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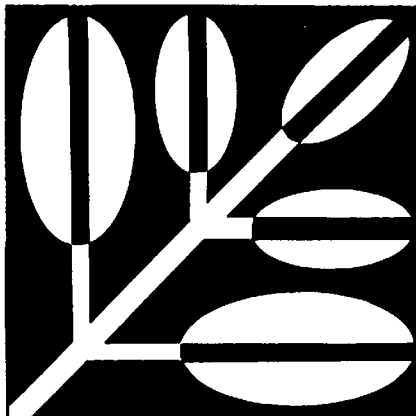
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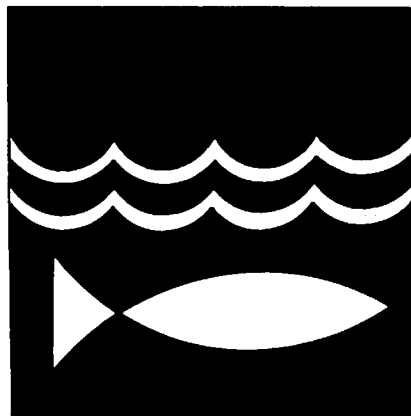
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**A Baseline Analysis of
Participants in the
Conservation Reserve Program
in North Dakota**



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Acknowledgements

The amount of data and analysis that this report represents can only be collected through the efforts of a number of people and organizations. First, we express appreciation to the North Dakota Agricultural Stabilization and Conservation Service and especially Robert Christman and Robert Muellenbach for information and insights they provided.

Our thanks also go to Janet Wanzek who provided excellent assistance in data input and Shelly Swandal who did an excellent job of typing and formatting this document. We also thank our colleagues in the Department of Agricultural Economics and Extension Agricultural Economics for their helpful reviews.

The authors accept sole responsibility for any errors in the text.

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Highlights

This report is a comprehensive analysis of baseline characteristics of North Dakota landowners having land enrolled in the Conservation Reserve Program (CRP). Usable responses were received from 1,290 landowners or over 40 percent of the questionnaires mailed.

Results are organized into six parts: (1) demographic characteristics, (2) landowners, (3) CRP land, (4) financial characteristics, (5) farm management changes, and (6) opinion questions. Analysis of the survey data led to a number of conclusions. The most notable are as follows:

- *CRP participants' average age is 57.2 years or about 10 years older than the average North Dakota farmer.*
- *Annual contract payments to all respondents averaged about \$37 per acre with nonfarmers receiving about \$2 per acre less than their farmer counterparts. Over two-thirds of all respondents received between \$31 and \$40 per acre for annual contract payments.*
- *Nearly 58 percent of all respondents indicated that CRP payments were higher than cash rent in their local area, and over 37 percent said they were about the same.*
- *Respondents indicated that land entered into CRP was 9.5 percent less productive than other land in their area not entered into the program.*
- *Input costs were not significantly higher (.5 percent) on land entered in the CRP.*
- *Many respondents (38.8 percent) indicated they did not know what their land use intentions were after the contract expired. However, up to 16 percent indicated they would not use it for cropland but would keep it permanently covered, pasture it themselves, rent it out for pasture, or lease it for recreation purposes.*
- *Apparently, much of the income generated from the CRP will be used for living expenses, savings or investment, paying debts, retirement, or leisure activities in North Dakota. Only 3.5 percent indicated that they will use the income for leisure or retirement out-of-state.*
- *About 21 percent of the farmer participants said that the CRP enabled them to continue their farming operation.*
- *CRP income is apparently a major source of income for farmer landowners with over 40 percent having CRP incomes that exceed their net cash income from their farming operation.*

This baseline data provides a comprehensive view of CRP landowners and CRP land. Further analysis will focus on determining the economic impact of this program on the five pool groups and on the state.

CONSERVATION RESERVE PROGRAM

Timothy L. Mortensen, F. Larry Leistritz,
Jay A. Leitch, and Brenda L. Ekstrom[†]

Introduction

The Conservation Reserve Program (CRP) was authorized by the 1985 Food Security Act (Public Law 99-198) and was passed at a time of heightened concern for environmental quality. Its main objective is to take highly erodible land out of production. Specific program objectives are to

- Reduce wind and water erosion,
- Protect long-term food-producing capability,
- Reduce sedimentation,
- Improve water quality,
- Create wildlife habitat,
- Curb excess production, and
- Provide income support for farmers.

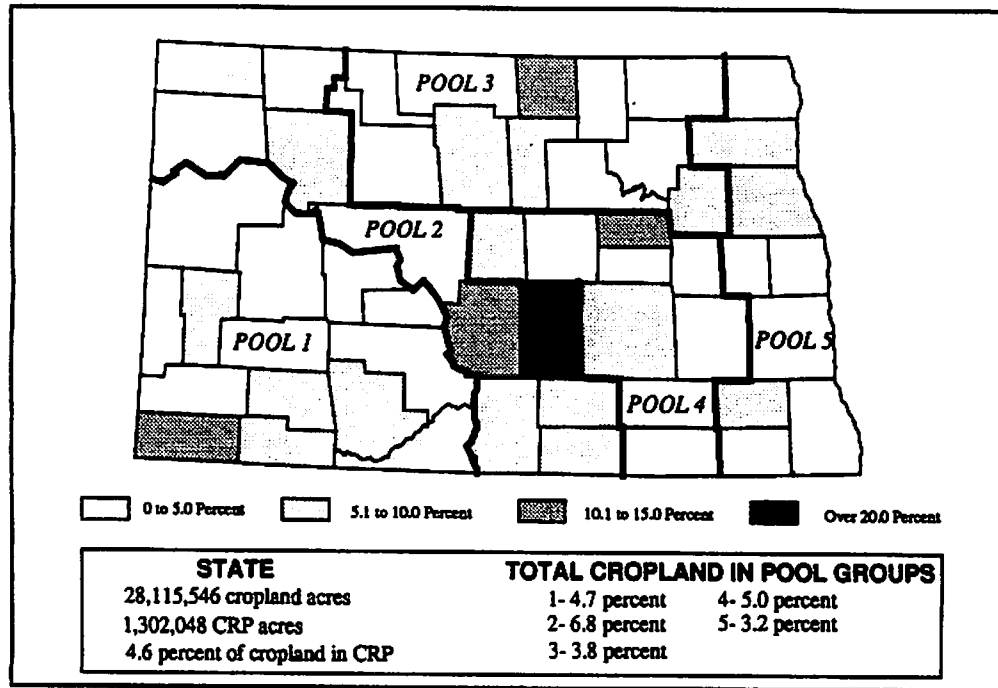
Landowners who wish to participate in CRP must agree to implement a conservation plan that provides for permanent vegetative cover on the land for ten years. In return, the federal government pays the landowner an annual contract payment determined by a bidding process. Land entered must be classified as "highly erodible" by USDA Soil Conservation Service personnel, and no more than 25 percent of an individual county's total cropland may be entered into CRP without USDA approval.

Historical Perspective

The Conservation Reserve Program (CRP) has an objective of retiring 45 million acres of erodible land by 1990. Nationally, this program had reached about one-half its goal (22,150,025 acres) through the fifth sign-up period (July 1987). North Dakota ranked seventh among the states, with 1.3 million contracted acres or about 4.8 percent of the state's total cropland (U.S. Bureau of Census 1982 and Dicks et al. 1988). Figure 1 illustrates the distribution of CRP acres and the percentage of total cropland in each North Dakota county. Through sign-up five, Kidder County had the largest enrollment as a percentage of total cropland.

The present program has similar objectives to the Soil Bank Program of the late 1950s. One of its objectives was to idle land that should have been permanently removed from crop production in the interest of conservation (USDA 1956). The more immediate need at that time was to bring production surpluses under control. Consequently, most cropland was eligible for entry into the Soil Bank Program and did not have to meet erodibility requirements as it does under the 1985 act.

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SOURCE: USDA Soil Conservation Service, 1988.

Figure 1. Percentage of Total Cropland Enrolled in CRP By Category

Soil Bank land enrolled in North Dakota peaked at about 2.7 million acres in 1960 (Figure 2), nearly 10 percent of total enrolled acres in the United States (USDA various years). During the period 1957 to 1970, North Dakota landowners received over \$210 million in payments from Soil Bank with average annual payments of about \$10 per acre. U.S. enrollment in Soil Bank also peaked in 1960 at nearly 29 million acres with an average contract rate of nearly \$12 per acre.

Study Procedures

CRP has the potential of having a long-term impact on North Dakota landowners and surrounding communities. Not all impacts are addressed in this report; some potential effects are (1) economic impacts to retail agribusinesses, (2) environmental and water quality changes, (3) demographic impacts, (4) effects on commodity production levels, and (5) land use changes.

Taylor (et al. 1961) studied the effects of the Soil Bank Program in Ransom County but little is known about state-wide farmer or community impacts of the program. Thus, it was difficult for policymakers to fashion the present program. The intent of this study was to establish a baseline of characteristics for CRP participants in North Dakota. Specific characteristics examined include

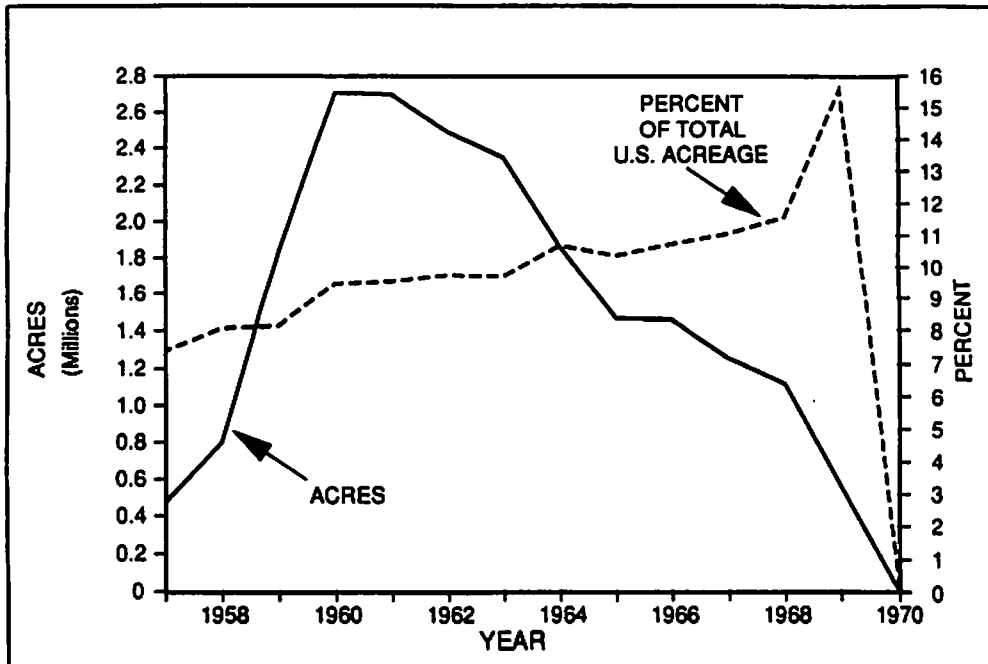


Figure 2. North Dakota Acres and Percent of U.S. Total for the Soil Bank Program of the 1950s

1. Demographic characteristics such as age, residency, education levels, and marital status;
2. Landowner characteristics such as total land owned and CRP acreage owned and farm type;
3. CRP land characteristics such as original tillage, costs and returns, comparison to local cash rents, productivity, cover options, tillage, intended future land use, and use of annual payments;
4. Financial data such as total assets, total debts, debt-to asset ratio, and farm income;
5. Past and future changes in farm management; and
6. Opinion questions.

