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SOME ASPECTS OF THE NATURE AND EXTENT OF ABSENTEE LAND OWNERSHIP IN ANTELOPE COUNTY, NEBRASKA

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A Thesis

Presented to the

Department of Geography-Geology

and the

Faculty of the Graduate College
University of Nebraska
In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
University of Nebraska at Omaha

bу

Lyle W. Hansen
September, 1982

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THESIS ACCEPTANCE

Accepted for the faculty of the Graduate College of the University of Nebraska, in partial fulfillment of the requirements for the degree Master of Arts.

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Chapter 1

Introduction

The issue of absentee ownership of farm land has become increasingly important to the people of Nebraska. At the time of this writing, a movement is underway to seek a constitutional amendment that would prohibit further land acquisition by nonfamily-owned corporations. The movement is led by such organizations as the Nebraska Farmers Union and the National Farmers Several surrounding states, including North Organization. Dakota, South Dakota, Minnesota, Wisconsin, Iowa, Missouri, Oklahoma, and Kansas, already have enacted similar laws. 1 This study examines the nature and extent of absentee farm ownership in Antelope County, Nebraska, for the purpose of assessing the impact of absentee ownership. In other words, is there a discernible difference between local ownership and absentee ownership of farm land?

Among the characteristics of absentee owners that are examined is the location of residences. Do the absentee owners tend to reside in urban or rural areas? Do they live close to Antelope County, or do they tend to reside a long distance away? What is their association with the land, i.e., have they recently acquired the land, or has the land been in the family

¹Nebraska Farm Bureau Federation, "Petition Seeks Corporate Curb," Nebraska Agriculture, January 15, 1982, p. 1.

for a generation or more?

Differences in land use are examined. Are there differences in types and quantities of crops planted by absentee owners as compared to local owners? How important is irrigation to the absentee owner, and what is the nature of the irrigated land?

Finally, the future impact of absentee ownership is discussed in view of the major findings, that where one resides has little impact on the behavior of absentee owners, but that one's relationship to the land does have an impact. First-generation absentee owners have a larger farm size, irrigate proportionately more land, and irrigate proportionately more delicate soil than either the local owners or absentee owners of land that has been in their family for more than one generation.

<u>Literature</u> Review

A search of the literature revealed several studies dealing with the absentee farmer. In 1954, John Belcher, a sociologist, hypothesized that the nonresident farmer would become increasingly important as technological changes in areas such as transportation and communication enabled owners to live in urban areas while effectively managing their farming activities. Belcher found a correlation between nonresident farming and mechanized, specialized agriculture, especially crops which

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do not require daily attention.²

Also during the 1950s, Kollmorgen and Jenks studied the absentee ownership patterns of Sully County, South Dakota. Their primary emphasis was the absentee owner-operators who lived thirty miles or more from the county border, presumably entailing a certain amount of time living out of a suitcase to conduct farming operations. Suitcase farming was found to be closely associated with wheat farming and with landholdings often scattered across several states, thereby increasing the possibility of having some good yields. The chances of the entire wheat-producing region experiencing a coincident drought are reduced when the risk is spread geographically. About 13 percent of the land in the study area was absentee owned, a figure that the authors thought comparable to other farming areas. Most of the absentee owners were found to live in the rural and urban areas of the Corn Belt. 3

In the mid-1970s, the Center for Rural Affairs, a farm advocacy group located in Walthill, Nebraska, studied absentee ownership and center-pivot development in Holt and Dundy Counties, Nebraska. Some of their major findings included a strong correlation in Dundy County between absentee owner-

²John Belcher, "The Nonresident Farmer in the New Rural Society," Rural Society, Vol. 19, 1954, pp. 121-136.

Walter Kollmorgen and George Jenks, "Suitcase Farming in Sully County, South Dakota," <u>Annals of the Association of American Geographers</u>, Vol. 48, 1958, pp. 27-40.

ship and center-pivot development on delicate soils (soils with limitations that restrict potential use). The percentage of investor ownership of center-pivot irrigated land was found to be 35 percent in Holt County and 33 percent in Dundy County. The center concluded that the increasing cost and proliferation of irrigation would encourage more absentee ownership, strictly for investment purposes, at the expense of the local owner-operator. Concern was expressed by the authors that this investment would encourage the exploitation of natural resources because of the investor desire for short-term profits. 4

In 1977, Pribbeno, et.al. studied farm corporations in Nebraska and found 7.3 percent of the agricultural land was owned by corporations (including local and absentee). While conceding that the data were incomplete, the authors suggested that most corporate farms had at least one major shareholder who either lived on the farm or was actively engaged in farming. Therefore, the authors concluded that absentee corporate ownership was not widespread in Nebraska.

Thorsen and Fischer studied irrigation in the Sandhills of Nebraska. They concluded that the production of cash grain crops is unimportant in the region with the bulk of the irri-

⁴Center for Rural Affairs, Wheels of Fortune, (Walthill, Nebraska: Center for Rural Affairs, 1976), pp. 1-62.

⁵Jeffrey Pribbeno, et.al., Farm Corporations in Nebraska, (Lincoln, Nebraska: University of Nebraska, 1977), pp. 1-17.

gated land being used for alfalfa and pasture as a supplement to the traditional cattle-ranching culture of the area. In their opinion, the development of irrigation in the Sandhills would be slow because large-scale irrigation does not conform to ranching activities.

Vogeler and Smith, in separate, recent studies, both see the demise of the family-owned-and-operated farm. Vogeler concludes that federal legislation has an institutional bias toward large-scale farming. He cites the case of tax-loss farming, where farming losses offset taxes on non-farm income. This might encourage the development of marginal land in order to show a loss. Those opinions are echoed by Smith, who concludes that government farm policies strengthen the rich, the influential, and the large-scale operator, at the expense of the family farm.

The consensus of these studies is that absentee owners have different motives than local owners. Absentee owners may use farming as a tax shelter to ease the tax burden on other income, often resulting in the acquisition of inexpensive,

⁶ Norman Thorsen and Loyd Fischer, A Study of Irrigation Development in the Sandhills, (Lincoln, Nebraska: University of Nebraska, 1976), pp. 1-43.

⁷ Ingolf Vogeler, The Myth of the Family Farm, (Boulder, Colorado: Westview Press, 1981), pp. 1-352.

⁸Everett Smith, "America's Richest Farms and Ranches," Annals of the Association of American Geographers, Vol. 70, 1980, pp. 528-541.

marginal land, accompanied by the purchase of expensive farm machinery that can be fully depreciated in a few years.

Data Sources

The primary source of data was the Antelope County Agricultural Stabilization and Conservation Service (ASCS) Office in Neligh. This office has records which contain legal descriptions of all agricultural land in the county and, in most cases, addresses of the owners. From this information it is possible to determine for each township and for the county as a whole the number of farms, the size of farms, and the number of absentee owners. In addition, the ASCS office provided information on the location of center-pivots. From this, it was possible to determine the areal distribution of center-pivots and the extent of absentee ownership of center-pivots.

In a few cases, the ASCS office records do not reflect the actual owner. This is frequently the case when farm management companies are involved in the administration of the land. In such cases, the ASCS office maintains correspondence with the farm management company, rather than directly with the owner. The role of the farm management company can be summed up very well by this quotation: "We are hired by the actual owners to manage the property. For example, we arrange for tenants to care for the land. They are simply absentee

owners who want someone else to manage the property."9

In those cases where ASCS records were incomplete, it was necessary to examine the records of the Antelope County Register of Deeds Office, located in Neligh, to determine actual ownership of the land. The Register of Deeds Office also provided information on the history of land ownership, from which previous family ownership could be determined. Also helpful was a visit to the office of the Secretary of State in Lincoln, Nebraska, which keeps records on farm corporations in Nebraska in compliance with the Farm Corporation Reporting Act of 1975. This act requires that each corporation owning agricultural land in Nebraska must submit, on a yearly basis, a report which provides information such as the name of the corporation, place of incorporation, total acreage and location, and names and addresses of officers, members of the board of directors, and major shareholders (ten percent or more of the stock). A copy of the report is provided in Appendix A.

The Secretary of State's Office also has information on alien ownership of agricultural land as required by the Agricultural Foreign Investment Disclosure Act. This act requires foreign owners of agricultural lands to submit a report which contains such information as the legal description of the land, value of the land, date of acquisition, current land use, future intended land use, and relationship of foreign owner

⁹Warren Dunn, General Manager, Farmers National Company, Omaha, Nebraska, telephone conversation, December 30, 1981.

to producer. Only one person filed under the provisions of this act as a foreign landowner in Antelope County. Specific information is found in Chapter 4.

Data on crop history and type of crops irrigated were gathered from three sources. Current data for cropland acreages were gathered from the Nebraska Crop and Livestock Reporting Service, while current data on irrigation and absentee land use were gathered from the ASCS office. Data from past years were gathered from volumes of the Census of Agriculture and from the annual reports of the Nebraska Crop and Livestock Reporting Service entitled Nebraska Agricultural Statistics.

Methodology

As noted above, the ASCS office provided information on all farm owners. For absentee owners, data were recorded concerning legal descriptions, acreage owned, and home addresses. To facilitate comparison, the number of farms and acreage owned by local owners were also recorded. A similar procedure was used at the Register of Deeds office in those relatively few cases where ASCS records were incomplete. All agricultural land owned by a given entity was considered to be a farm. The study was concerned with the control of the land that is inherent with ownership.

Information on center-pivots was readily available at the ASCS office. All center--pivots were mapped (Figure 6) and then compared to the location of absentee-owned land. It was

then possible to determine the extent of absentee owner involvement in center-pivot irrigation. Next, each center-pivot location was identified on soils maps prepared by the Soil Conservation Service. Soil types were recorded for each location, and center-pivots located on delicate soils were identified using the soil types listed in Appendix B as a guideline. Once again, comparisons were possible between absentee and local owners.

Previous family ownership of the land was established by examination of the records of the Register of Deeds office. When a relationship was not apparent by surname, a notation was provided stating the relationship, if any, with the previous owner, e.g., heirs of John Doe.

Chapter 2

The Setting

Brief Geographic Desription of Antelope County

Antelope County is in the northeast quadrant of the state of Nebraska. The 98th meridian, generally considered to be near the western edge of the Corn Belt, bisects the county. The county is thirty-six miles long from north to south, and twenty-four miles wide from west to east (Figure 1). The southeastern part of the county is mostly loess hills. The southwestern part of the county is in the Sandhills region. Most of the rest of the county is transitional between the two (Figure 2). The Elkhorn River flows through the central portion of the county from west to east. The northwestern corner of the county contains some bluffs and escarpments associated with Verdigris Creek, which is a tributary of the Niobrara River (Figure 2).

The county seat, Neligh, is located roughly in the center of the county, and receives an average of twenty-four inches of precipitation annually (Figure 3).

The eastern confines of this subhumid region are associated with the Corn Belt, and the western confines are associated with the Sandhills. In general, the county is transitional between the two (Figure 2). Within the county, it is possible to find many examples of crop and livestock farming, or mixed farming, analogous to areas to the east, and many examples of the livestock ranching of the west may also be found.

