

# DOWNWARD ADJUSTMENT IN FARMLAND VALUES CONTINUED IN 1983

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The year-end survey of North Dakota farmland values showed mixed results with farmland values adjusting downward in most of the eight farming areas. The downturn that started in the fall of 1981 continued in varying amounts among the eight farming areas in 1982 and again in 1983. Generally unfavorable farm earnings and high interest rates have reduced the demand for farmland so land values have adjusted downward.

Figure 1 presents the estimated values of average quality farmland for the last five years in North Dakota

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and its eight farming areas as of November 1. A mail survey of farmland brokers, county supervisors of the Farmers Home Administration, and other knowledgeable reporters was conducted from mid-October through December. The estimated values are based on 126 reports on the service areas covered by the respondents.

The estimated value of North Dakota farmland was \$420 per acre in November 1983, a decline of 3.4 percent from 1982. This represents a total decline of 7.5 percent since November 1981. Cropland averaged \$489 per acre in November 1983, down only 1.8 percent from 1982 for a total decline of 8.3 percent since 1981. Estimated pastureland value in North Dakota was \$191 per acre in

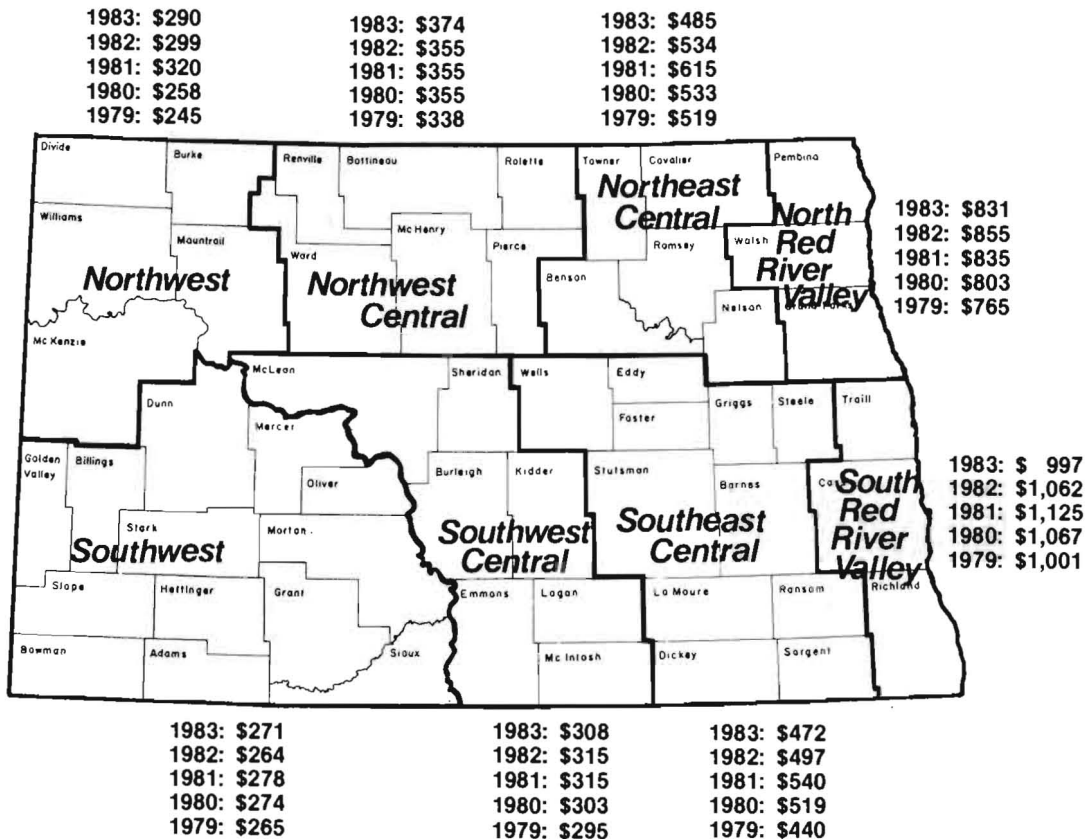


Figure 1. Estimated Average Farmland Values Per Acre in North Dakota. State: 1983 - \$420, 1982 - \$435, 1981 - \$454, 1980 - \$433, 1979 - \$415.