A mail survey of participating CRP landowners was conducted in the spring of 1988. The six-page questionnaire (Appendix A) was pretested on a sample of 20 CRP landowners attending the Northwest Farm Managers meeting in Fargo, North Dakota, during February 1988. Over 7,000 landowner names and addresses were obtained and randomized by pool group using a computerized routine. Nearly 3,000 questionnaires (approximately 40 percent of the total) were mailed to CRP landowners in all 53 North Dakota counties (Table 1). Follow-up mailings to nonrespondents resulted in 1,289 usable surveys for a response rate of about 44 percent. Response rates were quite similar for each of the state's five pool groups. Frequency count differences between farmer and nonfarmer landowners were statistically analyzed for independence using the chi-square test at an alpha level of .05. The Tukey test (alpha = .25) for unequal sample sizes was used for mean comparisons.

TABLE 1. SUMMARY OF SURVEY QUESTIONNAIRES SENT AND RECEIVED
BY POOL GROUP

Item	Unit	Pool					Total
		1	2	3	4	5	
Surveys sent	No.	457	805	638	479	549	2,928
Surveys returned	No.	199	349	274	215	252	1,289
Percentage of total sent	%	15.6	27.5	21.8	16.4	18.8	100.0
Percentage of return	%	43.5	43.4	42.9	44.9	45.9	44.0

Results

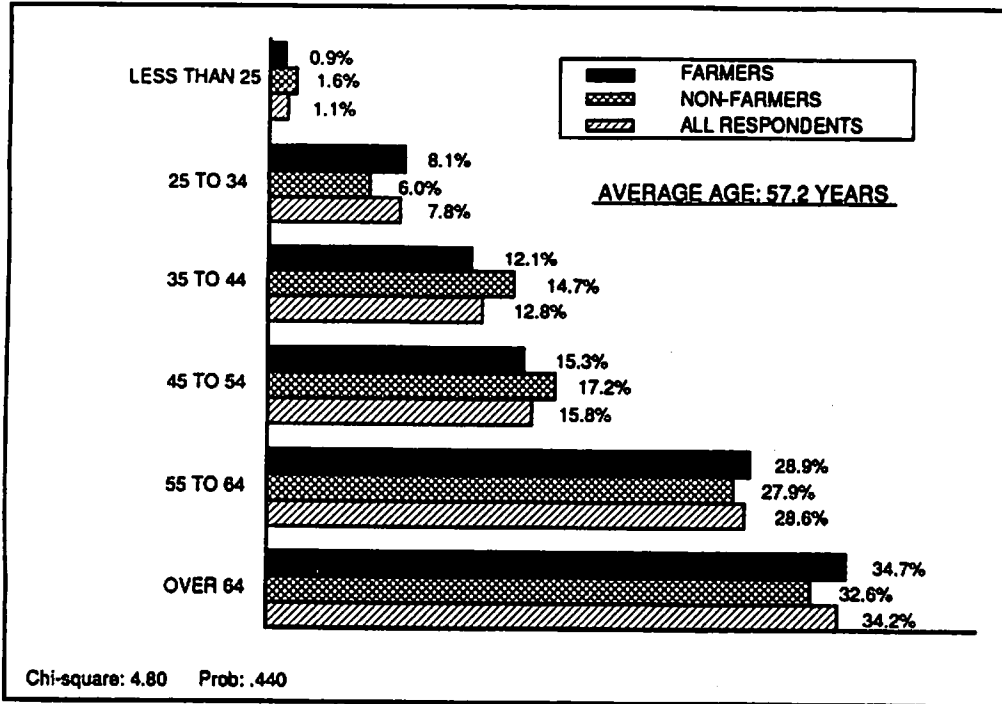
Demographic Characteristics

Due to differences found during the analysis, results are separated into landowner categories of farmers and nonfarmers. Farmers (73 percent of the respondents) include individuals who farmed either part-time or full-time in 1987. Nonfarmers (27 percent) are individuals who had never considered farming as their primary occupation or were not part-time or full-time farmers in 1987.

Nearly 62 percent of all CRP respondents were over age 55 at the time of the survey. The average age of CRP landowners was 57.2 years with no significant age difference between farmers and nonfarmers (Figure 3). This compares to an average age of 47.2 years for respondents to a 1988 longitudinal survey of selected farmers in the state (Leistritz et al. forthcoming).

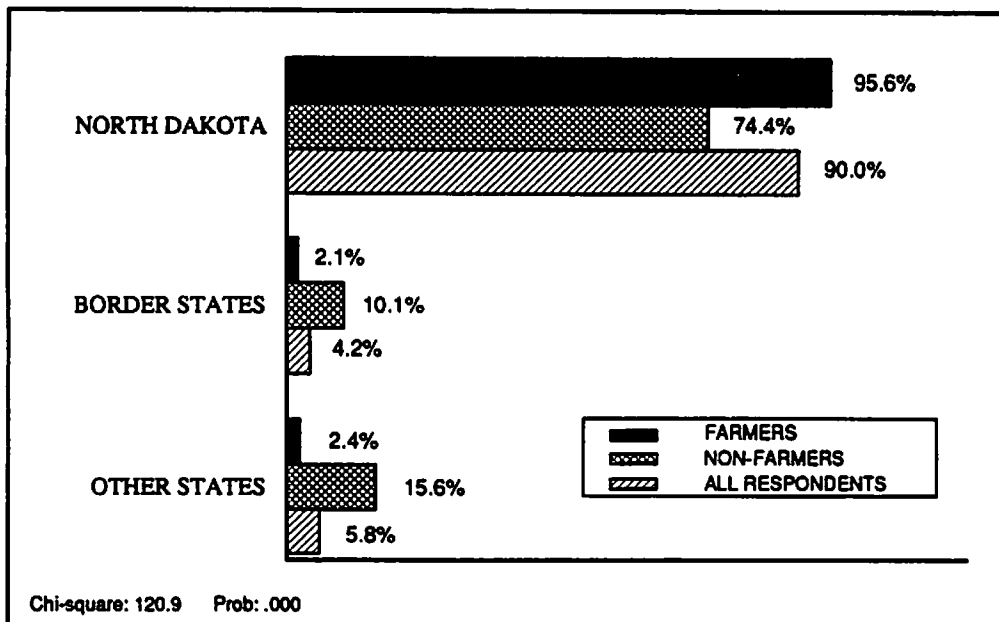
Ninety percent of the survey respondents lived in North Dakota (Figure 4). Over 4 percent resided in the neighboring states of Montana, South Dakota, and Minnesota, and the balance lived in 22 other states from New Hampshire to California.

Education levels of respondents were related to whether they were farmers or nonfarmers. Over 63 percent of the farmers and 76.4 percent of the nonfarmers had at least a high school education (Figure 5). A higher education level was reported by nonfarmer respondents with 34.6 percent completing at least 16 years of school compared to 12.8 percent of the farmers.



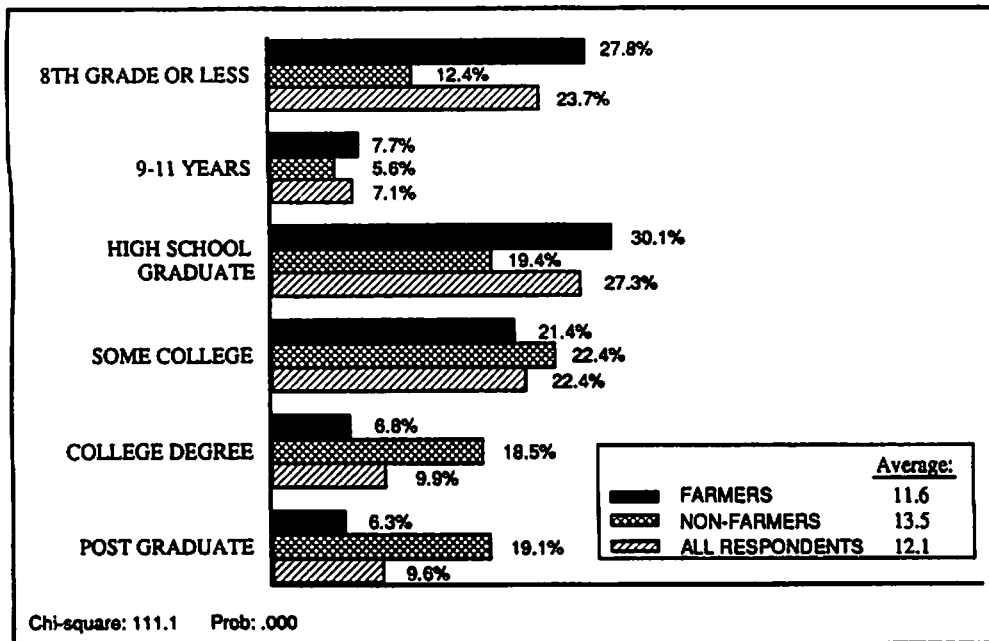
NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 3. Age Distribution of CRP Respondents



NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 4. Residence of CRP Respondents



NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 5. Education of CRP Respondents

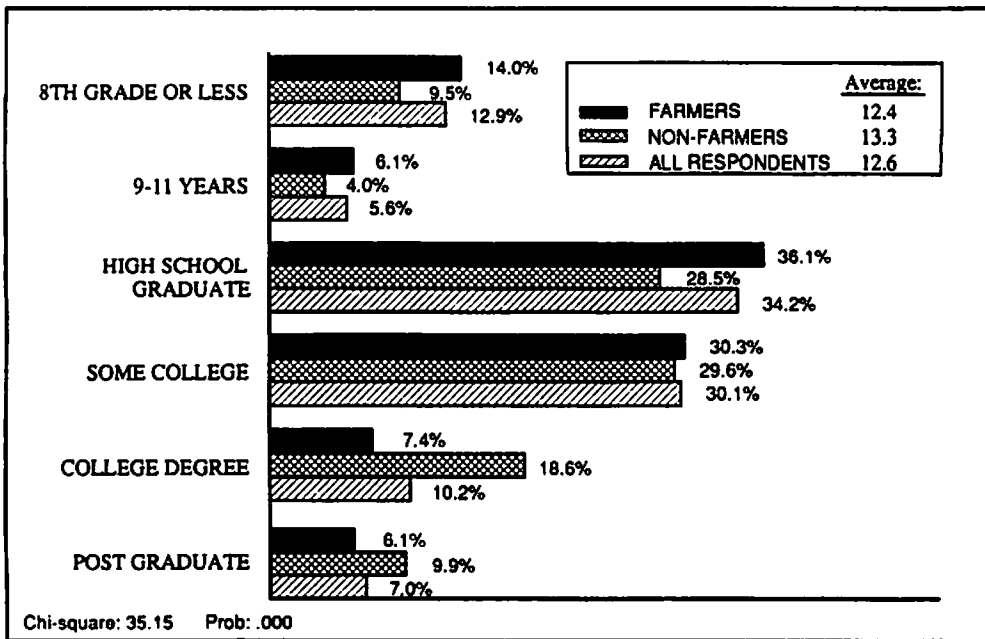
Spouses of CRP respondents were more likely to have a high school diploma than the respondents themselves (Figure 6). Nearly 80 percent of the farmers' spouses and over 86 percent of the nonfarmers' spouses had at least a high school diploma. There was also a noticeable difference between farm spouses and nonfarm spouses with college degrees; 13.5 percent of the former had a degree or had done postgraduate work compared to 28.5 percent of the nonfarm spouses.

Over 82 percent of CRP landowners were married at the time of the survey (Figure 7). This compares to 88 percent for the respondents participating in the 1988 farmer survey (Leistritz et al. forthcoming).

Landowner Characteristics

Characteristics of CRP land owned by survey respondents are summarized in Table 2. The average acreage owned by all respondents was about 916 acres. Current farmers operated farms averaging 1,530 total acres with about 906 of these being cropland. CRP participants who farmed in 1987 owned 65.1 percent more land (1,024.2 acres) in North Dakota than nonfarmers (620.5 acres) and had 28.6 percent more land enrolled in CRP.

