The Interface of Agricultural Land Leasing, Conservation and Value Sets: and Analysis

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The Interface of Agricultural Land Leasing, Conservation, and Value Sets: An Analysis[1]

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Abstract

This paper explores the hypothesis that tenants do not farm leased land with the same management integrity as their owned property. It assesses today's agricultural land leasing practices in the context of sustainable resource management, specifically addressing the influences of human attitudes and value sets.

Introduction

The importance of agricultural land leasing as part of American agriculture has increased and changed in composition. The leasing of farm cropland, pasture, and rangeland is being used by producers as a management tool to expand or contract their operation, to conserve limited capital, to finance farm operations, to increase management flexibility, and to reduce risk. Nationally, 419 million acres is leased by farm operators with an estimated value of $480 billion dollars. Producer's in Nebraska's and South Dakota's rental market lease almost 55 percent and 40 percent, respectively, of their agricultural land base. These percentages are consistent for states adjacent to Nebraska and South Dakota, with the amount of land in farms rented varying from 31

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percent to 60 percent (1999 Agricultural Economics and Land Ownership Survey, Census of Agriculture).

The above statistics suggest that leasing arrangements are currently playing a substantial role in the agricultural sector. Small changes in the leasing market, regardless of origin, can have tremendous socio/economic impacts upon American Agriculture. Soil erosion has also garnered special attention as evidenced by past federal farm programs. The continual inclusion of conservation provisions in farm bills is deemed necessary as most U.S. farmland is owned and operated by private entities who are responsible for the resources on nearly all of that land (Natural Resource Inventory, 1992). Specific issues that will be identified and interpreted in this study concern the relationship of soil conservation, human attitudes, and institutional characteristics within the context of tenant/landlord leasing arrangements.

This research represents an unique opportunity to study today's leasing practices. Nebraska and South Dakota are located in the Northern Plains transition region that is characterized by wide variations in agricultural and climate conditions and thus in leasing patterns. Consequently, these two states offer the opportunity to examine the full array of leasing arrangements across diverse regions and under varying conditions, and circumstances providing an excellent opportunity to examine in detail longstanding issues concerning the leasing market and leased land. Results of this study are typical of many cropland rental patterns and practices found across the Midwest and Great Plains agricultural regions.

Study Purpose

A long-standing hypothesis among agriculturalists is that tenants do not farm and steward leased land to the same level of management integrity as that associated with their owned property. This paper explores that issue. More specifically, it addresses: 1) factors influencing modern

farming practices on leased land; 2) the influence of human attitudes and value sets on leasing agreements and practices; and 3) the assessment of today's leasing practices in the context of sustainable resource management.

Improved understanding of the agricultural leasing market is critical to policymakers in the decision-making process as issues of conservation and resource sustainability claim increasing societal concern. A better understanding of leasing agreements and associated conservation practices, including the identification of human factors that influence these decisions, may lead to a more efficient agricultural structure. The findings are of interest to a broad group of people -- from those participating directly in the agricultural leasing market to the general citizens and their policy makers.

Objectives

The overall focus of this paper is an economic assessment of resource management on leased land. Specific objectives are:

* Identify the relationship of soil loss to various leasing arrangements and associated farming practices;
* Identify incentives/disincentives for conservation within the modern rental system;
* Identify motivations and value sets of tenants which contribute to certain farming practices and management processes on leased land.

Methodology

Cropland leasing studies have recently been completed (2001) in Nebraska and South Dakota. These studies were partly a replication and extension of earlier studies completed in 1988 (Johnson et al., 1988). In 1996, statewide mail surveys were sent to a representative sample of agricultural producers in Nebraska and South Dakota. Respondents provided specific information

on approximately 1182 of their most important or most typical share and cash leases for cropland. The findings reflect average statewide or sub-state regional conditions.

Those data were used to identify both farming practices used and the various incentives and disincentives within today's farming systems for soil conservation and high-quality resource management. Necessary data were also collected from the survey to permit the use of the Revised Universal Soil Loss Equation (RUSLE) for soil loss estimation. A Cropland Leasing and Conservation Follow-up Survey of a subset of respondents was also conducted to identify further characteristics of tenants such as attitudes, knowledge, and skills that attribute to resource conservation. Specific motivational interests and value sets of agricultural producers were analyzed since these factors often underlie conservation attitudes and behavior.

Contract Choice of Cash and Share Leases - Revisited

The pattern of leases being used is also noteworthy. In Nebraska during 1999, 41.9 percent were leases were cash and 41.7 percent share – essentially equal. In South Dakota during the same time period, 57.4 percent of the leases were cash and 29.2 percent were share leases. Cash leases account for the largest share of total acres leased in both states as well, but this is largely due to the fact that pasture leases tend to be cash leases. Most of the remainder, (approximately 15 percent) were cash/share lease combinations (Table 1). Over time, the general trend has been a shift from share leases to cash leases due to preferences of both landlords and tenants; although definitive historical data is not available to document this in detail.

The issue of contract choice (share versus cash) has been explored recently by agricultural economists. Barry, Sotomayor and Moss through the use of a 1998 mail survey of Illinois professional farm managers indicated a significant trend toward cash leasing, citing as possible reason the avoidance of risk and management sharing by landlords. Their results also indicated

that farm operators prefer a cash lease in order to ensure they are the sole beneficiaries of their management contribution. However, continuing changes in production technology and practices and shifting farm programs, as well as swings in commodity prices and income levels often mask the farmers' ability to manage the tract and the associated risk. This dynamic situation may also lead to less than optimal share leases and less than optimal conservation practices.

