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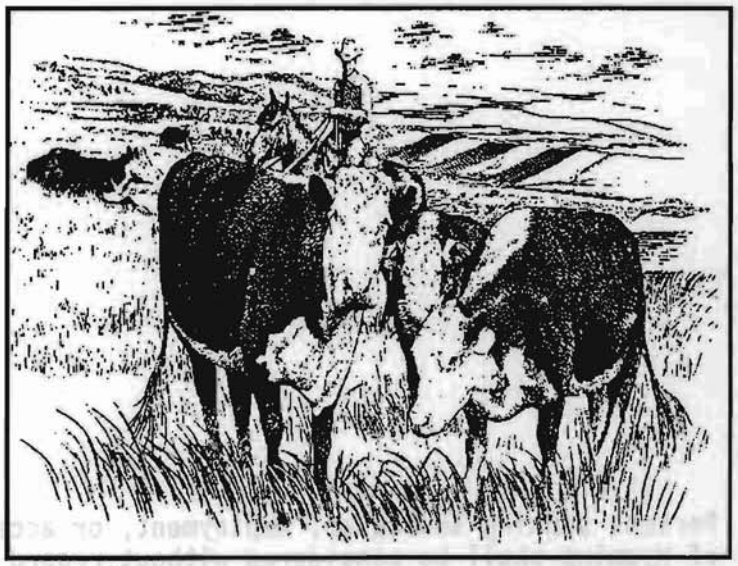

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WYOMING FARM AND RANCH LAND MARKET: 1988-90

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WYOMING FARM AND RANCH LAND MARKET: 1988-90

by

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INTRODUCTION

The primary purpose of this report is to provide price information on Wyoming farm and ranch land based on sales occurring during 1988, 1989, and early 1990. The objective is to show average sale prices for major types of agricultural land sold during this time period by areas of the state. It is not intended to show values of specific land parcels. This report is an update of previous reports on Wyoming agricultural land prices (Vanvig and Hewlett, 1988; Vanvig and Gleason, 1986; Vanvig and Collins, 1984; and Collins and Vanvig, 1982). In addition, a brief report of factors affecting land values and financing terms is provided. Also included is a discussion of recent trends in land prices for Wyoming and the United States. This report is intended for those interested in the Wyoming agricultural land market, including farmers, ranchers, realtors, appraisers, lenders, investors, and others.

PROCEDURE

Wyoming agricultural land sales information was collected mainly from appraisers' sales reports of the Farm Credit System, the Wyoming Farm Loan Board, and the Bureau of Land Management. This data includes 535 sales reports of agricultural land composed of individual tracts. Data was collected for the calendar years 1988, 1989, and early 1990. Values are established for each of the following categories when included in a sale:

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(1) type of land (grazing land, irrigated and sub-irrigated pasture, irrigated meadow land, irrigated cropland and dry cropland); (2) structural improvements; and (3) public and private land grazing leases and permits. When valuable mineral rights were included in a sale, they were valued separately from the agricultural value of the land. Additional sale details were obtained from the sales reports when available. These included methods and terms of financing and method of irrigation.

Farm and ranch sale data used in the analysis are limited to those units that could be characterized as bona fide agricultural units. Each land sale was classified, and then each group of sales was inspected for extremely high or low sale prices. Excluded were ranch sales smaller than 50 animal units (AUs), rural home sales, tracts too small to be viable agricultural units, and tracts in which exceptional recreational and scenic values caused land prices to be significantly higher than their agricultural use would justify.

Wyoming land values vary by region and are influenced by such factors as climate, elevation, availability of water, population, recreation, mining, and 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 (fig. 1).

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

**Teton County and Yellowstone National Park are not included.

Counties	Region	Primary Enterprises
Johnson, Sheridan	1	Beef cattle, sheep, and 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, and other irrigated crops

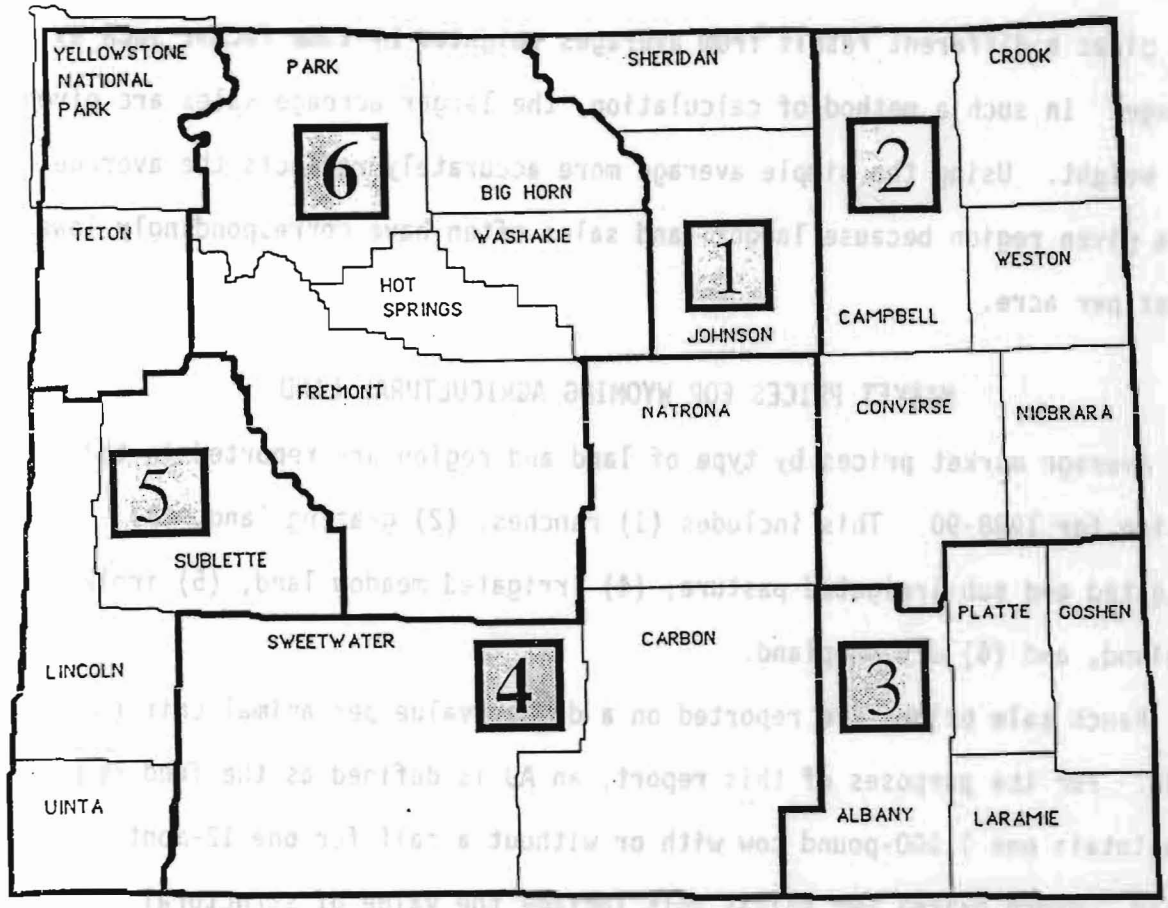


Fig. 1. Regional boundaries for which market prices for agricultural land are reported.