November 1983, a decline of 8.2 percent in the last year and a total decline of 12.0 percent since November 1981.

The Northwest Central and the Southwest farming areas reported higher estimated values in 1983, while three farming areas reported modest declines of 2 to 3 percent (Table 1).

**Table 1. Estimated Average Farmland Values in 1983 and 1982 and Changes in Value Per Acre for Eight Farming Areas.**

Farming Areas	Estimated Value In:		Dollar Change	Percentage Change
	1983	1982		
Northwest	290	299	- 9	-3
Southwest	271	264	+ 7	+ 3
Northwest Central	374	355	+ 19	+ 5
Southwest Central	308	315	- 7	-2
Northeast Central	485	534	-49	-9
Southeast Central	472	497	-25	-5
North Red River Valley	831	855	-24	-3
South Red River Valley	997	1,062	-65	-6
State	420	435	-15	-3.4

Table 1 shows the changes in estimated values per acre of average quality farmland among the eight farming areas and the dollar and percentage changes from November 1982 to November 1983. Current estimated farmland values in some areas equal those of 1981, and in other areas the values are as low as those of 1978. Land values can readily rebound, as shown by the Northwest Central increase of 11 percent, since a pent-up desire for land is building, awaiting more favorable farm earnings and lower interest rates.

The largest dollar change was in the South Red River Valley, which also had a similar decline reported for 1982. The North Red River Valley also reported a decline in 1983 but was the only area showing some increase in the 1982 survey. Considering the higher value of Valley farmland, these declines only came to 6 percent in the South and 3 percent in the North Red River Valley farming areas in 1983.

The largest decline in percentage terms was in the Northeast Central farming area, which also reported the largest percentage decline in the 1982 survey. The two southeastern farming areas, the Southeast Central and South Red River Valley, each reported declines of 6 percent in 1983.

The estimates in Figure 1 and Table 1 indicate that the downturn is continuing but may not have bottomed, with future land values dependent on changes in farm income and interest rates. The increased value in the Southwest and modest decline in the Northwest and in the face of the decline in the prices of energy and farm products indicate a basic strength in the farmland market. The modest declines in most of the other farming areas probably mean that some farmland buyers have been buying but that most potential buyers are awaiting support before acting.

Table 2 presents the estimated values of both crop and pastureland per acre for the last three years for the eight farming areas. The largest increase in cropland values per acre was reported in the Northwest Central area. The Southwest farming area also reported an increase in cropland values and little change in estimated pastureland values in 1983.

**Table 2. Estimated Average Value of Crop and Pastureland Per Acre, 1981-1983.**

Farming Areas	Cropland			Pastureland		
	1983	1982	1981	1983	1982	1981
	-----dollars per acre-----					
Northwest	337	362	390	142	164	170
Southwest	313	309	322	156	157	175
Northwest Central	467	429	465	190	188	189
Southwest Central	364	371	363	184	205	204
Northeast Central	536	582	705	172	251	244
Southeast Central	559	577	610	214	233	270
North Red River Valley	950	1,019	1,050	(234)	(212)	(242)
South Red River Valley	1,100	1,116	1,245	(364)	(400)	(400)
State	489	498	533	191	208	217

Examining cropland values for 1981 through 1983 shows little change in the Northwest Central and Southwest Central farming areas and only a modest decline in cropland values in the Southwest farming area. The areas showing the larger declines in cropland values were the Northeast Central, the Southeast Central, and the two Red River Valley farming areas.

The relatively small decline in cropland values in the South Red River Valley in 1983 shows that most of the adjustment was reported in 1982, with the decline in average value expressed in the 1983 report.

