acre	Average Sales Price	Range Low	Range High
				($ per acre)		
1 Johnson, Sheridan	41	3,215	0.32	89	48	730
2 Campbell, Crook, Converse, Weston, Niobrara	81	3,082	0.32	86	56	483
3 Albany, Goshen, Laramie, Platte	127	2,430	0.19	90	8	1,500
4 Carbon, Natrona, Sweetwater	23	7,826	0.20	48	23	495
5 Lincoln, Sublette, Uinta	17	771	0.23	106	55	1,000
6 Big Horn, Park, Hot Springs, Washakie, Fremont	65	1,219	0.23	73	15	634
Eastern Plains	249	2,772	0.32	88	8	1,500
Mountain-Valley Desert	105	2,594	0.21	58	15	1,000
Statewide	354	2,712	0.29	80	8	1,500

price of $106 per acre in region 5 is likely explained by the same factors. Region 5 had the lowest average number of acres of grazing land per sale with an average 771 acres. While productivity in region 5 is not as high as other regions, it is higher than region 4 (0.23 AUMs per acre, Table 5). In addition to smaller average size of tracts being sold, region 5 has some very scenic areas that likely influence many buyers to pay higher prices for grazing land than in other areas.

Irrigated and Sub-irrigated Pasture

Sales of irrigated, sub-irrigated, and river or creek bottom pasture parcels totaled 187. Prices of land in this category ranged from $2,500 per acre in region 1 to $65 per acre in region 3 (Table 6). Region 4 had the least number of sales of land in this category (7) while region 3 had the most with 66 sales of land in this category. Region 1 had the smallest average acreage per sale for irrigated or sub-irrigated pasture land. Average parcel size for this type of pasture was 91 acres in region 1. Region 4 had the largest average acreage per sale with 617 acres per transaction.

Table 6. Wyoming irrigated and sub-irrigated pasture prices, 1993-95.

Region/Counties	Number of Sales	Average Size (acres)	AUMs/ Acre	Average Sales Price	Range	
					Low	High
				($ per acre)		
1 Johnson, Sheridan	18	91	1.59	789	107	2,500
2 Campbell, Crook, Converse, Weston, Niobrara	21	263	0.85	144	95	600
3 Albany, Goshen, Laramie, Platte	66	332	1.25	234	65	1,020
4 Carbon, Natrona, Sweetwater	7	617	1.21	178	100	545
5 Lincoln, Sublette, Uinta	15	168	2.01	651	200	2,043
6 Big Horn, Park, Hot Springs, Washakie, Fremont	59	98	1.49	348	150	2,000
Eastern Plains	105	277	1.20	248	65	2,500
Mountain-Valley Desert	81	156	1.50	350	100	2,043
Statewide	186	225	1.30	286	65	2,500

The eastern plains reported an average size of 277 acres per transaction, productivity of 1.20 AUMs per acre, and an average price of $248 per acre for irrigated and sub-irrigated pasture land (Table 6). The mountain-valley desert area had higher average productivity and price than the eastern plains. Mountain-valley desert areas of the state reported an average of 156 acres per transaction, 1.50 AUMs per acre, and an average price per acre of $350. Statewide averages for sales of land in this category were 225 acres per transaction, 1.30 AUMs per acre, and an average sales price of $286 per acre. The highest average price per acre for land of this type occurred in region 1 with an average of $789 per acre. This region had the second highest average reported productivity at 1.59 AUMs per acre. The lowest average price per acre for this type of pasture occurred in region 2. This region had the lowest corresponding average productivity of 0.85 AUMs per acre.

Irrigated Meadow Land

Irrigated meadow land is a separate category intended to reflect information about irrigated meadows not cultivated or rotated with other crops. The wide range of prices for this type of land likely reflect the wide range in qualities as indicated by productivity estimates, as well as some influence associated with scenic value. The high for this type of land occurred in region 1 with a price of $2,500 per acre (Table 7). The low occurred in regions 2 and 4. The statewide average for this type of land was $774 per acre with an average carrying capacity of 4.67 AUMs per acre. Eastern plains values were lower than the statewide average with an average price of $746 per acre and average productivity of 4.34 AUMs per acre. Mountain-valley desert areas had a higher average sales price of $811 per acre and an average carrying capacity of 5.12 AUMs per acre. Region 4 had the

lowest average sales price at $508 per acre and an average carrying capacity of 4.60 AUMs per acre. Region 3 had the lowest average carrying capacity of all the regions (3.93 AUMs per acre) and the second highest average number of acres sold per transaction (386 acres per sale). The highest average sale price for irrigated meadow land occurred in region 1. Region 1 had an average sales price of $1,122 per acre and the highest average productivity of 7.38 AUMs per acre.