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 natural beauty and the extent of public land holdings (96 percent). Thus, agricultural production potential is of little or no significance in establishing the market values of land in this area.

Agricultural land prices are summarized and reported for ranches and various land categories and regions. Average values reported are calculated as the simple average of those observations within a particular category. This gives a different result from averages weighted by some factor such as acreage. In such a method of calculation, the larger acreage sales are given more weight. Using the simple average more accurately reflects the average for a given region because larger land sales often have correspondingly lower prices per acre.

MARKET PRICES FOR WYOMING AGRICULTURAL LAND

Average market prices by type of land and region are reported in this section for 1988-90. This includes (1) ranches, (2) grazing land, (3) irrigated and sub-irrigated pasture, (4) irrigated meadow land, (5) irrigated cropland, and (6) dry cropland.

Ranch sale prices are reported on a dollar value per animal unit ($/AU) basis. For the 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.[1]

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.

Ranch Prices

Ranch prices per animal unit are reported in table 1 for the eastern plains and mountain valley-desert areas, as well as by region and on a statewide basis. The eastern plains area includes regions 1, 2, and 3; the mountain valley-desert area covers regions 4, 5, and 6. Prices for the eastern plains ranches averaged $1,659 per animal unit, while those for the mountain valley-desert area averaged $1,234/AU. The statewide average was $1,500/AU for 1988-90.

Region 3 ranches had the highest value per animal unit compared to all other regions ($1,687/AU). The higher values are due in part to non-agricultural influences of the Medicine Bow National Forest and urban influences of Laramie, Wheatland, and Cheyenne, as well as the higher percentage of deeded land on ranches in the eastern plains area. Prices in regions 1 and 2 combined averaged $1,627/AU. Most ranch prices in these

[1]Information on animal unit carrying capacity for individual ranches was provided by Farm Credit Services and Wyoming Farm Loan Board appraiser reports of land sales transactions.

Table 1. Price per animal unit for Wyoming ranches, 1988-90.

Region/Counties		Number of Sales	Average Size	Average Sales Price	Sales Price Range Low	Sales Price Range High	Average Percentage Leased Forage
			(AUs)	--Dollars Per AU--			(Percent of Total AUMs)
1 & 2	Johnson, Sheridan Campbell, Converse, Crook, Niobrara, Weston	59	195	1,627	815	2,604	13
3	Albany, Goshen, Laramie, Platte	65	255	1,687	804	3,050	13
4	Carbon, Natrona, Sweetwater	20	604	1,095	357	1,606	41
5	Lincoln, Sublette, Uinta	20	251	1,437	624	2,979	16
6	Big Horn, Fremont, Park, Hot Springs, Washakie	34	213	1,196	505	3,963	18
1,2,3	Eastern plains	124	226	1,659	804	3,050	13
4,5,6	Mtn valley-desert	74	329	1,234	357	3,963	23
1 - 6	Statewide	198	265	1,500	357	3,963	17

regions reflect a relatively high percentage of deeded land, as well as the influence of scenic factors near the Big Horn Mountains and the Black Hills. Region 4 had the lowest value per animal unit ($1,095/AU). The average value was heavily influenced by the generally higher percentage of forage supplied by leases and permits in this region (41 percent). The lowest price reported ($357/AU) was for a ranch in this region with 95 percent of total AUMs (animal unit months) provided by leased forage. An AUM is defined as the feed required to maintain one 1,000 pound cow with or without calf for one month. In region 6 more of the forage is provided by irrigated land, which tends to be lower priced on a per AU basis. Eastern plains ranches averaged 13 percent of forage from leased land compared to 23 percent in the mountain valley-desert type region. The statewide average of leased to total forage produced by the ranch was 17 percent.

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 the ranch increases (measured by AUs), the price per AU declines. Average prices per animal unit ranged from $1,837/AU for the smallest ranches (50-99 AUs) to $1,022/AU for the largest (600+ AUs).

The percentage of leased forage had a similar effect on ranch prices. As the percentage of leased forage increased, the average price per AU decreased. Prices ranged from a high of $1,615/AU for ranches with all deeded land to $700/AU for those ranches with the highest percentage of leased forage (75 percent and over). The proportion of forage leased varied from zero in the group with all deeded land to an average of 88 percent in the group with the highest percent of leased forage (75 percent and over). Large ranches tend to

Table 2. Price per animal unit of Wyoming ranches based on size and percentage of forage provided by public and private land leases, 1988-90.

Size Range (AUs)	Number of Sales	Average Size (AUs)	Average Price ($/AU)	Average Leased Forage (Percent)
50-99	52	70	1,837	10
100-199	60	142	1,490	16
200-399	44	264	1,418	19
400-599	26	477	1,282	26
600 and over	16	1,015	1,022	35
Leased Forage (Percent)				
0	54	157	1,615	0
1-24	85	264	1,597	12
25-49	31	315	1,402	35
50-74	10	456	1,059	61
75 and over	8	650	700	88

have a higher percentage of leased forage. These relationships are similar to those found in an earlier study of ranch sales for the period 1975-1988 (Vanvig and Hewlett, 1990).

Cattle ranch prices showed signs of continued strength in early 1990. This reflects continued favorable cattle prices, although price increases were slowed by dry conditions in some areas of the state and uncertainty regarding the continuation of favorable cattle prices. Brokers and lenders report

increased interest in ranch property by prospective buyers. At the same time, there are fewer listings for sale. Major lenders such as Farm Credit Services, life insurance companies and the Wyoming Farm Loan Board have disposed of many of their acquired properties.

Assured Leases

Assured leases include transfers of public and private leases in conjunction with deeded land, as well as a few outright sales of lease agreements. Quantity and type of assured leases transferred with ranches can influence sale prices. The number of assured leases and permits transferred in agricultural land sales totaled 231 from 1988 to early 1990, with some sales including more than one lease. The number of animal units included in an assured lease ranged from 12 to 12,292 animal unit months (AUMs) with an average of 499 AUMs. Values assigned to assured leases and permits transferred in ranch sales averaged $45/AUM statewide, with a $54/AUM average

Table 3. Value of assured leases per AUM transferred with ranches sold during 1988-90.

Agency Providing Lease	Number of Sales	Average AUMs	Average Value	Value Range	
				Low	High
			(-Dollars per Animal Unit Month-)		
State of Wyoming	104	248	54	13	165
BLM	105	756	38	10	85
Forest service	7	378	49	30	65
Private leases	6	115	28	4	66
Other	9	761	58	30	78
Average for all leases and permits	231	499	45	10	166

for state leases, a $49/AUM average for United States Forest Service permits, a $38/AUM average for Bureau of Land Management (BLM) permits, a $28/AUM average for private leases and a $58/AUM average for other leases (table 3). Other leases included some Thunder Basin National Grasslands permits, National Guard, and railroad leases.

Grazing Land Prices

There were 424 grazing land (dry pasture) sales in Wyoming during the period of 1988-90. Average prices ranged from a high of $82 per acre in region 1 to a low of $45 per acre in region 6 (table 4).