An examination of the characteristics of farmland leasing in the North Central United States by Paterson, Hanson and Robison (2002) concluded that landowners and tenants choice of a cash and share lease is based in part on their risk aversion, income availability, and financial security. In addition, customs which often are deeply ingrained in local communities may lead leasing market participants to refuse to consider altering lease terms from existing patterns because of perceived reluctance of participants and/or fear of economic sanctions by members of the community towards those that deviate from customs perpetuated over time; thus creating further inequities and inefficiencies.

Factor Explaining Conservation on Leased Land

Land tenure may pose a particular problem regarding soil conservation and management. RUSLE was used for the states of Nebraska and South Dakota in a concerted effort to examine soil loss on 962 leased tracts. All tracts were reported by respondents to be their most typical or most important leased tract.

Estimated mean soil loss for leased land in the two states varied from a low of 1.12 tons/acre/year in northwest South Dakota to a high of 3.12 tons/acre/year in northeast Nebraska. Approximately 10 percent of the leased tracts in Nebraska and 5 percent in South Dakota were in excess of 5 tons/acre per year. Overall, no region of either state has a mean soil loss of greater that

5 tons/acre/year, which is usually considered the tolerable limit. The highest reported loss for a single tract was 18 tons/acre/year in Nebraska and 15 tons/acre/year in South Dakota.

Longstanding beliefs were tested concerning stewardship on leased land as measured by soil loss from water. Of primary interest was the effect of tenure on stewardship. Results from this study indicate there is no difference in stewardship based on lease type. Also, the opportunity to eventually purchase the tract does not significantly impact stewardship.

Regression analysis was used to examine factors relating to conservation on leased land. Twelve sets of independent variables were examined. Six sets were included and significant at the one percent level. Six others were dropped because they were not significant at the 5 percent level.

Included	**Dropped**
1) Erosion Potential Index	7) Length of Lease
2) Tillage Practices	8) Lease Type (cash or share)
3) Conservation Practices	9) Total Acres Operated
4) Type of Landlord	10) Total Acres Leased
5) Education of Tenant	11) Gross Farm Receipts
6) Age of Tenant	12) Type of Business Structure

Evidence provided by this study suggests that the physical location and features of the tract are the primary determinants of the potential for soil loss on a particular leased tract. This result seems plausible as sheet and rill erosion should be related to the inherent features of the tract such as annual rainfall, soil type, and slope. These inherent factors are, for the most part, beyond the landowner or tenant's control.

Factors that seem to be indicators of stewardship include the production practices of the tenant and the permanent conservation practices established on the tract. Evidence also suggests that the type of landlord, age and education also play a role in stewardship (Table 2).

Interestingly, four of six variables dropped (numbers 9, 10, 11, 12) suggest as a group that soil stewardship is not related to farm size, farm income, or type of farm organization. Two other non-significant variables (numbers 7, 8) both relate to lease characteristics.

The model provides insight into factors that indicate tenants producer's stewardship of tracts they operate. Having examined these factors the obvious questions still exists, "Are there other factors that motivate tenant producers to farm in a conscientious manner?". The Cropland Leasing and Conservation Follow-up Survey provided further insight into this issue.

Data Source Cropland Leasing and Conservation Survey, Values and Beliefs

In February of 1997, a sample of 150 Nebraska agricultural producers were mailed a survey regarding cropland leasing practices and the values and beliefs of market participants. This sample was a subset of the larger Nebraska Cropland Leasing Survey conducted in 1996. South Dakota was not part of the follow-up Cropland Leasing and Conservation Survey, which was designed to supplement and complement the information collected by the 1996 Cropland Rental Arrangement Survey. The follow-up survey contained questions concerning community norms about the stewardship of agricultural lands, and asked renters questions concerning their values and beliefs. Beliefs essentially represent perceived statements of truth while values constitute a normative position of worth or excellence. Values are statements of what is right and important.

The Role of Community Norms

An individual's values and beliefs are influenced by his or her surrounding community. Respondents to the Cropland Leasing and Conservation Follow-up Survey indicated their community has established norms regarding how leased land is to be farmed. In fact, the vast majority of tenant respondents (85 percent) suggested that leased land should be farmed as well as one's own property (Figure 1). This norm was supported whether the landowner was a relative or

non-relative or their residence was local or non-local. In other words, tenants seem to generally have a sense of accountability to their community regarding land they are leasing.

As a follow-up to the question of community norms, tenant producers were asked if they perceived social pressure to adhere to such norms regarding the use and management of their leased land. Almost two out of three respondents (65 percent) reported they did feel specific pressures (Figure 2). Of those indicating such pressure, the majority (64 percent) perceived it to be pressure to maintain their own integrity in the community, while a fourth of the Cropland Leasing and Conservation Survey respondents (24 percent) interpreted this pressure as that of maintaining their own reputation as a good farmer. Only a small percentage (9 percent) felt such pressure in the form of being able to continue leasing land in the future. In essence, it appears that the positive issue of personal integrity and reputation as a good farmer were considered more influential than the negative threat of losing the opportunity to lease land in the community.