The changes in pastureland values from 1981 through 1983 were least in the Northwest Central farming area and largest in the Northeast Central farming area followed by the Southeast Central farming area.

Reporters in the survey were asked two questions on the level of activity in the farmland market. One question asked brokers for a comparison of the number of farms/tracts listed for sale in 1983 compared to the previous year. Another asked the brokers for the actual number of farms/tracts sold in 1983 and in 1982. The U.S. Department of Agriculture had a widely used annual estimate of the number of farm sales per thousand farms, but this series ended in March 1982.

Most (56 percent) brokers felt that they had the same number of farms/tracts listed for sale in 1983 as in the previous year. About 27 percent said that they had more listed in 1983, and only 14 percent felt that they had fewer farms listed in 1983 as compared to 1982. The shift was from 46 percent in 1982 to 56 percent in 1983 reporting the same number listed for sale. Only 14 percent in 1983 compared to 29 percent in 1982 reported having fewer farms listed for sale.

The second measure of real estate market activity was the actual number of farms sold in 1983 and in 1982. This measure indicates that the 1983 market was slower than 1982, since the number of tracts sold per broker averaged 1.94 in 1983 and 2.22 in 1982. This suggests that the 1983 market was about 12 percent slower than the 1982 farmland market. The number of tracts reported sold per broker was up from 1982 in both the North Red River Valley and Northeast Central farming areas.

The mail survey asks reporters for two types of information: (1) their estimates of farmland values for average quality crop and pastureland in their counties or service areas and (2) specific details on farm sales in 1983. Duplicate sales were removed and a weighting process used to compute average estimated values by farming areas. The number of acres of land in farms per county was used in the weighting procedure to adjust for county sizes in the computing of average estimated values for average quality crop and pasturelands by areas.

Each year the mail survey obtains a different number of responses and responses from differing locations. The weighting process serves to reduce fluctuations in the calculated values for each farming area due to varying responses to each annual survey. The weighting process is limited to calculating estimated values only and was not used in computing statistics on actual farm sales. Confidentiality is maintained by not revealing any individual reports.

Most professionals who conduct these annual surveys feel that the estimates of farmland values are better indicators of trends in farmland values over the years than the statistics based on actual farm sales data. Understanding of what happened in the land market is aided by analysis of actual sales data. But the sales data vary greatly from year to year in the size of tracts sold, quality of soil or buildings, method of finance, motives of buyers and sellers, and their geographical distribution. These and other reasons result in computed averages for sales varying from year to year and from area to area.

#### Characteristics of Farm Sale Tracts Sold in 1983

This section presents information based on the characteristics of 349 farm sale tracts reported sold for agricultural purposes in 1983. Averages were calculated for each characteristic, with the averages varying from area to area and year to year due to such features as quality of land or buildings, methods and sources of finance, location, and motives attributed to buyers and sellers. This discussion supports the trends reported above and offers a generalized explanation of tracts sold in the 1983 farmland market.

Basic information on the 361 tracts in terms of the number of tracts reported in each farming area, average size, and average sales price per acre is provided in Table 3.

No farming area had less than 32 sales reported for it. The largest computed average tract size was reported for the Southwest farming area. The four eastern farming areas had the smallest calculated average sizes of tracts sold in 1983 and had the higher average sales prices per acre. The calculated average sales price in 1983 was \$485 and in 1982 it was \$497 per acre, showing only some decline in the computed averages for the state.

**Table 3. Average Tract Size and Sales Prices for Actual Farm Sales Reported in 1983 for Eight Farming Areas.**

Farming Areas	Number of Sales	Average Size	Average Sales Price/Acre
	number	acres	dollars
Northwest	32	303	306
Southwest	53	512	274
Northwest Central	39	245	461
Southwest Central	51	408	288
Northeast Central	34	236	594
Southeast Central	66	233	506
North Red River Valley	38	164	972
South Red River Valley	48	247	1,122
State	361	301	485

The average size of tract sold in 1983 was 301 acres, up three acres from the average in 1982. The average size of farm in the state is about 1,100 acres, which indicates that most parcels sold were parts of another farm. Owners buy and sell tracts as they pass through their life cycle, adjusting farm size to their needs and abilities.