Nearly 62 percent of the farms operated by CRP landowners who farmed in 1987 were classified as cashcrop farms (over 50 percent of their gross income was from sales of crops). Only 15 percent were predominantly livestock farms, and slightly over 23 percent were mixed (i.e., neither crops or livestock accounted for more than 50 percent of their gross income).



NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 6. Education of CRP Participant Spouses

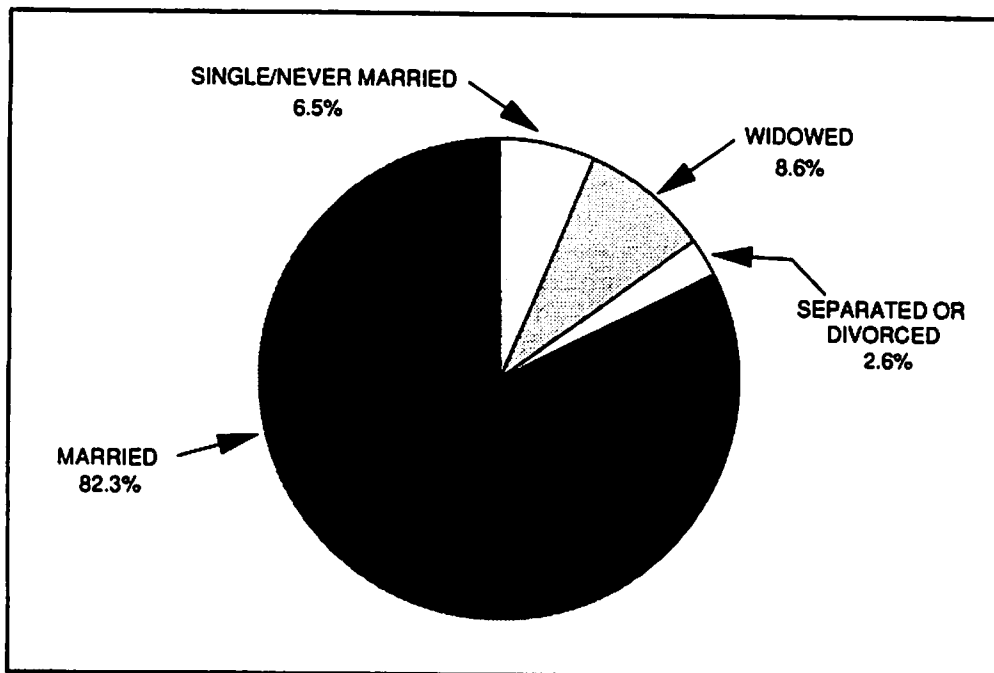


Figure 7. Marital Status of CRP Respondents

TABLE 2. LAND OWNERSHIP CHARACTERISTICS OF CRP SURVEY RESPONDENTS

Item	Farmers	Nonfarmers	All Respondents
	-----average acres-----		
Land owned*	1,024.2	620.5	916
Land in CRP*	213.4	165.9	200.7
Land operated	1530	**	**
Total cropland	906	**	**

*Statistically significant difference between farmers and nonfarmers using the Tukey test at alpha = .05.

**Not applicable.

CRP Land Characteristics

Respondents were asked numerous questions regarding land they enrolled in the CRP. Tillage operations, costs, returns, cash rent comparisons, cover options, land use, and payment use are discussed in the sections that follow.

Original Tillage

Some land that had been entered into CRP through sign-up five had been originally cultivated over 90 years ago (but not necessarily continuously tilled). Although over 39 percent of the respondents did not know when their CRP land was originally tilled, 33 percent indicated it was first tilled before 1921 (Figure 8). Only slightly over 5 percent stated the land was first tilled after 1960, which would include marginal land broken during the "boom" period that occurred in the early 1970s.

Costs and Returns

The program requires that appropriate cover be established on CRP land. Cover normally consists of a mixture of grasses and legumes that are appropriate for a particular geographic region of the state but could also include tree plantings or water impoundments. Costs of establishing grass cover include seed, fertilizer, seedbed preparation, and labor. The average cost of establishing cover on CRP acres in North Dakota was \$37.20 per acre (Figure 9). Part of the 1985 Farm Bill allowed for cost-sharing of up to 50 percent of the cost of establishing cover to be paid by the federal government. Results of

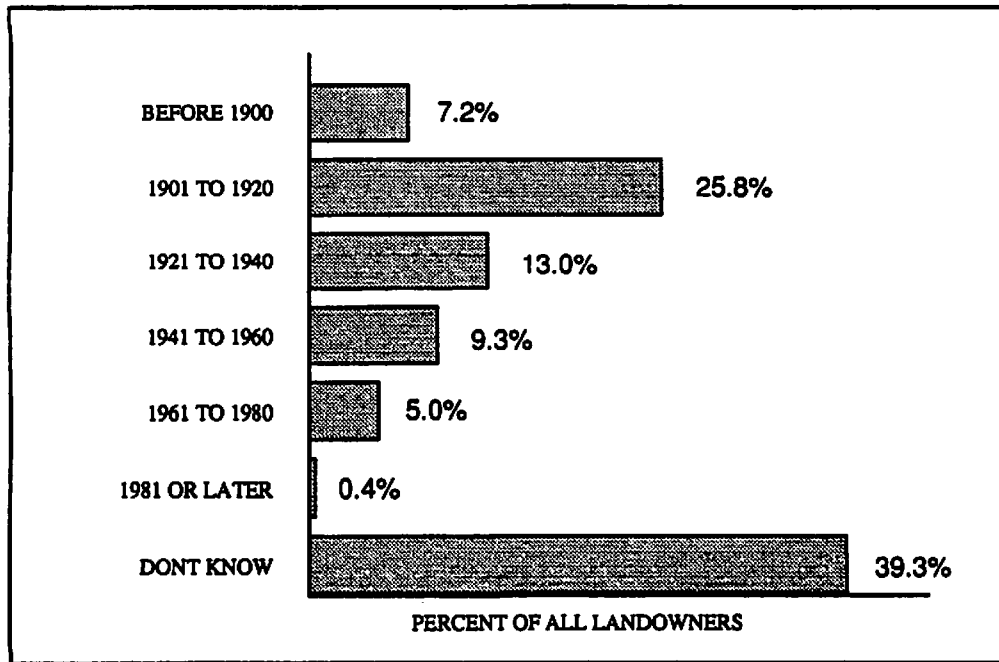


Figure 8. Original Tillage of CRP Land By Category

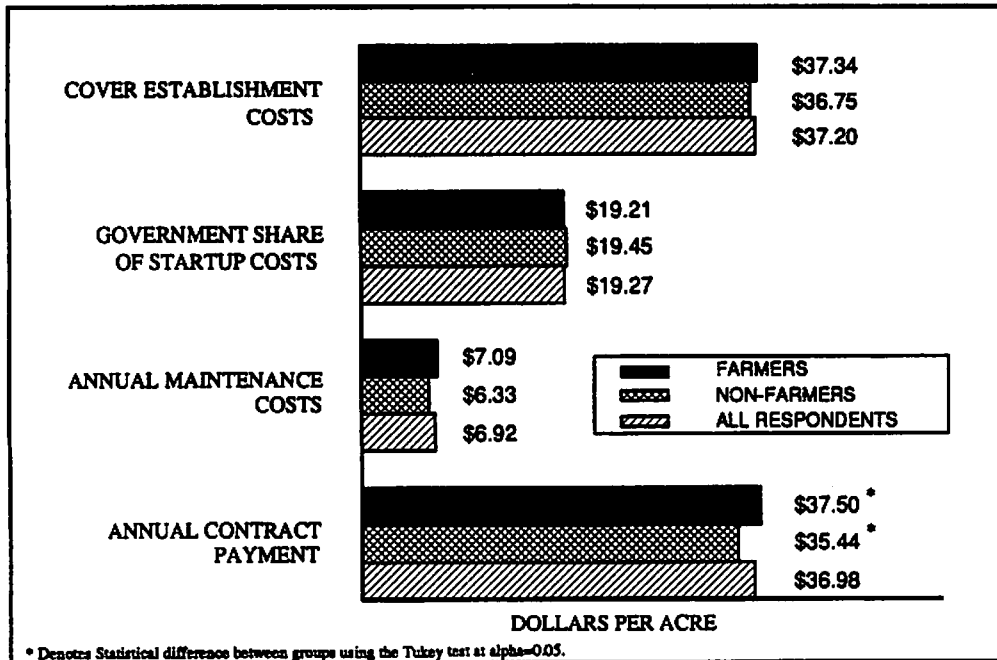


Figure 9. Selected Costs and Returns for CRP Landowners

the survey show that, on average, slightly more than one-half (51.8 percent or \$19.27 per acre) of the cost was shared. There was no significant difference between farmers and nonfarmers in costs incurred or government cost-share.

Respondents were asked to estimate their annual upkeep costs for CRP land. These costs are assumed to be primarily for weed and insect control and do not include property taxes, loan principal payments, or interest payments on the property. Average annual maintenance costs were estimated at \$6.92 per acre (Figure 9).

The monetary incentive for placing land into the CRP is the annual contract payment from the federal government. This payment in North Dakota averaged \$36.98 per acre for land entered during the first five sign-up periods (Figure 9). Farmers received slightly more (\$2.06 per acre) on average than did nonfarmers, possibly because farmers were more aware of bid levels being accepted in their respective counties.

Nearly 70 percent of the farmers and about 62 percent of the nonfarmers received between \$30.00 and \$40.00 per acre for an annual payment (Figure 10). The figure also illustrates that higher percentages of nonfarmers received rents in the lower categories than did farmers. Over 23 percent of the nonfarmers and nearly 11 percent of the farmers received an annual payment less than \$30.00 per acre.

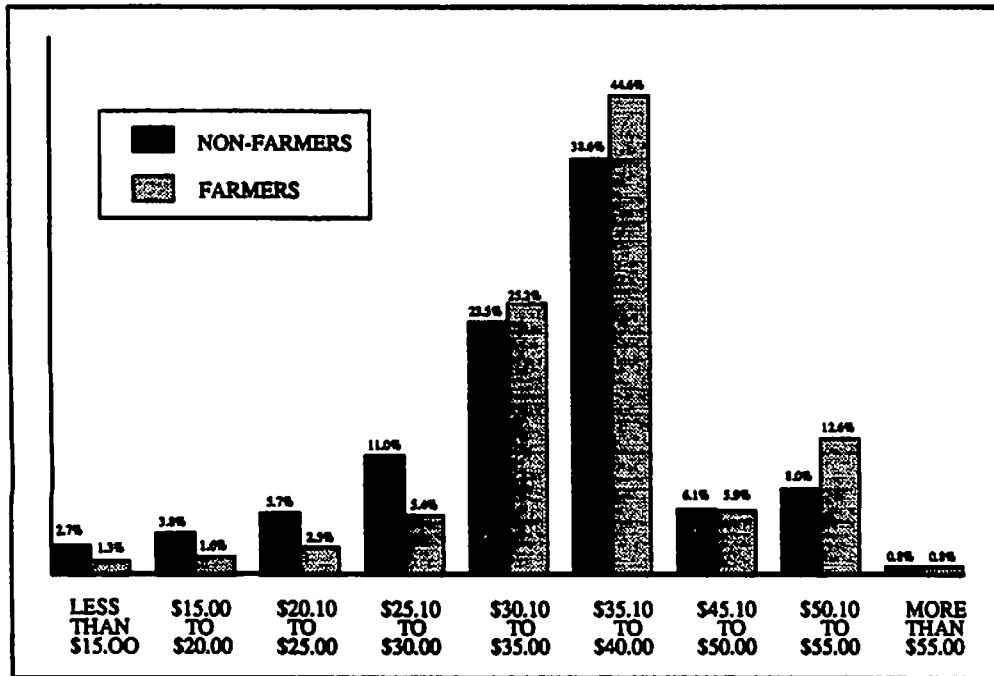


Figure 10. Percentage of CRP Landowners Receiving Annual Per Acre Contract Payments By Category

Comparison to Local Cash Rent

Respondents were asked to compare the annual contract payment with the current cash rental rate for similar land in their area. Over one-third (37.1 percent) indicated that the annual payment was about the same as local cash rent (Figure 11). Only about 5 percent said that the annual payment was less than the local cash rental rate. Over one-half (57.8 percent) indicated that CRP payments were higher than local cash rent; in some cases payments were up to \$20.00 per acre more than local cash rent. Annual CRP payments for all landowners averaged about 6.7 percent more than local cash rents (Figure 12).