There is a wide variety of landowner types in the leasing market. Survey respondents, indicated most of their landlords were interested in how their land was being managed (Figure 3). Most of respondents (72 percent) reported their landlords were moderately to highly interested in the annual production process and 74 percent said their landlords were moderately to highly interested in the long-run resource management of their land.

Tenant Value Sets Concerning the Environment

In this follow-up study, farm producers were found to be concerned about the environment. When asked to rank their own position, 38 percent of the respondents, considered themselves to be very concerned about the environment, (the highest ranking possible) while another 54 percent stated they were concerned (Figure 4). Only a very small percentage considered themselves to be at the low range of the concern scale.

But do such environmental concerns by producers really apply to land they lease? The same respondents were asked a series of questions which addressed this critical question. The conventionally held hypothesis suggests that tenant producers will tend to make specific farming decisions that would favor their owned land over land that they lease. For example, when timing of operation may be critical, producers would tend to their own land before they would move onto land which they lease (Table 3). However, these respondents overwhelmingly responded that timing was determined by whichever land is "ready" first. In fact, only a small percentage (less than 10 percent) prioritized owned land over leased land regarding the timing of agricultural practices. Therefore, it appears that agricultural producers consider their land base of owned and rented land as a complete system; and farm it in the most systematic and efficient manner possible regardless of the ownership considerations of the various parcels.

In a more direct question addressing land management on leased land, Cropland Leasing and Conservation Follow-up Survey respondents were asked if they would fix an ongoing conservation problem on the land they lease. The vast majority (75 percent) responded that they would, just as they would on their own property (Figure 5). Another 6 percent said yes, even if it were not profitable for them to do so. Another 10 percent gave a conditional "yes" on the basis of it being profitable for them to do so. In total, more than 90 percent of tenants surveyed responded they would fix a conservation problem on land that they do not own.

Finally, survey respondents were asked to rank the relative importance of various cultural practices on the land they own and land they lease. Results indicate little difference in responses between land they own and land they lease. As evident in Figure 6, there is essentially no difference in response between land owned and land leased. This suggests tenants do not favor the

land they own over the land they lease. Rather, they seem to have similar conservation and management concerns for both properties.

To further emphasize the value of tenants concerning the environment and production practices, tenants were asked if they would change their production practices on leased land even if they knew they would be leasing the land for a short time - one to two years. Virtually all the tenants (97 percent) responded that this would not alter what they considered to be the best farming practices. They would not reduce fertilizer application or modify pesticide management practices simply to "mine" the land prior to giving up the lease. Likewise, there was no significant difference in tenant response between those who expected to own the land someday and those who did not.

With regard to specific conservation problems on leased land, 80 percent of respondents to the 1997 Nebraska Cropland Leasing and Conservation Follow-up Survey indicated they would choose to make the best land management practices on leased land, even without the landowner's knowledge or understanding of its significance. Using chi-square tests of significance (a=.05), there was no significant difference to this question between tenants leasing from relatives and local landowners and those tenants leasing from non-local landowners.

This and the related statistics represent the intrinsic value sets producers have concerning land and the surrounding environment. The willingness to maintain and restore the environment concerning agricultural production is a quality which the vast majority of tenant agricultural producers seem to possess.

Tenant Producer Beliefs

Given the pattern of farming and land management observed among all tenants surveyed, this study attempted to identify their general beliefs and values which may underlay these

characteristics. Consequently, tenant respondents to the Cropland Leasing and Conservation Follow-up Survey were asked to rank a series of beliefs and values as to their own level of agreement. Using a scale of 1 to 5 with 1 being strongly disagree and 5 being strongly agree, respondents believed that farming leased land was a critical factor to the economic success of farming operations in Nebraska (Figure 7). Correspondingly, they were basically neutral on the statement that owning land is better than leasing land from the standpoint of profitability. They also indicated high agreement with the statement that producers value independence and flexibility in farming the land. Furthermore, they tended to believe that most producers farm the land for long-run sustainability versus short-run gain.

Regarding beliefs as to resource management on leased land, Cropland Leasing and Conservation Follow-up Survey respondents basically agreed with statements that all of their land was being farmed in a sustainable manner and that how leased land is farmed could influence their ability to continue leasing it (Figure 8). Conversely, they disagreed with the statement that typical farming practices on leased land cause environmental damage. Respondents generally agreed with the belief that environmental damage rests with the person causing it and that tenants perform resource management functions above and beyond what is required by the landowner.

Tenant Producer Values

Do tenants hold particular values which may explain their actions? Responses by those returning the 1997 Cropland Leasing and Conservation Follow-up Survey to a series of value statements suggests that they do indeed (Figure 9)! Values ranked highest in importance were the need for a full time farming venture to provide an adequate living for the farm family and the importance of their word in any business agreement being counted on by others. Likewise, they valued highly the statement that both tenant and landowner should benefit from sound farming

practices and that any farmland parcel, whether owned or rented, should be farmed in a sustainable manner. The Cropland Leasing and Conservation Follow-up Survey respondents also valued the importance of their individual farming practices as a reflection of their own integrity.

The tendency for tenant producers to hold these strong values concerning family well being, honesty, fairness to others, and management credibility seems to be an explanation, at least partially, for their farming practices and management characteristics.

