Farmland Values — Then and Now

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Three views are offered here of recent farmland values and rentals: land values per acre from 1910 to the present in nominal and inflation-adjusted (real) dollar terms, rents and land values for cash-rented tracts in North Dakota in nominal and real terms, and a comment on foreign ownership of North Dakota agricultural land. Inflation-adjusting allows an examination of changes in land values and rentals over time by correcting for the changes in purchasing power of the dollar. Two measures of the purchasing power of the dollar are used: the implicit adjusters applied in creating estimates of gross national product or the total value of goods and services produced in the United States and the consumer's typical market basket, called the Consumer Price Index.

The first view shows nominal or annual (current year dollar) estimates of farmland values for the 48 contiguous states (US-48) and for North Dakota. Figure 1 includes 1910-1991 values, and is based on data from the U.S. Department of Agriculture (USDA) (Jones and Hexem, 1990). The USDA is the major provider of annual land value data by states in the United States. The U.S. Department of Commerce conducts a census of agriculture every four or five years, in which the USDA assists and in turn ties its land value estimates. Unfortunately, the recent census of agriculture overstated land values, according to estimates obtained in some state studies (including the annual NDSU studies, to be presented later). (For example, see Govindan and Raup, 1990, pp. 70-77.)

The annual or nominal (current year dollar) values per acre of the US-48 and North Dakota farm and ranch lands in 1910 averaged \$40 for the US-48 and \$29 for North Dakota (Figure 1). Average values slowly rose for the US-48 up to World War I, reaching \$69 in 1920, which is the same year North Dakota values peaked at \$41. Both values continued along similar paths until World War II. The nominal dollar low was \$31 per acre for the US-48 in 1934 and \$13 an acre for North Dakota in both 1940 and 1941. The change in North Dakota average values from the high of \$41 in 1920 to the \$13 low in 1940 was a drop of \$28 an acre or 68 percent in 21 years.

The US-48 average land values moved away from North Dakota averages in 1942 with a growing spread through 1980. A rapid increase in values is more evident during the Russian grain deals from 1973 to 1980-82 in then current or nominal dollar values. The peak was in 1982 at \$823 an

Johnson is professor-retired, Department of Agricultural Economics. This article updates a study published by Johnson 1984. acre for US-48 and \$455 in North Dakota. The 1991 averages are \$682 an acre for the US-48 and \$368 in North Dakota. This simple description fails to speak of the short, sharp depression following World War I and the Great American Depression of 1929 to 1939 (Figure 1).

North Dakota, with its mid-continental location, climate, and soils, and distances from national and world markets, enjoys fewer comparative advantages and more comparative disadvantages in the production and marketing of agricultural commodities. Its land values over the years reflect these basic realities. Years of good rainfall and normal temperatures often produce bumper crops resulting in lower prices, and years of substandard rainfall may produce short crops with higher prices. Rainfall and temperatures interact to result in good output and prices, as in 1990 when the initial soil moisture was limited but adequate and timely rainfall and no high or long periods of intense heat appeared, resulting in the second best wheat crop in North Dakota's history.

Congressionally mandated farm subsidy programs treat symptoms and not the basic problems of inadequate demand and excess supplies of many agricultural commodities. The European Community Common Market and the United States use farm subsidies to limit production and as export enhancement payments at great cost to federal income taxpayers. *The Economist* (1991, page 104) stated that "Last year governments subsidized farmers in rich

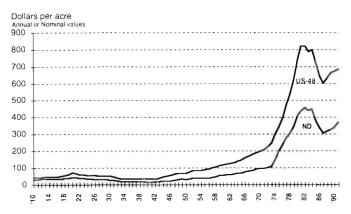


Figure 1. Estimated average farm and ranch land values per acre, United States-48 (continental) and North Dakota, 1910-1991. Annual or nominal values are of the year of survey. Source: Adapted from USDA data.

countries [e.g. through direct payments, price support and cheap loans] to the tune of \$176 billion — 44 percent of the value of total farm output." High interest rates, high oil prices, and excess production worldwide with lower resource returns limited the ability of most Third World Countries to generate a surplus of incomes to purchase much-needed food and manufacturing imports. In addition, rapidly increasing populations place severe burdens on the lesser developed economies, further limiting their ability to improve the standards of living.