The productivity of CRP land was also explored, because CRP land is presumably poorer or marginal land. Respondents were asked to compare the yield they had experienced on their CRP land to other cropland in their locale that was not in CRP. Respondents indicated that CRP land yielded 9.5 percent less, on average, than non-CRP land (Figure 12). This gives an indication that CRP land is indeed less productive or at least perceived to be.

Input costs must also be considered when examining overall profitability. CRP respondents indicated that input costs were slightly higher (0.5 percent) when farming CRP land compared to non-CRP land (Figure 12).

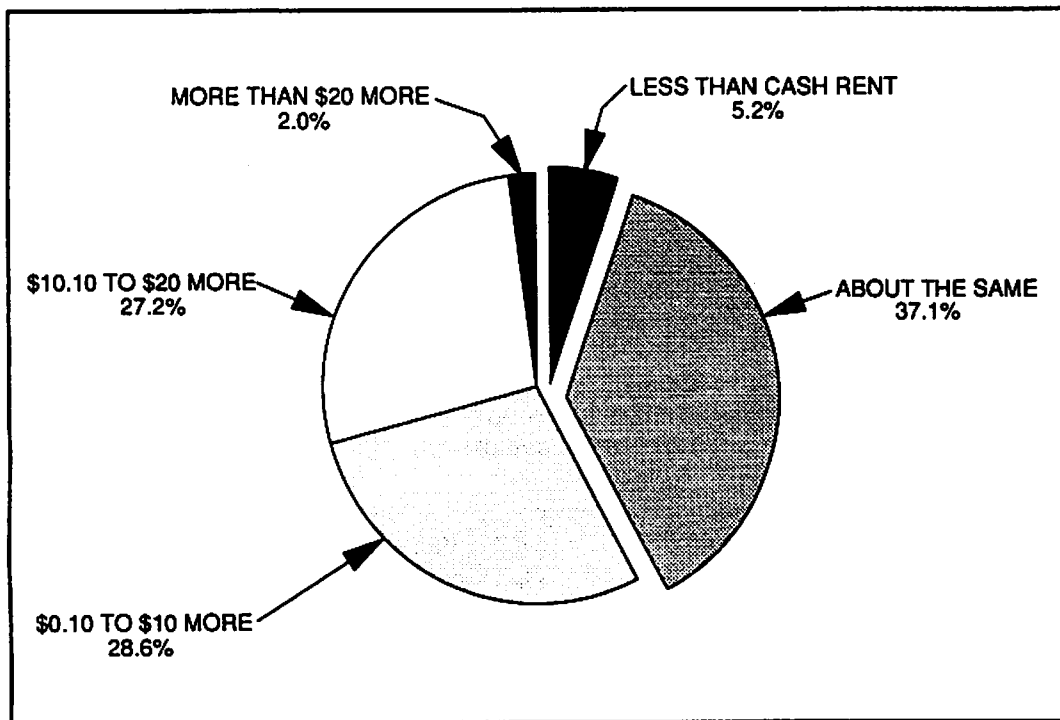
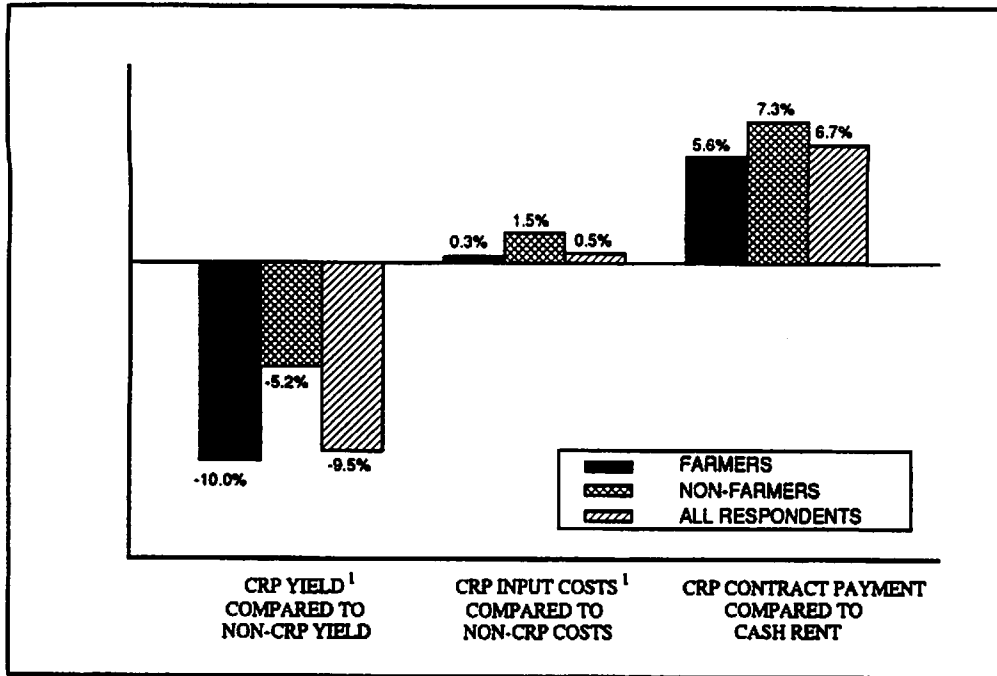


Figure 11. Comparison of Annual Contract Payments to Cash Rent By Category



NOTE: NUMBERS ABOVE AND BELOW BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

¹Refers to yields and costs before land was enrolled in CRP

Figure 12. Comparison of Yields, Costs, and Cash Rents of Land Entered in CRP to Land Not in CRP

Cover Options

Generally, grass or grass-legume mixtures were planted for permanent cover on CRP land. However, nearly 8 percent of the farmer respondents and 12.1 percent of the nonfarmers planted trees as at least a partial cover crop (Figure 13). Trees were not planted on whole tracts of land but only on a portion (5.3 percent of the tract on average) of the CRP acreage. The average acreage of trees planted (for those participants who planted trees) was 5.8 acres for farmers and 4.1 acres for nonfarmers.

Respondents were asked whether they would have considered planting more trees if the cost-share percentage had been higher. Nearly 30 percent of the nonfarmers and 22.7 percent of the farmers said they would (Figure 13).

Water impoundments, such as restored wetlands, were also an approved practice that could have been used in place of grass or trees as cover on CRP land. Only about 7 percent of the survey respondents had considered them as a means of CRP cover.

Tillage Methods

Respondents were asked what seeding method was used when establishing cover on CRP land and what method they intend to use after the contract expired. Four choices were (1) no-till, where the landowner uses equipment that does not destroy crop residue on the soil surface; (2) minimum tillage,

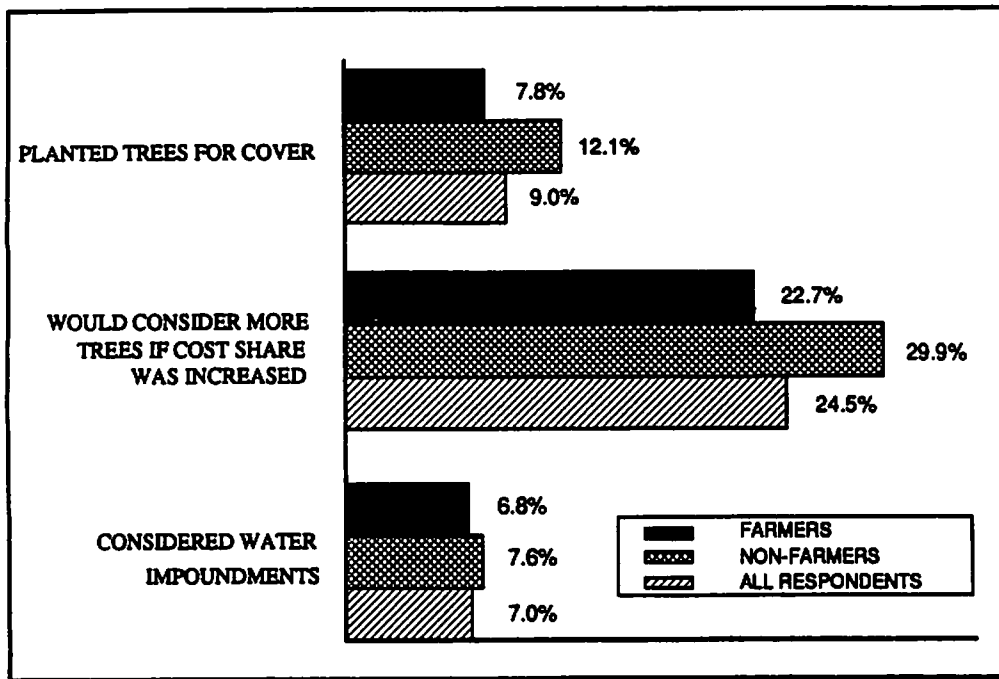


Figure 13. Responses to Selected Questions Regarding Cover Establishment

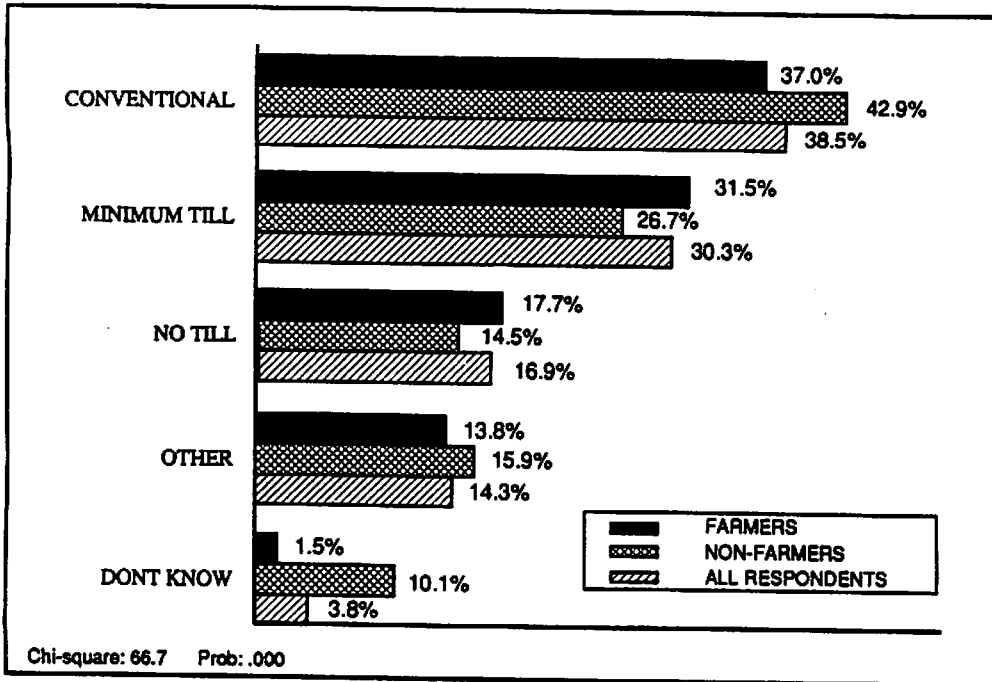
where the operator uses a chisel plow or similar equipment designed to leave some residue for protection from soil erosion; (3) conventional tillage, where a moldboard plow is used for the primary tillage operation and the soil is left virtually bare; and (4) other, which included combinations of the previous three choices.