Tenant Perceptions of the Future

Anybody associated with the agriculture sector in Nebraska and South Dakota will know the 1980s farm crisis was an economic disaster for many land market participants. However, over the past decade, land values have rebounded and many farmers see more favorable long-run profits in production and ownership of land. Title to land continually changes hands through estate settlements, owner decisions, etc. Many tenants would like to acquire legal title to the land in order to expand their operation further and perhaps gift the land to their children in the future. Tenants seeking this opportunity often like the chance to purchase the rental tracts they are farming if financially feasible.

The 1997 Nebraska asked tenants if they expected any chance of purchasing their rental tracts within the next five years. The majority (53 percent) of them said "yes, they do expect a chance" (Figure 10). Of the 53 percent, 67 percent of the tenants' expect there will be moderate to intense competition for the tracts available. In short, most do not foresee a particular competitive advantage in negotiating for purchase of the land tract by having previously leased the tract. Thus, there appears to be little if any incentive among tenants to farm leased land conscientiously simply to gain a comparative advantage in the future when it comes up for sale.

Further Reasons for Conservation

Although the community exerts pressure on producers to farm with integrity and their personal values and beliefs guide them to do so, it would be remiss not to mention other strong incentives for producers to adopt conservation practices. Adoption of conservation tillage has generally been economical. Often, conservation is achieved through the adoption of reduced tillage in which payoff has been primarily in the short-run in terms of reduced production costs. A typical share lease tenant who pays for all field operations and only a share of the chemical costs, may have even more of an incentive to adopt conservation tillage than an owner operator. The economical soundness of alternative cultural practices can be a strong motivation for their adoption.

Furthermore, if most of the payoff is short-run cost savings rather than long-run increases in productivity, one would not expect land tenure to impact conservation practices. Many of the currently recommended practices that often include a conservation tillage approach, have been influenced by payoffs from increased cost savings with the payoffs from long-term increases in productivity being relatively insignificant.

Additionally, farm operators generally convert their entire operation to a particular tillage practice rather than maintain separate lines of machinery. This is probably done for cost reasons. However, the outcome of farm operators with a single line of machinery is that all the land in their operation is farmed similarly whether it is owned or leased. Tenure under this condition, would have no impact on conservation practices.

Finally, a related factor to consider is the magnitude of the net costs. Even if conservation pays off only over the long run, one would still expect tenure to be unimportant as long as the

short-run costs are relatively low. Many will choose to buy community and peer group respect if the price is low enough.

Summary

Evidence provided by this study suggests that the physical location and features of a tract are the primary determinants of the potential for soil loss on a particular leased tract. The results seem plausible, as sheet and rill erosion should be related to the inherent physical features of the tract such as rainfall, soil type, and slope. These inherent factors are, for the most part, beyond the landowners or tenant's control.

Evidence suggests however, that characteristics within their control and hypothesized by many as stewardship are not significant indicators of poor stewardship. They include the size of the tenants operation, type of business structure, the type of lease, and security the tenant perceives in retaining a leased tract. These findings dispel some traditionally and popularly held beliefs by many in agriculture and even those individuals not directly involved in production agriculture.

Factors that seem to be indicators of stewardship include, as one might expect, the production practices of the tenant and the more permanent conservation practices established on the tract. Evidence also suggests that the type of landowner, and age and education of the tenant also play a role in stewardship.

Tenant respondents reported the vast majority of their landlords are interested in the short-term operation and the long-run management of the land regardless of their relationship to the tenant or the landowner's residence in relation to the leased tract. Landowners are interested in both short-term income and long-run maintenance of the land. However, landowners often must rely on the tenant to steward the tract properly in the short- and long-term. Landowners may be

justified in this reliance as tenant respondents reported that environmental interests and conservation practices on their own and leased land are one in the same.

Respondent tenants perceive community norms and social pressures to farm leased land as they would their own. This, coupled with their own beliefs and values concerning production agriculture and resource management is reflected in their production practices. However, the economic incentives of embracing more environmentally sound production practices should not be overlooked. Federal and state agencies need to more fully understand these characteristics in order to design and implement effective conservation policy.

Selected Implications

***** The cropland rental market is an important source of capital in production agriculture and is an efficient approach in organizing and controlling land resources.

***** Landowners are usually justified in trusting and relying upon tenants for land resource management of their tract.

***** Environmental interest and conservation practices on owned land and leased land are essentially the same, unless a major change in land use or costly structural improvements are required on leased land to meet environmentally / conservation objectives.

***** Environment stewardship payment plans that are geared towards tenants and landowners for proper conservation management of owned and leased land could be a positive step in redesigning Federal farm programs and is consistent with producer's whole-farm approach in managing all of their owned and leased land.

***** Public education remains a successful key in managing agricultural land resources for the societal good. Goals of the community can be shaped though education programs after which pressure can be applied if necessary on nonconforming landowners and tenants.

Acknowledgement

The cooperative study on agricultural land leasing was supported by the Agricultural Economics Department, University of Nebraska and Economics Department, South Dakota State University and funded by the Agricultural Experiment Station in both states. We wish to thank all respondents completing the survey and appreciate the assistance of the State Agricultural Statistics offices of Nebraska and South Dakota for selecting the sample of operators. We also thank the Natural Resources Conservation Service for their assistance with data collection and application of the RUSLE model.

BIBLIOGRAPHY

Barry, Peter J., N.L. Sotomayor, and L.E. Moss. "Professional Farm Managers' Views on Leasing Contracts and Land Control: An Illinois Perspective." *J. American Soc. Farm Managers and Rural Appraisers* 1998-99: 15-19.