The purchasing power or value of money itself changes over time, but several measures of the purchasing power of the dollar are available to correct or adjust land values for inflation. The implicit price deflators used to establish the gross national product (GNP-I) is one such tool, and its effects on the basic data used in Figure 1 are presented in Figure 2 for 1929 to 1991. The base year is 1982 when GNP-I = 100, with these inflation-adjusted values called "real" land values.

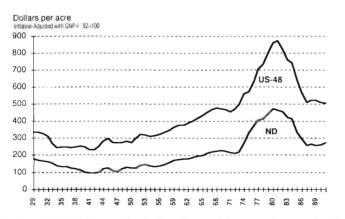
The US-48 line of real land values in Figure 2 shows first a sharp and then a continuing decline in the real or inflation-adjusted values from 1929 through 1942. A small surge in real land values occurred in 1945-46, peaked in 1949, and was followed by another small recession. Uncertainties about future farm support programs existed during the 1952 election campaign. The initial drop was one-third in real dollar terms from 1929 to 1942. The rise in average land values from 1955 to 1968 was 52 percent. The increased values from 1971 to 1981 yielded a total rise of 85 percent.

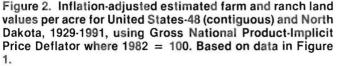
Inflation-adjusted land values per acre in North Dakota followed the national trend to some degree. Real land values rose a total of 73 percent from 1955 to 1969. National land values receded nearly 4 percent through 1971, but the decline (8 percent) continued through 1972 in North Dakota. US-48 real land values surged strongly starting in 1972, crested in 1981 with an increase of 91 percent, and then declined sharply (down 41 percent) through 1987. The North Dakota rise in real land values was higher in percentage (at 124 percent, because of the smaller initial value per acre) than in dollars with some difference in timing (Figure 2). Inflation-adjusted or real land values may also be obtained by using the Consumer Price Index (here the base is 1982-84 = 100). Adjusting for the purchasing power of the dollar in terms of the consumers' market basket of goods and services produces a similar view of real land values for the postwar period 1946 to 1991 (Figure 3A). The small national recession in 1954 is apparent, with slower growth in 1960-61, a longer decline from 1969 through 1971 nationally and even longer in North Dakota, the marked downturn from 1982 through 1988, and a further drop in 1989 to 1991 nationally.

The national increase in values measured in real dollars from the low in 1971 through the peak in 1981 was about 80 percent; in North Dakota, values more than doubled (110 percent) from the low in 1972 through 1980. The total dollar increase per acre was smaller in North Dakota, but its smaller initial number yields a larger total percentage change.

The smaller increase in North Dakota real farm land values compared to the national values reflects the lower comparative advantage from North Dakota's mid-continental setting even though substantial transfer payments from congressionally mandated farm subsidy programs provided some aid. These efforts have forestalled the much needed capital, labor, and land resource adjustments, so America's short-run agricultural problems, sector by sector, have become long-run economic burdens to federal income taxpayers. When the farm equipment capital subsidies were reduced via an income tax change in 1986, farm machinery manufacturing and retail firms declined rapidly in an already depressed industry (from excess capacity and other problems).

Figure 3B shows a final view of inflation-adjusted state average farm and ranch land values of North Dakota land value data collected in the annual NDSU land value surveys. Both the USDA and NDSU mail surveys depend heavily on farm real estate brokers and similarly knowledgeable respondents, including some rural land appraisers, bankers, lawyers, and county supervisors of the Farmers Home Administration (FmHA) in the NDSU mailings. The CPI (where 1982-84 = 100) is again used to inflation-adjust the NDSU-calculated North Dakota farmland values. The US-48 real land values are the same USDA data in Figures 3A and 3B.





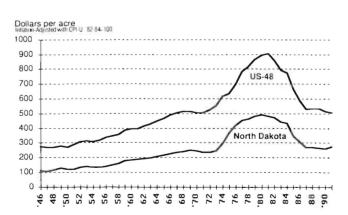


Figure 3A. Inflation-adjusted estimated average values of farm and ranch land per acre for United States-48 and North Dakota, 1946-1991, using Consumer Price Index 1982-84 = 100. Based on data in Figure 1.

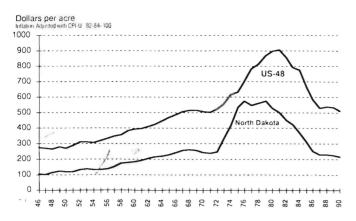


Figure 3B. Inflation-adjusted estimated average values of farm and ranch land values per acre for United States-48 and North Dakota, 1946-1990, using the Consumer Price Index where 1982-84 = 100. Adapted from USDA data for US-48, NDSU studies for North Dakota state average values.

