

North Dakota Farmland Values in 1990

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The estimated average value of North Dakota farmland rose \$5 an acre for a gain of 1.8 percent across the state in 1990 (Table 1 and Figure 1). This follows the small increase of \$3 per acre or 1.1 percent in 1989.

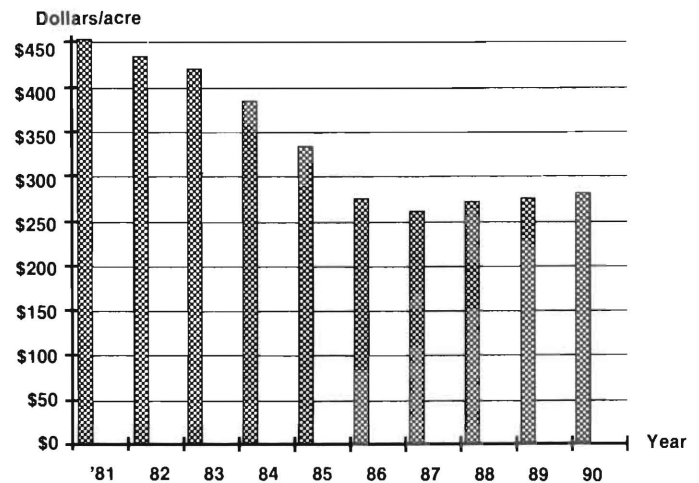
Landowners in the Northern Great Plains in recent years have experienced contending forces that influenced land values. Many localities faced repeated droughts, adverse temperatures, and low product prices generally reflecting bountiful worldwide production of most agricultural commodities. Better livestock and crop prices were felt by respondents as the most positive factors influencing land values plus support of several new and substantial government transfer payments, including disaster program payments, the growing Conservation Reserve Program payments, and the continued deficiency and diversion payments.

Factoring in inflation, farmland owners are losing in the depressed farmland market. Land values adjusted for inflation by the Consumer Price Index-Urban (CPI-U), a widely used measure of the declining value of the dollar, have declined substantially in North Dakota. The CPI-U (1982-84 = 100) rose from a 1987 annual average of 113.6 to 118.9 in 1988, 124.0 in 1989, and 130.7 in 1990. As the U.S. dollar weakens, each dollar is worth less so it buys less. Factoring in inflation, farmland owners are losing in the farmland market. For North Dakota farm and ranch landowners, these rapid increases in the CPI-U reduced their real net worth and net returns for land sold. North Dakota farmland values reached a low in 1987 at \$262 an acre, rising by 4.2 percent in 1988 while the CPI-U rose (or the value of the dollar fell) by 4.7 percent; in 1989 land values rose 1.1 percent but CPI-U climbed 5.7 percent, and in 1990 land values rose by 1.8 percent while the adjusted dollar declined by 6.7 percent. In the three years from November 1987 through 1990, land values rose \$19 an acre or 7.2 percent while CPI-U increased 17.1 points.

Table 1. Estimated farmland values per acre and changes since 1981, North Dakota, 1990.

Year	Estimated Value \$ per acre	Annual Changes in Value		Total Change in Value from 1981 Peak	
		\$	%	\$	%
1981	454				
1982	435	-19	- 4.2	-19	- 4.2
1983	420	-15	- 3.4	- 34	- 7.5
1984	385	-35	- 8.3	- 69	-15.2
1985	334	-51	-13.2	-120	-26.4
1986	276	-58	-17.4	-178	-39.2
1987	262	-14	- 5.1	-192	-42.3
1988	273	+ 11	+ 4.2	-181	-39.9
1989	276	+ 3	+ 1.1	-178	-39.2
1990	281	+ 5	+ 1.8	-173	-38.1

Figure 1. Estimated average annual values per acre of farm and ranch lands, North Dakota, 1981-1989.



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Estimated North Dakota farmland values peaked in 1981, declined in nominal values through 1987, and showed signs of recovery in 1988 even though many areas experienced low rainfall which impacted land values in both 1989 and 1990. The average value of \$262 an acre in 1987 was only 57.7 percent of the 1981 peak value of \$454 per acre, for a decline of 42.3 percent. The 1990 average value of \$281 an acre represents 61.9 percent of 1981, for a small recovery in loss in value since the 1981 peak values.