Table 7. Wyoming irrigated meadow land prices, 1993-95.

Region/Counties	Number of Sales	Average Size (acres)	AUMs/ Acre	Average Sales Price	Range	
					Low	High
				($ per acre)		
1 Johnson, Sheridan	4	234	7.38	1,122	700	2,500
2 Campbell, Crook, Converse, Weston, Niobrara	2	274	5.22	533	515	650
3 Albany, Goshen, Laramie, Platte	21	386	3.93	717	200	1,036
4 Carbon, Natrona, Sweetwater	5	395	4.60	508	150	1,285
5 Lincoln, Sublette, Uinta	16	192	5.18	881	400	2,315
6 Big Horn, Park, Hot Springs, Washakie, Fremont	13	155	5.53	1,001	200	1,683
Eastern Plains	27	355	4.34	746	200	2,500
Mountain-Valley Desert	34	208	5.12	811	150	2,315
Statewide	61	273	4.67	774	150	2,500

Irrigated Cropland

Table 8 reports irrigated cropland prices by regions. Land in the irrigated cropland category includes land under sprinkler, center pivot, and gravity irrigation systems across various quality classifications. Sales of irrigated tracts totaled 189 for 1993-95. Sale prices across Wyoming ranged from a high of $9,090 per acre in region 3 to a low of $180 per acre in region 6. This broad range of prices reflects differences in land quality, water class, type of irrigation system, and method of sale. Region 1 had the highest

Table 8. Wyoming irrigated cropland prices, 1993-95.

Region/Counties	Number of Sales	Average Size (acres)	AUMs/ Acre	Average Sales Price	Range	
					Low	High
				($ per acre)		
1 Johnson, Sheridan	13	195	6.23	1,295	450	2,800
2 Campbell, Crook, Converse, Weston, Niobrara	7	171	10.30	754	400	1,168
3 Albany, Goshen, Laramie, Platte	64	180	13.05	776	368	9,090
4 Carbon, Natrona, Sweetwater	6	164	10.19	968	540	2,300
5 Lincoln, Sublette, Uinta	11	161	6.15	961	467	2,110
6 Big Horn, Park, Hot Springs, Washakie, Fremont	88	180	7.39	762	180	2,500
Eastern Plains	84	182	11.31	892	368	9,090
Mountain-Valley Desert	105	177	7.42	790	180	2,500
Statewide	189	179	9.19	834	180	9,090

average sales price with $1,295 per acre. The average parcel size in that region was 195 acres. The lowest average sales price was in region 2 at $754 per acre and average parcel size of 171 acres. Statewide averages for irrigated cropland during 1993-95 were $834 per acre and 179 acres per transaction.

Region 6 had the highest number of transactions (88) while region 4 had the lowest with only six transactions during 1993-95 (Table 8). Average sale size ranged between 161 irrigated acres to 195 acres. The two major irrigated cash crop regions in the state are 3 and 6. These regions produce sugar beets, corn, barley, oats, dry beans and hay, particularly in the Torrington, Worland, Lander, Riverton, and Powell areas. Region 1 likely had the highest average sale price because of scenic values associated with land in that area.

Water supply classifications based on availability of water are important determinants of value for irrigated cropland. However, data on irrigated cropland prices by water class was not available. Consequently, land sale prices reported represent an average of all sales of irrigated cropland for each region. Those acres having relatively good water supply would normally range higher, while those lands with uncertain water supply would range lower in price.