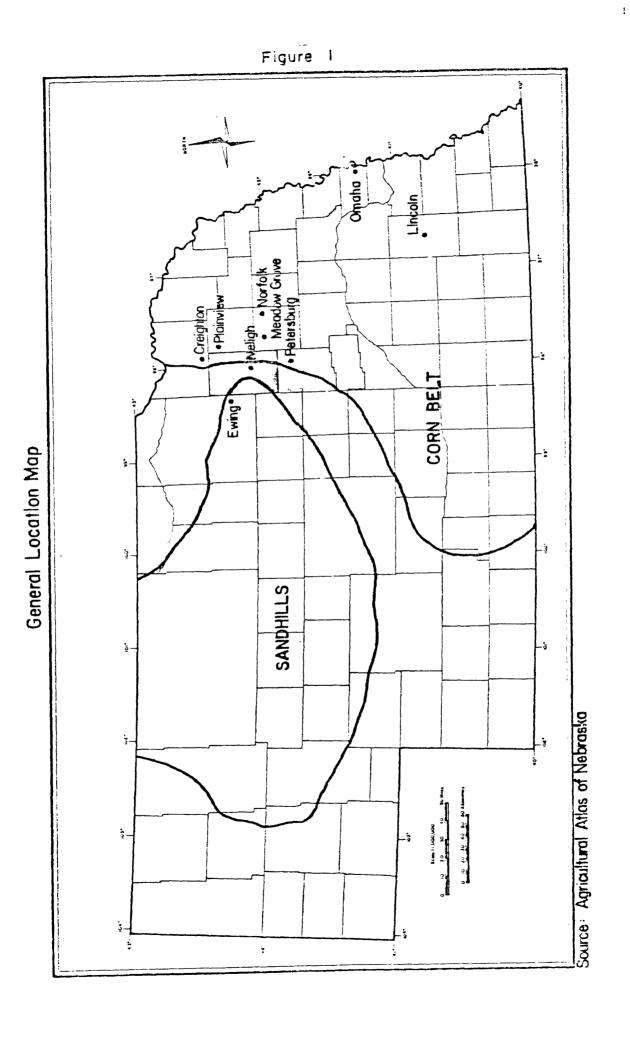
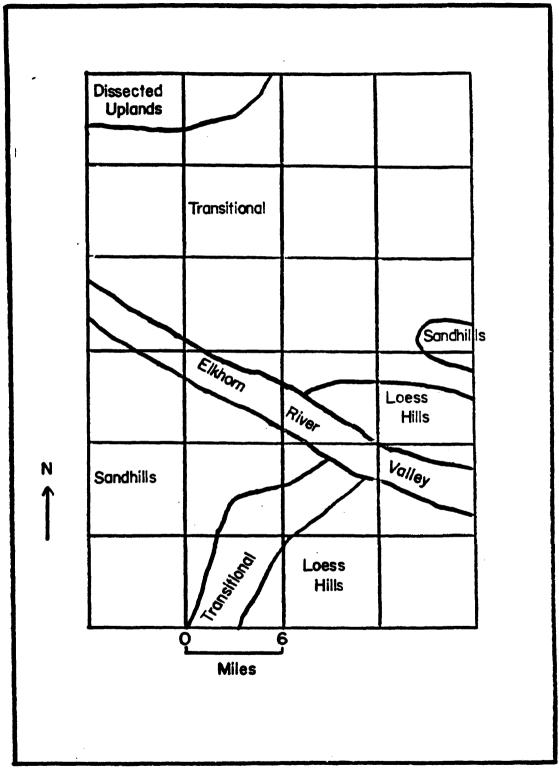


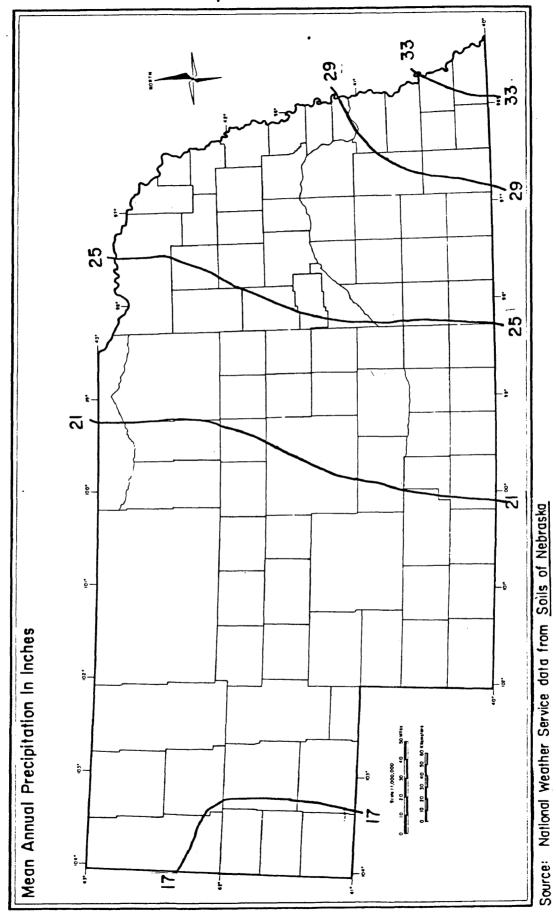
Figure 2

Geographic Regions of Antelope County



Source: Soil Survey of Antelope County, U.S. Department of Agriculture, 1978

Figure 3
Precipitation In Nebraska



Soils

Soil types in Antelope County vary according to physiographic region and vegetative cover. Certain soil types tend to be found in uplands, while others tend to be found in river valleys (Figure 4). Such a statement can only be made in general terms because soil types are seldom completely separable from one another. Traces of one soil type are routinely found with other types. The primary interest of this study, with regard to soils will be in relation to irrigation and erosion potential. Soils which require careful management to prevent erosion are identified as delicate soils. 10 cluded are soils with slopes exceeding 6 percent. Slopes of this magnitude or greater tend to increase the velocity of running water, thereby increasing erosion potential, particularly on exposed soil. Also included under delicate soils are certain soils where that topsoil has been nearly or completely eroded. Some of the characteristics of such soils include unfavorable permeability and unfavorable texture. For example, coarse-textured soils are prone to rill and gully erosion because the soil particles do not bind together sufficiently (Figure 5). Soil types, or series, are divided into soil phases that indicate a feature that affects soil manage-

¹⁰ Center for Rural Affairs, Wheels of Fortune, (Walthill, Nebraska: Center for Rural Affairs, 1976), pp. 55-56.

Figure 4

GENERAL SOIL MAP ANTELOPE COUNTY, NEBRASKA

Scale 1:253,440

1 D 1 2 3 4 Miles

SOIL ASSOCIATIONS*

SANDY SDILS ON UPLANDS

Valentine-Thurman association: Deep, nearly level to hilly, sandy soils on uplands

SANDY AND SILTY SOILS ON UPLANDS

Thurman-Boelus-Nora association: Deep, nearly level to strongly sloping, sandy and sitty soils on uplands

LOAMY AND SANDY SOILS ON UPLANDS

- Bazile-Paka-Thurman association: Deep, nearly level to gently sloping, loamy and sandy soils on uplands
- Brunswick-Paka-Valentine association: Moderately deep and deep, gently sloping to steep, loamy and sandy soils on uplands

SILTY SOILS ON UPLANDS

Nora-Crofton-Moody association: Deep, gently sloping to steep, silty soils on loess uplands

STLTY SOILS ON FOOT SLOPES AND STREAM TERRACES

- Hord-Cozad association: Deep, nearly level to gently stoping, silty soils on foot slopes and stream terraces
 - SANDY, LOAMY, AND SILTY SOILS ON BOTTOM LAND AND STREAM TERRACES
- Etsmere-Loup association: Deep, nearly level, sandy and loamy soils on bottom land and stream terraces
- Inavale-Elsmere-Ord association: Deep, nearly level, sandy and loamy soils on bottom land
- Lawet-Diwet-Gibbon association. Deep, nearly level, silty and loamy soils on bottom land.
 - *Texture in the soil associations refers to the surface layer unless otherwise stated.

Compiled 1977

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

UNIVERSITY OF NEBRASKA, CONSERVATION AND SURVEY DIVISION

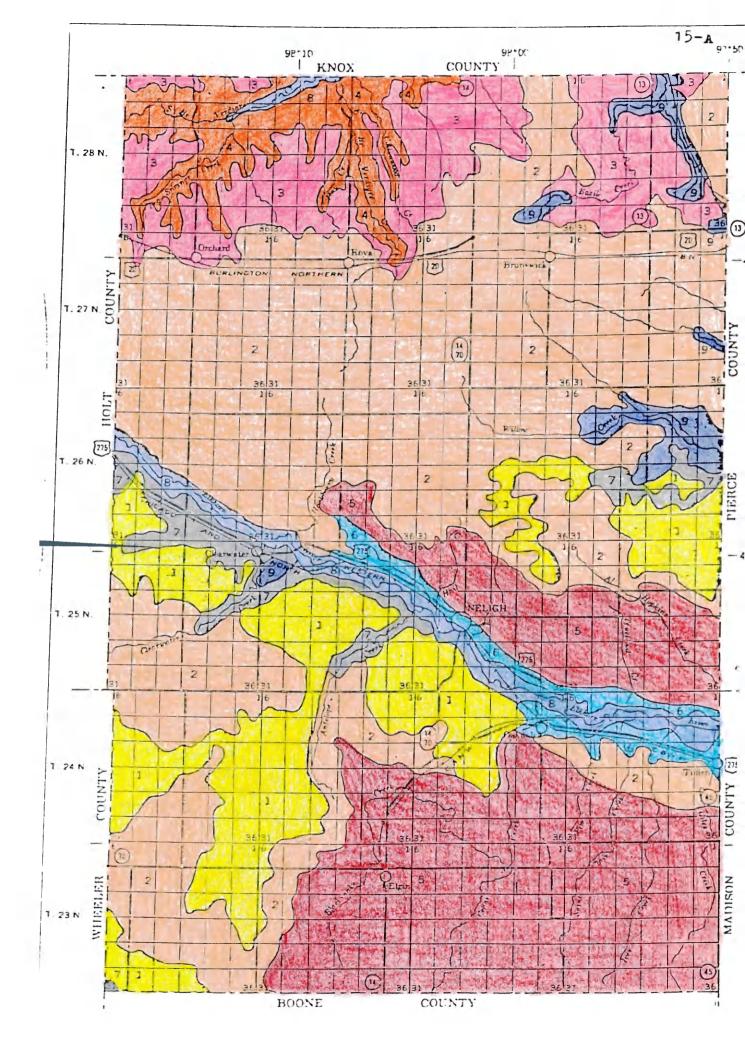
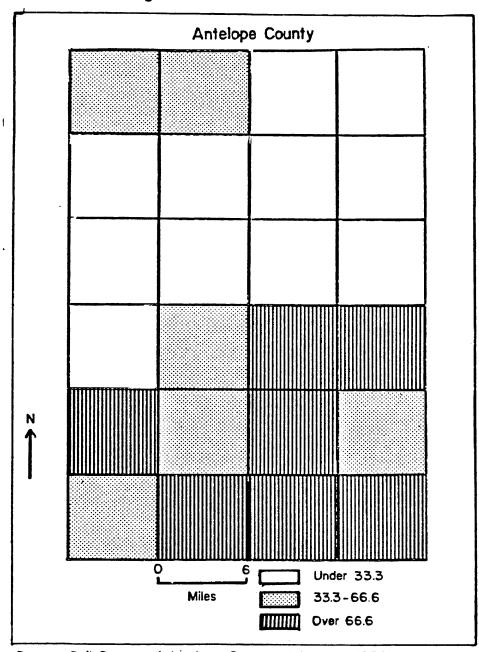


Figure 5

Percentage of Delicate Soil By Township



Source: Soil Survey of Antelope County, Nebraska, 1978

ment. 11 Characteristically, some phases within a series are more delicate than others. For example, the Nora silt loam series is divided into five phases as shown in Table I. Three of the phases, NoC2, NoD, and NoE, are more delicate than the other two; NoD and NoE, because of slope, and NoC2 because, by definition, the topsoil is nearly eroded. 12

Table I

PHASES OF NORA SILT LOAM 13

Symbol	Phase
No	Nora silt loam, 0 to 2 percent slopes
NoC	Nora silt loam, 2 to 6 percent slopes
NoC2	Nora silt loam, 2 to 6 percent slopes, eroded
NoD	Nora silt loam, 6 to 11 percent slopes
NoE	Nora silt loam, 11 to 15 percent slopes

The following is a discussion of soil types found in the various regions of the county.