The North Dakota respondents indicated that real or inflation-adjusted farmland values had risen earlier and faster than other data showed. The Russian grain deal had a quicker and larger impact in grain-export-dependent North Dakota. The total inflation-adjusted jump in real land values was very rapid, climbing 141 percent from the low in 1971 to a peak in 1976 and again in 1979. The rise of 141 percent in five years meant an average climb of 28 percent a year.

A second finding is that inflation-adjusted farmland average values in North Dakota were falling several years before the national average values turned down. A number of factors, including some optimism always present in real estate brokers, may involve North Dakota's mid-continental location that affected wheat costs and returns, more crop diversity in the rest of the nation, and especially the stronger infrastructure supporting agriculture in the non-Great Plains States (see McSweeney, 1989).

A third observation is that inflation-adjusted farmland values in North Dakota had declined as much in real terms as they had increased, plummeting from the 1979 peak down to only 62 percent of the high. The loss in value in real terms was 1.65 times greater than the average value of \$215 in 1990.

A fourth conclusion is that the fall in North Dakota average farmland values was slower or extended over more years than the rise (in inflation-adjusted terms), with the rapid decline stretching from the peak in 1979 to the recent low in 1990. The fall in real dollar terms from 1979 to 1987 averaged 14.8 percent a year. The national farmland values peaked in real terms in 1981 and initially bottomed in 1987 with an average fall of 7 percent a year. The contrasts in the North Dakota and national periods and the extent of value changes reflect different comparative advantages and supporting infrastructures (see Epp, 1989), offset in part by the strong congressionally mandated subsidies to the monoculture of wheat in the Great Plains.

RENTS AND VALUES PER ACRE AND THEIR RATIOS FOR CASH-RENTED LANDS

Renting farmland is the traditional way farm operators make major adjustments in the sizes of their farm businesses from year to year. The typical farm business life cycle includes periods of training and gaining experience before entry, increasing the size of farm business operated, and exiting from farming. The farmland rental market plus those induced by new agricultural technologies facilitate these life cycle changes. Many cost-sharing rental practices are local community-specific, often providing incentives for improved farming practices or new varieties grown, which can become uneconomic if not reevaluated periodically.

Leasing continues as an importance part of the North Dakota farm inputs scene. Many landlords inherit their lands. Some have little interest in owning and managing farm tracts, but market observers generally agree that the two best ways to handle inflation in the long run is by owning stocks or land. Of interest is how farmland rents and values per acre and the ratio of rents to value change over time. Two sources of data available for a limited number of years are used. The Consumer Price Index adjusts for the changing purchasing power of the dollar.

The USDA estimates cash rents per acre and the ratio of rents to value for North Dakota for rented whole farms, whole tracts of rented cropland, and rented pastureland tracts. The ratio of rents to value requires knowing both per acre figures, and knowing two of the three allows calculation of the unpublished figure. The average (nominal) value per acre for each kind of rented land has been calculated and graphed (Figure 4). The CPI adjusts rents and nominal values per acre for inflation, which are graphed to show how these real values have responded over time.

Annual estimates of cash rents and the ratio of rents to value per acre for rented whole farms are available for North Dakota from 1960 to 1991. These (plus the needed market values of rented whole farms, which were calculated) are presented in Figure 4.

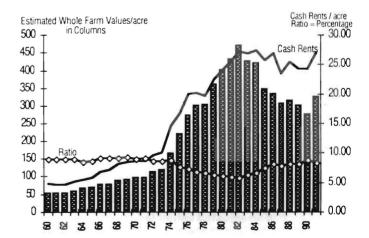


Figure 4. Estimated average value per acre of whole farms rented for cash in North Dakota, 1960-1991. Adapted from USDA data.

Estimated market values per acre of whole farms rented for cash in North Dakota appear as columns in Figure 4 and are measured on the left axis. Their cash rents form the solid line and are plotted on the right axis in dollars per acre. The ratios of cash rents to values appear in the diamond-marked line and are also plotted on the right axis as a percentage.