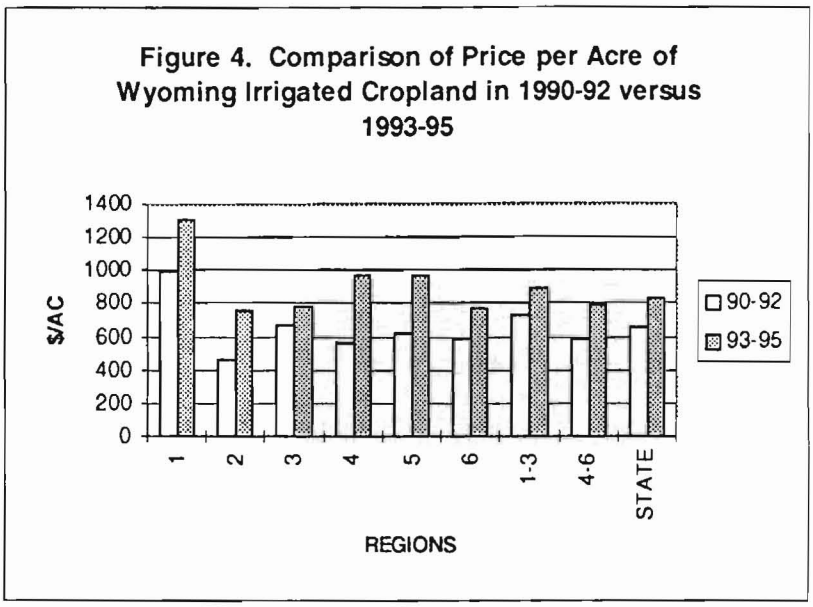


Figure 4 compares 1990-92 average irrigated cropland prices with the 1993-95 period. This comparison is based on average prices for each period which has not been adjusted for inflation. The largest average increase between the two periods is for region 4. Average sales price per acre increased slightly over 73 percent from 1990-92 to 1993-95 in this region. The smallest increase in average price for Wyoming irrigated cropland was in region 3. Nominal prices increased approximately 16 percent between the two periods for irrigated land sold in that region. There was a significant increase in the number of sales across the state for this type of land between the two periods (103 sales in 1990-92 versus 189 sales in 1993-95). Overall, Figure 4 indicates a relatively strong demand for irrigated cropland in Wyoming from 1990-92 to 1993-95. This is likely a function of increased crop prices and increased demand for irrigated cropland in recent years. There have been reports of increased migration from farming areas in Colorado to farming areas in Wyoming. The increased crop prices coupled with increased demand likely explains these large increases in prices for irrigated cropland between the two periods.

Dry Cropland

A total of 34 parcels of dry cropland sales were collected for Wyoming during 1993-95 (Table 9). This is down from 80 parcels reported in the previous period. Regions 4, 5, and 6 did not have enough sales to be reported separately in Table 9. However, 2 sales of dry cropland were aggregated and reported for those regions and included in the statewide average.

Table 9. Wyoming dry cropland prices, 1993-95.

Region/Counties	Number of Sales	Average Size (acres)	Average Sales Price	Range Low	Range High
			($ per acre)		
1 Johnson, Sheridan	6	73	893	300	2,225
2 Campbell, Crook, Converse, Weston, Niobrara	22	221	349	115	825
3 Albany, Goshen, Laramie, Platte	4	44	213	190	300
4, 5 and 6	2	152	414	265	712
Statewide	34	170	389	115	2,225

Region 2 had the highest number of dry cropland sales with 22 transactions. The lowest average price of dry cropland of $213 per acre occurred in region 3. Region 2 averaged the next lowest with $349 per acre. The highest average price per acre for dry cropland was in region 1 at $893 per acre. This region had only six sales and an average parcel size of 73 acres per transaction for this type of land. Statewide dry cropland sales averaged $389 per acre and 170 acres in size.

FACTORS AFFECTING THE AGRICULTURAL LAND MARKET

Expected Farm and Ranch Income

Farm and ranch land values are affected by many factors. Expected net income is an important determinant in all areas. Other factors such as recreation and scenic values, minerals, interest rates, urban influences, investment potential, supply of agricultural land on the market, and sales due to financial stress are also important. Current market value represents consideration of all these factors by buyers and sellers in the market.

It appears agricultural land prices are trending upward after bottoming out in 1987. The turnaround came about somewhat earlier for cattle ranches and grazing land than for irrigated cropland and dry cropland. This was likely due to the favorable cattle prices providing relatively good income potential from about 1986-87 through the early 1990s. However, crop prices, with the possible exception of sugar beets and malt barley, have not been as favorable until recently. Since about 1989 it appears prices for all types of agricultural land have stabilized and turned upward. Large increases were reported for cattle ranches during the early 1990s. This trend appears to have moderated as cattle prices dropped considerably after 1993.