The loess hills region corresponds to the Nora-Crofton-Moody association on Figure 4. The principal soil types are Nora, 30 percent; Crofton, 28 percent; and Moody, 16 percent. 14 Most of the soils are fertile, with Crofton being the least

llUnited States Department of Agriculture, <u>Soil Survey</u> of <u>Antelope County</u>, <u>Nebraska</u>, (Washington, D.C.: Government Printing Office, 1978), p. 1.

¹²<u>Ibid</u>., pp. 34-35.

^{13&}lt;u>Ibid</u>.,

¹⁴Ibid., p. 7.

fertile. Water erosion is a particular hazard. Rills and gullies frequently form, and runoff is rapid. Many of the loess hills have slopes in excess of 6 percent, which combined with the tendency to form gullies enhances potential erosion. Even some slopes of less than 6 percent have been eroded to such an extent that little or no topsoil remains. This region requires considerable soil management.

The Sandhills region corresponds to the Valentine-Thurman association on Figure 4. The major soil series of this region is Valentine, a very deep, sandy soil found on nearly level areas as well as moderately steep areas and covering about 60 percent of the region. 16 Nearly level Valentine soils are appropriate for most crops, but sloping areas are vulnerable to erosion. Low available water capacity (0.5 inch per one-foot thickness) makes the soil series droughty in nature, causing excessive dryness in hot, dry weather. Maintaining the fertility in these soils is a major problem, since the natural fertility of Valentine soils is quite low. Slopes in excess of 6 percent are potentially hazardous for irrigation. Indeed, Valentine soils, as a group, are problematical, if the surface is bare for an extended period of time. The Sandhills region requires careful, continuous soil management. 17

¹⁵<u>Ibid</u>., pp. 18-19, pp. 33-35.

^{16&}lt;u>Ibid</u>., pp. 2-3.

¹⁷Ibid., pp. 46-47.

The transitional zone has a wide variety of soil types. Virtually every type found in the county is found in this region. The most prevalent soil type in the area, and in the county, is Thurman, a sandy soil found in both level and steep areas. Fertility is medium, but, again, low available water capacity causes the soil to be droughty. Thurman soil presents a potential hazard to irrigation on slopes exceeding 6 percent. Also prevalent are Boelus soils, which are loamy sand or sandy soils found in gently sloping areas. Fertility is medium. Irrigation is appropriate for most Boelus soils. Bazile soils are important in this area. These soils are loam or sandy loam with high fertility. Slope is an inhibiting factor in some cases. 18 The transitional zone has large areas for which irrigation presents little problem. However, there are some hilly areas of delicate soil requiring careful soil management.

The dissected uplands are characterized by bluffs and escarpments and are marginal areas for cultivated crops.

On Figure 4, the dissected uplands correspond to the Brunswick-Paka-Valentine association. The predominant soil series is Brunswick, a fine sandy loam. Soil fertility is medium, but the slope, often exceeding 11 percent, discourages the cultivation of crops. Erosion is a severe problem. Other

¹⁸Ibid., pp. 10-12.

¹⁹Ibid., p. 5.

soils in the area are Paka loam and Valentine sand. Valentine has low fertility, while Paka has medium fertility. In any case, slope is a limiting factor.²⁰

The remaining areas, principally associated with streams and rivers, have a wide variety of soil types, often deposited by the action of the water. As a consequence, fertility of these highly variable soils ranges from low to high. These areas tend to be nearly level and erosion caused by centerpivot irrigation is not prevalent. Since the previously stated purpose of this section is to discuss soils that are potentially sensitive to center-pivots, specific discussion of soils in the river valleys will not be undertaken. Suffice to say, these areas offer few potential problems; whereas, careful management of soils is needed for most areas of the county.

A complete list of the delicate soils found in Antelope County is included in Appendix B. The percentage of delicate soils in each township is found on Figure 5. It clearly shows delicate soils are most prevalent in the southern half of the county in the loess hills and the Sandhills. Also evident is the area if delicate soils associated with the dissected uplands of northwestern Antelope County.

²⁰Ibid., pp. 15-16.

Agricultural Characteristics of Antelope County

The following is a description of the crops grown in Antelope County. Harvested cropland includes only cultivated areas from which a crop was harvested. Table II shows the percentage of harvested cropland of the leading crops in Antelope County and acreages for each.

Table II

LEADING CROPS IN ANTELOPE COUNTY

Crop	1969	1974	1978	1981
Corn Percentage Hay Percentage Rye Percentage Oats Percentage Soybean Percent Sorghum Percent Others Percentage	21.6 6.6 5.8 tage 5.2 tage 2.5	63.7 18.5 5.2 4.0 6.0 1.3 1.3	69.9 16.1 2.7 3.4 6.7 Under 1.0 Under 1.0 100.0	71.2 15.4 Under 1.0 2.5 9.5 Under 1.0 Under 1.0
Corn Acres Hay Acres Rye Acres Oats Acres Soybeans Acres Sorghum Acres Others Acres	132,606 51,722 15,927 13,936 12,479 6,045 7,021 239,736	179,294 52,118 14,712 11,314 17,096 3,778 3,037 281,349	193,730 44,752 7,579 9,595 18,477 2,570 531 277,234	235,000 51,000 Not Available 8,400 31,300 2,900 1,500 330,100

Source: 1981 - Nebraska Crop and Livestock Reporting Service; 1978 and 1974 - 1978 Census of Agriculture, Part 27, p. 199; 1969 - 1974 Census of Agriculture, Part 27, p. IV-17.

A definitive pattern emerges by comparing the percentages of each crop over a period of time. Corn grew in percentage from 55.3 in 1969 to 71.2 in 1981, and soybeans from 5.2 to

9.5 percent, each having steadily increased its relative importance. All other crops have decreased in relative importance. It can be noted that the trends are unbroken, that is, a crop that is decreasing does so without benefit of temporary, intermediate upturns. Decrease appears to be constant. Similarly, the crops that are increasing appear to be doing so continuously.

Chapter 3

Irrigation in Antelope County

One of the important changes in Antelope County agriculture in recent years has been the increasing importance of irrigation as demonstrated by Table III, which shows more than a four-fold increase in irrigated lands since 1969.

Table III

IRRIGATED LAND IN ANTELOPE COUNTY

Year Irrigated Acres 1980		
1979 1978 169,000 1977 139,000 1976 117,000 1975 93,000 1974 80,900 1973 67,500 1972 59,300 1971 49,600 1970 44,900	Year	Irrigated Acres
	1979 1978 1977 1976 1975 1974 1973 1972 1971	169,000 168,000 139,000 117,000 93,000 80,900 67,500 59,300 49,600 44,900

Source: Nebraska Crop and Livestock Reporting Service, Nebraska Agriculture Statistics Annual Reports, 1969-1980.21

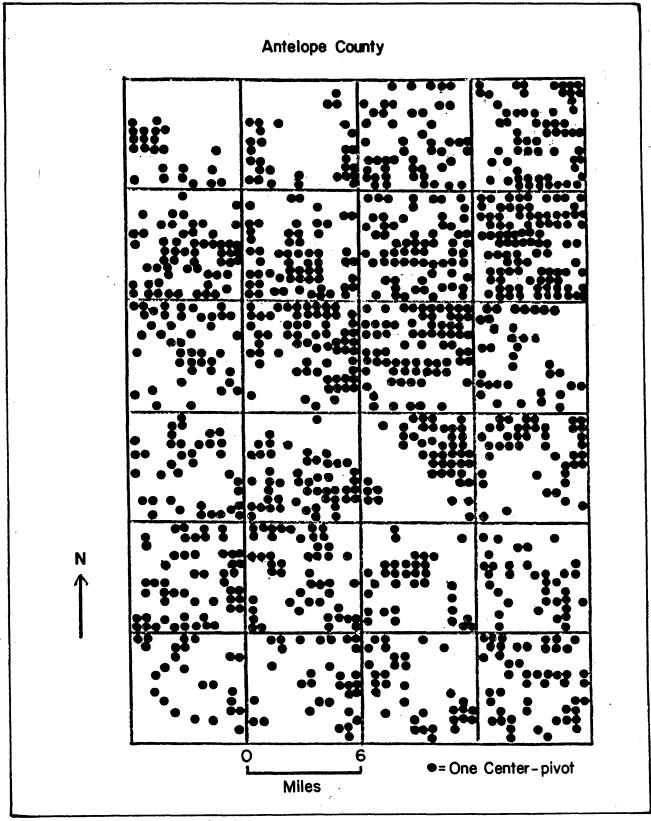
²¹This source is used because data are available for each year, which produces more meaningful trends than are produced by the <u>Census of Agriculture</u> that is published less frequently. It should be noted that the totals differ between the two sources, apparently due to procedural differences or errors in reporting.

Most of the irrigated acreage, almost 99 percent, is watered by the use of center-pivots (Figure 6).²² A system of this type has a row of pipe supported by towers and extending outward in a straight line from the water source. The system rotates around the water source forming a circular irrigation pattern. 23 A typical center-pivot irrigates 130-135 acres of land. Center-pivots are well suited to largescale irrigation for several reasons. Center-pivots irrigate a relatively large, fixed area without the necessity of large inputs of labor needed for other systems. Other types of irrigation require periodic movement of the pipe, involving labor, but with center-pivots the movement is automatic. All that is required is to start and stop the system as needed. Center-pivots may also be used to irrigate areas that are difficult to irrigate by other methods. For example, irrigation by gravity, diverting water from a stream to a field via a ditch, is feasible only in level areas because of the inability of water to flow uphill. This problem is overcome by center-pivots because water is supplied by a well near the inner terminus of the system and distributed over irregular terrain by a system of pipe with its associated sprinkler heads (Figure 6-A).

²²Bill Dobbs, Nebraska Crop and Livestock Reporting Service, telephone conversation, July 13, 1982.