Over 38 percent employed conventional methods for establishing cover, about 47 percent used either no-till or minimum tillage, and about 14 percent used other combinations (Figure 14).

Even though 10 years will pass before ultimate adoption of a tillage method for farming CRP land, respondents were asked their intentions regarding such tillage. Over 42 percent of all respondents indicated they will use minimum tillage, 31.4 percent will use conventional tillage, and 8.7 percent said they will practice no-till (Figure 15). Only about 10 percent indicated they did not know what tillage method they would use.

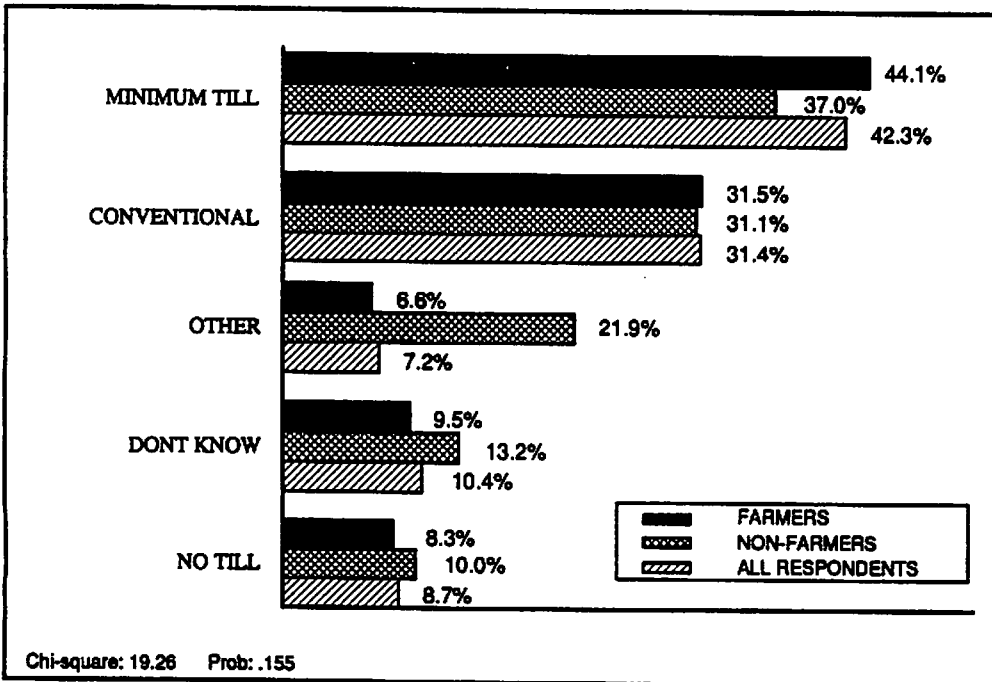
Intended Use

Some of the land in the CRP will ultimately fall under the "sodbuster" provision of the 1985 Farm Bill. This provision dictates that "highly erodible" land must be farmed according to an approved conservation plan to keep erosion under control or the farmer will be ineligible for participation in federal farm programs. While about 37 percent indicated that they did not know what they



NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 14. Tillage Method for Establishing Cover Crop on CRP Land



NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 15. Intended Tillage Method After Contract Expires

will do with CRP acres after the program expires, nearly one-half (49 percent) intend to convert the land to cropland and 15.5 percent intend to leave it in permanent cover (Figure 16). In addition, over 12 percent and nearly 14 percent intend to rent it out or use it for pasture themselves, respectively. Slightly over 10 percent indicated they will sell their CRP land, 4.5 percent intend to lease it for recreational purposes, and only 2 percent intend to grow trees on it.

Use of Annual Payments

The majority of survey participants (54.5 percent) will use annual CRP payments for living expenses (Figure 17). Other uses are (1) paying CRP land debt, 27.8 percent; (2) paying other debt, 24.5 percent; and (3) savings or investment, 21.6 percent. About 14 percent will use all or part of the annual payments to retire in North Dakota, and only about 3.5 percent will use payments to retire out-of-state. Likewise, about 10 percent and 3.5 percent will use their payments for leisure activities in-state and out-of-state, respectively. There were statistically significant differences between farmers and nonfarmers for all spending categories.

Financial Characteristics

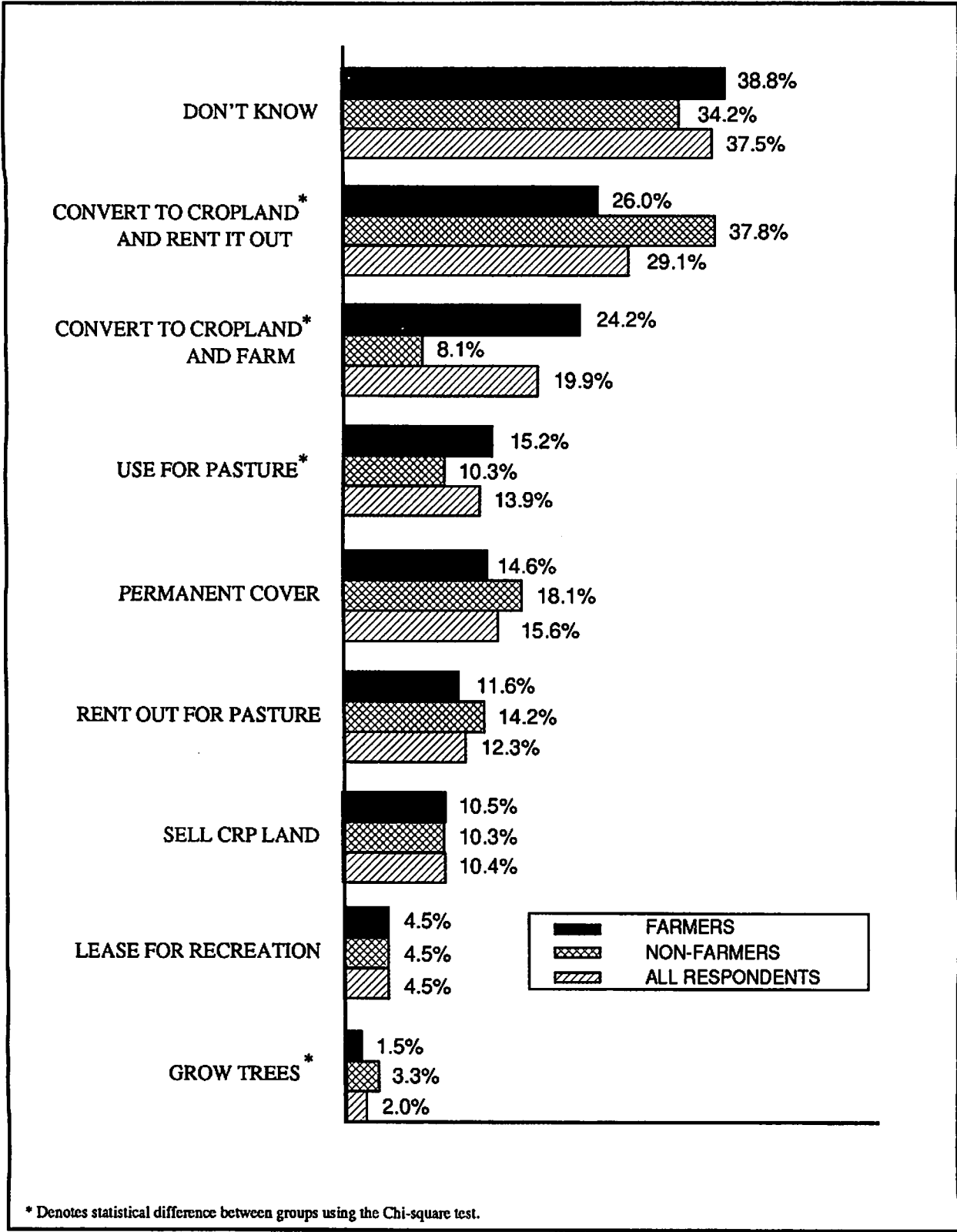
Nearly 21 percent of the farmer respondents indicated that CRP was a factor that enabled them to continue their farming operation. This is manifested by the financial information supplied by respondents who were farmers in 1987 and is discussed in the following sections.

Assets and Debts

Figure 18 illustrates the distribution of total farm and personal assets of CRP survey respondents. About 46 percent of all landowners had over one-half million dollars in assets. There was a notably higher percentage of farmer participants than nonfarmers in the higher asset categories (over \$500,000). Total assets for all landowners averaged \$322,489.

Nonfarmers averaged considerably less total debt (\$34,723) when compared to farmers (\$107,444) (Figure 19). Nearly 41 percent of all landowners and 36.9 percent of the farmers had no debt. This compares to about 16 percent of farmers having no debt based on the 1988 farmer survey in North Dakota, which was representative of all farmers (less than age 65).

Figure 20 shows the debt-to-asset ratio of CRP landowners. Farmers' debt-to-asset ratio averaged .279 compared to nonfarmers who averaged about .150. Nearly 30 percent of the farmers had a debt-to-asset ratio of .400 and greater. In comparison, farmers participating in the 1988 North Dakota farm survey averaged a .443 debt-to-asset ratio and 41.2 percent had a debt-to-asset ratio of .400 or greater.



NOTE: TOTALS DO NOT EQUAL 100% BECAUSE RESPONDENTS WERE ABLE TO INDICATE MORE THAN ONE ANSWER.