A frequency distribution of tract size showed that 28 percent of the tracts sold were quarter-sections in size, 11 percent were of half-section size, 6 percent were eighties, 4 percent were three-quarters section in size, and 3 percent were full sections. Tracts of 160 acres or less made up 55 percent of the tracts sold but contained only 26 percent of the land transferred in 1983. About 8.6 percent of the tracts sold were a full section or larger in size and transferred about 31.5 percent of the land sold in 1983.

The quarter-section size dominated in 1983, making up nearly one-half of all sales in the Northwest, Southeast Central, South Red River Valley farming areas. It made up one-third of all sales in the Northwest Central, Northeast Central, and North Red River Valley farming areas. The quarter-section and half-section sizes each made up 17 percent of the tracts transferred in the Southwest farming area.

About 79 percent of the tracts with 59 percent of the land transferred in 1983 were without buildings. They averaged 228 acres in size, with an average sales price of \$555 per acre. Only one-fifth of the tracts had buildings with a much larger average size of 602 acres and a lower average sales price of \$390 an acre.

The reporters rated the quality of buildings on those tracts with buildings. Six percent of all sales, with 12 percent of the acreage, had been rated as having good quality buildings. They sold for an average sales price of \$397 per acre, with an average size of 653 acres. The 8 percent of the tracts rated as having average quality buildings had a computed average size of 648 acres and sold for an average of \$474 an acre. About 7 percent of the tracts were rated as having poor quality buildings, with an average size of 514 acres and an average sales price of \$274 per acre.

The reporters also rated the quality of land in the sale tracts. About 40 percent of the tracts had good quality land, 51 percent were rated average, and 9 percent had soils rated poor. Tracts rated as having good quality land contained 31.5 percent of the acreage sold, average tracts had 52.6 percent of the land, and tracts rated as having poorer quality land made up 15.9 percent of the acreage sold in 1983. Good quality tracts averaged 251 acres in size and sold for an average of \$714 an acre. Tracts with average quality soils had an average size of 322 acres and averaged \$424 per acre. Tracts rated as having poor quality soils averaged 377 acres in size and sold for an average of \$254 per acre.

The method and sources of finance were calculated for the sale tracts, as given in Table 4. The mortgage continues as the most common method of financing, followed by the contract for deed. Mortgage-financed sales averaged 283 acres in size and sold for an average of \$482 per acre. Contract for deed sales averaged 393 acres and had an average sales price of \$510 an acre. Cash sales had the smallest average size of 201 acres and an average sales price of \$497 per acre.

**Table 4. Percent of Farm Sales in 1979-1983 By Method of Finance.**

Method of Finance	State Average for Sales In:				
	1983	1982	1981	1980	1979
	-----percent of sales-----				
Cash	9	5	5	23	16
Mortgage	58	52	52	35	45
Contract for Deed	33	43	43	42	39

Major sources of financing were the Federal Land Bank Associations, the Farmers Home Administration, and the seller. The importance of the seller is about the same as in previous years, financing about 27 percent of the tracts with one-third of the land transferred. The Federal Land Bank Associations, the Farmers Home Administration, and the Bank of North Dakota are important sources of financing in North Dakota. The Federal Land Bank Associations were the primary source of financing in nearly 40 percent of the tracts, with an average size of 303 acres.