The effects of the droughts were offset partially by several congressionally mandated farm transfer payments, including deficiency and disaster payments and Conservation Reserve Program payments for North Dakota farm operators and landowners. These totaled \$481 million in 1985, \$773.5 million in 1986, about \$730 million in both 1987 and 1988, and \$373.6 million in 1989. Others included Reserve Grain Storage Payments, the Agricultural Conservation Program, Water Bank Program Payments, and several commodity specific programs. The uncertainty about the 1990 farm bill and some of its new features probably impacted farm and ranchland values negatively in 1990.

Other positive factors affecting farmland values included commodity price improvements, especially in the livestock sector and among specialty commodities. The positive factors contributed to the improved financial health of the agricultural sector in North Dakota.

These natural and man-made social and economic forces have influenced land values differently across the state for the past two years (Table 2) and for the past five years (Figure 2).

Table 2. Estimated average farm and ranchland values and changes in value per acre by eight farming areas, North Dakota, 1989 and 1990.

Eight Farming Areas	Estimated Value		Change in Value	
	1989	1990	1989-1990	
	\$ per acre		\$	%
Northwest	185	196	11	5.9
Southwest	169	172	3	1.8
Northwest Central	256	249	-7	-2.7
Southwest Central	215	220	5	2.3
Northeast Central	334	330	-4	-1.2
Southeast Central	280	281	1	0.4
North Red River Valley	551	546	-5	-0.9
South Red River Valley	674	705	31	4.6
North Dakota	276	281	5	1.8

Three farming areas increased in average farmland values in 1990, led by an increase of \$31 per acre in the South Red River Valley, \$11 an acre in the Northwest, and \$5 an acre in the Southwest Central farming area. Respondents felt that increased sugarbeet acreage, the ability of Valley soils to produce good crops most years, the strong desire to expand operations, and some outside investment opportunities had influenced these values. Farm operators in the Northwest area experienced good livestock prices, which lifted their farmland markets. Oil, gas, and coal revenues and good livestock prices in the western producing areas probably supported the farmland market, as did the underlying strength from government payments across the state.

Figure 2. Estimated average values per acre of farmland for eight farming areas, North Dakota, 1986-1990.

1990 \$196	1990 \$249	1990 \$330	1990 \$546
1989 185	1989 256	1989 334	1989 551
1988 180	1988 248	1988 313	1988 573
1987 172	1987 235	1987 305	1987 532
1986 179	1986 249	1986 307	1986 555



1990 \$172	1990 \$220	1990 \$281	1990 \$705
1989 169	1989 215	1989 280	1989 674
1988 167	1988 214	1988 263	1988 684
1987 179	1987 200	1987 262	1987 631
1986 182	1986 213	1986 285	1986 645

State Averages: 1990: \$281; 1989: \$276; 1988: \$273; 1987: \$262; and 1986: \$276.

The Northwest Central area has faced severe drought for several years, low grain prices, and less oil and gas revenues to offset the good livestock prices. This often meant cash-flow problems and a decline of \$7 an acre in average farmland values. Limited ability to finance, higher operating costs, and weak grain prices reduced average-quality land prices in the Northeast Central farming area by an average of \$4 an acre. The North Red River Valley also decreased in average land values, mostly reflecting problems of financing, low grain prices, higher operating costs, and the impact of low rainfall.

Looking first at cropland and then pastureland values, estimated average cropland values rose in three and declined in four farming areas of North Dakota in 1990 (Table 3). The largest dollar increase per acre was calculated for the South Red River Valley, followed by the Northeast Central farming area. Some declines were observed in the drought-impacted Northwest Central and Southwest farming areas.

The Northwest farming area declined in estimated average cropland values and rose 14 percent in pastureland values, reflecting in part the strength of recent good cattle prices and generally strong support from oil revenues and government transfer payments on cropland values and local economies. The Southwest area, while demonstrating these effects, was impacted more strongly by repeated droughts.

The South Red River Valley measured \$40 an acre increase in cropland values, which helped to raise the average value of all lands in this area. Pastureland acreage is so small that values for these lands are not measured in the North and South Red River Valley farming areas. Both areas reflect the strength of the highly productive Valley soils and the vigorous boost from sugarbeets and potatoes.

Table 3. Estimated average values of crop and pastureland per acre for eight farming areas, North Dakota, 1987-1990.