Figure 16. Intended Land Use After CRP Contract Expires

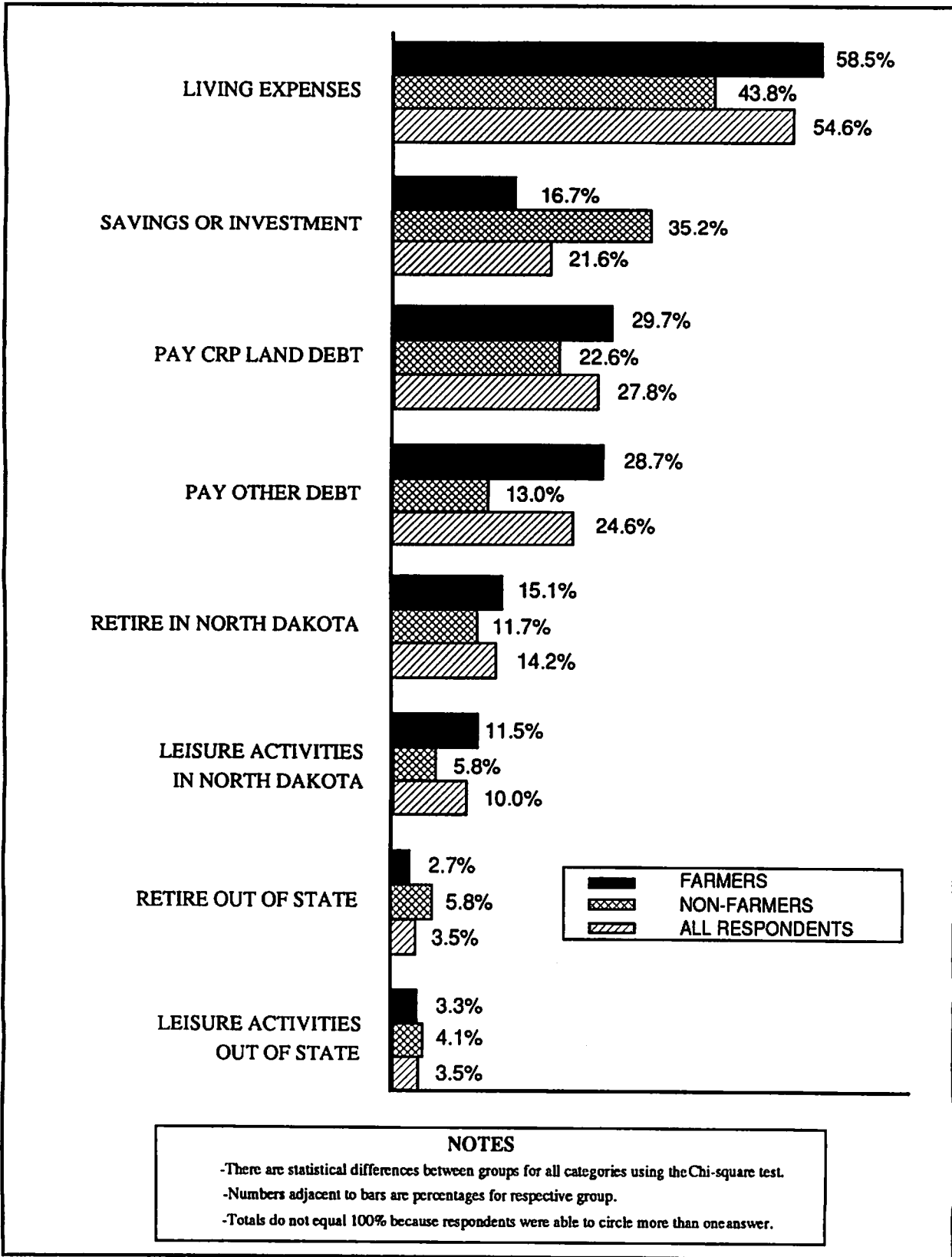
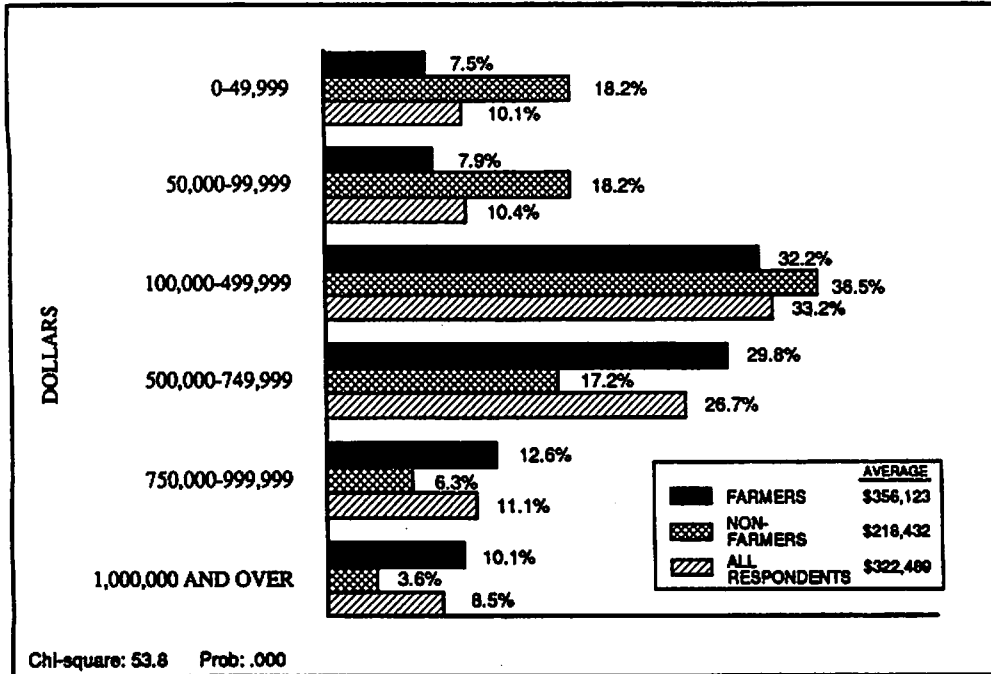
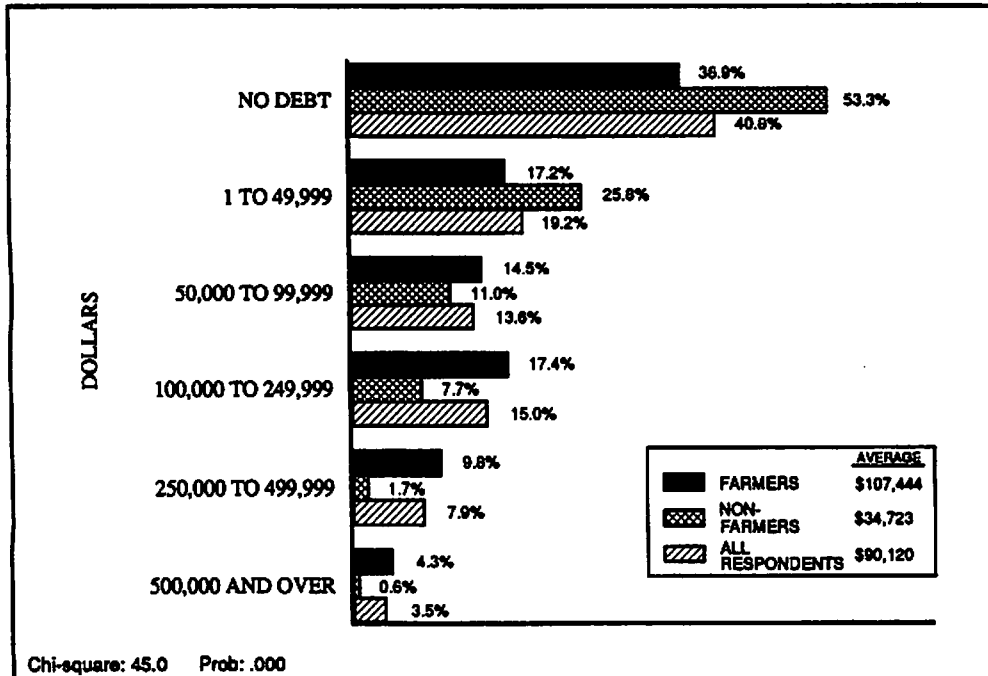


Figure 17. Use of CRP Annual Income



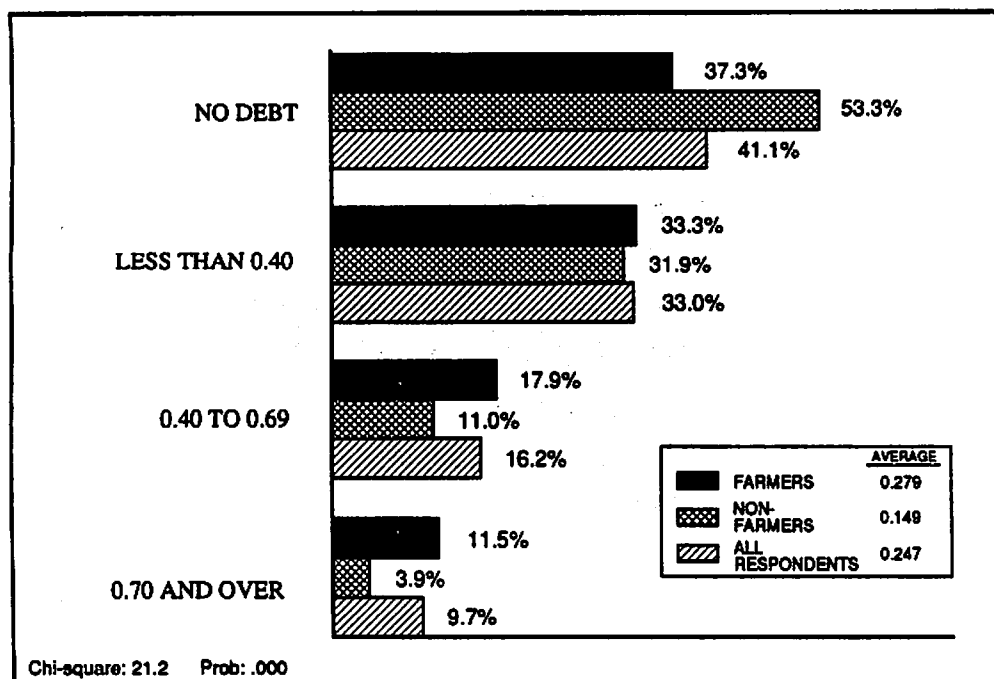
NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 18. Total Assets of CRP Landowners By Category



NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 19. Total Debt of CRP Landowners By Category



NOTE: NUMBERS ADJACENT TO BARS ARE PERCENTAGES FOR RESPECTIVE GROUP.

Figure 20. Debt-to-Asset Ratio of CRP Landowners By Category

The average total assets of farmers participating in the CRP (\$356,123) is similar to that for respondents to the 1988 North Dakota farmer survey (\$375,514). However, total debts and debt-to-asset ratio are lower for CRP farmers than North Dakota farmers in general. This is possibly explained by CRP participants being about 10 years older on average; having farmed over a longer time period, they were either able to reduce their debt load or may never have had a heavy debt load.

Farm Income

Landowners who farmed in 1987 were asked about their farm income for the year. Farmers participating in the CRP tend to have smaller farming operations than those responding to the 1988 farmer survey; nearly 70 percent had a gross farm income of less than \$100,000 (Figure 21), compared to 62 percent for the farmer survey. The average gross farm income was \$92,440. Participants in the 1988 North Dakota farm survey had an average gross farm income of \$114,899. Possible explanations are that CRP farmer respondents are older than average and also a larger proportion are part-time farmers.

Figure 22 illustrates the distribution of net farm income by category. Over 14 percent of survey participants had a negative net farm income in 1987, and nearly 52 percent had a net farm income of less than \$10,000. The average net farm income for 1988 farm survey participants was \$20,751, and 7.6 percent reported a negative value.