²³Some systems have a cornering mechanism that enables irrigation in a rectangular pattern, thus eliminating the gaps caused by irrigating circles in a square parcel of land.

Location of Center-Pivots



Source: Antelope County ASCS office data, 1981

Figure 6-A



A center-pivot irrigation system shown during operation.

Photo courtesy of Valmont Industries, Valley, Nebraska.

Although center-pivots were first developed in the 1950s, they were relatively unimportant in Antelope County until the late 1960s and early 1970s. Thereafter, center-pivots were installed on most of the newly irrigated acres in Antelope County. While center-pivots are found in all parts of the county, the greatest concentration appears in the central and northeastern portions of the county in areas generally well suited to irrigation and with small percentages of delicate soil (Figure 6). Nevertheless, delicate soils are irrigated.

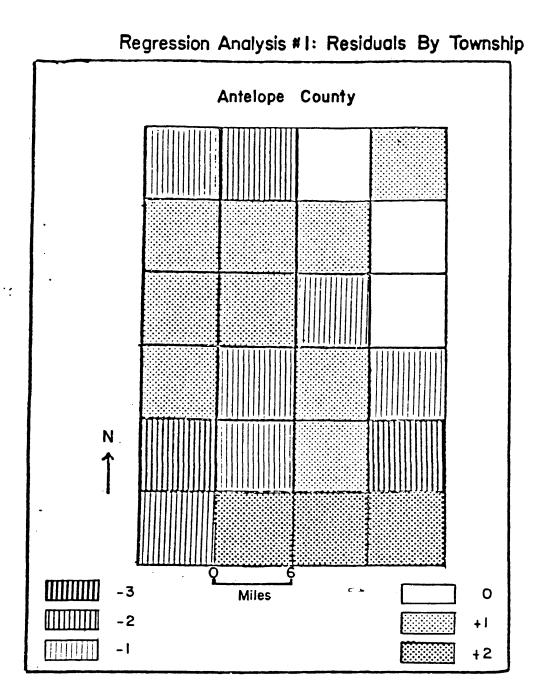
For the purpose of assessing the relationship between delicate soils and irrigation, a quantitative technique known as <u>regression analysis</u> was used. Regression is a measure of covariation that may be used as a descriptive statistic indicating how two variables covary over an area. Given an independent variable, such as the percent of area with delicate soils (x), regression analysis indicates the extent to which a second, dependent variable, such as the number of centerpivots on delicate soils (y), covaries with variation in x. A direct, or positive, relationship would indicate that as observations of x increase, corresponding observations of y would increase accordingly. A negative, or indirect, relationship would indicate that as observations of x increase, corresponding observations of x increase, corresponding observations of x increase,

Given a regression relationship defined by the equation y = a + bx, an estimated or predicted value of y is determined for each observation of x. The difference between each

observed value of y and each corresponding predicted value of y is known as the <u>residual</u>. Positive residuals indicate underprediction, that is, the observed y values were higher than predicted, given the x values. Negative residuals indicate overprediction with the observed y values being lower than predicted.

The average dispersion, or <u>standard error of estimate</u>, measures the magnitude of deviation of the residuals from regression. The greater the deviation, either positive or negative, the more significant the residuals become. Mapping residuals allows an interpreter to focus in on geographic patterns of deviation and raise questions about the relationship between the variables in the regression analysis. Absolute values of two units of the standard error of estimate or greater merit a close look to determine the reason for the significant deviation that is implied by the values. The procedure for regression analysis is contained in Appendix C.

The working hypothesis of Regression Analysis #1 was that center-pivots located on delicate soils are generally distributed across Antelope County in the same fashion as delicate soils are distributed. Observed and predicted values for Regression Analysis #1 are listed by township (Page 30). Figure 7 shows the residuals from regression analysis. Strongly positive values are found in the southeastern corner, in the loess hills. Strongly negative values are found in the Sand-



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The working hypothesis is that center-pivots located on delicate soil are distributed across the county in the same fashion as delicate soil. The residuals from regression indicate townships in which center-pivots located on delicate soil are more or less frequent than the hypothesis would predict given the distribution of delicate soil.

REGRESSION ANALYSIS #1

	OBSERVED	DEGREE
TOWNSHIP	VS. PREDICTED	OF <u>VARIATION</u>
Bazile	+3	+1
Blaine	+4	+1
Burnett	- 29	- 3
Cedar	+25	+2
Clearwater	+4	+1
Crawford	0	0
Custer	-7	-1
Eden	0	0
Elgin	- 5	-1
Ellsworth	+4	+1
Elm	-1	-1
Frenchtown	+6	+1
Garfield	+5	+1
Grant	+23	+2
Lincoln	-19	-2
Logan	+15	+2
Neligh	+10	+1
Oakdale	+12	+1
Ord	- 6	-1
Royal	+2	+1
Sherman	- 2	-1
Stanton	-26	- 3
Verdigris	-17	-2
Willow	0	0

Average dispersion = 12.95

hills and dissected uplands. The inference from this regression analysis would be that although loess hills, the Sandhills, and the dissected uplands all have large areas of delicate soils, the delicate soils of the loess hills are irrigated much more heavily than the delicate soils of the other two regions.

A relationship seems apparent between the increasing importance of corn and soybeans and the types of crops that are irrigated. As noted earlier, irrigation has increased four-fold since 1969. Table IV shows the percentage of irrigation by crop, and the acreage irrigated for each crop.

Corn is the overwhelming leader as an irrigated crop. Also evident is that corn and soybeans are becoming increasingly important relative to other crops in terms of irrigation.

All other crops are decreasing in relative importance. This trend coincides closely with the trend found in all harvested cropland.

Table IV

IRRIGATED CROPS IN ANTELOPE COUNTY

				
Crop	1969	1974	1978	1981
Corn Percentage Hay Percentage Soybean Percent Sorghum Percent Oats Percentage Others Percenta	12.3 sage 2.4 sage 1.2	79.8 8.3 4.8 1.2 Under 1.0 5.5 100.0	84.0 7.5 4.9 Under 1.0 Under 1.0 2.9 100.0	84.6 5.9 7.0 Under 1.0 Under 1.0 1.7 100.0
Corn Acres Hay Acres Soybean Acres Sorghum Acres Oats Acres Others Acres	23,561 3,700 726 365 343 1,405 30,100	60,417 6,312 3,660 877 338 4,129 75,733	104,990 9,381 6,061 408 495 3,606 124,941	131,200 9,100 10,900 1,000 200 2,600 155,000

Others includes all other harvested crops and land that was irrigated, but not harvested, e.g. pasture.

Source: 1981 - Antelope County ASCS data; 1978 and 1974 - 1978 Census of Agriculture, Part 27, p. 199; 1969 - 1974 Census of Agriculture, Part 27, p. IV-17.

Chapter 4

The Absentee Owner

Absentee, or nonresident owners, are owners that reside outside Antelope County with the exception of the residents of the "border towns" of Plainview, Creighton, Ewing, Meadow Grove, and Petersburg (Figure 1). These towns will be considered as part of the county because of the relationship between the farmers of the county and the "border towns." For example, the northeastern corner of the county identifies closely with Creighton and Plainview for a number of reasons. Residents of the northeastern corner have a Creighton or Plainview rural mailing address. These towns are closer to the northeast corner than any other towns, and the farmers make many of their purchases in these towns. This is an example of how administrative boundaries, in this case, the county border, do not always coincide with cultural and economic boundaries, which provides the reasoning behind inclusion of the "border towns."

In some cases, the current owner is a previous farm resident, or a descendent of a previous farm resident, thereby retaining an association with the land that may have been in the family for several generations. Such land is often farmed by a neighboring, resident farmer. Another group of absentee owners might be termed investors. Their interests may be tax

shelters or short term profits. Under these circumstances, marginal land is often developed. It is in the best interests of the investor to buy land as cheaply as possible. Commonly, this might be rangeland used to support a relatively small number of cattle. With the installation of a centerpivot, corn can be planted with the expectation of a good yield, perhaps 150 bushels per acre, at least for a few years. A tax incentive is provided by the investor's ability to fully depreciate the center-pivot and other equipment over a period of a few years. Tables V and VI show, by township, the cropland acreage and the number and size of farms.

Residences of Absentee Owners

A number of classifications were utilized to assess the geographic distribution of absentee owners. One method involved the division of absentee owners into two classes:

(1) Nebraskans, and (2) non-Nebraskans. It was found that of the 234 total absentee owners, 144, or 61.5 percent, were from Nebraska. The absentee owners of center-pivots located on delicate soils were divided into Nebraskans and non-Nebraskans. It was found that of the seventy-one center-pivots in question, forty-four, or 62 percent, were owned by Nebraskans. Thus, there was virtually no difference between in-state and out-of-state absentee owners in percentage of center-pivots located on delicate soils.

Table V

ANTELOPE COUNTY CROPLAND ACREAGE

TOWNSHIP	LOCALLY-OWNED ACREAGE	ABSENTEE-OWNED ACREAGE	PERCENTAGE ABSENTEE-OWNED
Bazile	16,932	1,394	7.6
Blaine	21,037	1,180	5.3
Burnett	17,115	3,919	18.6
Cedar	18,902	3,600	16.0
Clearwater	18,174	1,600	8.1
Crawford	18,121	4,497	19.9
Custer	15 , 962	3,087	16.2
Eden	21,255	1,560	6.8
Elgin	16,107	1,929	10.7
Ellsworth	19,645	2,640	11.8
Elm	16,642	4,832	22.5
Frenchtown	21,444	1,340	5.9
Garfield	21,214	1,735	7.6
Grant	17,081	5,480	24.3
Lincoln	21,691	400	1.8
Logan	20,818	1,340	6.0
Neligh	17,171	3,336	16.3
Oakdale	14,524	4,518	23.7
Ord	16,445	2,434	12.9
Royal	21,286	1,121	5.0
Sherman	19,348	1,400	6.7
Stanton	20,870	800	3.7
Verdigris	14,833	2,304	13.4
Willow	16,230	957	5.6
Total	442,847	57,403	
	88.53%	11.47%	

Total cropland is 500,250 acres.

Information derived from Antelope County ASCS office data.

Table VI
NUMBER AND SIZE OF FARMS

TOWNSHIP	NUMBER OF FARMS	NUMBER OF ABSENTEE-OWNED FARMS	AVERAGE SIZE LOCALLY-OWNED FARMS	AVERAGE SIZE ABSENTEE-OWNED FARMS
<pre>Bazile</pre>	66	9	297	155
Blaine	62	5	369	236
Burnett	78	17	281	231
Cedar	99	19	236	189
Clearwater	57	4	343	400
Crawford	95	21	245	214
Custer	65	11	296	281
Eden	64	4	354	390
Elgin	62	8	298	241
Ellsworth	62	13	401	203
Elm	66	18	347	268
Frenchtown	44	7	580	203
Garfield	66	8	366	217
Grant	99	26	234	211
Lincoln	56	. 3	409	133
Logan	100	6	221	223
Neligh	58	7	337	477
Oakdale	57	12	323	377
Ord	42	9	498	270
Royal	60	5	387	224
Sherman	40	6	569	233
Stanton	55	2	394	400
Verdigris	45	9	412	256
Willow	58	5	306	191
Total	1,556	234 (15.00	%)	

Classifying absentee owners residences by states grouped residents of large urban areas together with residents of sparsely populated rural areas. A method was sought that separated urban and rural areas. The hypothesis was that urban residents are detached from the farming environment to a greater extent than rural residents. Therefore, urban residents would have a greater tendency to be investors that irrigated delicate soil. The first method attempted involved the Bureau of Census definition, which stipulates that a central place with a population of 2500 or more is considered This method is misleading because many agriculturallyurban. based communities were considered urban under this definition. A more meaningful classification involves the use of Standard Metropolitan Statistical Areas, also referred to as SMSAs. An SMSA includes one or more cities with a total population exceeding 50,000 plus the adjoining counties that have 75 percent or more of their population engaged in activities that are not considered agricultural. All absentee owners that lived within an SMSA were classified as urban. All others were classified as rural. A summary of the results is shown in Table VII.