Cash rents and land values per acre on cash-rented whole farms rose dramatically in the late 1970s after many earlier years of small increases. But the ratio in cash rents to market values/only adjusts slowly over time and is an important measure to land purchasers and investors. The ratio in 1960 was 8.9, dipped, and then climbed to a peak of 9.3 in 1969. It gradually declined to a low of 5.8 in 1982, was 8.8 in 1990, and was 8.3 in early 1991.

PASTURELAND: ESTIMATED MARKET VALUES AND CASH RENTS PER ACRE AND THEIR RATIOS

Much pastureland is rented throughout the United States and in the western six farming areas of North Dakota. Average cash rents per acre and the ratio of cash rents to market values of cash rented pastureland tracts are from USDA publications, and a calculated market value has been plotted in Figure 5.

Estimated average cash rents for pasturelands in North Dakota are graphed as the solid line and are measured on the right axis in dollars per acre. The ratio of rents to value is seen as the diamond-marked line and appears on the right axis as a percentage. The calculated annual market values are shown in columns and measured in dollars per acre on the left axis.

Pasturelands in North Dakota are less productive than cropland due to location, soils, rainfall amounts and distributions, and fewer alternative uses. The strong effects of the droughts of the 1983 to 1989 period are evident. Estimated values per acre rose slowly from 1960 to 1970 and from 1973 to 1981. The uncertain returns due to drought are conspicuous since 1983.

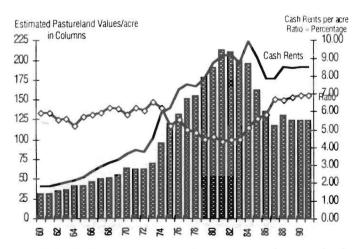


Figure 5. Estimated average value per acre of pastureland tracts rented for cash in North Dakota, 1960-1991. Adapted from USDA data.

Cash rents rose when cattle prices were good and numbers due to drought-impacted pastures were reduced. The Conservation Reserve Program (CRP) enrollment in recent years introduced a cash-flow for a 10-year term, almost riskless since the U.S. government guaranteed payments at rates per acre substantially above that of market-established cash rents. The CRP program pulled both highly erodible cropland and much pastureland out of production, thus reducing land available for farming, renting, or purchasing. Reducing land available for farming left many farm operators with excess machinery and labor and reduced incomes. Some bid up rents and other sought to purchase replacement acres. The interactions of these economic forces and the drought produced many reactions which respondents reported in the annual NDSU surveys.

The ratio of cash rents to value per acre shows the volatility of these forces in the rented pastureland markets. From 1974 to 1986, estimated values per acre rose faster than cash rents per acre did for pastureland, driving down the annual ratios of rents to value across that 10-year period.

CROPLAND: VALUES AND CASH RENTS PER ACRE AND THEIR RATIOS

Both USDA and NDSU data on cash-rented cropland values, rents, and the ratios of rents to value per acre, plus inflation-adjusted values and rents, are available using the CPI with the 1982-84 = 100 base. The USDA data on cash-rented cropland tracts are presented in annual nominal terms in Figure 6A and as inflation-adjusted rents and values in Figure 6B. The calculated market values of cash-rented cropland tracts are measured in the columns as dollars per acre on the left axis. Cash rents per acre are the solid line and presented as dollars per acre on the right axis. The ratio of cash rents to value per acre appears as the diamond-marked line with its percentage values on the right axis.

The estimated annual average values of cash-rented cropland tracts rose slowly from 1967 to 1973, but climbed spectacularly from 1973 through 1982 in nominal dollars. The Russian grain deal with rising grain prices plus administrative and congressional exhortations to plant fence row to fence row temporarily led to increased profitability per acre and a rapid bid up of land values. The bidding/purchasing frenzy got to the point where some buyers bought land in spite of total annual principal, interest, and tax payments greatly above expected annual net returns per acre. Consequent total costs to federal income taxpayers, lending agencies, and others have been tremendous.

Cash rents followed a path of little change similar to that of estimated market values from 1967 to 1973, rose rapidly to a peak in 1982 (except for the small decline from 1975 to 1978), and have tended downward until the recent 1991 rebound.