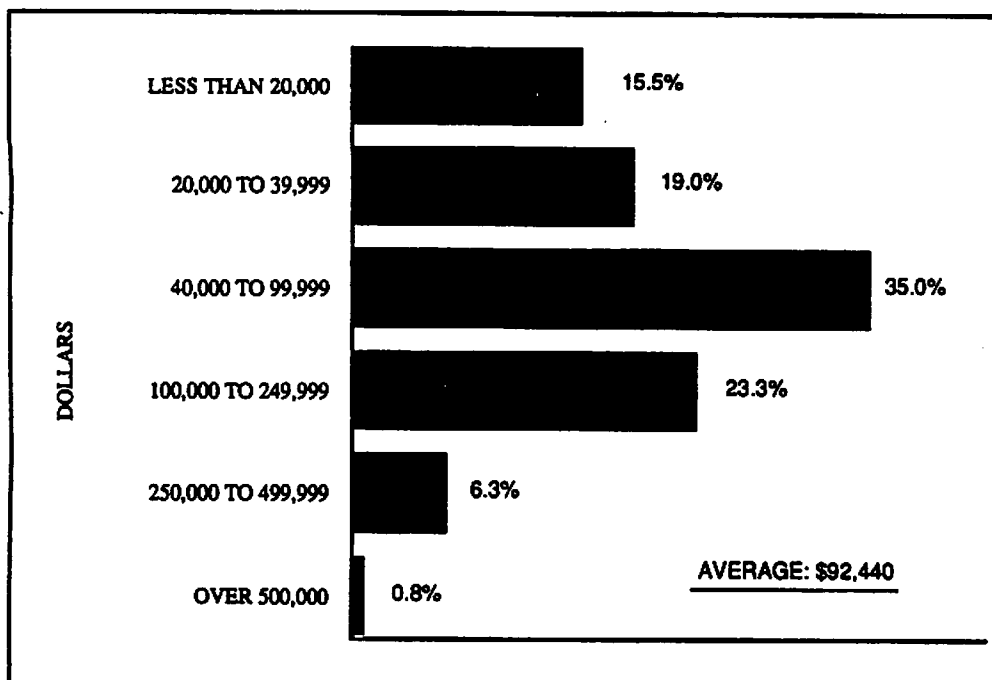


Figure 21. Gross Farm Income of CRP Participants Who Farmed in 1987

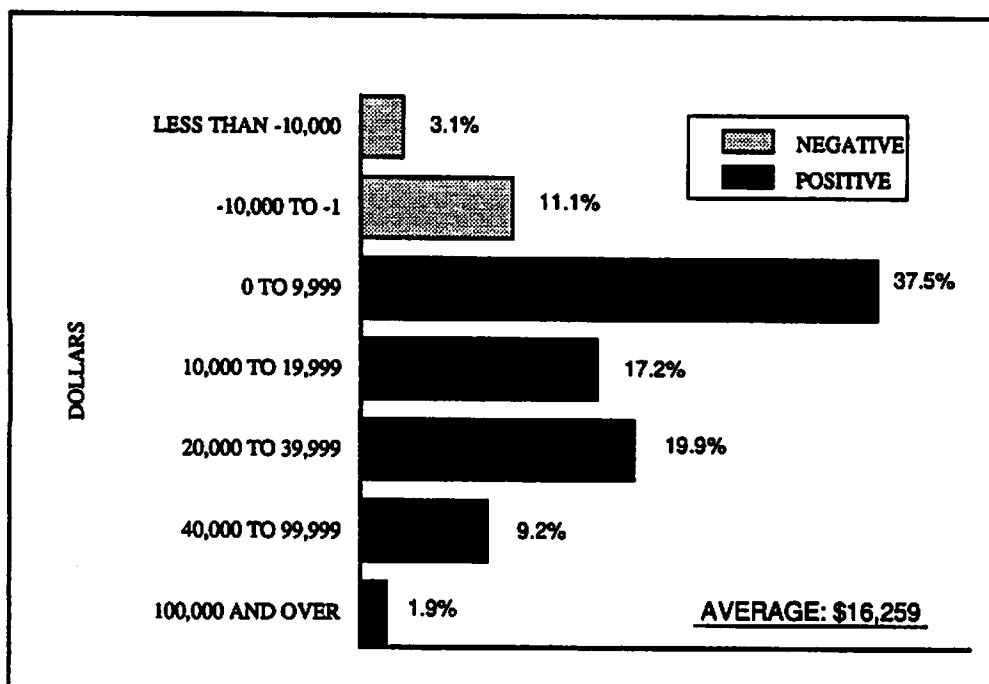


Figure 22. Net Farm Income of CRP Participants Who Farmed in 1987

CRP payments are a major source of income for many farmers. About 14 percent of the farmers had a negative net farm income (Figure 23). In addition, 26.4 percent stated the CRP payment exceeded their net farm income. If the two categories are added, over 40 percent of the farmers had CRP incomes that were greater than their net farm income. Over 46 percent had payments that were from zero to 50 percent of net farm income, and about 13 percent had payments between 50 and 100 percent. This indicated that CRP payments are an important source of income and enabled at least some to continue their farm operation.

Farm Management Changes

CRP respondents who farmed in 1987 were asked a series of questions regarding past and future changes in their operation. Figure 24 illustrates that only about 2.3 percent and 1.7 percent of the farmers had sold or rented less land, respectively, in the past three years (1985 to 1987). Conversely, 10.6 percent and 9.1 percent had bought or rented more land, respectively. Only 3.6 percent and 2.5 percent of the farmers had made management changes involving diversification by adding either crops or livestock, respectively, during the last three years. About 10.4 percent of the respondents and nearly 18 percent of their spouses had been employed at an off-farm job.

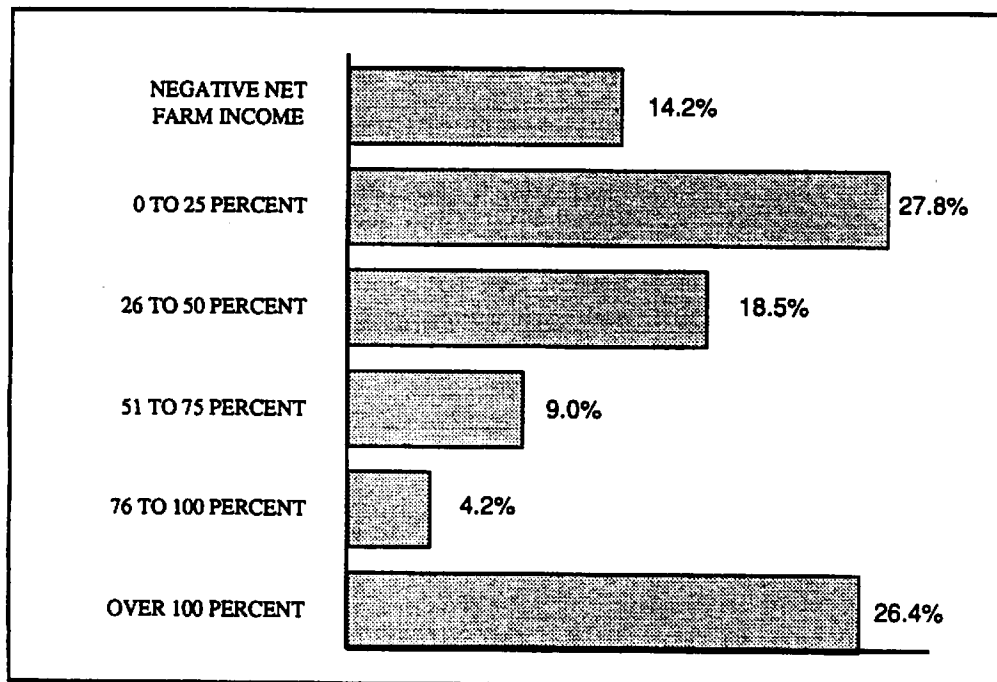


Figure 23. Annual CRP Payment as a Percent of Net Farm Income

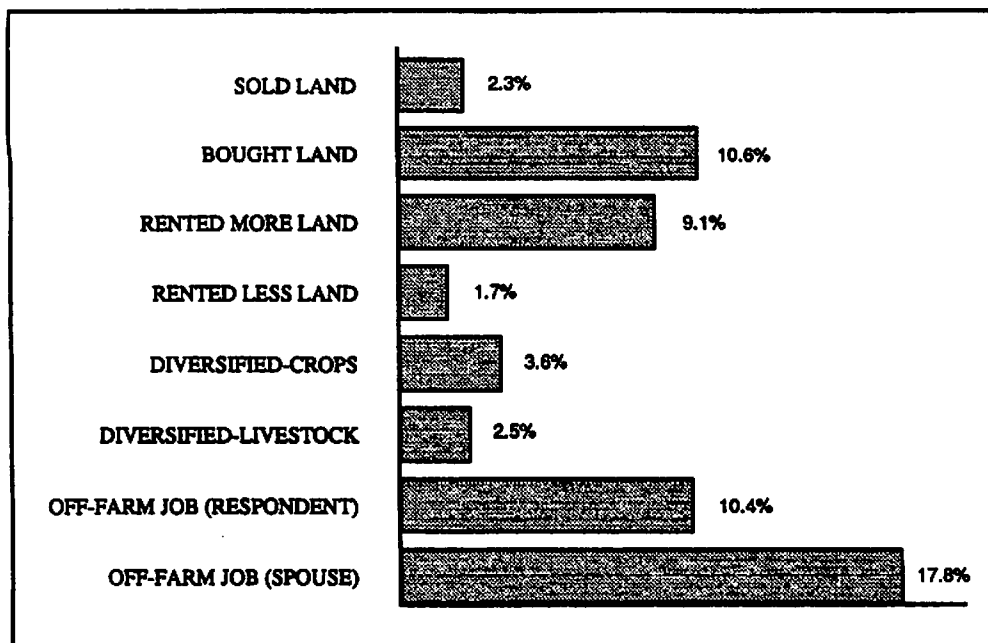


Figure 24. Changes Made By Farmers in Past Three Years

Looking at changes planned in the next three years (Figure 25), survey results show that only 1.8 percent of the CRP farmers planned to sell land and about 6 percent indicated that they would rent less land. Over 9 percent would buy more land in the future, and about 13 percent indicated they would rent more land. Although farmers did not indicate much diversification in the past, about 6.3 percent and 8.6 percent planned to add other crops or livestock, respectively, in the future. About 11 percent of the farmer respondents and over 14 percent of their spouses indicated that they would seek work at an off-farm job sometime during the next three years. Nearly 21 percent indicated they would enter more land into the CRP in the future. About 13 percent would retire from farming, and 1.6 percent will quit farming and find another occupation sometime during the next three years.

Opinion Questions

Survey participants were asked to respond to a number of statements regarding the CRP. Answers were grouped using a five-point Likert scale as "strongly agree or agree," "neutral," and "disagree or strongly disagree," and the responses are illustrated in Figure 26. Average scores (on a scale of 1 to 5) are shown at the right of each bar. Only small differences were noted between farmers and nonfarmers, so responses are shown for all landowners.

Over 92 percent agreed that CRP provides wildlife habitat. In addition, nearly 90 percent felt that CRP offers protection for fragile land. About 80 percent agreed that eligibility for CRP entry should be based on soil characteristics rather than management and tillage practices. Over 77 percent

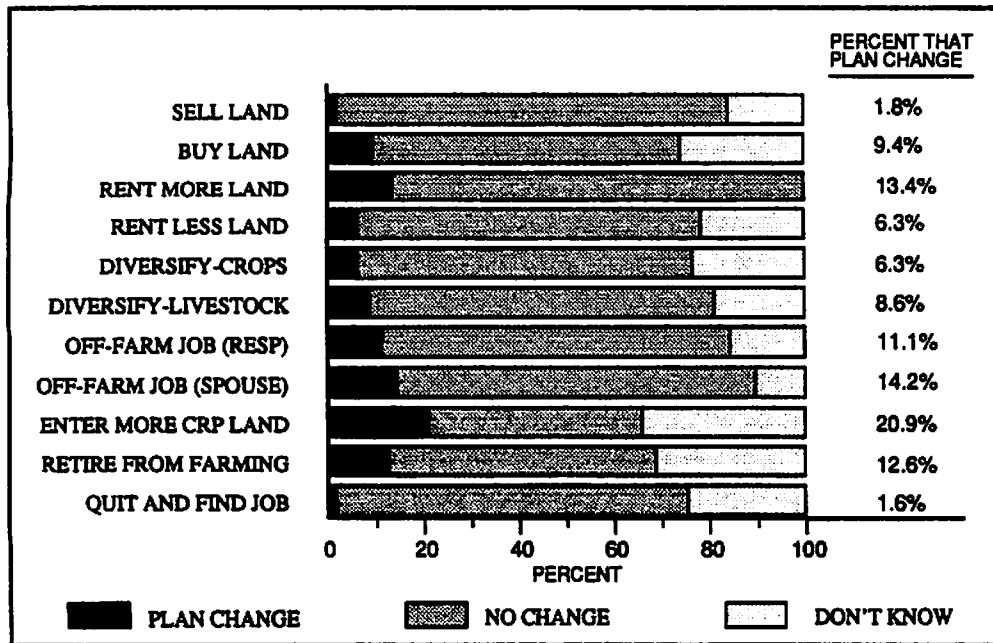


Figure 25. Changes Planned By Farmers in the Next Three Years

of the landowners agreed that CRP benefits them financially. A majority (71.1 percent) also agreed that CRP reduces the sales of local agribusiness suppliers. Mixed opinions were evident when respondents were asked if land eligibility requirements should be eased--nearly 39 percent agreed and over 33 percent disagreed with the statement. Nearly an equal percentage agreed and disagreed (37.4 percent and 38.4 percent, respectively) with the statement that counties should have the option of going beyond the 25 percent of total county cropland limit for enrolling CRP acreage. About 37 percent agreed with the statement that CRP rewards poor farming practices, and about 42 percent disagreed. Reaction was also mixed to the question of raising the 45 million acre national CRP limit with about 39 percent indicating a neutral response. Nearly 41 percent disagreed and only about 27 percent agreed with the notion that CRP is costing the federal government too much money.