Normally there is a lag between improvement in farm and ranch income resulting from higher product prices and its effect on the land market. Generally, there is a one-year lag between changes in income and land prices. While cattle prices were favorable until 1993, there is reason to believe we have now hit the bottom of the cattle price cycle. This suggests a possible strengthening of cattle prices over the next several years and a corresponding strengthening of ranch land prices compared to 1993-95.

One agricultural activity that seems to continue to add to the demand for agricultural land in northeastern Wyoming is timber harvest. Due to reduced timber harvests on the West Coast brought on by a number of factors, primarily environmental, timber harvesting on private land is becoming more important. This enterprise adds to the income potential of agricultural lands when compared to other typical crop and livestock production activities. This may continue to add strength to ranch land values even if cattle prices do not return to higher levels over the next few years.

Scenic, Recreational, and other Non-Agricultural Values

Although sales in this report are limited to properties primarily in production agriculture, scenic and recreational values are important in Wyoming and can contribute significantly to the market value of agricultural properties. This is an especially significant consideration for ranches and grazing lands located near national forests and scenic mountain areas. Important scenic areas are found near Sheridan, Saratoga, Jackson Hole (Teton County was not included in this analysis), Pinedale, Cody, and in the Black Hills of northeastern Wyoming.

Other non-agricultural influences on the agricultural land market include: expansion of urban areas through residential and commercial development; mineral rights and royalties – including coal, oil and gas leases; recreational hunting and fishing leases, which provide income from non-agricultural activities; and the purchase of agricultural lands for their scenic value and privacy by non-ag or absentee owners for retirement or vacation purposes. Urban influences exist near most cities and towns in Wyoming. Areas affected by mineral leases include Johnson, Campbell, and Natrona counties for oil and coal, and southwestern Wyoming for oil and natural gas.

Boom and bust cycles associated with uranium and coal development have influenced land values in the past for some areas, and may in the future.

Supply of Farms and Ranches on the Market

Another factor affecting land prices is the supply of farms and ranches available for sale. The supply of farms and ranches offered for sale in Wyoming appears to have decreased slightly compared to 1990-92. Because land prices were stronger and cattle prices decreased, many producers seemed to liquidate some of their land assets. The increased supply of ranch lands for sale may have helped dampen land prices in the 1993-95 period, particularly for the mid-size to large ranch units.

Monetary Factors

Nominal interest rates have remained relatively low for a number of years. The Federal Reserve has tried to stimulate economic activity by lowering the prime lending rate, which in turn has lowered long-term interest rates and seems to have provided some strength to real estate markets overall. This may have turned around in recent months as the Federal Reserve has started to raise interest rates in an effort to keep inflation in check. Relatively strong crop prices have kept average U.S. farm income in a relatively strong position, but farm debt increased in 1994 to its highest level since 1986 (USDA, 1996). Overall, in most areas of the United States there seems to be a relatively good supply of credit for farm real estate financing, but financing for ranch real estate seems to be tighter now due to economic conditions in the cattle industry.

RECENT TRENDS IN WYOMING AND NATIONAL AGRICULTURAL LAND PRICES

Wyoming

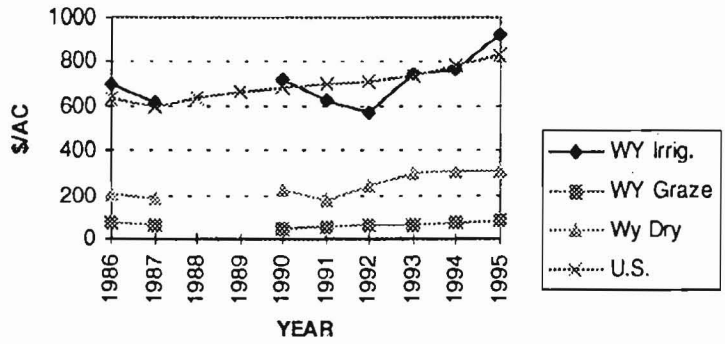
Market prices for major types of agricultural land in Wyoming seemed to peak in the early 1980s (Bastian et al., 1994). Ranch prices reached a peak in 1980, then generally declined until 1987. In 1989 average ranch prices seemed to turn upward and appear to be continuing in that direction. Grazing land prices peaked in 1982 and declined until 1989 (Vanvig and Hewlett, 1990). It appears that prices for cropland, at the very least, have stabilized and perhaps increased since 1987 (Figure 5; Table 10)[5]. Grazing land prices seemed to have dropped slightly since 1987 and are starting to trend upward (Figure 5; Table 10).