### Some Seller Characteristics

The leading source of farm tracts in the 1983 farmland market continued to be active farmers, who sold 48 percent of the tracts containing 54 percent of the land transferred in 1983. Their average size was 356 acres and sold for an average of \$499 an acre. Those classified as absentee owners provided just over 18 percent of the tracts with 15 percent of the land, averaging 256 acres in size and \$481 an acre. Estate settlements supplied about 18 percent of the tracts with 17 percent of the acreage with an average size of 291 acres and obtained an average sales price of \$421 per acre. Retired farmers sold about 13 percent of the farms with 10 percent of the land, which had an average size of 237 acres and averaged \$511 an acre.

The averages show that active and retired farmers received higher average sales prices per acre. Active farmers and absentee owners sold tracts that were larger than the state average in size.

Examining the sellers' reasons for sale provides the following ranking: (1) foreclosure or debt reduction involved 37 percent of the tracts with 40 percent of the acreage transferred in 1983, and they averaged 358 acres in size and \$553 an acre; (2) estate settlements supplied 19.2 percent of the sales with 19.6 percent of the land, averaging 337 acres and \$377 an acre; (3) health and retirement reasons provided 16 percent of the tracts with 14 percent of the land, averaging 288 acres and \$465 per acre; (4) profitable or good time to sell provided 6.4 percent of the sale tracts with 5.4 percent of the land; and (5) reduce size of farm operation was involved in 6.4 percent of the tracts with 5.3 percent of the acreage sold in 1983.

The average age of all sellers was 53.5 years in 1983, ranging from 25 to 80 years. A grouped frequency distribution is given in Table 5.

The most commonly reported age of seller was 60 years, which was given for 21 percent of the sellers. Fifty years of age was reported by 13 percent of the sellers, with 65 years given in 11 percent of the cases. The North Red River and Southwest farming areas reported the older average age of 58.5 years for sellers.

**Table 5. Percent of Sale Tracts Sold, By Age of Sellers, in 1979-1983.**

Age Groups	1983	1982	1981	1980	1979
	-----percent of sales-----				
Years					
Under 35	5	8	6	5	5
35-44	16	19	12	17	10
45-54	23	18	21	22	15
55-64	35	31	27	32	33
65-74	18	17	31	21	32
75 and Over	3	7	3	3	5

### Some Buyer Characteristics

The average age of all buyers in 1983 was 38.0 years, ranging from 18 to 65 years. A grouped frequency distribution is offered in Table 6.

**Table 6. Percent of Sale Tracts Purchased, By Age of Buyers, in 1979-1983.**

Age Groups	1983	1982	1981	1980	1979
Years	-----percent of sales-----				
Under 25	11	14	15	11	9
25-34	29	33	32	26	28
35-44	25	23	22	31	24
45-54	24	22	25	19	28
55 and Over	11	8	6	13	11

The most commonly reported age of buyer was 45 years in 14 percent of the cases. Age 30 was reported for 12.6 percent of the buyers, followed by age 40 in 11.7 percent, age 35 in 7.4 percent, age 50 in 6.1, age 55 in 5.6 percent, and ages 24 and 25 years each were reported for 4.8 percent of all buyers.

Average ages by farming areas were 35.6 years in the Southwest Central, 35.9 years in the Southeast Central, and 37.2 years in the South Red River Valley farming areas.

Only 4.8 percent of the buyers were related to the sellers, and they purchased 4.3 percent of the acreage sold, for an average size of 269 acres with an average sales price of \$415 an acre. This percentage is down sharply from the 1982 report which indicated that 9.7 of the buyers were related to the sellers. The dominant group of buyers were not related to the sellers. They purchased tracts averaging 309 acres in size for an average price of \$486 per acre.

A study of the occupations of the buyers showed that 46 percent of the buyers already owned land. They purchased 45 percent of the acreage transferred in 1983, with an average size of 298 acres and an average sales price of \$586 an acre. Second most common purchasers were renters, who made up 41 percent of the buyers. They purchased 39 percent of the land, with an average size of 291 acres and sale price of \$442 per acre.