Table 4. Wyoming grazing land prices, 1988-90.

Region/Counties	Number of Sales	Average Size	Average acres/AUM	Average Sales Price	Sales Price Range Low	Sales Price Range High
		(Acres)		- -Dollars per Acre- -		
1 Johnson, Sheridan	10	3,315	4.6	82	34	304
2 Campbell, Crook, Converse, Weston, Niobrara	80	3,272	4.2	63	19	250
3 Albany, Goshen, Laramie, Platte	138	3,017	3.2	69	15	350
4 Carbon, Natrona, Sweetwater	49	4,464	3.9	61	10	235
5 Lincoln, Uinta, Sublette	32	723	3.9	73	10	153
6 Big Horn, Park, Hot Springs, Washakie, Fremont	115	627	10.5	45	4	304
Eastern plains	228	3,119	3.7	67	15	350
Mountain-valley desert	196	1,597	7.3	53	4	304
Statewide	424	2,406	5.4	61	4	350

Region 1 grazing land prices were related to higher average carrying capacities and scenic and recreational values. Region 6 had lower carrying capacities compared to other regions.

The average price for grazing land in the eastern plains was $67/AC with an average carrying capacity of 3.7 AC/AUM. Prices in this area ranged from a high of $350/AC to a low of $15/AC. The higher-priced land parcels in this area are located near the national forests. In the mountain valley-desert area, the average grazing land price was $53/AC, with an average carrying capacity of 7.3 AC/AUM and an average tract size of 1,597 acres. Prices in region 6 ranged from $304/AC to $4/AC. The higher-priced sales were near rivers or national forests. Lower-priced sales were for desert lands in the Big Horn Basin with low carrying capacity and relatively few alternative uses. Statewide, the average price for grazing land was $61/AC with an average carrying capacity of 5.4 AC/AUM. The average parcel size was 2,406 acres.

Irrigated and Sub-irrigated Pasture Prices

Sales of irrigated, sub-irrigated, and river or creek bottom pasture parcels totaled 234 in Wyoming for 1988-90. Prices of this category of land ranged from an average price of $146/AC in region 4 to $257/AC in region 5 (table 5). Region 1 reported the fewest sales, while region 6 had the most. Region 6 sales were smallest, averaging only 145 acres per transaction. Region 1 had the highest average acreage per sale, 617 acres per transaction.

Prices for irrigated pasture in the eastern plains averaged $179/AC and had an average carrying capacity of 1.1 AUMs/AC. Irrigated mountain valley-desert pasture prices averaged $197/AC with an average carrying capacity of 1.6 AUMs/AC. The overall range for irrigated and sub-irrigated pasture prices

Table 5. Wyoming irrigated and sub-irrigated pasture prices, 1988-90. ✓

Region/Counties	Number of Sales	Average Size	Average AUMs	Average Sales Price	Sales Price Range	
					Low	High
		(Acres)	(Per Acre)	- -Dollars per Acre- -		
1 Johnson, Sheridan	6	617	N/A	187	105	332
2 Campbell, Crook, Converse, Weston, Niobrara	18	449	1.1	188	51	500
3 Albany, Goshen, Laramie, Platte	56	339	1.2	175	54	566
4 Carbon, Natrona, Sweetwater	18	329	1.1	146	53	305
5 Lincoln, Uinta, Sublette	36	180	1.7	257	76	625
6 Big Horn, Fremont, Hot Springs, Park, Washakie	100	145	1.6	185	20	623
Eastern Plains	80	385	1.1	179	51	566
Mountain-Valley Desert	154	175	1.6	197	20	625
Statewide	234	246	1.5	191	20	625

was $20/AC for a tract in region 6 to a high of $625/AC in region 5. Higher-priced sales were influenced by proximity to urban areas and high carrying capacity land, while the lows were tracts of very low productivity. Statewide the average price was $191/AC with an average carrying capacity of 1.5 AUMs/AC. The average tract size was 246 acres.

Readers may notice that low prices in this category are in some cases below average prices for dry grazing land. These figures do not necessarily

conflict considering that rocky, river-bottom lands may not be as useful to livestock operators as good- to high-quality dry grazing land.

Irrigated Meadow Land

In previous reports, irrigated meadow land was included with irrigated cropland. However, they are separate in this report and are intended to reflect prices for irrigated meadow lands that are not cultivated or rotated with other crops. There were 84 tracts in this category averaging 298 acres in size and with an average price of $425/acre (table 6). The overall range in prices was from $100 to $1,200. The fairly wide range in prices for this category reflects the wide range in quality of these lands.

Table 6. Wyoming irrigated meadow land prices, 1988-90.

Region/Counties	Number of Sales	Average Size	Average Price	Price Range Low	Price Range High
		(Acres)	(Per Acre)	--Dollars per Acre--	
1 & 2 Johnson, Sheridan, Campbell, Crook, Converse, Weston, Niobrara	9	144	$444	$200	$790
3 Albany, Goshen, Laramie, Platte	19	523	319	150	1,000
4 Carbon, Natrona, Sweetwater	14	314	381	100	625
5 Lincoln, Uinta, Sublette	30	230	421	156	1,040
6 Big Horn, Fremont, Hot Springs, Park, Washakie	12	204	642	150	1,200
Statewide	84	298	425	100	1,200

For example, the low end of irrigated meadows ($100-$300/acre) include tracts of poor quality and/or with limited water supply. On the higher end, over $500/acre are tracts of good quality - some with scenic values along a river or near urban centers.

Irrigated Cropland Prices

Table 7 gives irrigated cropland prices by regions as reported by Farm Credit Services appraisers. The number of sales in 1988-90 of parcels of irrigated crop land totaled 321. The irrigated cropland category includes irrigated hay land. Sale prices across Wyoming ranged from an average of $372/AC in regions 1 and 2 combined to an average of $580/AC in region 3 (table 7). The two major irrigated cash crop regions in the state are 3 and 6. Higher prices in these regions reflect the opportunity to produce sugar beets, corn, barley, oats, dry beans and hay, particularly in the Torrington, Worland, and Powell areas. In region 3, irrigated cropland averaged $580/AC. In region 6, irrigated cropland averaged $469/AC. Irrigated cropland prices began turning upward in late 1989 and early 1990. The major method of irrigation reported for the irrigated land sales was flood (gravity) irrigated (81 percent), followed by sprinkler systems. Region 6 had the highest number of sales, while region 4 had the lowest number of observations. The average size of tracts in region 5 was larger (305 acres) than in other regions, while region 6 had the lowest average size (97 acres). The statewide average price for irrigated cropland was $493/AC with a range of $100/AC to $1,500/AC. While the range for irrigated cropland was rather wide, the lower prices were related to parcels with low productivity and/or limited water supply.

Water supply classifications based on availability of water are important determinants of value for irrigated cropland. However, data on irrigated

Table 7. Wyoming irrigated cropland prices, 1988-90.