United States

Agricultural land values in the United States increased rapidly in the 1970s peaked in 1981-82, declined rapidly until 1987, and have since increased (Vanvig and Hewlett, 1990). There was a 7 percent increase in the per-acre value of U.S. farm real estate during 1995 (USDA, 1997). By comparison, the value increases were 6.4 percent in both 1994 and 1993. The per-acre value of U.S. farm real estate has increased almost 49 percent since the upturn in 1987. The average nominal value of $890 per acre as of January 1, 1996 compares with $823 recorded in 1982, just before the major decline in farm real estate values that occurred during the mid-1980s. It was not until January 1995 that farm real estate values exceeded the 1982 level.

[5] Data for Figure 5 comes from Table 10 and USDA (1997).

Figure 5. Comparison of U.S. Farm Real Estate Values as of January 1 and Wyoming Land Values by Year and Land Type



On a real or inflation-adjusted basis, U.S. farm real estate values increased 4.4 percent during 1995. This compares with 4.0 and 3.5 percent increases during 1994 and and 1993, respectively. Prior to 1993 real values had fallen for 10 of 12 years. In real terms, the January 1, 1996, average was still 40 percent below the 1981 peak.

Table 10. Average market prices for Wyoming agricultural land and ranches, 1983-95[a].

	------Average Prices------												
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Ranches ($/AU)													
Eastern Plains	2,292	2,477	2,196	1,821	1,534	1,530	1,759	1,796	1,890	2,058	2,173	2,293	2,819
Mountain Valley-Desert	1,978	2,048	1,438	1,421	1,142	1,284	1,255	1,627	1,255	1,408	1,681	1,861	1,598
Grazing land ($/Ac)													
Eastern Plains	148	120	99	83	70	n/a	n/a	56	65	70	79	93	111
Mountain Valley-Desert	103	75	66	71	51	n/a	n/a	45	51	55	58	64	51
Irrigated cropland ($/AC)													
Region 3	1,266	1,143	992	645	514	n/a	n/a	865	686	536	639	794	982
Region 6	1,189	1,025	963	754	717	n/a	n/a	572	557	609	858	741	874
Dry cropland ($/AC)													
Region 2	323	352	288	182	173	n/a	n/a	241	197	244	295	417	358
Region 3	270	286	263	223	193	n/a	n/a	214	159	243	300	199	250

[a] Data for Table 10 is based on estimated averages for the specified region and year given the data used in the analysis.