Cole, John. 2000. An Economic Analysis of Agricultural Land Leasing with an Emphasis on the Interface of Leasing and Conservation Practices in Nebraska and South Dakota. Ph.D. Thesis, University of Nebraska, Lincoln, Lincoln, NE.

Johnson, Bruce et.al. 1988. Agricultural Land Leasing and Rental Market Characteristics: A Case Study of South Dakota and Nebraska. UNL Dept. of Agricultural Economics, Lincoln, NE.

Natural Resources Inventory. 1992. United States Department of Agriculture, Natural Resources Conservation Service. April.

Peterson, Brian J., Steven D. Hanson, and Lindon J. Robison, "Characteristics of Farmland Leasing in the North Central United States." *J. American Soc. Farm Managers and Rural Appraisers* 2002: 72-82.

United States Department of Agriculture. "Agricultural Economics and Land Ownership Survey (1999)," Census of Agriculture 1997.

United Census Department of Commerce, Bureau of the Census, (1948-1992) Census of Agriculture, 1990, 1992, 1997, U.S. Government Printing Office.

Table 1. Agricultural land rented by type of lease, 1999

Lease Type	Nebraska: Percent of Leases	Nebraska: Percent of Acreage	Nebraska: Average Size in Acres	South Dakota: Percent of Leases	South Dakota: Percent of Acreage	South Dakota: Average Size in Acres
Cash	41.9	51.7	287	57.4	55.4	215
Share	41.7	29.9	166	29.3	27.4	209
Cash/Share	15.1	13.7	212	11.2	15.1	298
All Other Leases	1.3	4.7	830	2.1	2.1	217
	100.0	100.0		100.0	100.0	
	n = 114.3	n = 26,539		n = 71.5	n = 15,902	

n = thousand of leases (acres)

Source: USDA Census of Agriculture, 1999 Agricultural Economics and Land Ownership Survey

Table 2: Factors Affecting Sheet and Rill Erosion in Nebraska and South Dakota

Summary Statistics:
N = 914 R^2 = .491 F = 43.24

Dependent Mean = 1.85

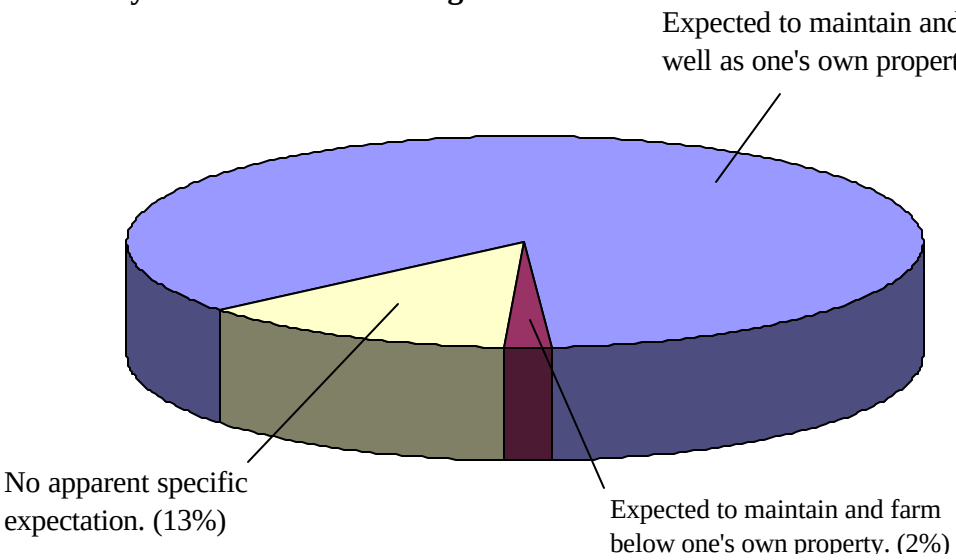
Root Mean Square Error = 4.40 tons/acre

Co-variant Factors:	DF.	Type III Sum of Squares	F-Value
Erosion Potential	1	11920	614.6
Tillage Practices	7	3425	25.2
Conservation Practices	4	690	8.8
Type of Landlord	2	252	6.5
Education	4	273	3.5
Age of Tenant	2	211	5.5