Region/Counties		Number of Sales	Average Size	Average Sales Price	Sales Price Range Low	Sales Price Range High
			(Acres)	- -Dollars per Acre- -		
1&2	Johnson, Sheridan Campbell, Converse, Crook, Niobrara, Weston	23	150	$372	$100	$1,016
3	Albany, Goshen, Laramie, Platte	83	153	580	125	1,200
4	Carbon, Natrona, Sweetwater	7	137	497	125	750
5	Lincoln, Sublette, Uinta	15	305	499	394	700
6	Big Horn, Park, Hot Springs, Washakie	193	97	469	100	1,500
Statewide		321	126	493	100	1,500

cropland prices by water class was not available. Consequently, the land sale prices reported represent an average of all water classes of irrigated cropland for each region.

The wide range in prices for irrigated cropland reflects the wide diversity in quality of irrigated cropland in Wyoming. It also reflects the irrigation water supply conditions regarding both adequacy and cost on farms. High-quality irrigated crop land with good water supply would normally range from $800 to $1200/acre in the top irrigated cash crop areas of Wyoming -- regions 3 and 6. On the other hand, low quality irrigated lands with an

uncertain water supply would be at the lower end of the range, $100 to $300/acre.

Dry Cropland Prices

There were 66 parcels of dry cropland included in the analysis for the state for 1988-90 (table 8). There were not enough sales for regions 4, 5, and 6 to include in the analysis.

The greatest number of sales of dry cropland was in region 3 (47). Average prices were $153/AC for regions 1 and 2 and $198/AC for region 3. Statewide values were $185/AC, with an average size of 288 acres.

Table 8. Wyoming dry cropland prices, 1988-90.

Region	Counties	Number of Sales	Average Size	Average Sales Price	Sales Price Range Low	Sales Price Range High
			(Acres)	- -Dollars per Acre- -		
1&2	Johnson, Sheridan Campbell, Crook, Converse, Weston, Niobrara	19	246	153	100	250
3	Albany, Goshen, Laramie, Platte	47	304	198	100	359
Statewide		66	288	185	100	359

The Conservation Reserve Program, providing annual rentals of $30-40/AC for a 10-year period, has helped to maintain or even strengthen prices of qualified erodible land. Prices of five to six times the annual rental have been reported for this type of land when sold.

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 farms and ranches on the market, and stressed sales are also important. Current market value represents consideration of all the above factors by buyers and sellers in the market.

Net farm and ranch income was under considerable stress from 1979 to the late 1980s. This was due to increasing costs of production and relatively low prices for products until about 1988. During the past three years, livestock prices have improved and are at relatively favorable levels. Wyoming is somewhat sheltered from international influences because its agriculture is predominantly range livestock industry. However, foreign competition does have influence, especially on prices of irrigated and dryland cash crops. Prices for crops improved because of widespread drought over much of the Corn Belt, the Southeast, and the Northern Plains states in 1988 and in some areas in 1989. However, grain prices, particularly for wheat, have declined considerably in 1990. Livestock prices strengthened in late 1987 and have continued to be relatively strong in 1990.

It appears that agricultural land prices have generally bottomed out and turned upward in Wyoming for virtually all types of agricultural land. The turnaround came about somewhat earlier for cattle ranches and grazing land than for irrigated cropland and dry cropland. However, in the latter part of 1989 and early 1990 it appears that for all types of land, prices have at least stabilized. For certain types, such as cattle ranches, prices have moved upward somewhat.

Normally there is a lag between improvement in farm and ranch income resulting from higher product prices, and in turn its effect on the land market. Generally, in past years, there has been a lag of about one year between these changes. With the favorable cattle prices that have prevailed over the last three years, further strength in the cattle ranch prices is expected.

Scenic, Recreational, and Other Non-Agricultural Values

Although sales in this report are limited to properties in agricultural production, 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. Important scenic areas are found near Sheridan, Saratoga, Jackson Hole, Pinedale, Cody, and in the Black Hills of northeastern Wyoming.

Other non-agricultural influences on the farm and ranch land market include (1) expansion of urban areas through residential and commercial development and (2) mineral rights and royalties, including coal, oil, and gas leases. 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. As this is written (mid-1990), the supply of farms and ranches offered for sale in Wyoming has declined. Many of the lenders such as the Federal Land Bank of the Farm Credit System, life insurance companies, and

the Wyoming Farm Loan Board have sold most of their properties acquired during the mid-1980s. Because many borrowers were unable to meet their debt payments during that period, they either deeded these properties to the lender or were foreclosed upon by the lender. Most realtors report fewer listings at this time (mid-1990) than has been the case for several years.

Further, the financial position of farmers and ranchers generally has strengthened in the last two or three years following the very severe financial stress they were under in the early and mid-1980s. Consequently when tracts of land come up for sale, neighboring farmers are often able to bid for the land and pay cash for it, or perhaps obtain some financing from the seller.

Monetary Factors

Investment potential from speculation on possible increased real estate values has in some areas increased after several years of decline. Nominal interest rates have decreased since the early 1980s. However, rates on farm and ranch loans are still relatively high. Further, real interest rates (nominal rates adjusted for inflation) continue at historically high levels.

Interest rate levels and trends are important factors affecting land prices. Current interest rates on farm and ranch real estate loans are in the range of 8 to 12 percent. These rates are fairly high, although they are well below the levels reached in the late 1970s and early 1980s. Inflation rates at current levels in the 4 to 5 percent range have been rather stable for several years. However, there is still some concern about inflation rates increasing, particularly because of major increases in oil prices in the summer and fall of 1990 brought on by the Persian Gulf crisis.

Interest rate levels are particularly significant because of their effect on land prices for buyers who need to finance a significant part of the

purchase price. They are less important for buyers who pay cash for the property.

Interest rates and inflationary expectations are macroeconomic forces that affect the land market in general rather than affecting a particular tract of land. Also, the effects of interest rate levels tend to be rather comparable over the U.S. and do not generally have any major regional differences.

Another monetary factor is the supply of credit. Generally speaking, in most areas of the U.S. at the present time, there appears to be an adequate source of credit for farm and ranch real estate financing. In Wyoming, the major role played by the Wyoming Farm Loan Board in farm and ranch real estate financing is a significant factor with respect to the cost of credit. Currently the Wyoming Farm Loan Board provides farm and ranch real estate loans on very favorable terms, typically 8 percent interest for a 30-year, fixed-rate term. This would apply to loans that are no more than 50 percent of appraised value. If the loan is between 50 and 60 percent of appraised value the accompanying interest rate would be 9 percent.

Other Factors

The reasons for buying and selling agricultural land can prejudice the selling price of a given tract. For example, if a particular parcel is adjacent to and fits well with a neighboring ranch, the farmer or rancher may be willing to pay a premium to acquire the property. There are also cases in which the seller wants a particular party to own a unique piece of land and is willing to sell it at a discount to that party. For the entire United States, expansion of an existing farm unit is the most frequent reason for purchasing farms and ranches.

Methods used to sell and purchase agricultural land can impact sale prices. Shown in table 9 are methods of sale used by sellers of land as recorded by Farm Credit Services. The most frequent methods of selling land were realtor and private treaty sales, representing 50.5 percent and 27.3 percent of reported sales, respectively. Other methods were auctions, both open- and closed-bid, which accounted for only 13.9 percent of reported sales.