Residency of the buyers relative to the location of the tract purchased was given by the reporters. About 90 percent of the buyers, who purchased 81 percent of the acreage, lived in the same county as the land was located, and their tracts averaged 270 acres in size and sold for an average of \$507 per acre. About 8.7 percent of the buyers lived in a nearby county. They purchased 17 percent of the land transferred, with an average size of 601 acres and paid an average of \$418 an acre. Only two of the 334 sales for which buyer residency was reported came from another state.

#### Land Uses Before and After Sale

The exchange of sale tracts within the farmland market is important to whoever has the opportunity to farm. One can view what tracts entered the market (before sale view) and the scene after passing through (the after sale view). But also available is evidence of the shifts in uses of tracts in the exchange process, which shows the changes in who will use the land after sale. Beginning farmers can use or purchase tracts to operate

as separate, independent farms. The transfer of tracts can be viewed as a flow of land resources shifting in who is using them over time. This brief discussion has an opening scene, the after sale view, and an attempt to explain the in-transition shifts in who is using the land.

The opening scene finds 25 percent of the tracts to be sold having been operated as separate, independent farms. They contain 41.3 percent of the acreage to be transferred, with an average size of 498 acres and an average price of \$425 per acre. The largest group of tracts had been operated as part of another farm. They made up 73 percent of the tracts to be sold, with only 57 percent of the acreage. Their average size was only 240 acres but were purchased for the higher average price of \$536 an acre. A small flow of land comes from part-time and other types of land uses (rural homes, etc.) which made up 1.8 percent of the tracts with 1.6 percent of the acreage.

**Table 7. Percent of Sale Tracts Purchased, By Type of Buyer, in 1979-1983.**

Type of Buyer	State Averages for:				
	1983	1982	1981	1980	1979
	-----percent of sales-----				
Single Farms	9	7	12	13	14
Expansion Farms	86	91	83	83	80
Other Buyers	5	2	5	4	6

The after sale view presented in Table 7 shows the separate farm operators as a group emerging with only 8.8 percent of the sale tracts, but these tracts contained 20.6 percent of the acreage transferred so they have a larger average size of 723 acres and sold for an average of \$347 per acre. The farm expansion or exchanging parts of another farm buyers emerged from the market with 86.3 percent of the tracts with 75.0 percent of the acreage, for an average size of 266 acres purchased for an average of \$526 an acre. The 1983 market again had 5 percent of the tracts going to part-time and rural home buyers who purchased 4.4 percent of the land, so their average size was 272 acres for which they paid an average of \$418 an acre.

The in-transition scene permits a glimpse of the shift in the future use of the land resources sold in 1983. The separate farm operators only purchased 8.8 percent (or a total of 29) of the sale tracts. Of their purchases, 59 percent or 17 tracts had been operated before sale as separate, independent farms containing 86 percent of the land to be used by these single farm operators after sale. These tracts were much larger than the average sale tract, averaging 1,006 acres in size. About 41 percent of their purchases had been formerly used as a part of another farm before entering the marketplace, with an average size of 242 acres and amounting to 14 percent of the total acreage destined to be operated by separate farm operators after 1983 market.

The largest group of tracts, 284 tracts or 79 percent of the tracts sold in 1983, were bought by expansion

operators to become part of an existing farm. The majority (76 percent) of these tracts had been parts of another farm before sale. They brought in 67 percent of the land that went to the expansion group, with the smaller average size of 238 acres but the higher average selling price of \$540 an acre. The expansion group purchased 63 tracts which had been used as separate farms before entering the market, making up 22 percent of the expansion group and containing 31 percent of their total acreage. They had a larger average size of 375 acres.

The part-time, rural home group purchased about 4.4 percent of the 1983 sale tracts. Only 6 percent of their purchases had been used this way before sale, with an average size of 160 acres per tract. About 19 percent of their purchases came out of the separate farm group, with an average size of 371 acres. The largest percentage, 75 percent of their tracts, had been used as parts of another farm before sale, with an average size of 280 acres.