Level of Significance: a = .01

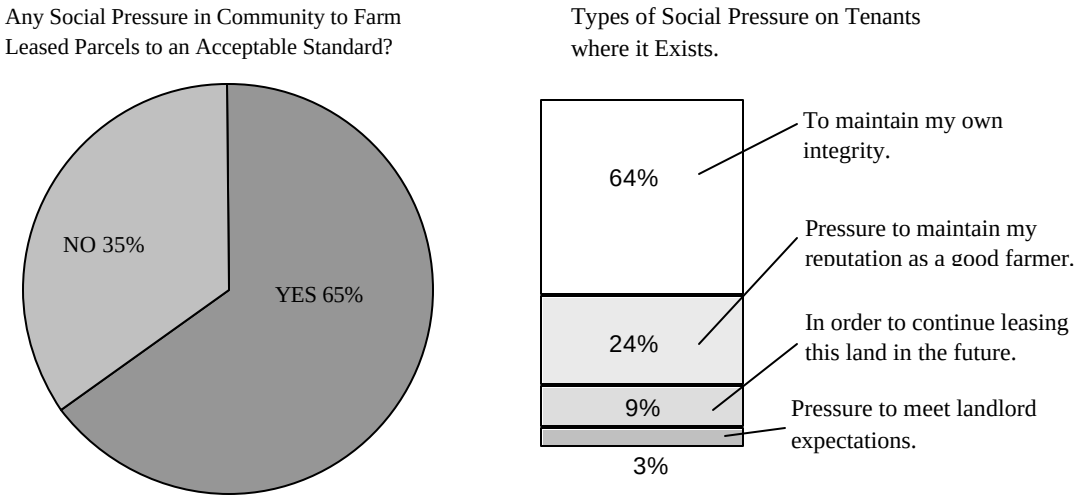
	Least Square Mean	Means with Common Letters Do Not Differ Significantly (p = .05)
Tillage Practices		
Fall Clean Till	3.99	a d f
Other	3.28	a d f
Spring Clean Till	3.15	a d f
Fall Mulch Till	2.03	h
Spring Mulch Till	1.63	e g h
Ridge Till	1.34	e g h
Strip Till	0.98	c e g h
No Till	0.41	c h
Conservation Practices		
None	2.57	c d
Strip	2.46	b c d
Contour	2.04	a b d e
Buffer	1.73	a b e
Terrace	1.71	a b e
Type of Landowner		
Other	2.51	a b
Relative-Local	2.09	a b
Unrelated-Nonlocal	1.70	
Education		
Some High School	2.70	b
High School	2.17	b e
Technical	2.00	a c e
College Grad.	1.83	a c e
Some College	1.81	a c e
Age of Tenant		
Less than 44	2.32	a b
44 to 64	2.27	a b
65 plus	1.71	

Figure 1: Tenant Producer's Perceptions Regarding Community Standards for Farming Leased Land



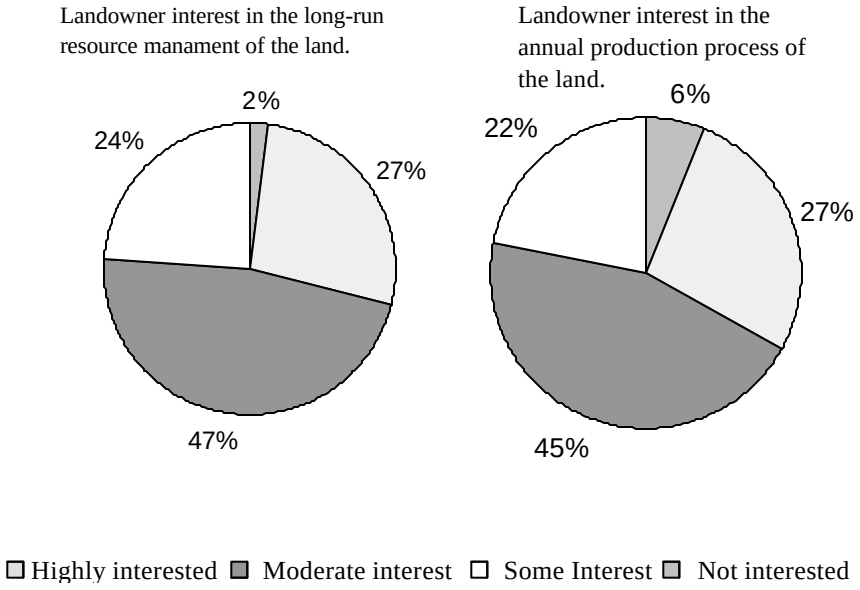
Source: 1997 Nebraska Farmland Follow-up Leasing Survey.

Figure 2: Tenant Producers' Perceptions Regarding Community Pressure to Farm Leased Parcels to a Certain Standard, 1997.



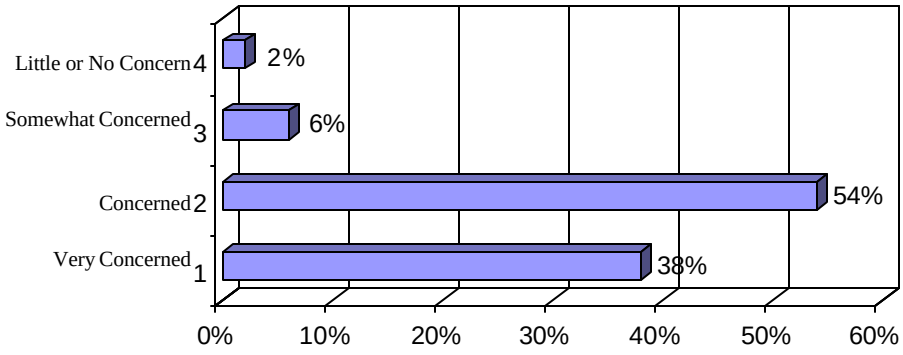
Source: 1997 Nebraska Farmland Follow-up Leasing Survey.

Figure 3: Tenant Producers' Perception of their Landowners' Interest in the Land Leased, 1997.



Source: 1997 Nebraska Farmland Follow-up Leasing Survey

Figure 4: Tenant Producer Concern about the Environment, 1997.