Table VII shows that urban absentee owners have a lower percentage of pivots on delicate soil relative to their total numbers, as compared to rural absentee owners. Therefore, the hypothesis that urban absentee owners irrigate more delicate soil does not appear to be valid without consideration

of other factors, such as previous family association with the land.

Table VII

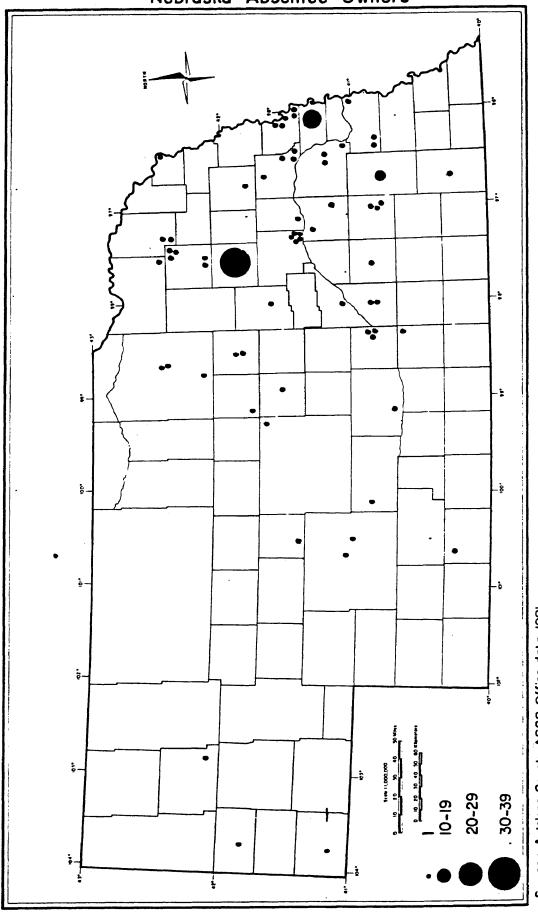
URBAN VS. RURAL ABSENTEE OWNERS

Urban Rural Total number of absentee owners 103 (44.0%) 131 (56.0%) Number of pivots owned on delicate soil 28 (39.4%) 43 (60.6%)

Source: Antelope County ASCS data.

The entire tabulation of absentee owner residences can be found in Appendix D, however, some general observations can be made by viewing the patterns found on Figures 8 and 9. Figure 8 shows the distribution of absentee owners living in Nebraska. A substantial number of owners reside in and around Omaha and Lincoln, the two largest population centers in the Both of these cities are within a three-hour drive state. by automobile of any part of Antelope County. This means that an occasional trip to oversee the property does not present an unreasonable hardship. Another cluster of owners is found around Norfolk. This fact is not surprising in view of the importance of Norfolk as a regional trade center for Antelope County. Many businesses that operate in Antelope County are based in Norfolk. Smaller clusters of owners are found around Columbus and Grand Island, both of which are

Nebraska Absentee Owners



Source: Antelope County ASCS Office data, 1981

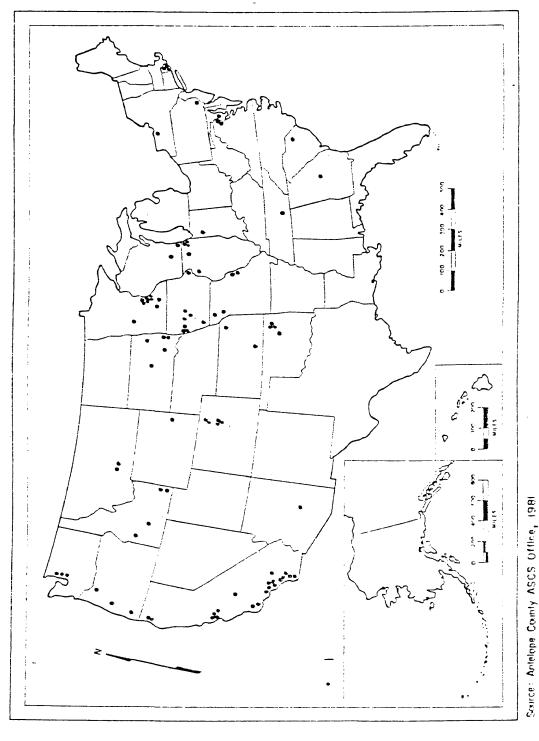


Figure 9
Non-Nebraskan Absentee Owners

population centers within a two-hour automobile drive of Antelope County. Outside of urban areas within Nebraska, absentee owners can only generally be found in the highly irrigated Corn Belt portion of the Platte River Valley.

Figure 9 shows the distribution of absentee owners outside of Nebraska. Two characteristics are obvious; first, there is strong representation from the major population centers of the central and western United States. Specifically, Minneapolis, Chicago, St. Louis, Tulsa, Denver, Los Angeles, San Francisco, and Seattle all have multiple representation. Although Kansas City is one of the closest major cities to Antelope County, there is only one absentee owner residing in the Kansas City SMSA.

The second area of concentration corresponds with the western portion of the Corn Belt. Included in this area are southeastern South Dakota, southern Minnesota, northern Illinois, and all of Iowa. This would seem to be explicable, since the agricultural base of this area is very similar to that of Antelope County. Therefore, it can be assumed that Antelope County might be a favorable investment opportunity because of owner familiarity with the environment and the Corn Belt economy.

A few of the absentee owners seem especially noteworthy. There is only one foreign owner in the county, an individual

from Frankfurt, West Germany, who owns 277 acres. 24 Specific information on this individual is lacking, as all matters relating to the acreage are handled by a farm management company in Sioux City, Iowa. The largest absentee owner is Oak Creek Ranch Ltd. of Schuyler, Nebraska, a group of individuals that own 2420 acres. Beverly Land Company of Providence, ____ Rhode Island, owns 1920 acres and has the second largest land-holding of absentee owners in the county.

Use of Marginal Land

As mentioned earlier, marginal land can provide good investment opportunities in terms of tax incentives and short term profit. Regression analysis was used to examine the extent of absentee ownership of land with delicate soil and the irrigation of such soil in Antelope County. It must be noted that delicate soil does not equate with marginal land, but most marginal land has delicate soil.

Using data from Tables VIII, IX, and X, the independent variable in the first analysis regarding the irrigation of delicate soil was the percentage of delicate soil, while the dependent variable was the percentage of absentee-owned delicate soil. The working hypothesis was that absentee-owned

 $^{^{24}}$ As of 1980, foreign ownership of cropland, nationwide, amounted to 7.8 million acres according to the New York Times in an article entitled "Foreign Farmers," November 1, 1981, Section 3, p. 20.

Table VIII
CENTER-PIVOTS IN ANTELOPE COUNTY

TOWNSHIP	NUMBER OF PIVOTS	NUMBER OF ABSENTEE-OWNED PIVOTS	PERCENTAGE ABSENTEE-OWNED
Bazile	65	1	1.5
Blaine	65	5	7.7
Burnett	36	4	11.1
Cedar	34	3	8.8
Clearwater	37	0	0.0
Crawford	93	19	20.4
Custer	73	12	16.4
Eden	50	1	2.0
Elgin	48	6	12.5
Ellsworth	67	6	9.0
Elm	44	14	31.8
Frenchtown	43	0	0.0
Garfield	60	3	5.0
Grant	49	9	18.4
Lincoln	25	0	0.0
Logan	32	2	6.3
Neligh	47	16	34.0
Oakdale	34	13	38.2
Ord	50	11	22.0
Royal	59	1	1.7
Sherman	23	2	8.7
Stanton	53	2	3.8
Verdigris	30	10	33.3
Willow	36	0	0.0
Total	1,153	140	

TABLE IX
CENTER-PIVOTS LOCATED ON DELICATE SOIL

	TOTAL NUMBER OF CENTER-PIVOTS ON		ABSENTEE-OWNED CENTER-PIVOTS ON
TOWNSHIP	DELICATE SOIL	% OF TOTAL	DELICATE SOIL
Bazile	7	10.8	0
Blaine	12	18.5	1
Burnett	9	25.0	2
Cedar	32	94.1	2
Clearwater	10	27.0	0
Crawford	7	7.5	6
Custer	.12	16.4	1
Eden	0	0.0	0
Elgin	22	45.8	0
Ellsworth	8	11.9	0
Elm	27	61.4	7
Frenchtown	7	16.3	0
Garfield	1	1.7	0
Grant	45	91.8	9
Lincoln	8	32.0	0
Logan	26	81.3	2
Neligh	34	72.3	14
Oakdale	25	73.5	13
Ord	24	48.0	7
Royal	1	1.7	0
Sherman	12	52.2	1
Stanton	19	35.8	1
Verdigris	9	30.0	5
Willow	0	0.0	0
Total	357		71

TABLE X

ABSENTEE VERSUS LOCALLY OWNED PIVOTS ON DELICATE SOIL

TOWNSHIP	% OF ABSENTEE-OWNED CENTER-PIVOTS LOCATED ON DELICATE SOIL	% OF LOCALLY OWNED CENTER-PIVOTS LOCATED ON DELICATE SOIL
Bazile	0.0	10.9
Blaine	20.0	18.3
Burnett	50.0	21.9
Cedar	66.7	96.8
Clearwater	0.0	27.0
Crawford	31.6	1.4
Custer	8.3	18.0
Eden	0.0	0.0
Elgin	0.0	52.4
Ellsworth	0.0	13.1
Elm	50.0	66.7
Frenchtown	0.0	16.3
Garfield	0.0	1.3
Grant	100.0	90.0
Lincoln	0.0	32.0
Logan	100.0	80.0
Neligh	87.5	64.5
Oakdale	100.0	57.1
Ord	63.6	43.6
Royal	0.0	1.7
Sherman	50.0	52.4
Stanton	50.0	35.3
Verdigris	50.0	20.0
Willow	0.0	0.0
Overall avera	age 50.7	28.2

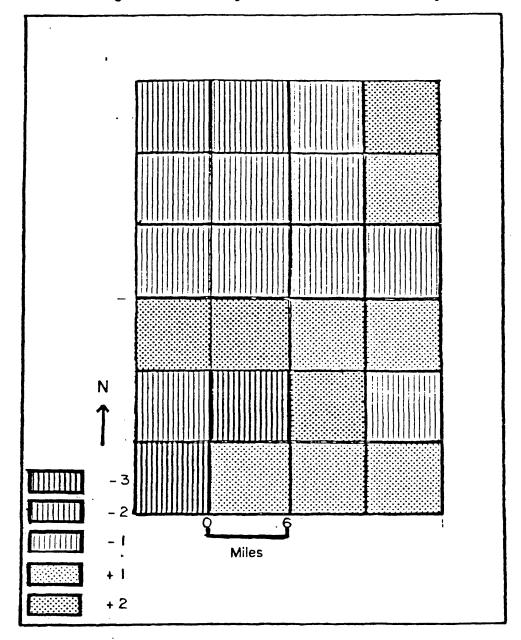
delicate soil was distributed in the county in the same fashion as all delicate soil in the county, or that absentee owners were no more likely to own delicate soils than were local owners (Figure 10). Observed and predicted results of Regression Analysis #2 are found on page 48.