Table 9. Reported* methods used by sellers of farm and ranch land in Wyoming to sell land, 1988-90.

Method of Sale	Percentage of Reported Sales
Realtor sale	50.5
Private sale	27.3
Auction, open bid	11.5
Auction, sealed bid	2.4
Other	8.3
	100.0

*Method of sale was not given for all land transactions.

While the most common methods continue to be realtor and private treaty sales, there has been an increased use of the auction type of sale in the last few years. There is a difference of opinion on the effect of prices received related to the method of sale. Some would argue that the auction method results in a higher price because of more competition between the prospective buyers. Others will argue that the auction method is not the best way to sell land because neighboring farmers that are interested in the tract of land may not wish to bid against each other. This might be true in some instances,

although there are others in which the most competitive situation is where two neighboring farmers that have rather strong financial positions are anxious to acquire a tract bordering them. They often believe they might not have another opportunity to buy the land for 20 years or more.

FINANCING AGRICULTURAL LAND PURCHASES

Cash sales accounted for 31 percent of all land transactions in the United States in 1989 (ERS, USDA), while 69 percent involved some form of credit financing. Seller financing accounted for 37 percent of all credit financed sales in the mountain region (which includes Wyoming). The Farm Credit System, with 32 percent, was the major source of farm and ranch real estate loans. Other lenders were life insurance companies (9 percent), commercial banks (9 percent), and other lenders (13 percent).

Specific figures are not available for Wyoming, but in general they are comparable to those for the mountain region. However, Wyoming is distinct in that it has a state lending agency, the Wyoming Farm Loan Board, which provides for ranch real estate loans. The WFLB has increased its market share and is now the largest lender accounting for over one-third of farm and ranch real estate loans outstanding in the state.

Debt as a percentage of purchase price averaged 73 percent in 1989 for the U.S. and 76 percent in the mountain states.

The Farm Credit System now follows a policy of a tier system for interest rates on their loans. They typically might include four tiers ranging from approximately 9.5 percent to 12 percent with the higher rates of interest applying to higher risk loans.

There has been some shift away from practically all variable rate loans by the Farm Credit System. Loans are now available on a fixed-rate basis,

with perhaps a five year maturity at which time the loan is reviewed and extended if interest rate levels are comparable. Life insurance company loans now tend to be written for much shorter periods. For example, a loan with a balloon payment at the end of five years could either be paid off or renewed for an additional period. The interest rate would be established at time of renewal.

Another development with respect to farm and ranch real estate lending by life insurance companies is the major shift towards higher minimum loan amounts. Some life insurance companies are not making loans under $250,000 and in other cases not under $1,000,000. At the current time, the Farm Credit Services and Wyoming Farm Loan Board do not have a minimum on the size of loans they are making.

From the standpoint of the administrative and operating cost per dollar loaned, the larger the loan the smaller the costs for making and servicing the loan per dollar lent.

RECENT TRENDS IN WYOMING AND NATIONAL AGRICULTURAL LAND PRICES

Wyoming

Market prices for the major types of agricultural land in Wyoming tended to peak in the early 1980s (table 10). Ranch prices reached a peak in 1980, then generally declined from 1981 through 1987. In 1989, average prices for eastern plains ranches were $1,759/AU and $1,255/AU for mountain-valley desert ranches. Grazing land prices peaked in 1982 and declined each year until 1989. Irrigated cropland prices reached a high in 1982-1983 and then declined up until 1988-1989. Dry cropland prices tended to peak in 1981 and 1982. They then declined for several years with some strengthening beginning in late 1989 and early 1990.

Table 10. Average market prices for Wyoming agricultural land and ranches, 1980-87.

	--------Average Prices-------									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Ranches ($/AU)										
Eastern plains	3,019	2,857	2,713	2,292	2,477	2,196	1,821	1,534	1,530	1,759
Mtn valley-desert	2,105	2,093	2,033	1,978	2,048	1,438	1,421	1,142	1,284	1,255
Grazing land ($/AC)										
Eastern plains	148	154	158	148	120	99	83	70		
Mtn valley-desert	95	94	123	103	75	66	71	51		
Irrigated cropland ($/AC)										
Region 3, class I	1,378	1,443	1,463	1,266	1,143	992	645	514		
Region 6, class I	1,039	1,003	1,098	1,189	1,025	963	754	717		
Dry cropland ($/AC)										
Region 2	346	350	387	323	352	288	182	173		
Region 3	272	308	300	270	286	263	223	193		

N/A - Stands for not available due to lack of sufficient numbers of reported sales in this category for these years.

Generally, market prices stabilized in 1988 and began moving upward in late 1989 and early 1990. Preliminary information on land sales in mid-1990 indicates that prices of better-quality ranches have turned upward as the result of continued favorable cattle prices. With generally improved farm and ranch incomes, there is increased interest in buying farm and ranch land. With a reduced supply of farm and ranch units on the market, prices strengthened in early to mid-1990 and appear to have leveled out in the fall of 1990. Some potential buyers have adopted a conservative approach to land purchases to see if currently favorable cattle prices are likely to continue.

United States

Agricultural land values in the United States increased rapidly in the 1970s, peaked in 1981-82, then declined rapidly until 1987 and have since increased (fig. 2). Annual percentage changes in the United States are shown in figure 3. U.S. average farm land values peaked in 1981-82 at about $820 per acre. Prices fell to $599/AC in 1987 according to the Economic Research Service (ERS) and United States Department of Agriculture (USDA), 1990. Since the low point in 1987 they increased an average 16 percent to $693 per acre in January, 1990. Average land values increased by 4 percent in the United States from February 1989 to January 1990. The largest increase, 8 percent, occurred in the northern plains and the southeast regions (fig 4.) Increases of 2 to 6 percent occurred in six other regions. Average values showed no change in the northeast and showed a 2 percent decline in the southern plains (figure 4). Land prices in the Corn Belt dropped further than other areas on a percentage basis from their peak in the early 1980s to 1987, while land values in the northeast have generally moved upward during this period (fig. 5). Real values of agricultural land also increased until about 1980,