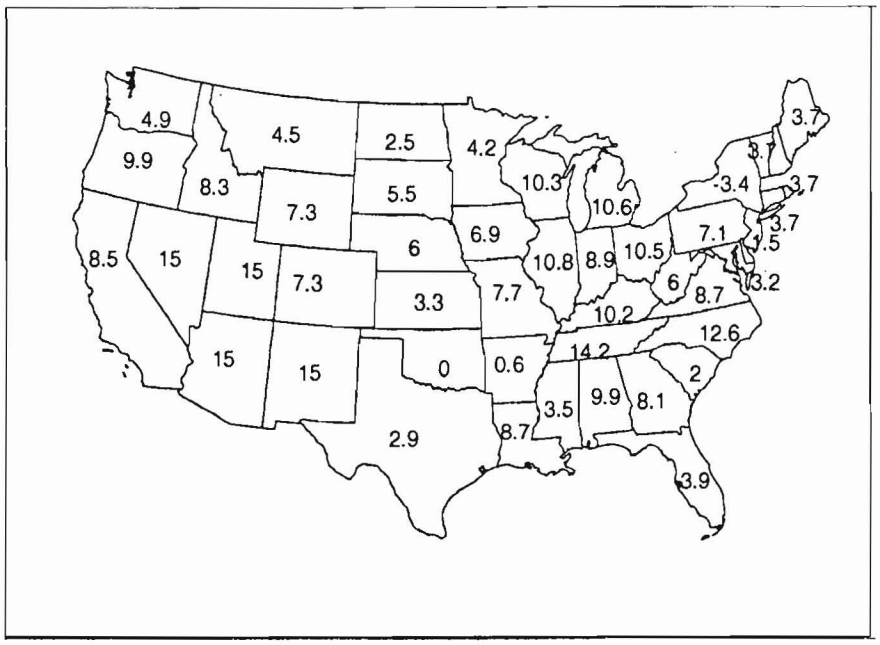


Figure 6. Percent change in nominal farm real estate value per acre (nominal dollars), January 1, 1995 to January 1, 1996 (USDA, 1997).

Several states in the Lake, Corn Belt, Appalachian, and Mountain regions recorded double-digit increases in farm real estate values according to Figure 6 (USDA, 1997). All states showed increases except New York and Oklahoma. Average regional values have been increasing since 1986 or 1987 for all regions except the Southern Plains. Since the 1986-87 low point, the Northeast has experienced an 85 percent increase. Other areas where average values have increased more than the national average include the Corn Belt (75 percent), Lake (59 percent), Appalachian (59 percent), and Southeast (57 percent) regions. Those regions with the smallest increases include the Southern Plains (15 percent), Delta (33 percent) and Northern Plains (44 percent). The trend in values for the Southern Plains has run counter to other regions for much of the 1980s and 1990s. Average values in the Southern Plains increased into 1985, while values for most other regions declined beginning in 1981. The Southern Plains average value then declined

between 1985 and 1992, while values in all other regions increased over most of that period (1987-1992).

LAND RENTAL RATES

Irrigated Land

Cash rental rates for irrigated cropland in Wyoming averaged between $37.90 and $54.00 per acre between 1990 and 1994 (1990 - $37.90/acre, 1991 - $40.30/acre, 1992 - $49.40/acre, 1993 - $54.00 per acre, and 1994 - $51.20/acre [Wyoming Agricultural Statistics Service, 1996]). Good quality irrigated cropland in the major irrigated areas of Wyoming averaged 40 to 85 percent higher than the state average. Typical fixed cash rental arrangements require the landlord to pay real estate taxes and water costs. Cash rental rates tend to vary from year to year depending on crop prices and changes in yield and demand for land to rent.

Share rental arrangements for irrigated cropland are relatively constant from year to year, although specific provisions of individual leases will vary. Typical shares for various irrigated crops are listed below (Hewlett and Bastian, 1992):

Crop	Landlord	Lessor/Renter
Grains	1/3	2/3
Dry Beans	1/4	3/4
Beets	1/5	4/5
Hay	1/2	1/2

In addition to real estate taxes, the landlord typically pays water costs for irrigated land. Some variable costs such as fertilizers, herbicides, harvesting, and hauling may be shared in the same proportion as the crop share. When entering into lease arrangements,

lessors and lessees need to assess what is fair and acceptable based on the unique characteristics of the arrangement being considered.

Dry Cropland

Dry cropland is usually rented on a crop share basis rather than with a fixed cash arrangement in Wyoming. However, state average dry cropland cash rental rates ranged between $9.60 and $13.90 per acre from 1990 to 1994 (1990 - $13.90/acre, 1991 - $10.20/acre, 1992 - $9.60/acre, 1993 - $13.40/acre, 1994 - $16.10/acre [Wyoming Agricultural Statistics Service, 1996]).

In the major dryland wheat producing areas, the typical crop share rental rate is one-third to the landlord and two-thirds to the renter. The landlord pays real estate taxes and usually shares in some variable costs such as pesticides, harvest, and hauling (Vanvig and Hewlett, 1990).

Private Grazing Leases

The most common rental method for privately owned grazing land is on an AUM basis or a cow-calf pair basis with the landowner providing salt, water, and some health care for the livestock. For Wyoming the following average rates for the state have been reported (Wyoming Agricultural Statistics Service, 1996).