Most evident from this regression analysis is the wide disparity of residual values within the townships of the Sandhills. Extremes of plus two and minus three standard errors can be noted in contiguous townships within the Sandhills. It is clear that the distribution of absentee-owned delicate soil is highly variable within short distances, and within geographic regions. This reflects the great variance generally in absentee ownership. Some townships such as Lincoln, have few absentee owners, while other townships, such as Oakdale, have high numbers of absentee owners.

The final regression analysis regarding the irrigation of delicate soil involved the use of the percentage of center-pivots in the county located on delicate soil as the independent variable, while the dependent variable was the percentage of absentee-owned center-pivots located on delicate soil. The working hypothesis was that absentee-owned center-pivots located on delicate soil are distributed in the same fashion as all center-pivots located on delicate soil (Figure 11). Observed and predicted results of Regression Analysis #3 are found on page 50.

Figure 10

Regression Analysis #2: Residuals By Township



The working hypothesis is that absentee-owned delicate soil is distributed across the county in the same fashion as delicate soil. The residuals from regression indicate townships in which absentee-owned delicate soil is more or less frequent than the hypothesis would predict given the distribution of delicate soil.

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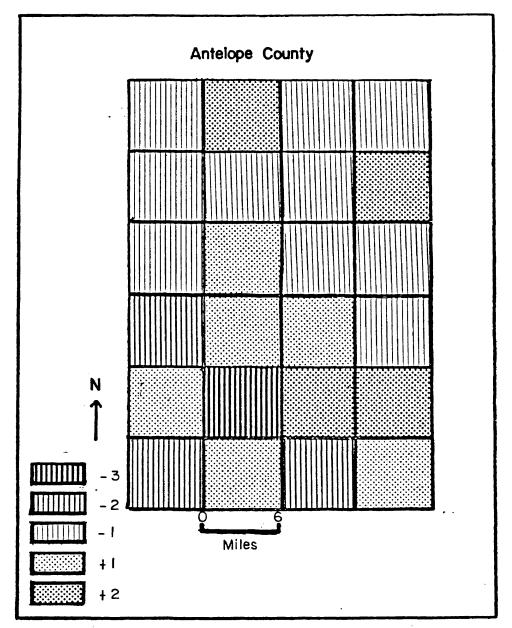
REGRESSION ANALYSIS #2

	OBSERVED	DEGREE
TOWNSHIP	VS. PREDICTED	OF <u>VARIATION</u>
Bazile	+24	+2
Blaine	-4	-1
Burnett	- 2	-1
Cedar	+12	+1
Clearwater	+26	+2
Crawford	+11	+1
Custer	-14	-1
Eden	-1	-1
Elgin	- 38	- 3
Ellsworth	-1	- 1
Elm	+7	+1
Frenchtown	- 13	-1
Garfield	- 2	-1
Grant	+15	+1
Lincoln	- 39	- 3
Logan	+13	+1
Neligh	+18	+1
Oakdale	+28	+2
Ord	+25	+2
Royal	- 1	-1
Sherman	- 28	- 2
Stanton	-20	- 2
Verdigris	-19	- 2
Willow	-1	-1

Average dispersion = 18.7

Figure II

Regression Analysis # 3: Residuals By Township



The working hypothesis is that absentee-owned center-pivots located on delicate soil are distributed across the county in the same fashion as all center-pivots located on delicate soil. The residuals from regression indicate townships in which absentee-owned center-pivots on delicate soil are more or less frequent than the hypothesis would predict given the distribution of all center-pivots located on delicate soil.

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REGRESSION ANALYSIS #3

	OBSERVED VS.	DEGREE OF
TOWNSHIP	PREDICTED	VARIATION
Bazile	-8	-1
Blaine	+3	+1
Burnett	+27	+2
Cedar	- 29	- 2
Clearwater	- 25	- 2
Crawford	+27	+2
Custer	- 6	-1
Eden	- 3	-1
Elgin	- 46	- 3
Ellsworth	- 9	-1
Elm	-11	-1
Frenchtown	-14	-1
Garfield	-1	-1
Grant	+6	+1
Lincoln	-31	- 2
Logan	+17	+1
Neligh	+15	+1
Oakdale	+25	+2
Ord	+16	+2
Royal	-1	-1
Sherman	- 2	-1
Stanton	+15	+1
Verdigris	+21	+2
Willow	- 3	-1

Average dispersion = 19.0

As in the previous regression analysis, extreme residual values are found in townships adjacent to one another, particularly in the Sandhills, but to an extent in the rest of the county also. The values in the "absentee-owned" column range from 0.0 to 100.0, while the values in the "locally-owned" column range from 0.0 to 96.8. Such extreme values indicate a wide disparity in the development of irrigation on delicate soils. It is worth noting that absentee owners have a much higher percentage of center-pivots on delicate soil, 50.7, compared to the local owner percentage of 28.2.

Agricultural Characteristics of Absentee Owners

Another consideration is the matter of crop choice. Do absentee owners grow different crops than do local owners, and if so, what are the reasons for the differences? Additionally, the type of crops irrigated by local and absentee owners are examined.

Table XI shows that absentee owners place relatively more emphasis on corn, and less emphasis on other crops, compared to local owners. Sorghum also shows a slight increase with absentee owners. In general, corn seems to increase in magnitude at the expense of most other crops, rather than one particular crop. With the exception of sorghum, other crops decreased, while corn increased. This might relate to a departure from the traditional crop and livestock association. On farms without livestock, the need for crops such

as alfalfa and oats is diminished. This is often the case with absentee owners who either hire someone to do the farming or make periodic trips to the farm to do the work. The daily attention the keeping of livestock requires would not fit into this pattern.

Table XI

ABSENTEE VS. LOCALLY-OWNED CROPLAND

Crop	Percentage of Locally-Owned Harvested Cropland	Percentage of Absentee-Owned Harvested Cropland
Corn	70.2	78.4
Hay	16.3	9.1
Soybeans	9.7	7.9
Oats	2.6	2.4
Sorghum	Less than 1.0	1.5
Others	Less than 1.0	Less than 1.0
	100.0	100.0

Source: Antelope County ASCS data.

The figures shown in Table XI are percentages of harvested cropland, as opposed to the concept of "land in farms"
which is used elsewhere in this study. "Land in farms" includes some areas not under cultivation, such as land used

for pasture or grazing, or small wooded areas. Harvested cropland includes only cultivated areas from which a crop is harvested.²⁵

Table XII shows the 1981 percentage of each crop in the locally-owned irrigated cropland and also shows the percentage of each crop for all absentee-owned irrigated cropland. Only slight differences exist between local and absentee-owned irrigation. Corn and soybeans are more heavily irrigated by absentee owners, but the differences seem relatively insignificant.

Table XII

ABSENTEE VS. LOCALLY-OWNED IRRIGATED CROPLAND

Crop	Percentage of Locally-Owned Irrigated Cropland	Percentage of Absentee-Owned Irrigated Cropland
Corn Hay Soybeans Others	84.5 6.1 6.8 2.7 100.0	85.4 3.9 8.8 <u>1.9</u> 100.0

Source: Antelope County ASCS data.

Land Ownership History

The information presented to this point does not suggest substantial impact by absentee owners. Conventional wisdom

²⁵U.S. Department of Commerce, <u>Census of Agriculture</u> (Washington, D.C.: Government Printing Office, 1978), Part 27, Appendix A, pp. A-1 - A-5.

says that investors would buy the cheapest land available, in this area, the Sandhills, yet, the lowest percentages of absentee owned land (Table V) are found in the Sandhills townships, indicating a situation completely opposite from what would be expected. In order to explain this apparent contradiction, a study of land transactions in Antelope County was undertaken at the Register of Deeds Office.

The history of land acquisition for all land currently owned by nonresidents was checked. Not only was the date of acquisition by the current owner noted, but also the previous owners were noted. It was assumed that some of the current absentee owners had a previous family tie to the land. However, it was not known how widespread this situation was in the county. If a substantial number of absentee owners were in this category, it could explain why development of marginal land was not more prevalent. Such owners would merely be carrying on the family association with a particular piece of land, rather than trying to develop new areas.

The results were surprising and significant. Of the two hundred thirty-four absentee owners in the county, two hundred had a previous family association with the land. In terms of percentages, 85.5 percent of the absentee land owners currently own land that has been in their family for at least one previous generation, and in many cases, several generations. This serves to help explain why the highest percentages of absentee ownership tend to be found in the eastern part of

the county, rather than in the more marginal agricultural areas of western Antelope County. It is clear that, in the vast majority of cases, the presence of absentee owners is not an attempt to develop previously unproductive, marginal land, rather their presence reflects a continuity of ownership by previous generations of the family. The suggestion is advanced that the 85.5 percent of the absentee owners that have previous family association do not have a measurable impact on farming in the county, as their landholdings tend to be a part of a local farming operation.

Any measurable impact by absentee owners should be found in the remaining 14.5 percent, consisting of thirty-four mem-This group is comprised strictly of first-generation bers. owners whose land acquisitions have coincided with the rise in irrigation that has occurred since the late 1960s. place of residence of each first-generation owner is noted in Appendix D. Twenty of the thirty-four (58.8 percent) are from Nebraska, although first-generation owners reside as far away as West Germany to the east, and Oregon to the west. Using SMSAs as a guideline, eighteen of the thirty-four (52.9 percent) are found in urban areas, compared to 44.0 percent for all absentee owners. Eleven of the eighteen urban dwellers reside in Omaha and Lincoln. A study was undertaken to determine how these thirty-four owners differ from the rest of the absentee owners in terms of farm size, amount of irrigation, and amount of irrigation on delicate soil.

It would be expected that farm size would be larger for the first-generation owner if large-scale impact is to be found. This was the case. For these thirty-four owners, the average farm size is 405.9 acres, considerably higher than the county average of 321.5 acres, and the absentee average of 245.3 acres. This means that 14.5 percent of the absentee owners own 24 percent of the absentee-owned land.

If these thirty-four owners are investors and are having an impact on agriculture, then it would be expected that they would be irrigating to a greater extent than other absentee owners. As mentioned previously, irrigation is a key to making cheap land more productive, therefore impact should be indicated by greater irrigation. This was found to be the case. The first-generation absentee owners account for 48.6 percent of all absentee-owned irrigation.