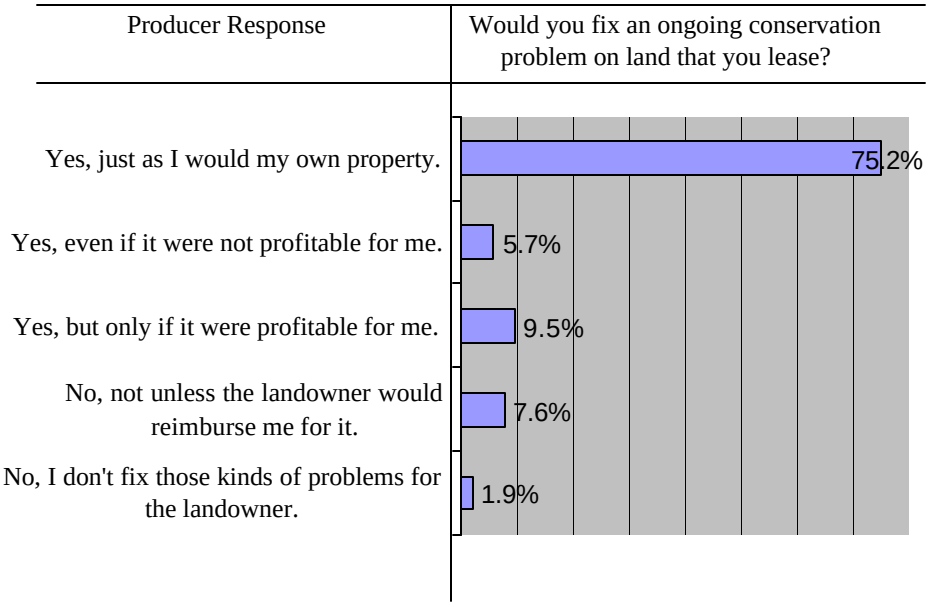
Source: 1997 Nebraska Farmland Follow-up Leasing Survey.

Table 3. Timing Decisions of Agricultural Practices by Tenant Producers on Owned and Leased Land, 1997.

Cultural Practice	Cultural Practice Performed First On:			Total
	Tenant's owned land	Tenant's rented land	Whichever land is ready first	
	----------Percent----------			
Spring Tillage	7	15	78	100
Fertilizer Application	9	14	77	100
Herbicide Application	9	11	80	100
Harvest	6	13	81	100
Fall Tillage	6	17	77	100

Source: 1997 Nebraska Farmland Follow-up Leasing Survey

Figure 5: Tenant Producer's Responses Regarding Conservation Problems on Leased Land, 1997.

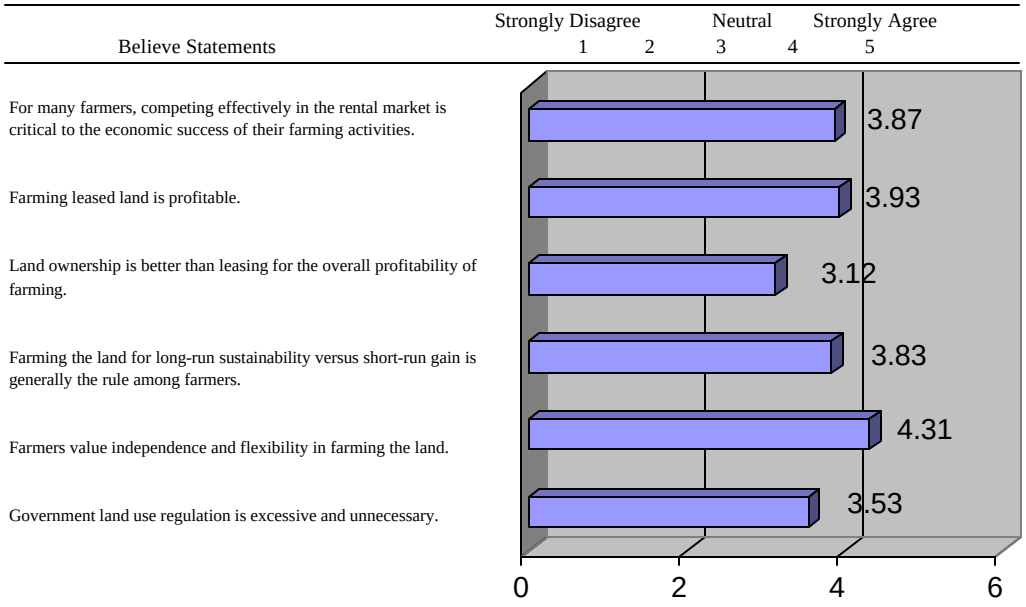


Source: 1997 Nebraska Farmland Follow-up Leasing Survey

Figure 6: Tenant Producers' Ranking of Importance of Various Cultural Practices on Land They Own and Land They Lease. 1997.