### What's Ahead?

This question requires a setting in what has happened in the last decade. The future is a continuation of the past, but farm policy and much that is critical to farm earnings are established in Washington. Interest rates, many farm product prices, some farm subsidies, etc., are beyond the control of individual farm operators. A desire to purchase farmland is building up because the strong forces contributing to the farm expansion demand for land continue to grow.

Table 8 provides some helpful information. The U.S. Department of Agriculture publishes an index of farmland values for the continental 48 states. Columns 2 and 3 present the Index of Farmland Values by years, adjusted so the value for 1977 equals 100. Columns 2 and 3 indicate that the 48 states' land values rose earlier and a bit more than those in North Dakota. They have also declined a bit more than North Dakota land values. The two trends are similar. The North Dakota State University survey results may differ from the USDA figures because of time of survey, size of sample, response rates, and so forth.

Columns 3 and 4 provide two price indices which measure changes in consumer and farm product price levels and, to some degree, changes in the purchasing power of the dollar.

A measure of the relative change in land values requires an adjustment for changes in the purchasing power of the dollar, accomplished by dividing current land values by one of the price indices. The Producer Price Index for Farm Products is more appropriate for adjusting farmland values. The adjusted land values are nominal figures adjusted for changes in price levels to become "real" land values. Land values may rise rapidly in periods of inflation, but the adjusted land values have actually declined in value in 1982.

Dividing the state annual land values by the appropriate annual Producer Price Index for Farm Pro-

**Table 8. Indices of Farmland Values for North Dakota and the United States, and Consumer Index for Food and Producer Index for Farm Products, 1970-1983.**

Year	Indices of Farmland Values*		Consumer Price	Producer Price
	48/U.S. States	North Dakota	Index for food	Index for Farm Product
	-----1977 = 100-----		-----1977 = 100-----	
1970	42	34	59.8	57.7
1971	**	**	61.6	58.6
1972	47	36	64.3	64.9
1973	53	41	73.6	91.6
1974	66	55	84.1	97.5
1975	75	76	91.3	97.0
1976	86	89	94.1	99.2
1977	100	100	100.0	100.0
1978	109	106	110.0	110.4
1979	125	119	122.0	125.4
1980	145	136	132.5	129.6
1981	158	145	142.9	132.4
1982	157	149	151.6	131.3
1983	148	142		

\*Land price indices are for February, March, or April 1, depending upon the year computed.

\*\*Not available.

ducts would give these "real" land values: 1979 —  $415/1.254 = 331$ ; 1980 —  $433/1.296 = 334$ ; 1981 —  $454/1.324 = 343$ ; 1982 —  $435/1.313 = 331$ . The 1983 index is not yet available. The annual values as adjusted for inflation suggest that the "real" land value was \$331 per acre during 1979, which rose in 1980 and again in 1981. However, the adjusted value in 1982 was the same as the adjusted value for 1979. Since the current estimate of the average state land value in 1983 was down from 1982, dividing by an index value for 1982 or higher in size would show more decline in "real" land values in 1983. Dividing the 1983 average land value by an index of 1.313 yields a real value estimate of \$319 per acre, so the 1983 indexed figure is apt to be somewhat less than this, meaning a further decline in real land values.

This survey asked its respondents what they felt the future holds for land values in the year ahead for November 1984. The majority (57 percent) felt that land values would be about the same as in November 1983. Only 9 percent expected land values to be up by 5 percent or more, while just over one-third expect that land values might be down by 5 percent or more.

The reporters were asked to list and rank the most important factors affecting farm buyers, sellers, and the overall farmland market. The most important factors affecting farm buyers were farm product prices and high interest rates, closely followed by financing/availability of credit. The leading second reasons given were high interest rates and commodity prices. The most frequently listed third reasons included farm expansion and land availability.

The most frequently listed factors affecting farm sellers included debts or needs the money, retirement-health-age, and low return on investment. Other factors listed were estate settlements, poor capital gains prospects, and high operating costs.