Given the larger farm size and greater frequency of irrigation by these thirty-four owners, it might be expected that their percentage of irrigation on delicate soil would be larger than absentee owners as a whole. If true, it would be consistent with the idea of making quick profits by the use of center-pivots on areas of marginal land with high percentages of delicate soil. Again, this was found to be the case. The first-generation owners accounted for 59.2 percent of all absentee-owned irrigation of delicate soil.

It can be said the absentee owners that do not have a prior family association with the land total thirty-four in number, or 14.5 percent of the total absentee owners. They account for 24 percent of the absentee-owned acreage, 48.6 percent of the absentee-owned irrigation, and 59.2 percent of the absentee-owned irrigation of delicate soil.

A final test of impact can be applied by determining the amount of marginal land held by new absentee owners. As mentioned previously, marginal land holds the best short-term investment potential. In Antelope County, marginal land is most closely associated with Valentine soil, which was described previously. Prior to the advent of center-pivots, most Valentine soils were used for pasture. Now row crops are more prevalent. It was found that 37.2 percent of the land held by first-generation owners consists of Valentine soil, indicating a substantial commitment to marginal land.

Chapter 5

Conclusions

The impact of absentee ownership did not become apparent until first-generation absentee owners were separated from the absentee owners that have a prior family association with the land they own. About 85.5 percent of all absentee owners have a prior family association with the land, whereas the remainder are owners that have recently acquired the land, and have a greater tendency to irrigate, particularly delicate soils.

Absentee ownership, although highly variable from township to township, accounts for 11.47 percent of the cropland, most of which is contained in relatively small farms. The average farm size for absentee owners is 245.3 acres, substantially below the county average of 321.3 acres. Only two absentee-owned farms are larger than 1000 acres, with many at 160 acres or less, compared to fifty-nine locally-owned farms of over 1000 acres. From this pattern of small farm size, it can be inferred that most absentee-owned farms in Antelope County are not independent, self-sustaining operations, rather most are part of a farming operation, either in or out of Antelope County.

Of the 234 absentee owners, 144 (61.5 percent) are residents of Nebraska. Outside of Nebraska, the heaviest concentrations are in the western Corn Belt and in the metropolitan

areas of the central and western United States. The percentage of urban residents for non-Nebraskans (68.9) is much higher than for Nebraskans (31.9).

There are 1153 center-pivots in Antelope County, of which 140, or 12.14 percent, are absentee-owned. The percentage of absentee-ownership in each township is highly variable, ranging from zero to 38.2. Placement of center-pivots was considered crucial to this study, since large areas of the county have delicate soils that require careful management. Three hundred and fifty-seven center-pivots were found to be on delicate soils, of which 71 are owned by absentee owners. A pattern that is possibly significant exists with regard to delicate soils. Of the absentee-owned center-pivots, 50.7 percent are located on delicate soils, while only 28.2 percent of the locally-owned center-pivots are located on delicate soils. This is not conclusive, however, because the effect on the land is contingent on the management of the soil. Use does not necessarily constitute misuse.

The impact of absentee ownership can be found in the thirty-four absentee owners that do not have a previous family association with the land that they currently own. Although only comprising 14.5 percent of the absentee owners, they hold 24 percent of the land, resulting in a much higher average farm size than the other absentee owners and much larger than the county average farm size. They account for 48.6 percent of the absentee irrigation and 59.2 percent of

the absentee-owned irrigation of delicate soil. Both of these figures are extremely high considering the relatively low percentage of absentee owners (14.5) that are in this group. It is clear that this is a fact of considerable impact. Obviously, this group of absentee owners irrigates much more heavily than other absentee owners, particularly on delicate soil.

The impact of absentee ownership to this point is probably not great, if for no other reason than the fact that such owners are still relatively few in number, and they only own about 2.8 percent of the total cropland. Most of the land in question has been acquired since the early 1970s, and the trend is toward more ownership of this type. The implications are clear. If this first-generation absentee ownership continues to increase, it can be assumed that irrigation will increase as well. Of perhaps greater concern is the greater tendency of such owners to irrigate delicate soil. Potential for misuse is great, particularly if increasingly greater amounts of marginal land are put into production, which could happen if the tax incentives and profit potential continue to exist for cheap land.

Although not yet a major factor in Antelope County, this type of ownership should be a topic for continued study. The findings of this study suggest that the non-family farm does have an impact with respect to irrigation and irrigation of

delicate soil. If that is true statewide, this study provides support for the proponents of the constitutional amendment to curb non-family purchases of agricultural land. Although absentee ownership is still relatively unimportant, it is a growing phenomenon that merits close attention.

BIBLIOGRAPHY

- Belcher, John. "The Nonresident Farmer in the New Rural Society," Rural Sociology, Vol. 19, 1954, pp. 121-136.
- Bleed, Ann, Department of Industrial Engineering, University of Nebraska, Lincoln, Nebraska, telephone conversation, January 19, 1982.
- Center for Rural Affairs. Wheels of Fortune. Walthill, Nebraska: Center for Rural Affairs, 1976.
- Coppola, Vincent and Pamela Simons. "The Boom in Farmland Purchases by Foreigners," Newsweek, May 22, 1978, pp. 55-56.
- Dobbs, Bill, Nebraska Crop and Livestock Reporting Service, Lincoln, Nebraska, telephone conversation, July 13, 1982.
- Dunn, Warren, General Manager, Farmers National Company, Omaha, Nebraska, telephone conversation, December 30, 1981.
- Elder, John. <u>Soils of Nebraska</u>. Lincoln, Nebraska: University of Nebraska Conservation and Survey Division, 1969.
- Gardner, Delworth and Rulon Pope. "How Is Scale and Structure Determined in Agriculture," <u>American Journal of Agricultural Economics</u>, Vol. 60, May, 1978, pp. 295-302.
- Gould, Mel. "Anatomy of a Corporate Farm Purchase," Symposium Proceedings: Irrigation Development in the Sandhills, Lincoln, Nebraska, February 19, 1982.
- Johnson, Bruce and Ronald Hanson. Nebraska Farm Real Estate

 Market Developments in 1980-81. Lincoln, Nebraska:
 University of Nebraska, 1981.
- Kruse, Loren, et.al. "Law Closes Loophole for Foreign Owners of Farms," Successful Farming, February, 1981, p. 4.
- Kollmorgen, Walter and George Jenks. "Suitcase Farming in Sully County, South Dakota," <u>Annals of the Association of American Geographers</u>, Vol. 48, 1958, pp. 27-40.
- Meyer, Peter. "Land Rush," <u>Harper's Magazine</u>, Vol. 260, January, 1979, pp. 49-60.
- Nebraska Crop and Livestock Reporting Service. <u>Nebraska Agricultural Statistics</u>. Lincoln, Nebraska: Nebraska Crop and Livestock Reporting Service, 1969-1980.

- Nebraska Farm Bureau Federation. "Petition Seeks Corporate Curb," Nebraska Agriculture, January 15, 1982, p. 1.
- Nebraska Farm Bureau Federation. "Sandhills Pivot Abandonment Report Shocking Commentary," <u>Nebraska Agriculture</u>, May 15, 1982, p. 4.
- New York Times. "Foreigners' Farm Land Holdings," New York Times, September 21, 1979, Section D, p. 4.
- New York Times. "Foreign Share of Farms 0.5%," New York Times, January 28, 1980, Section D, p. 5.
- New York Times. "Foreign Farmers," New York Times, November 1, 1981, Section 3, p. 20.
- Nikolitch, Radoje. "Family Operated Farms: Their Compatibility with Technological Advance," <u>American Journal of Agricultural Economics</u>, Vol. 51, August, 1969, pp. 530-545.
- Parsons, James. "Corporate Farming in California," Geographical Review, Vol. 67, 1977, pp. 354-357.
- Pribbeno, Jeffrey, <u>et.al</u>. <u>Farm Corporations in Nebraska</u>. Lincoln, Nebraska: University of Nebraska, 1977.
- Smith, Everett. "Fragmented Farms in the United States,"

 Annals of the Association of American Geographers, Vol. 55, 1975, pp. 58-70.
- Smith, Everett. "America's Richest Farms and Ranches," Annals of the Association of American Geographers, Vol. 70, 1980, pp. 528-541.
- Smith, J. Russell. <u>North America</u>. New York, New York: Harcourt, Brace and Company, Inc., 1925.
- Strange, Marty. "A Sea of Sand," Symposium Proceedings:

 Irrigation Development in the Sandhills, Lincoln,
 Nebraska, February 19, 1982.
- Thorson, Norman and Loyd Fischer. A Study of Irrigation Development in the Sandhills of Nebraska. Lincoln, Nebraska: University of Nebraska, 1976.
- Time. "The Foreign Land-Grab Scare," <u>Time</u>, January 8, 1979, p. 40.

- United States Department of Agriculture. Soil Survey of Antelope County, Nebraska. Washington, D.C.: Government Printing Office, 1978.
- United States Department of Commerce. <u>Census of Agriculture</u>. Washington, D.C.: Government Printing Office, 1974 and 1978.
- Vogeler, Ingoff. The Myth of the Family Farm. Boulder, Colorado: Westview Press, 1981.
- Wood, Greg. "How Incorporating Saved These Farms \$1 Million in Taxes," <u>Successful Farming</u>, August, 1981, pp. 22-23.

APPENDIX A

FARM CORPORATION REPORT

FARM CORPORATION REPORT

The Nebraska Legislature in the 1975 Session passed Legislative Bill 203 (Farm Corporation Reporting Act) which was subsequently signed by the Governor and became law on August 24, 1975. The various sections of the hill have now been assigned Section Numbers and can be found in the 1975 Supplement to the Statutes as Section Numbers 76-1501 thru 76-1506.

Nebraska Statute 76-1501, which was Section (1) of LB 203, states succinctly the purpose of the Farm Corporation Reporting Act. I wish to call to your attention the fact, that this law and this reporting form does <u>not</u> in any way replace nor is it a substitute for the Annual Domestic or Foreign Occupation Tax Report or the Biennial Non-profit Report. Corporations falling within the provisions of LB 203 (Farm Corporation Reporting Act) will be required to file either the Annual Occupation Tax Report or Non-profit Biennial Report <u>and</u> The Farm Corporation Reporting Act Form.

Please note that all of the instructions for completing this form are found either in the Statutes, the adopted Rules and Regulations which are reproduced or on the Reporting Form itself. There is no filing fee required for filing the Annual Farm Corporation Reporting Act Form.

I do call to your specific attention, additionally, the penalty provisions that appear in Nebraska Statute 76-1506 and Nebraska Statutes 76-402 thru 76-415, Reissue Revised Statutes of Nebraska, 1943, relating to real property and Aliens. These are very important sections of the law and should be discussed with your legal counsel if Aliens or Alien ownership is involved in your particular corporation.

Finally, if you have any questions relating to the manner of submitting forms under this new law or if you desire additional information, please contact: Secretary of State, Suite 2300, State Capitol, Lincoln, Nebraska 68509. Telephone number is 402/471-2554.