Fig. 2. Average Real and Nominal Values of U.S. Farmland

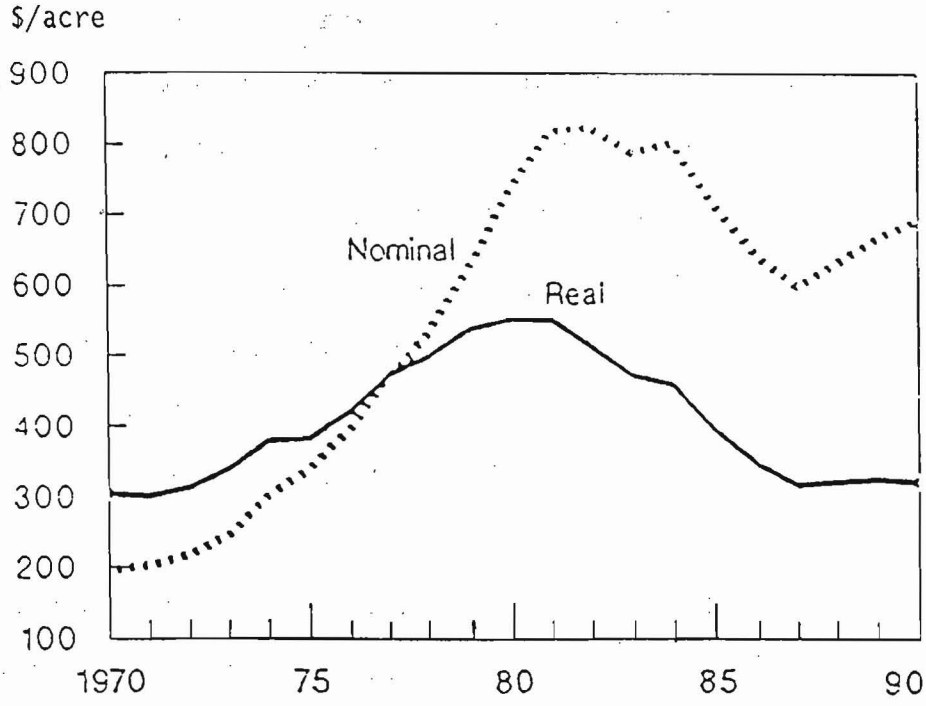
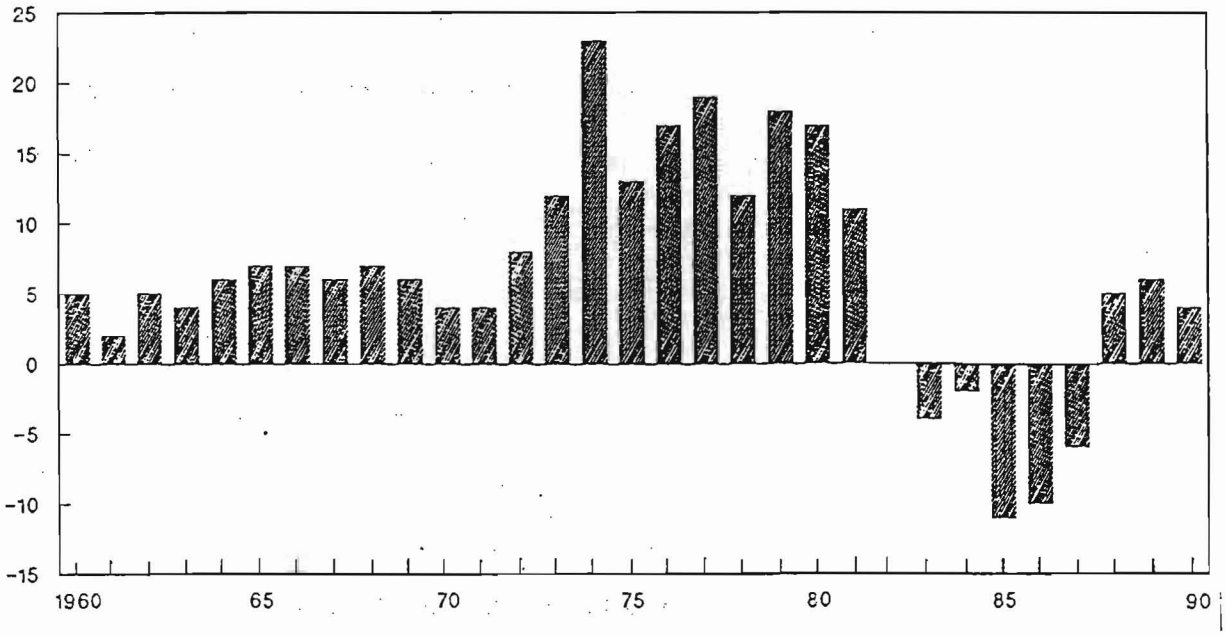


Fig. 3. Changes in Per Acre Nominal U.S. Farmland Values

% change from year earlier



Source: U.S. Department of Agriculture (ERS)

Fig. 4. Percent Change in Farmland Value Per Acre: February 1, 1989 to January 1, 1990

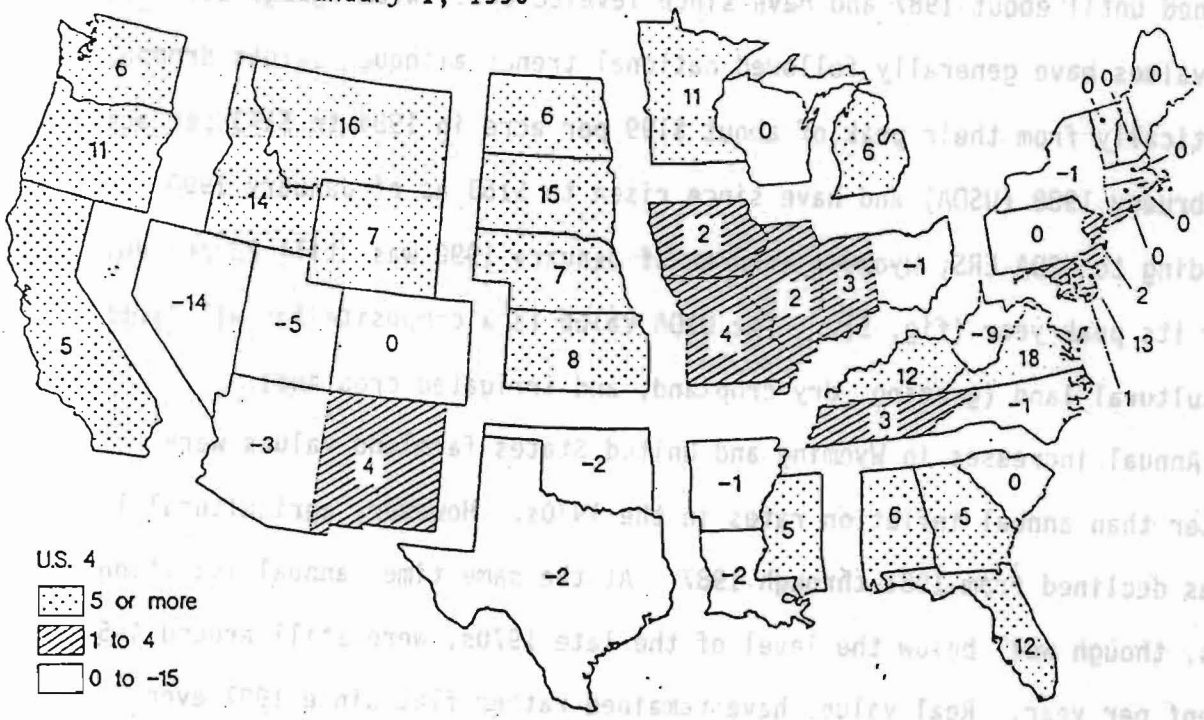
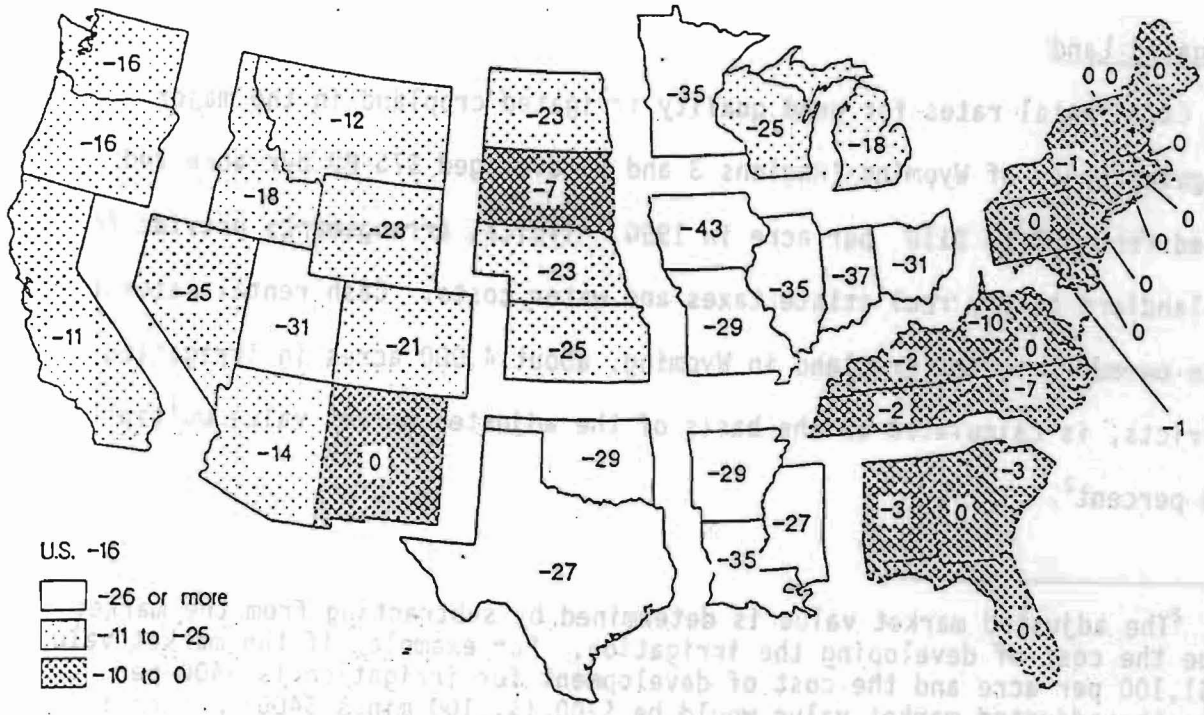