The relationship of cash rents to market value, measured as a ratio or percentage, declined from 1967 to 1982, indicating that values were rising faster than cash rents or that renters were successfully resisting cash rent increases. Landlords were not getting previous shares of their land earnings for several reasons. Some had fixed two- to fiveyear contracts. Others did not live in their former communities or were not present to watch over their land rental arrangements, possibly becoming less aware of current costs and returns and more susceptible to tenant claims of hardships, and so forth. The ratios of rents to value went

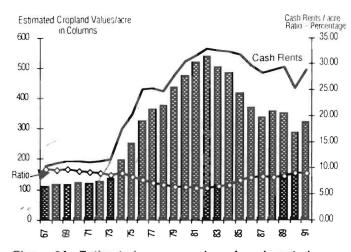


Figure 6A. Estimated average value of cash-rented cropland tracts and their cash rents per acre in North Dakota, and ratios of rents to value, 1967-1991. Adapted from USDA data.

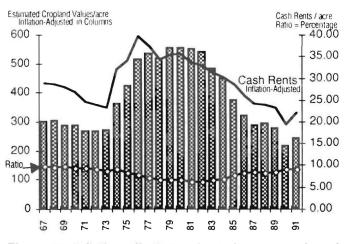


Figure 6B. Inflation-adjusted estimated average value of cropland and cash rents per acre, and the ratio of rents to value, North Dakota, 1967-1991. Based on data in Figure 6A and GNP-I ' 182 = 100.

from a high of 9.7 in 1969 to a low of 6.1 in 1981-82 and rose again as land values declined to reach 9.0 in 1991.

Adjusting both cash rents and estimated market values per acre to match the decreased purchasing power of the dollar (using GNP 1982 = 100) can be most revealing if the influence of the cheapening of the dollar on the values in Figure 6A are removed (Figure 6B).

Adjusting for inflation presents quite another view of land values and cash rents for cropland since 1967. While the annual ratios have not changed, the sizes of the real cash rents and real market values, which are now measured in terms of inflation-adjusted dollars, have changed. Real market values of North Dakota cropland had a high in 1968, a low in 1972, and rose rapidly (by 102 percent) to a peak in 1977. Another increase of 3.5 percent led to a three-year plateau from 1979 to 1981 before entering a long, general decline of 60 percent from the high in 1980 to the low in 1990. Real land values rose an estimated 12 percent in real dollar terms in 1991. Looking back from the low in 1990, the long decline from the 1980 peak to the 1990 low shows that the total drop in real value was 1.55 times the 1990 value.

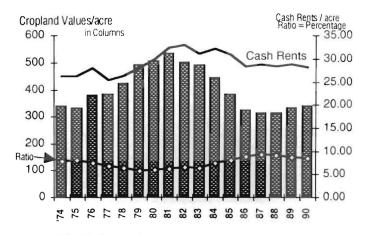
The ratio of rents to value for cash-rented croplands in real terms moved from a high of 9.7 percent in 1969 to a low of 6.1 in 1981 and 1982, and to a new high of 9.0 in 1991. The simple average ratio for the 25 years of 1967 to 1991 was 7.7, which was the computed ratio in 1976 and close to the ratio of 7.6 in 1985.

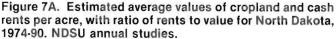
A second view of cropland cash rents is available from the annual NDSU studies of cropland values and cash rents of wheat/barley lands for 1974 to 1990, with nominal values reported in Figure 7A and inflation-adjusted numbers reported in Figure 7B. Here the inflation-adjusted numbers are based on the Consumer Price Index where 1982-84 = 100.

Nominal estimated average values of cropland in North Dakota are displayed in columns measured on the left axis in per acre values. Nominal cash rents for wheat/barley lands are graphed in the solid line with reference to the right axis in values per acre. The ratio of rents to values per acre is the diamond-marked line measured as percentages on the right axis.

Figures 6A and 7A are similar for 1967 to 1990, but with less increase in cropland values and their cash rents. Both have similar rents-to-value ratios with NDSU ratios usually a bit more conservative, but both reporting an identical 6.1 in 1981. The NDSU ratios were higher in the 1984 to 1989 interval.

The NDSU rental data were inflation-adjusted, using the Consumer Price Index where 1982-84 = 100 (Figure 7B). Changing to the 1982-84 base instead of the GNP-I base of





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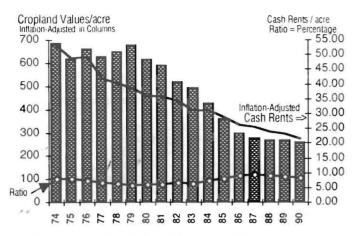


Figure 7B. Inflation-adjusted estimated cropland values and cash rents per acre using Consumer Price Index-Urban where 1982-84 = 100, with computed ratio of rents to value for North Dakota, 1974-90. Annual NDSU studies.