Respectfully submitted,

allen J. Beermann

ALLEN J. BEERMANN Secretary of State

DEPARTMENT OF STATE

Allen J. Beermann

SECRETARY OF STATE LINCOLN, NEBRASKA 68509



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APPENDIX B
DELICATE SOILS IN ANTELOPE COUNTY 26

Symbol	Soil Name	Slope
BdD	Bazile Complex	6 to 11 percent slopes
BxF	Brunswick-Paka Complex	11 to 30 percent slopes
CrE2	Crofton Silt Loam	6 to 15 percent slopes
CrF2	Crofton Silt Loam	15 to 30 percent slopes
CsG	Crofton Soil	30 to 60 percent slopes
CuD2	Crofton-Nora Silt Loam	6 to 11 percent slopes
CuE2	Crofton-Nora Silt Loam	11 to 15 percent slopes
CuF	Crofton-Nora Silt Loam	15 to 30 percent slopes
MeF	Meadin Sandy Loam	3 to 30 percent slopes
NoC2	Nora Silt Loam	2 to 6 percent slopes eroded
NoD	Nora Silt Loam	6 to 11 percent slopes
NoE	Nora Silt Loam	11 to 15 percent slopes
OnD	Orthello Fine Sandy Loam	6 to 11 percent slopes
PhD	Paka Loam	6 to 11 percent slopes
PkD	Paka Complex	6 to 11 percent slopes
TfD	Thurman Fine Sand	6 to 11 percent slopes
T_nF	Thurman-Crofton Complex	11 to 30 percent slopes
VaE	Valentine Fine Dune Sand	6 to 15 percent slopes
VsD	Valentine-Simeon Complex	6 to 11 percent slopes

^{26.}S. Department of Agriculture, <u>Soil Survey of Antelope</u> County, Nebraska, (Washington, D.C.: Government Printing Office, 1978), pp. 10-47.

APPENDIX C

PROCEDURE FOR REGRESSION ANALYSIS

Basic equation is y = a + bx

To solve for b =

number of observations times xy minus sum of x times sum of y number of observations times x squared minus sum of x squared

To solve for a =

the sum of y minus b times the sum of x number of observations

Having solved for a and b, and given x, then the predicted y value can be compared to the observed value of y. The average dispersion of values can then be calculated by taking the square root of the differences between the predicted y value and the actual y value divided by the number of observations. All values within one average dispersion are classified as plus one or minus one, depending upon whether the value was underpredicted or overpredicted; all values within two average dispersions are classified as plus or minus two, etc.

APPENDIX D

PLACE OF RESIDENCE OF ABSENTEE OWNERS BY TOWNSHIP

BAZILE TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Osmond, Nebraska	40
Norfolk, Nebraska	160
South Sioux City, Nebraska	160
Pierce, Nebraska	160
Kimball, Nebraska	80
Norfolk, Nebraska	314
Norfolk, Nebraska	80
*Providence, Rhode Island	160
Orange, California	240

^{*} indicates first-generation owner

BLAINE TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Scribner, Nebraska	320
Grand Island, Nebraska	160
Barrington, Illinois	160
San Joaquin, California	320
Arcata, California	220

BURNETT TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Norfolk, Nebraska	240
Bartlett, Nebraska	160
Battle Creek, Nebraska	160
Norfolk, Nebraska	160
Blair, Nebraska	240
Hastings, Nebraska	480
Omaha, Nebraska	119
Lincoln, Nebraska	160
Norfolk, Nebraska	257
Ashland, Nebraska	240
Norfolk, Nebraska	353
Norfolk, Nebraska	160
Sioux City, Iowa	80
Clinton, Iowa	152
Minneapolis, Minnesota	560
San Francisco, California	240
San Diego, California	160

CEDAR TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Grand Island, Nebraska	320
Omaha, Nebraska	320
Norfolk, Nebraska	240
Columbus, Nebraska	1 60
Plattsmouth, Nebraska	240
Burwell, Nebraska	80
Norfolk, Nebraska	240
*Cozad, Nebraska	160
Milford, Nebraska	400
0'Nei11, Nebraska	160
Norfolk, Nebraska	160
*Omaha, Nebraska	160
Omaha, Nebraska	160
Templeton, Iowa	160
Tulsa, Oklahoma	160
Tulsa, Oklahoma	80
Sioux City, Iowa	160
Chesterfield, Missouri	80
Earl Park, Indiana	160

^{*} indicates first-generation owner

CLEARWATER TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
McCook, Nebraska	480
Randolph, Nebraska	200
Lincoln, Nebraska	760
*Sioux Falls, South Dakota	160

^{*} indicates first-generation owner

CRAWFORD TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Lincoln, Nebraska	160
Osmond, Nebraska	160
Norfolk, Nebraska	160
Nickerson, Nebraska	80
Norfolk, Nebraska	160
Pierce, Nebraska	183
Ord, Nebraska	80
Norfolk, Nebraska	400
Aurora, Nebraska	`240
Norfolk, Nebraska	160
*Ralston, Nebraska	318
*Prophetstown, Illinois	160
Boise, Idaho	80
*Mitchell, South Dakota	636
* Glenwood, Iowa	160
Menlo Park, California	80
Waldport, Oregon	160
* Glidden, Iowa	160
* Providence, Rhode Island	320
Smithville, Missouri	560
Macon, Georgia	80

^{*} indicates first-generation owner

CUSTER TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Norfolk, Nebraska	160
Alliance, Nebraska	480
Norfolk, Nebraska	242
*Lincoln, Nebraska	160
*Lincoln, Nebraska	160
*Lincoln, Nebraska	160
*Norfolk, Nebraska	160
Soda Springs, Idaho	845
Sac City, Iowa	480
Pierre, South Dakota	160
Greeley, Colorado	80

^{*} indicates first-generation owner

EDEN TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Omaha, Nebraska	160
Norfolk, Nebraska	320
Gering, Nebraska	920
* Grants Pass, Oregon	160

^{*} indicates first-generation owner

ELGIN TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
*Ft. Calhoun, Nebraska	409
Lincoln, Nebraska	160
Omaha, Nebraska	160
Aurora, Nebraska	320
Billings, Montana	320
Santa Barbara, California	240
Bristow, Oklahoma	160
Riverside, Illinois	160

^{*} indicates first-generation owner

ELLSWORTH TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Brainard, Nebraska	320
Norfolk, Nebraska	160
Elmwood, Nebraska	160
*Lincoln, Nebraska	160
Omaha, Nebraska	80
Columbus, Nebraska	160
Norfolk, Nebraska	320
Lincoln, Nebraska	240
Santa Maria, California	160
Sioux Falls, South Dakota	160
*Douglas, Wyoming	400
Tulsa, Oklahoma	160
Peoria Arizona	160

^{*} indicates first-generation owner

ELM TOWNSHIP

PLACE OF OWNERSHIP OF ABSENTEE OWNER	ACRES OWNED
Madison, Nebraska	226
Omaha, Nebraska	160
Bartlett, Nebraska	155
Maxwell, Nebraska	246
Omaha, Nebraska	160
Norfolk, Nebraska	320
*Omaha, Nebraska	640
*Omaha, Nebraska	80
Norfolk, Nebraska	240
Newman Grove, Nebraska	240
Norfolk, Nebraska	480
Orange, California	190
Rochester, New York	160
Denver, Colorado	320
Soda Springs, Idaho	255
* Fairfax, Virginia	160
Washington, D.C.	160
* Wendell, Idaho	640

^{*} indicates first-generation owner

FRENCHTOWN TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Omaha, Nebraska	80
Fremont, Nebraska	260
Kearney, Nebraska	160
Hillsboro, Oregon	240
Maryville, Missouri	200
Aurora, Colorado	160
Chesterfield, Missouri	320

GARFIELD TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Beatrice, Nebraska	80
Lincoln, Nebraska	80
Omaha, Nebraska	395
Central City, Nebraska	239
Lincoln, Nebraska	322
Tullahoma, Tennessee	160
Alexandria, Minnesota	160
Livermore California	299

GRANT TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Wausa, Nebraska	320
Omaha, Nebraska	160
Omaha, Nebraska	160
Milford, Nebraska	320
Norfolk, Nebraska	640
Blair, Nebraska	160
Madison, Nebraska	160
Omaha, Nebraska	240
Omaha, Nebraska	160
Chambers, Nebraska	160
Norfolk, Nebraska	160
Norfolk, Nebraska	80
Madison, Nebraska	480
North Platte, Nebraska	40
Norfolk, Nebraska	160
Norfolk, Nebraska	160
Mankato, Minnesota	80
Hollywood, California	320
Manhattan Beach, California	160
Greeley, Colorado	160
Sioux City, Iowa	160
Silvis, Illinois	160
St. Paul, Minnesota	160
Hollywood, California	160
Seattle, Washington	160
Watertown, South Dakota	320

LINCOLN TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
York, Nebraska	160
Dekalb, Illinois	80
San Mateo, California	160

LOGAN TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Albion, Nebraska	320
*Columbus, Nebraska	464
Waseca, Minnesota	160
St. Paul, Minnesota	76
White Bear Lake, Minnesota	160
Billings, Montana	160

^{*} indicates first-generation owner

NELIGH TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Wahoo, Nebraska	248
Fremont, Nebraska	160
Bellwood, Nebraska	320
*Norfolk, Nebraska	397
*Philadelphia, Pennsylvania (major stockholder resides in Frankfurt, West Germany)	277
Minneapolis, Minnesota	14
* Providence, Rhode Island	1,920

^{*} indicates first-generation owner

OAKDALE TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Columbus, Nebraska	160.
Grand Island, Nebraska	40
Blair, Nebraska	40
Norfolk, Nebraska	590
Norfolk, Nebraska	203
*Schuyler, Nebraska	2,420
Omaha, Nebraska	160
Carlsbad, California	65
St. Paul, Minnesota	160
Kenosha, Wisconsin	520
Brush Prairie, Washington	80
Bellflower, California	80

^{*} indicates first-generation owner

ORD TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Omaha, Nebraska	154
Ft. Calhoun, Nebraska	80
*Omaha, Nebraska	320
*Lincoln, Nebraska	640
Wahoo, Nebraska	280
*Sargent, Nebraska	640
Sun City, California	160
*Alexandria, Virginia	160

^{*} indicates first-generation owner

ROYAL TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Randolph, Nebraska	320
Omaha, Nebraska	479
Topeka, Kansas	87
Burton, Washington	75
Lakewood, Colorado	160

SHERMAN TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
O'Neill, Nebraska	80
Norfolk, Nebraska	400
Omaha, Nebraska	320
West Point, Nebraska	320
Norfolk, Nebraska	80 .
San Bernardino, California	200

STANTON TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
Wichita, Kansas	400
Madison, Wisconsin	400

ż

VERDIGRIS TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
* Bennington, Nebraska	240
Seward, Nebraska	315
Omaha, Nebraska	149
Osmond, Nebraska	320
* Columbus, Nebraska	320
Norfolk, Nebraska	1 60
Stapleton, Nebraska	160
Huntington Beach, California	160
Darlington, South Carolina	480

^{*} indicates first-generation owner

WILLOW TOWNSHIP

PLACE OF RESIDENCE OF ABSENTEE OWNER	ACRES OWNED
*Eagle, Nebraska	160
Lincoln, Nebraska	240
Lincoln, Nebraska	240
Norfolk, Nebraska	157
Arcata, California	160

^{*} indicates first-generation owner