Fig. 5. Percent Change in Farmland Value Per Acre: Peak Year to January 1, 1990



Source: U.S. Department of Agriculture (ERS)

declined until about 1987 and have since leveled out. Wyoming agricultural land values have generally followed national trends although values dropped dramatically from their peak of about $199 per acre in 1984 to $143 per acre in February 1988 (USDA) and have since risen to $153 as of January 1990. According to USDA-ERS, Wyoming land as of January 1990 was still 23 percent below its peak year (fig. 5). The USDA value is a composite for all types of agricultural land (grazing, dry cropland, and irrigated cropland).

Annual increases in Wyoming and United States farmland values were greater than annual inflation rates in the 1970s. However, agricultural land values declined from 1981 through 1987. At the same time, annual inflation rates, though well below the level of the late 1970s, were still around 4-5 percent per year. Real values have remained rather flat since 1987 even though nominal land values have increased in the last three years.

LAND RENTAL RATES

Irrigated Land

Cash rental rates for good quality irrigated cropland in the major irrigated areas of Wyoming (Regions 3 and 6) averaged $75-80 per acre and ranged from $50 to $110 per acre in 1990. Typical arrangements provide for the landlord to pay real estate taxes and water costs. Cash rental rates for state-owned irrigated cropland in Wyoming, about 4,000 acres in irrigation districts, is calculated on the basis of the adjusted market value multiplied by 4 percent[2].

[2]The adjusted market value is determined by subtracting from the market value the cost of developing the irrigation. For example, if the market value is $1,100 per acre and the cost of development for irrigation is $400 per acre, the adjusted market value would be $700 ($1,100 minus $400). When this figure, $700, is multiplied by 4% it equals $28 which would be the cash rent per acre for this example.

Share rental arrangements for irrigated cropland are normally fairly constant from year to year, although specific provisions of a given crop share lease will vary. Typical shares for various crops are listed below:

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

In addition to paying the real estate taxes, the landlord (owner) also typically pays water costs for irrigated land. Some production expenses such as fertilizers and chemical sprays might also be shared in the same proportion as the crop is shared.

Share rental arrangements tend to be rather constant over time, whereas cash rental rates tend to vary from year to year depending on crop prices and changes in yields and demand for land to rent.

The U.S. Department of Agriculture, Agricultural Statistics Service, also gathers information on cropland rental rates for the various states. Rental rates for Wyoming irrigated cropland for the last five years are as follows: 1985 - $55.90; 1986 - $47.50; 1987 - $42.50; 1988 - $42.50; 1989 - $45.30.

Dry Cropland

Dry cropland is not commonly rented on a cash basis in Wyoming. However, cash rental rates for dry cropland in 1990 in the major wheat producing areas of eastern Wyoming ranged from $10 to $25 per acre. Wyoming has some state-owned dry cropland. In this instance, the production from the dry cropland is

determined and converted to an animal unit month (AUM) carrying capacity[3], which is then multiplied by the fee per AUM charged by the state.

Dry cropland is generally rented on a share rental basis. In the major dryland wheat producing areas, the typical share rental arrangement provides for one-third of the crop to the landlord and two-thirds to the tenant. The landlord, under this arrangement, pays the real estate taxes and may share certain other costs, such as fertilizers. The landlord may also share in pesticide control (example: one-third of the cost for spraying to control the Russian wheat aphid which averages $8-9 per acre).

In Wyoming non-irrigated cropland rental rates for the last five years according to the USDA are as follows: 1985 - $21.40; 1986 - $13.80; 1987 - $11.20; 1988 - $12.00; 1989 - $14.30.

In addition to rental of land by farmers, the conservation reserve program, a USDA long-term cropland rental program, provides for landowners to submit cropland to the CCC/USDA for bids to take the land out of production for a period of 10 years and to seed it to grass. There have been several individual bid arrangements but the typical rental rates in eastern Wyoming for dry cropland range from $30-$40 per acre annually for the 10-year period. Lands eligible for the Conservation Reserve Program are those that are considered to be highly erodible lands as determined by the U.S.D.A. Soil Conservation Service.

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[3]For example, 20 bushels per acre wheat land would convert to one ton of hay which is the equivalent of 3.3 AUMs. The carrying capacity then in AUMs is multiplied by $2.05 per AUM which would give the cash rental for dry cropland.

Grazing Land Rental and Grazing Fees

Private Leases

The most common rental method for privately owned grazing land is on an animal month basis with the landowner providing salt, water, and looking after the livestock. For 1990, these rates ranged from $8 to $14 per cow/calf pair (generally highest in the eastern plains) with the typical rate being $11 to $12. USDA estimates for cattle grazing rates on privately owned non-irrigated land were as follows for the last four years: 1986 - $8.31/AUM; 1987 - $6.31/AUM; 1988 - $8.93/AUM; and 1989 - $10.06/AUM.