Eight Farming Areas	Cropland				Pastureland			
	1987	1988	1989	1990	1987	1988	1989	1990
 dollars per acre							
Northwest	243	251	259	255	94	87	95	108
Southwest	224	207	222	210	96	104	97	104
Northwest Central	290	305	330	303	116	109	120	117
Southwest Central	242	225	247	260	101	99	106	120
Northeast Central	340	341	377	397	105	120	122	109
Southeast Central	279	311	324	316	103	99	108	126
North Red River Valley ¹	586	605	648	651				
South Red River Valley ¹	661	724	776	816				
North Dakota	310	313	330	337	109	106	113	117

¹ Contain few acres of pastureland.

Both estimated average cropland and pastureland values declined in the Northeast Central farming area. This productive and varied landscape is a strong producer of durum and other wheats and barley. Parts of the area had low rainfall, weak grain prices and increased operating costs, cashflow problems, and difficulty in financing.

DATA AND DATA SOURCES

Estimates of 1990 farm and ranchland values are based on 105 usable reports, which is down from 117 in 1989 and up from 102 in 1988. Because reports vary in both number and geographical distribution from year to year, estimates are combined and averaged by counties and the averages are weighted by land in farms to create farming area averages. The 1990 report included Farmers Home Administration county supervisor reports for land in over 85 percent of the counties and responses from farmland brokers and other respondents for over 60 percent of the counties.

Each estimate of value for the three types of land is summed by counties and averaged before being weighted by acreage of land in farms in each county to create averages for the eight farming areas and the state. Only the averages and frequency distributions are released; individual responses are kept confidential. Estimated values tend to move smoothly from year to year, while average actual sales prices tend to fluctuate.

Trends reported here should not be applied to valuing individual farm tracts. Trained appraisers should make necessary comparisons and adjustments. This report examines trends in farmland values and characterizes the farmland markets by farming areas. Most farmland sales and leasing markets are small and local, so the procedures used in combining individual reports and weighting them to create area averages may average out or even mask over significant local changes.

A THINNER BUT ACTIVE MARKET IN 1990

The 1990 farmland market was a continuation of the generally small, local farmland markets reported in previous studies, with most farm tracts having been sold either by retired farmers or to settle estates. Land coming out of inventory was important in some areas. A new factor in the 1990 market was environmental restrictions from several government agencies.

Continuing from the 1989 market were areas of lingering drought and good but changing federal income support payments and good cattle but weak grain prices. Many respondents reported that financing was harder to obtain in 1990, that it was more difficult to cashflow land purchases, and that not nearly as much land was for sale. Expansion of existing operations was still the driving force for purchasing land, placing a premium on the location of tracts for sale.

Respondents licensed to sell real estate reported about the same number of listings (57 percent) in 1990 as in 1989 (49 percent). A smaller proportion reported an increased number of listings in 1990 (22 percent compared to 34 percent in 1989). The profession considers a market with fewer listings and sales as a thinner market.

The number of tracts sold per farm broker was similar to previous years when most brokers sold only a few parcels and some brokers sold a great many tracts. Sales in 1990, compared to the 1989 market, were slower in the Northwest and Northwest Central farming areas. A larger proportion of brokers in the Southwest, Northeast Central, and Southeast Central areas reported having more sales in 1990 than in 1989.

CHARACTERIZING THE 1990 FARM SALE TRACTS

The number of sale tracts, average tract size, and sale prices per acre for the eight farming areas are presented in Table 4.

Table 4. Number of sales, average size, and average price for actual farm sales, North Dakota, 1988-1990.

Eight Farming Areas	Sales			Avg. Size			Avg. Price		
	1988	1989	1990	1988	1989	1990	1988	1989	1990
 number acres \$ per acre		
Northwest	47	24	30	358	380	306	244	193	219
Southwest	39	51	38	669	657	382	129	154	184
Northwest Central	46	22	56	290	335	288	249	195	221
Southwest Central	74	58	56	375	475	410	165	192	184
Northeast Central	17	43	77	263	264	291	368	346	286
Southeast Central	54	57	97	252	285	263	255	283	259
North Red River Valley	68	72	107	142	216	162	734	552	761
South Red River Valley	20	20	29	230	189	167	715	688	894
North Dakota	365	347	490	318	359	271	252	269	324

Although total number of reported sale parcels is up sharply for the 1990 market, more do not include all of the characteristics of the tract, buyer, or sellers. The total number reported is low for the Northwest, Southwest, and South Red River Valley, which should be considered when evaluating some of the characteristics.