Year	Animal Unit Month	Cow-Calf ($/month)	Per Head ($/month)
1991	9.98	11.12	9.60
1992	9.93	12.21	10.47
1993	10.50	12.60	11.00
1994	10.50	12.40	11.00
1995	11.30	13.00	11.50

SUMMARY

This report presents average market prices for agricultural lands sold in Wyoming during 1993, 1994, and 1995. Data were collected on 563 land sales occurring throughout the state. Only agricultural land sales expected to remain in agricultural production were included in the analysis. Farm Credit Services, the Wyoming State Farm Loan Board, and the Bureau of Land Management were data sources for this report. Average market prices were reported on a per-animal-unit (AU) basis for ranches, and on a per-acre basis for grazing land, irrigated pasture, irrigated meadow land irrigated cropland, and dry cropland. Average market prices during 1993, 1994, and 1995 were reported for six regions of the state:

Region 1 - Johnson and Sheridan counties;
Region 2 - Campbell, Converse, Crook Niobrara, and Weston counties;
Region 3 - Albany, Goshen, Laramie, and Platte counties;
Region 4 - Carbon, Natrona, and Sweetwater counties;
Region 5 - Lincoln, Sublette, and Uinta counties;
Region 6 - Big Horn, Fremont, Hot Springs, Park, and Washakie counties.

Prices for eastern plains ranches (regions 1, 2, and 3) averaged $2,420 per AU. Ranch prices for mountain valley-desert areas (regions 4, 5, and 6) averaged $1,695 per AU. The statewide average was $2,151 per AU. Statewide average ranch price per AU declined with increases in size of ranch sold. Prices also declined as the percentage of leased forage increased beyond 25 percent of total forage. Average values of assured leases and permits transferred when ranches were sold during 1993-95 were $70 per AUM (Animal Unit Month) for state, $41 per AUM for BLM, $40 per AUM for private leases, and $40 per AUM for railroad leases. Average value of improvements for ranches of 50 to

99 AUs was $44,440; 100 to 199 AUs, $49,509; 200 to 399 AUs, $59,752; 400 to 599 AUs, $70,049; and ranches 600 AUs and over, $121,109.

For grazing land, average prices were $88 per acre in the eastern plains and $58 per acre in mountain-valley desert areas. Statewide, the average price of grazing land was $80 per acre. Productivity, scenic, and recreational values were factors that seemed to explain most of the variation in grazing land prices. Large tracts and relatively low carrying capacity rangelands were usually associated with lower prices. Prices for irrigated and sub-irrigated pasture averaged $286 per acre statewide. Region 1 had the highest average price for irrigated pasture with $789 per acre, while region 2 had the lowest with $144 per acre. Irrigated meadow land averaged $774 per acre statewide. Region 1 had the highest irrigated meadow land average price at $1,122 per acre, while region 4 had the lowest at $508 per acre.

Important irrigated cropland areas in the state are regions 3 and 6. Region 3 averaged $776 per acre for irrigated cropland. Region 6 averaged $762 per acre. Statewide irrigated cropland averaged $834 per acre for 1993-95 sales.

The majority of dry cropland is in regions 1, 2, and 3. Region 1 averaged $893 per acre for dry cropland. Regions 2 and 3 averaged $349 and $213 per acre, respectively. An aggregated average for regions 4, 5, and 6 was $414 per acre. Statewide, price for dry cropland average $389 per acre.

Overall, prices for ranches in 1993-95 increased compared to 1990-92. However, the strongest increases were for ranches that ranged between 50 and 200 AU carrying capacity. Ranches larger than that experienced nearly the same to slightly decreased

prices compared to the 1990-92 period. Cropland and pasture prices seem to continue a trend in strengthened prices since the bottom of the agricultural land market in 1987.

Both cash and crop share rental arrangements are used in Wyoming. Cash rental rates tend to vary year-by-year depending on crop prices, yields, and other factors. Crop share arrangements, however, tend to be fairly stable over time. Typical crop share arrangements for landlords and tenants, respectively, are grains 1/3 - 2/3; dry beans 1/4 - 3/4; sugar beets 1/5 - 4/5; and hay 1/2 - 1/2.

Pasture rental rates on privately owned grazing land are typically quoted on a per AUM or cow-calf basis in Wyoming. Rates for cow-calf pairs ranged from $11.12 to $13.00 per month between 1991 and 1995 for Wyoming. Rates on a per AUM basis ranged between $9.93 and $11.30 for the same time period.

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