1982 results in higher "real" values for the earlier years because of the more recent base years. Both the USDA and NDSU real values for the years 1983 to 1989 are very similar.

The inflation-adjusted or real values presented in Figures 6B and 7B indicate that real land values of North Dakota cropland have not risen in recent years and vividly show that cash rents have not increased in recent years. The emphasis turns to the ratio of cash rents to cropland values per acre, which displays declining ratios from 1974 to 1979, another dip in 1981, rising ratios through 1987, and falling ratios in the most recent years. The latter ratios have decreased again since the high of 9.25 in 1987.

Figure 7B also shows the extent of the decline in real cropland values in North Dakota from 1979 to the plateau of the recent years. The peak real value in 1979 was about 2.5 times greater than that of recent real values, indicating that the total loss in real value per acre of cropland was 1.5 times its current value.

NDSU STUDIES: ESTIMATED LAND VALUES PER ACRE BY EIGHT FARMING AREAS

The NDSU annual surveys obtain estimates of land values per acre for the eight farming areas of the state for all lands, cropland, and pasturelands (Figure 8), which permit more detailed examination of these estimates over time.

Area average values for all average quality land are graphed in Figures 9A and B and for croplands in Figures 10A and B in an arbitrary west/east division of farming areas to allow a larger spread on the vertical or value axis. The state average is the darkest diamond-marked line in the charts. The estimated average values of average quality farm and ranch lands from 1973 through 1990 by farming areas are presented in Figures 9A and B.

The values plotted in Figures 9A and B indicate a similar pattern of land value increases and declines from 1973 to

1990. However, the more valued lands exhibit much larger increases and declines in nominal (annual) dollar terms. Values in the western four farming areas follow similar patterns, with the Northwest (NW) and Southwest (SW) areas having similar per acre values. The Northwest Central (NWC) area had average values just above those of the Southwest Central (SWC) farming area.

The four eastern farming areas have displayed large changes in average quality land values since 1973. The North Red River Valley (NRRV) area initially had higher values than its southern neighbor, the South Red River Valley (SRRV) area, but the SRRV has led the state in land values since 1976. These averages reflect the relative productivity and value of production of the land within the farming areas. The Northeast Central (NEC) and Southeast Central (SEC) farming area values are between those of the more eastern and western farming areas, with the more eastern counties of the NEC and SEC areas reporting values more like those of the western portions of the two Valley areas.

The highly productive croplands dominate the SRRV area, so more of it supports higher land values, which rose from \$290 in 1973, to peak at \$1,135 in 1981. The current estimate of \$705 an acre is far above the state average values (the bold solid line in Figure 9B). Much of the NRRV area is also rich croplands except for some western townships, and these values rose rapidly from 1973 to 1975 and peaked in 1982 at \$855 an acre before declining to the current \$546 in 1990. Average NEC land values led those of the SEC area except from 1974 to 1977.

Average values for the four more-western farming areas are below the state averages (Figure 9A). The NWC area averages have led the western area for the entire period shown and for most years reflect the pattern of the state averages. The effects of droughts and low cattle prices appear from 1980 to 1982 and the recent years.

The estimated average values per acre of the productive cropland for the eight farming areas are presented in Figures 10A and B, again with the western and eastern groupings of farming areas. The state averages are the diamondmarked bold lines.

Average cropland values per acre in Figures 10A and B are similarly arrayed by farming areas like Figures 9A and B. However, cropland is more productive than average

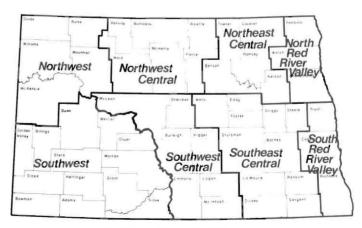


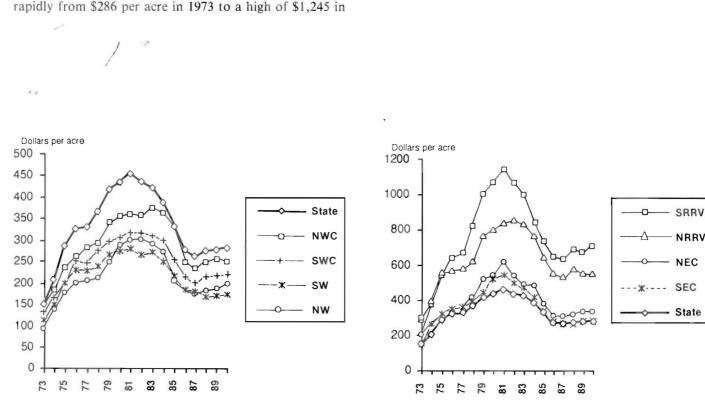
Figure 8. Map of the eight farming areas.