Average size of the tract purchased was down in most farming areas, especially in the Southwest ranch area. Average tract size varies with local farming conditions and is usually smaller in the more eastern farming areas. Farmsteads and rural residences of less than 35 acres (typically near towns) usually are excluded in this study. For the state in 1990, about one-third of all tracts transferred were about 160 acres in size, 10 percent about 320 acres, 4 percent

about 480 acres, and 2 percent full section. About 11 percent of the parcels contained 80 acres or less, and about 2 percent were 40 acres or less.

The quarter-section size dominated in all farming areas, ranging from a high of 46 percent of all transfers in the Northwest area to 29 percent in the Southwest Central and South Red River Valley farming areas. The leading farming areas with transfers of 640 acres and more were 23 percent of those sold in the Southwest Central, 16 percent in the Southwest, and 10 percent in the Northwest.

The average sale prices are up for the state and for five of the eight farming areas. Sale prices will vary according to how near the tract is to the buyer, soils and building characteristics, and economic and financial conditions affecting both the buyer and seller. A large increase in the average sale price was evident in the South Red River Valley, which affirmed the higher estimated value of both average quality and cropland in this farming area (Table 4 and Figure 2). Estimated values of average quality land declined in the North Red River Valley in both 1989 and 1990. However, sale prices of average quality lands rebounded in 1990, while cropland values rose 7 percent in 1989 but changed little in 1990.

Estimated average values and actual sale prices in recent years have fluctuated in two transitional farming areas, the Northeast Central and Southeast Central. Established, expanding farmers in the Southeast Central area have had good crops and many purchases, which should lead to higher estimated values and sales prices, but this hasn't happened. Land values were expected to increase, but uncertainty over the new farm bill and future commodity prices, increased operating costs, weak grain prices, cashflow problems, adverse weather, and tight credit policies have meant little change. The Northeast Central area also has been on a roller coaster of prices and estimated values for these same reasons.

Detailed characteristics of each sale tract were provided. The respondents rated quality of buildings, if any, on each tract sold as good, average, or poor. For the state in 1990, tracts with good quality buildings made up 3 percent of all sales but involved 7.6 percent of the land sold, averaging 706 acres at \$226 per acre. Tracts rated with average quality buildings included 11 percent of the tracts sold with 13 percent of the land transferred, averaging 355 acres at \$270 an acre. Poor rated buildings were 8 percent of the tracts conveying 12 percent of the acreage, averaging 438 acres at \$233 an acre. Most tracts (78 percent) transferring 67 percent of the land had no buildings, averaged 247 acres, and had the high average price of \$309 an acre.

Almost 80 percent of the tracts sold in the South and North Red River Valley, Northwest Central, and Northeast Central farming areas had no buildings. Between 70 and 79 percent of the tracts in the Southeast Central, Southwest, and Northwest Central farming areas were without buildings. The lowest percentage without buildings among the eight farming areas was about 63 percent in the Northwest.

Comparing average sale prices and size of tracts with and without buildings (no division for quality of buildings) showed that the 22 percent of all sales with buildings conveyed 32 percent of the land transferred in 1990, averaging 435 acres at \$246 per acre. The majority of tracts sold in 1990 (78 percent) were unimproved, averaged 247 acres, and sold for an average price of \$309 an acre.

Improved tracts in only two farming areas sold for more than unimproved parcels. In the Northwest Central area, improved tracts averaged 394 acres at \$235 compared to the unimproved tracts, which averaged 267 acres at \$217 an acre. Improved tracts in the South Red River Valley averaged \$1,132 an acre and 435 acres compared to unimproved tracts at \$835 per acre and 247 acres.

Respondents rated the quality of the soils within each sale parcel as good, average, or poor; buyers paid higher average prices for tracts with the better quality soils. For all reported sales in 1990, those rated as having good quality land made up 34 percent of all sales and conveyed 27 percent of the land for the higher average price of \$460 an acre for 227 acres. Parcels with average quality soils included 53 percent of the sales with 60 percent of the acreage, averaging 328 acres and \$238 an acre. Sale tracts with soils rated as poor quality had 13 percent of both sales and land transferred in 1990, averaging 284 acres with the lowest average price of \$169 per acre.

The method of financing the purchase of tracts in 1990 was typical of the last two years (Table 5). Purchases for cash were about 16 percent of the market in the early 1980s, increased until the 1988 market, and now account for about one-fourth of all purchases. Cash purchase averages were smaller for both size (about 264 acres) and sale price (\$260 an acre).

Table 5. Percent of farm sales by method of finance, 1985-1990.