Public Leases and Permits

A considerable amount of public land in Wyoming is owned by the U.S. Forest Service, the Bureau of Land Management, as well as the state of Wyoming. The U.S. Forest Service (USDA) grazing permit fees are determined by a formula shown below*. The grazing fee is established each year per AUM for the use of the public grazing land. The rate on U.S. Forest Service land was $1.86/AUM for 1989 and $1.81/AUM for 1990. The same fee is charged on all U.S. Forest Service lands. The U.S. Forest Service also administers the national grasslands, which provides public grazing for ranchers with grazing permits. Grazing fees on the national grasslands were $2.86/AUM in 1989 and $2.29/AUM for 1990.

*U.S. Forest Service and BLM grazing fee formula:

$$\text{Calculated Fee (C.F.)} = \$1.23 \times \frac{\text{FVI} + \text{BCPI} - \text{PPI}}{100}$$

$1.23=base fee based on 1966 grazing fee study, FVI=Forage Value Index average annual rate charged on per head/month on privately owned grazing land in 11 western states as compiled by Agricultural Statistics Service; BCPI=Beef cattle price index is weighted by annual selling price for beef cattle excluding calves in 11 western states each year; PPI=Prices paid index based on index of producer cost components for goods and services used in livestock production adjusted for 11 western states.

The Bureau of Land Management (BLM), which is a part of the U.S. Department of the Interior, also has lands available for grazing. These include Section 15 lands, as well as BLM lands in grazing districts. The fees charged on the BLM lands are the same as those for the Forest Service and were $1.86/AUM for 1989 and $1.81/AUM for 1990. The same grazing fee is charged for cow/calf (under 6 months), cow, or yearling (over 6 months of age). However, the stocking rate is determined by the carrying capacity which is adjusted on an AUM basis as follows: a cow/calf - 1.33; one cow - 1.0; a yearling over 6 months - .7; and one sheep - .2.

Rental rates for grazing on state lands is also on a per AUM basis. The carrying capacity of state lands is determined in AUMs by multiplying the AUMs/acre x the number of acres to get the number of AUMs of livestock carrying capacity. The rate for grazing on state-owned lands in 1989 was $1.65 per AUM, $2.05/AUM in 1990, and the fee will be increased to $2.50/AUM beginning January 1, 1991.

The operators who lease publicly owned land (Forest Service, BLM and state) for grazing purposes are required to take care of the livestock and maintain the fences and other improvements on the land. This accounts for the fact that the per AUM rental rates are lower on public lands than they are on privately owned lands where the private landowner provides the salt and cares for the livestock.

SUMMARY

This report presents average market prices for agricultural lands sold in Wyoming during 1988, 1989, and early 1990. Data were collected on 535 actual land sales occurring throughout the state. Only agricultural land sales expected to remain in agricultural production were included in this analysis.

Lands transferred for commercial purposes, mineral development, or water rights acquisition were excluded. The Farm Credit Services and the Wyoming State Farm Loan Board were the primary sources of sales data. Additional sources of data were the Bureau of Land Management and real estate brokers. 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 1988, 1989, and early 1990 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

Two years of sales data were combined in this report to obtain sufficient observations by region to compute average prices for each type of land. It should be noted that prices began an upward trend in late 1989 and early 1990.

Average ranch prices were higher in eastern Wyoming (regions 1, 2, and 3) than in western Wyoming (regions 4, 5, and 6) because of more deeded and less leased land on typical eastern Wyoming ranches. The average sales price for Wyoming ranches during 1988-90 was $1,659 per AU for eastern plains ranches and $1,234 per AU for the mountain valley-desert area. Over the entire state the average ranch price per AU declined with increases in size of tract sold, and also declined as the percentage of leased forage increased. Average values for leases and permits transferred when ranches were sold during 1988,

1989, and early 1990 were $54/AUM for state leases, $49/AUM for U.S. Forest Service permits, and $38/AUM for BLM permits.

For grazing land, average prices were $67 per acre in the eastern plains area and $53 per acre in the mountain valley-desert areas. Scenic and recreational values and high carrying capacities were factors closely associated with higher prices. Large tracts and relatively low carrying capacity rangeland were associated with lower prices. Prices for irrigated and sub-irrigated pasture averaged $191 per acre in Wyoming in 1988-90. Regions 2 and 5 had the highest prices, averaging $188 and $257 per acre, respectively, while region 4 had the lowest prices at $146 per acre. Irrigated meadow land averaged $425 per acre statewide.

The important irrigation cash- and feed-crop areas in the state are regions 3 and 6. In region 3, prices for irrigated cropland averaged $580 per acre. Irrigated cropland in region 6 averaged $469 per acre. There was a wide range of prices of irrigated cropland in each region reflecting wide differences in quality of land and water supply.

The majority of dry cropland is located in regions 1 and 2 (combined), and region 3 where prices averaged $153 and $198 per acre, respectively. The average price statewide for dry cropland was $185 per acre during 1988-90.

Comparison of average prices during the 1980-89 period showed prices peaking in the early 1980s, followed by declines in price through 1987 for all major types of agricultural land. Ranch prices per AU peaked in 1980, grazing land prices peaked in 1982, irrigated cropland prices in 1982-83, and dry cropland prices in 1981-82.

Prices bottomed out in 1988 and early 1989, moved upward in the winter and spring of 1990 for the better quality land and appear to have leveled out since then.

With the continued strength in cattle prices over the last three years, there has been some strengthening of ranch prices. Expansion buyers continue to be the dominant force in the Wyoming land market.

Important sources of farm real estate financing are sellers, the Wyoming Farm Loan Board, the Federal Land Bank, life insurance companies, Farmers Home Administration, and commercial banks. The Wyoming Farm Loan Board has become an increasingly important source of credit with very competitive fixed interest rates of 8 percent and 9 percent on real estate loans.

Both cash and crop share rental arrangements are used in Wyoming. Typical crop share arrangements for landlords and tenants, respectively are grain 1/3, 2/3; beans 1/4, 3/4; beets 1/5, 4/5; and hay 1/2, 1/2.

These share arrangements are fairly uniform over long periods of time. Cash rental rates, on the other hand, tend to vary year by year depending on crop prices, yields, and other factors affecting current value of the various crops.

Cash crop rental rates in Wyoming for 1990 for irrigated land range from $50 to $110/AC. For dry cropland used for wheat production, the most common arrangement is a share rental arrangement with 1/3 of the crop going to the landlord and 2/3's of the crop to the tenant.

Pasture rental rates on privately owned grazing land are typically quoted on a per AUM basis in Wyoming. Rates for cow/calf pairs range from $8 to $14 per month with typical rates in the $11 to $12 per month range in 1990. These rates are somewhat higher than in previous years.

The rates for publicly owned grazing land in Wyoming in 1990 are: for Forest Service and BLM, $1.81 per AUM; for National Grasslands, $2.86 per AUM; and on state-owned leases, $2.05 per AUM.

Annual rental rates on publicly owned grazing lands vary year by year and are set by formula for the Forest Service and BLM lands. State-owned lands are also set by a prescribed formula.

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