quality lands, displaying higher values per acre. The charts are similar but with more irregularities from year to year, partly reflecting the limited number of responses in some years and the unique patterns of the drought-impacted portions of the state.

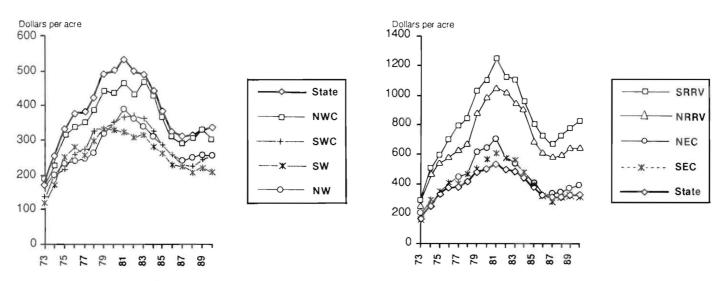
The rich SRRV croplands led the state in average values

among the eight farming areas. Its average values rose

1981, declined to a low of \$661 in 1987, and rebounded during the last three years. NRRV cropland average values rose in the mid-70s (influenced by potato and sugarbeet prices and wheat and specialty crops) to a high of \$1,050 in 1981, fell to a low of \$586 in 1987, and have recovered since. The NEC and SEC area average land values have also developed similar but less volatile value patterns.



Figures 9A and B. Estimated annual average values of all farm and ranch land by eight farming areas in North Dakota, 1973-1990; western farming areas on left, eastern areas on right. NDSU annual studies.



Figures 10A and B. Estimated annual average values per acre of cropland by eight farming areas of North Dakota, 1973-1990. Western farming areas on left, eastern areas on right. NDSU annual studies.

Average values of cropland in the NWC area are similar to the SEC farming area, followed by the SWC area. Average values for cropland in the western farming areas reflect the productivity of these soils, climate, cropping patterns, government programs, and local impacts of droughts more than the higher rainfall in the eastern areas.

PASTURELAND: ESTIMATED AVERAGE VALUES PER ACRE FOR SIX FARMING AREAS, 1973-1990

Figure 11 presents average values per acre for pastureland for the six farming areas with substantial acreages of range and pastureland in North Dakota. The two Valley areas have little pastureland acreage and are omitted from this chart.

Some of the irregularities in the values are attributable to the limited number of responses and their geographical and temporal distributions, and to drought impact by localities and seasons. Pastureland values per acre in 1973-74 were relatively close, but values spread with the two more eastern farming areas showing substantial increases during the Russian grain deals. Values per acre among the six areas quickly narrowed after their peaks in 1980. Some rebound in values per acre reflects the impact of the Conservation Reserve Program as well as good cattle prices in more recent years.

Pastureland values in both the NEC and SEC farming areas have tended to be above the statewide averages. The NEC pastureland average values rapidly increased from \$111 per acre in 1973 to peak at \$290 in 1980 and have declined and bounced about since then. SEC pastureland values also went through similar but less high patterns and have recovered since 1988. NW area average pastureland values tended to be the lowest during the early years of the period charted, but SW area averages have been quite similar in recent years.

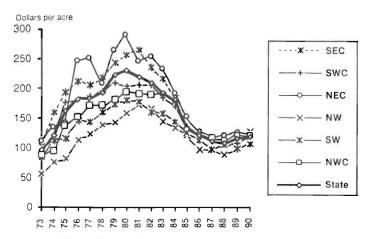


Figure 11. Estimated annual average values per acre of pastureland for six farming areas of North Dakota, 1973-1990. NDSU annual studies.