Method of Finance	State Averages for Sales					
	1985	1986	1987	1988	1989	1990
	----- percent of sales -----					
Cash	36	35	39	23	25	25
Mortgage	38	35	34	53	47	50
Contract for Deed	26	30	27	24	28	25

The long-term trend of using credit to purchase North Dakota farm and ranch land continues, with about three-fourths of all tracts conveying about 78 percent of the acreage, consisting mostly of mortgages and contracts for deed. Most credit suppliers continue to prefer mortgages to finance land transfers.

The contract for deed as a credit instrument lets the seller help to finance the sale of his property, which both the buyer and seller often prefer. Other individuals also use a land contract to help buyers purchase farmland.

Mortgage-financed purchases averaged 299 acres at \$293 per acre, with the larger-sized tracts located in the Southwest and Southwest Central farming areas and the smaller ones in the North Red River Valley area. Contract for deed average financed purchases were \$360 an acre for 280 acres.

Major suppliers of credit in the 1990 farmland market included both Farm Credit Services and the Farmers Home

Administration, sometimes together or in combination with the Bank of North Dakota or a commercial bank. Sellers continued as an important source of financing, especially with the help of other individuals. More commercial banks were listed as first providers of credit in 1990, often later selling the credit paper to insurance companies and other buyers of credit instruments.

CHARACTERISTICS OF SELLERS

The average age of all sellers was 57 years in 1990, down from the 1989 average of 60 years (Table 6). Sellers under 55 years of age were about 44 percent of all sellers in both the 1985 and 1986 markets and 23 percent in 1989, so the 1990 average of 37 percent for this group was closer to the long-term trend.

Table 6. Percent of farm tracts sold by age of sellers and average ages of sellers, North Dakota, 1986-1990.

Age of Sellers	State Averages for Sales				
	1986	1987	1988	1989	1990
	----- percent of sales -----				
Under 35 years	6	4	7	4	7
35-44	19	12	11	8	9
45-54	19	15	17	11	21
55-64	34	29	23	31	27
65-74	17	28	31	36	31
75 and over	5	12	11	10	5
Average age - years	50.1	58.7	58.2	60.0	57.0

Active farmers provided about 29 percent of the sale tracts containing one-third of the land sold in 1990, with an average of 318 acres at \$299 per acre. Estate settlements were the second largest source of transfers, selling just over 19 percent of the tracts but conveying 15 percent of the acreage for 218 acres at \$453 an acre. Retired farmers were a close third as a source, providing nearly 19 percent of the tracts with 18 percent of the land, with averages of 268 acres and \$300 an acre. Other sources were the credit agencies, widows, and absentee owners.

The leading reasons for selling were health and retirement, estate settlements, good price, out-of-state owners selling, reducing farm size, and a combination of financial pressures, debts, and foreclosures. Tracts sold to settle estates had the highest average sale price of \$515 an acre. Selling by out-of-state owners was a common reason in the Northeast Central, North Red River Valley, and Southeast Central farming areas.

BUYER CHARACTERISTICS

The average age of buyers was 43.7 years in 1990, up one year from 1989 (Table 7). The younger average buyer was at 36.7 years in the Southwest Central, 40.0 years in the Northeast Central, and 40.9 years in the Northwest farming areas.

Table 7. Percent of farm tracts sold by age of buyers and average ages of buyers, North Dakota, 1986-1990.

Age of Buyers	State Averages for Sales				
	1986	1987	1988	1989	1990
	----- percent of sales -----				
Under 25 years	5	4	1	1	3
25-34	23	22	21	16	17
35-44	25	26	22	37	30
45-54	24	29	28	27	27
55 and over	23	20	28	19	23
Average age - years	42.2	43.1	45.4	42.7	43.7

The proportion of buyers 35 to 54 years rose in the late 1980s, reaching a high of 64 percent in 1989, and declining to about 57 percent in 1990. These buyers purchased about 59 percent of the land sold in 1990. Younger buyers (those under 35 years of age) were 13.2 percent of all buyers for whom ages were given; they bought nearly 22 percent of the land transferred.

The expansion of farm operators who owned land was the major demand force in the farmland market. Thus, the buyer's location to the tract for sale is important in price making. Buyers who lived within the same county as the tracts were located acquired about 86 percent of the tracts purchased in North Dakota in 1990, or 83 percent of the land transferred. These tracts were purchased for an average of \$299 an acre for 275 acres. Buyers living in a nearby county obtained 8 percent of the tracts or 11 percent of the land, for average size of 403 acres at \$234 per acre. Buyers living in a distant county acquired 3 percent of the tracts containing about 4 percent of the land, at \$233 an acre for 361 acres. Another 3 percent of the buyers lived in another state, but paid an average of \$342 an acre for 250 acres.