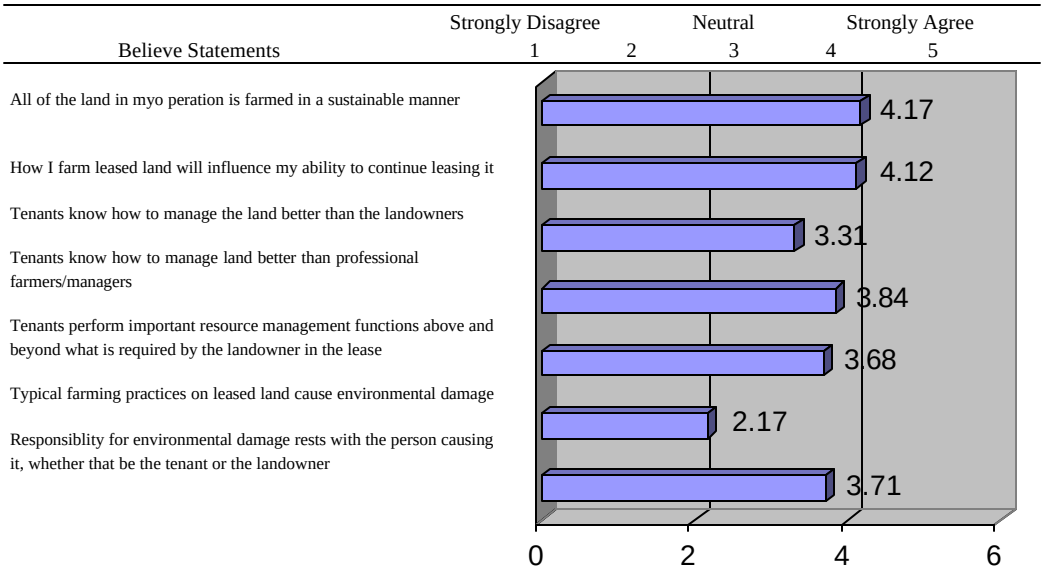
Source: 1997 Nebraska Farmland Follow-up Leasing Survey

Figure 7: Tenant Producer Beliefs Regarding Production Agriculture, 1997.



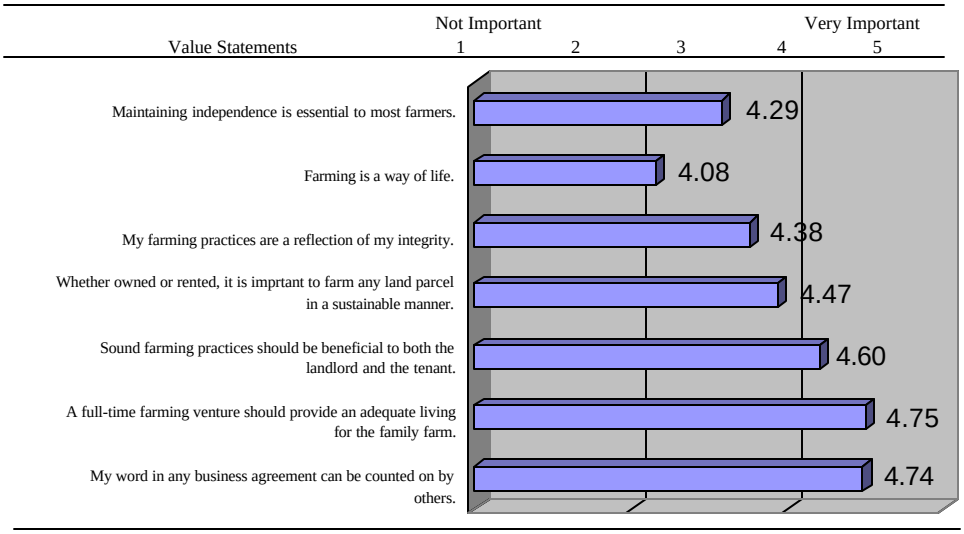
Source: 1997 Nebraska Farmland Follow-up Leasing Survey

Figure 8: Tenant Producer Beliefs Regarding Resource Management on Leased Land, 1997.



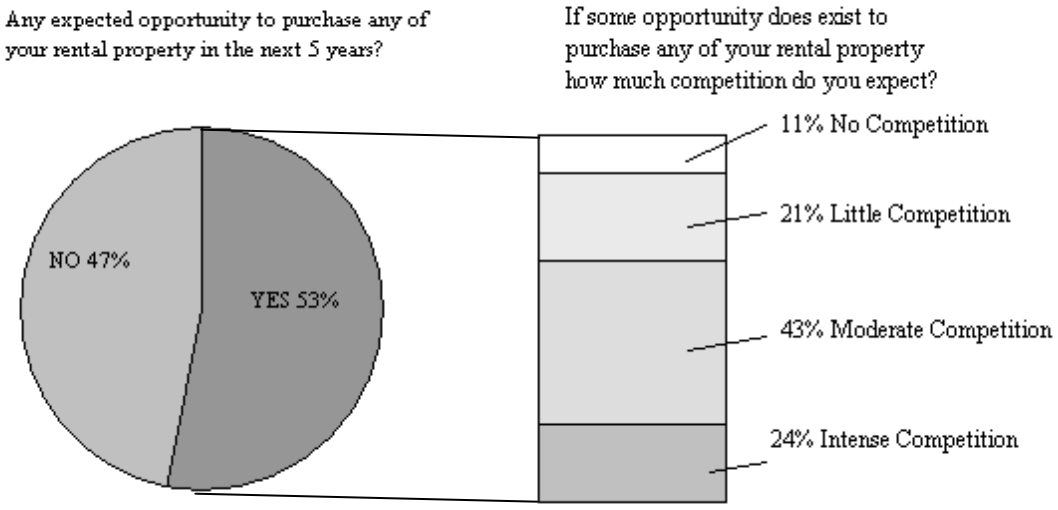
Source: 1997 Nebraska Farmland Follow-up Leasing Survey

Figure 9: Tenant Producer Values Regarding Production Agriculture, 1997.



Source: 1997 Nebraska Farmland Follow-up Leasing Survey

Figure 10: Tenant Producers' Perceptions Regarding Future Opportunity for Purchasing Any of Their Leased Land.



Source: 1997 Nebraska Farmland Follow-up Leasing Survey.