FOREIGN OWNERSHIP OF NORTH DAKOTA FARMLAND

Foreign ownership of American and North Dakota farmland seriously concerns some people. Congress has required annual filing of information on foreign-owned lands, which the USDA compiles (Dobitz and Kirby, 1989). The foreign ownership problem could have been serious if some trends first preceived in the late 1960s toward rapid world population increases and attendant food shortages had actually emerged as a major threat from the mid-1970s on. However, the "green revolution" and the much more potentially powerful biotechnological revolution have eased concerns about foreign ownership.

Just under 1 percent of all privately held agricultural lands and only 0.6 percent of all lands in the United States were owned by foreigners as of December 31, 1990 (DeBraal, 1991). They own a total of about 14.4 million acres — yet some concern might be with their ownership among states and regions of the United States. A substantial percentage increase in foreign ownership was reported for 1990, but it continues near the 1 percent level of privately held agricultural lands existing since 1981 (Benjamin, 1990).

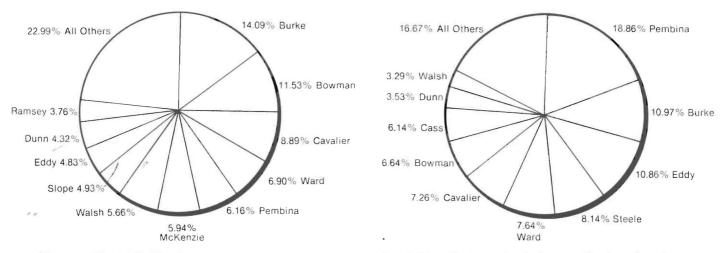
For privately held agricultural lands, about one-third of foreign ownership is in the Western states with nearly the same amount in the Southern states. Among states, about 17 percent of the foreign-owned, privately-held land is in Maine, nearly 9 percent in Hawaii, 5 percent in New Hampshire, 3 percent in Arizona, and 2.4 percent in Vermont. By type of ownership category, corporations hold about 82 percent, partnerships 10 percent, and individuals nearly 7 percent. About one-half of the foreign-held agricultural lands is timber or forest land and 17 percent is cropland.

Foreign ownership of privately-held agricultural acreages by country of origin shows that about 62 percent is held by U.S. corporations with foreign interest and the remainder by foreigners without any U.S. corporation. Foreigners from seven countries own 74 percent of foreignheld lands: about 27 percent from Canada, 19 percent from the United Kingdom, 8 percent each from France and Germany, and a total of 12 percent from owners in the Netherlands Antilles, Switzerland, and Japan.

FOREIGN OWNERSHIP OF NORTH DAKOTA AGRICULTURAL LANDS

Foreign owners held agricultural land in 28 North Dakota counties in 1990. The leading 11 counties are presented in Figure 12A by acreage, and the leading 10 counties by value of foreign-owned land are presented in Figure 12B.

Total number of parcels of North Dakota agricultural land held by foreign owners was 66, containing 30,851 acres, with a reported value of \$5,525,000 as of December 31, 1990 (Butler and DeBraal, 1991). The largest acreage of foreign-held agricultural land was in Burke County with 4,348 acres, followed by 3,558 acres in Bowman, and a total of 7,092 located in 17 other counties. The Bowman County ownership, for example, consisted of one tract of 3,558 acres with a reported value of \$367,000. The 14 tracts in Bowman, Burke, Cavalier, Dunn, and Ward counties totaled 14,112 acres with an average value of \$141.09 an acre. The two tracts in Cass County had 343 acres with a total value of \$339,000 or an average value of \$988 per acre.



Figures 12A and B. Foreign ownership of North Dakota privately held agricultural lands by counties in order of percent of acreage on the left and percent of value on the right, 1990. Source: Butler and DeBraal, 1991.

Foreign ownership of agricultural land is not perceived as critical for several reasons. It has varied little in the last 10 years from just under 1 percent to about 1.14 percent of all privately-held agricultural land in the United States. Most of these holdings are in timber uses. Little tendency has been observed for foreign ownership to concentrate in critical areas.

The United States has many millions of acres of land in the Conservation Reserve Program and other land diversion schemes. The green revolution and the more productive biotechnolgical revolution already have increased agricultural productivity. The other major agricultural producer, the European Community (EC), is also facing similar problems of excess labor, land, and capital resources in agricultural pursuits that cost an unacceptable portion of their annual budgets (Revzin, 1991). Should the Soviet Union truly adopt and implement the somewhat free enterprise system America shares with other developed countries, a third potential surplus producer of agricultural products could emerge.

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