Renters of farmland purchased nearly 16 percent of all tracts sold or 19 percent of the land sold, averaging 362 acres at \$203 per acre. Business persons and professionals as a group bought about 5 percent, transferring over 5 percent of the total acreage sold.

LAND USE BEFORE AND AFTER SALE

Declining opportunities for farm buyers to operate separate or independent farms again was evident in the 1990 farmland market, which marks a continuation of this long-term pattern in North Dakota. Increasing farm sizes, the product of the drive to expand the size of farming operations to decrease per unit costs and to raise incomes, results in fewer farms. The demand to increase farm incomes by expanding the operating unit by renting or buying additional land has been evident for decades and is shown for the past five years in Table 8. Adding to an existing farm continues to be the dominant reason for buying tracts of farmland.

Table 8. Percent of farm sales by purpose of purchase, 1986-1990.

Purpose of Purchase	State Averages for Sales				
	1986	1987	1988	1989	1990
	----- percent of sales -----				
Single, separate farm	6	8	7	6	9
Part of an existing farm	89	87	86	89	88
Other uses	6	5	7	5	3

About 86 farm tracts had been operated as separate or independent farms when they were offered for sale in 1990. Farm operators purchased only 23 of these to continue as separate farms. Farm expansion operators purchased 61 of those tracts. Two were destined for other uses (part-time farms or rural residences). Buyers seeking to establish their own separate farms bought 12 parcels, which had been parts of another farm; one had been used as a part-time farm. In summary, the separate or independent farm buyers obtained just over 9 percent of all sales tracts or nearly 15 percent of the acreage transferred, averaging 455 acres at \$201 per acre.

The largest group of buyers in the land market continued to be farmland owners who were adding to existing farms. About one-third were farmland owners who had operated only land they owned, and two-thirds who were expanding their farm operations by renting.

The farm expansion group obtained 61 tracts previously operated as separate or independent farms. About 272 of the 292 known tracts that had been parts of previous farms before entering the market emerged to be parts of another (expansion-oriented) farm. Expansion buyers purchased two tracts used previously for "other purposes." Expansion buyers obtained about 88 percent of all farm tracts sold in 1990, which is close to the norm in North Dakota.

Landowners with farm tracts used for "other purposes" sold six farms in 1990 and 12 were bought for use as rural residences and part-time farms. These tracts averaged 364 acres at \$186 per acre.

WHAT'S AHEAD?

The 1991 market will be a continuation of the 1990 market with weather as an important determinant for future farmland values. Most of the state needs additional soil moisture for early spring crop growth and requires timely rainfall with proper temperatures during the growing season. Other important factors include increased emphasis on the location of the sale tract, reflecting the ever-present pressure of most buyers, especially among the more successful farmers, to expand. Availability and terms of credit, good cattle prices but low crop and oilseed prices, the ability to cashflow the purchase, and return on investments are important to most buyers. Although 1990 crops were generally good in many localities, low grain prices tended to hold down buyer optimism and land values. Outlook for farm support and the CRP programs and potential mineral rights, possible government land-use or wildlife restrictions, and environmentalist interventions influence farmland buyers and the whole real estate market.

Reporters indicated that many sellers are approaching retirement age. Some faced higher interest costs and debt loads, had cashflow problems, needed to liquidate to protect other assets, feared a possible drop in land values, changed occupations or investments, or were offered a better price.

Major forces affecting the overall farmland market included low rainfall for more than one year, availability and terms of credit, poor grain but good cattle prices and leasing for oil in western areas, cashflow problems, CRP and uncertainty about the 1990 farm bill, possibilities of irrigation, competition from sugarbeet producers, lack of family members to stay on the farm, need to expand the unit to a profitable size, and a growing concern about substantially higher input costs.

Most respondents (57 percent) expect that farmland values will be about the same in the fall of 1991 as the fall of 1990. This group is larger than reported in the 1989 study. The group expecting land values to be up by 5 percent or more has declined from 40 percent in the fall of 1989 to 19 percent. The 6 percent who in the fall of 1989 expected land values to decline in the coming year has increased to 24 percent.