Summary

This study of CRP participants was undertaken in order to establish baseline characteristics of CRP participants in North Dakota. In addition, information gained from the survey will be used to further analyze the economic impacts of CRP on communities throughout the state and especially in pool groups where the participation rate is high. A number of conclusions can be drawn from this baseline analysis:

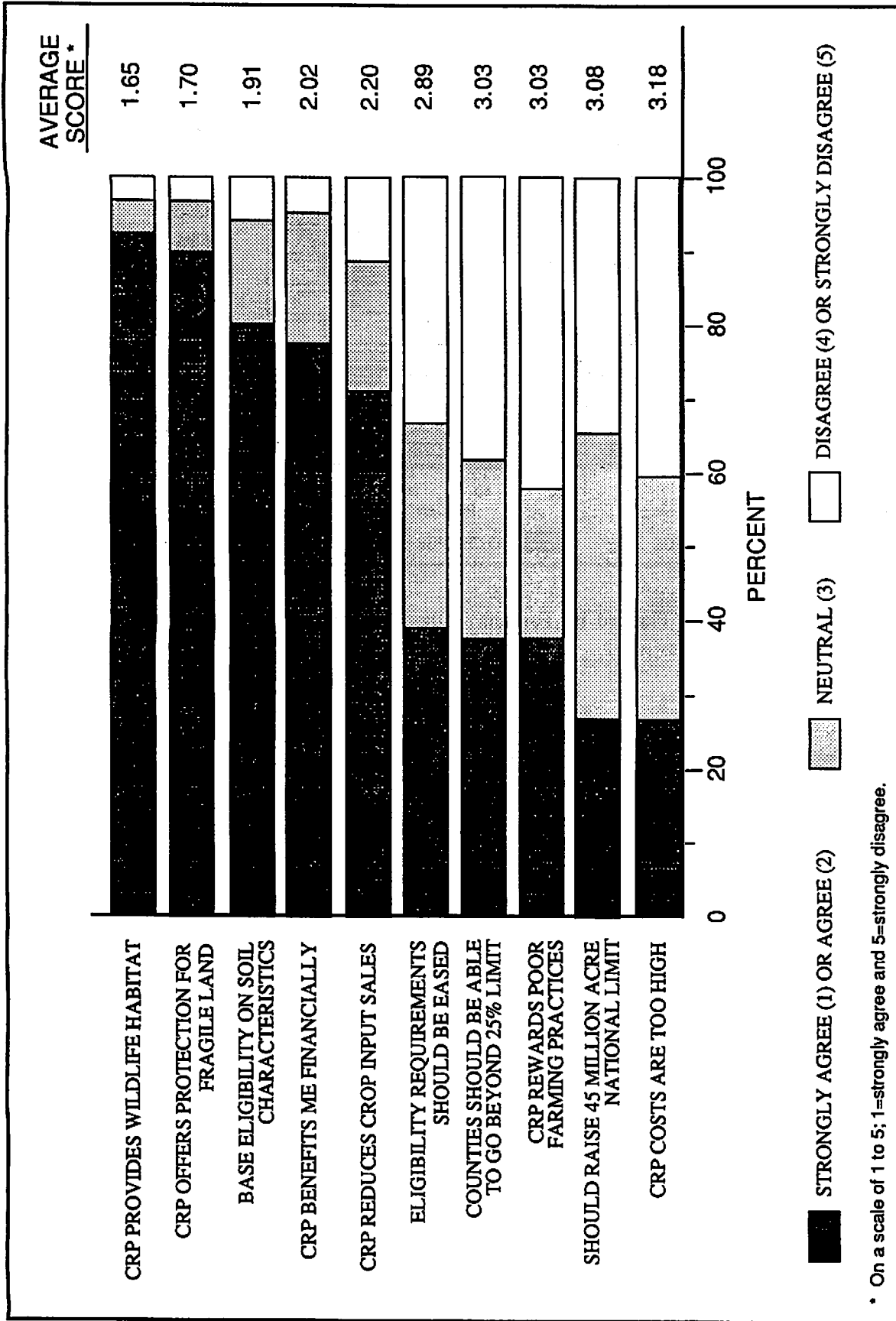


Figure 26. CRP Opinions of All Respondents

- CRP participants' average age is 57.2 years or about 10 years older than the average North Dakota farmer. Little age difference was found between farmers and nonfarmers.
- Annual contract payments to all respondents averaged about \$37 per acre with nonfarmers receiving about \$2 per acre less than their farmer counterparts. Over two-thirds of all respondents received between \$31 and \$40 per acre for annual contract payments.
- Nearly 58 percent of all respondents indicated that CRP payments were higher than cash rent in their local area and over 37 percent said they were about the same.
- Respondents indicated that land entered into CRP was 9.5 percent less productive than other land in their area not entered into the program.
- Input costs were not significantly higher (.5 percent) on land entered in the CRP.
- Some landowners planted trees as cover on CRP tracts, and about 24.5 percent indicated that they would have considered planting more if the cost sharing rate was higher.
- Many respondents (38.8 percent) indicated they did not know what their land use intentions were after the contract expired. However, up to 16 percent indicated they would not use it for cropland but would keep it permanently covered, pasture it themselves, rent it out for pasture, or lease it for recreation purposes.
- Apparently, much of the income generated from the CRP will be used for living expenses, savings or investment, paying debts, retirement, or leisure activities in North Dakota. Only 3.5 percent indicated that they will use the income for leisure or retirement out-of-state.
- About 21 percent of the farmer participants said that the CRP enabled them to continue their farming operation.
- CRP income is apparently a major source of income for farmer landowners with over 40 percent having CRP incomes that exceed their net cash income from their farming operation.
- Generally, the majority of all respondents agreed that the CRP provides wildlife habitat and offers protection for fragile land, that eligibility should be based on soil characteristics, that CRP benefits them financially, and that the program reduces agriculturally related production input sales. Reactions were mixed regarding easing eligibility requirements, allowing a county to go beyond the 25 percent acreage limit, and that CRP rewards poor farming practices. Only about 27 percent agreed that the 45 million acre national

acreage limit should be raised or the notion that the CRP costs the government too much.

Future Studies

Since CRP is a 10-year program, researchers have the opportunity to gather detailed information on an ongoing basis. Continual updates of baseline characteristics will be done through a panel study of new and existing CRP entrants. Information gathered during this program will aid policymakers in future program implementation.

In addition to baseline analysis, the impact of CRP on rural economics has not been documented in North Dakota. A forthcoming study will focus on the economic effects of land retirement.

APPENDIX A

CONSERVATION RESERVE PROGRAM SURVEY

We are conducting a survey of participants in the Conservation Reserve Program (CRP) in North Dakota. The responses you provide will be treated confidentially and will in no way be associated with you personally. Please realize this survey is being completed by farmers and nonfarmers so some questions may seem inappropriate to you, but please answer the questions as best you can.

The following series of questions are about your entry into the Conservation Reserve Program and about your farming operation.

With the exception of Question 1a, b, and c, please answer all questions about CRP land as they pertain to the land identified on the label on the last page of this survey.

-
-
1. a. How many total acres of farmland and rangeland did you own in North Dakota in 1987? _____ ACRES
(If none, record zero)
- b. How many acres of farmland and rangeland did you own in states other than North Dakota in 1987? _____ ACRES
(If none, record zero)

Thinking only of your enrolled CRP land THROUGH SIGN-UP 5(July 1987), please fill in the number of acres that apply in each of the following categories.

- c. Total enrolled CRP acres in North Dakota. _____ ACRES
- d. Total enrolled CRP acres in the county specified on the label on the back. _____ ACRES
- e. How many of these acres in 1d were purchased since January 1, 1986? _____ ACRES
(If none, record zero)
- f. How many of these acres in 1d were owned and farmed by you prior to 1986? _____ ACRES
(If none, record zero)
- g. How many of these acres in 1d were owned by you, but rented to someone else to farm prior to 1986? _____ ACRES
(If none, record zero)
-
-

The next three questions are about yields and cost of production on your enrolled CRP land as compared to other farmland in your area. If you are not knowledgeable about these items, please go to Question 5.

2. Of the CRP acres you now have enrolled in the county, how many acres were devoted to the following items during the last year the land was farmed?

Durum	_____	ACRES
Other wheat	_____	ACRES
Barley	_____	ACRES
Corn	_____	ACRES
Soybeans	_____	ACRES
Sunflower	_____	ACRES
Other crops (specify):	_____	ACRES
	_____	ACRES
Noncropland	_____	ACRES

TOTAL MUST EQUAL TOTAL IN QUESTION 1d ABOVE.

3. Thinking now about crop yields on your enrolled CRP land, how did they compare with yields on your other cropland not in CRP or other cropland in your area not in CRP? (PLACE AN "X" ON THE PERCENTAGE SCALE BELOW)

My CRP land yielded. . .

---30%---20%---10%---SAME---10%---20%---30%---
 (-----LESS-----) (-----MORE-----)

4. How did your input costs (fertilizer, chemicals, seed, fuel, etc.) for crop production on CRP land compare with your non-CRP land? (PLACE AN "X" ON THE PERCENTAGE SCALE BELOW)

Costs on my CRP land were. . .

---30%---20%---10%---SAME---10%---20%---30%---
 (-----LESS-----) (-----MORE-----)

5. Have you ever considered farming to be your primary occupation? (CIRCLE NUMBER)

- 1 NO (GO TO QUESTION 11)
 2 YES

6. a. In what year did you begin farming as a career? _____

b. Are you currently farming?

- 1 NO (GO TO QUESTION 6c)
 2 YES, PART-TIME (GO TO QUESTION 7)
 3 YES, FULL-TIME (GO TO QUESTION 7)

c. (If no) did the CRP influence your decision to quit farming or to retire?

- 1 NO
 2 YES

d. In what year did you quit farming? _____

(If 1985 or earlier, GO TO QUESTION 11)

(If 1986, GO TO QUESTION 9)

7. a. How many TOTAL acres were in your North Dakota farming/ranching operation in 1987? (Include land you owned or rented FROM others; Exclude land you rented TO others.)

_____ ACRES

b. How many of the acres indicated in question 7a were in wasteland, pasture and rangeland in 1987 (including CRP land)?

_____ ACRES

(If none, record zero)

c. How many of these acres indicated in question 7a were in cropland (including hayland, set-aside, and CRP land) in 1987?

_____ ACRES

(If none, record zero)

8. Was entry into the CRP program a factor that enabled you to continue farming? (CIRCLE NUMBER)

- 1 NO
 2 YES

9. Which of the following farm enterprises accounts/accounted for more than 50% of your gross farm income? (CIRCLE NUMBER)

- 1 CROPS
 2 LIVESTOCK
 3 MIXED: 50% CROPS/50% LIVESTOCK

10. Now we would like to know about changes you have recently made in your farming operation and the changes you will likely be considering in the coming 3 years.

Please circle the appropriate year(s) for each question. IT IS POSSIBLE TO CIRCLE MORE THAN ONE YEAR IN EACH QUESTION, so please circle all that apply to your situation. If no change was made or is planned, please circle the "No Change" or "Don't Know" response, whichever applies.

CHANGES

Have you . . .	PAST	FUTURE	NO CHANGE	DON'T KNOW
a. Sold (or will sell) land?	85 86 87	88 89 90	NC	DK
b. Bought (or will buy) land?	85 86 87	88 89 90	NC	DK
c. Rented (or will rent) more acres?	85 86 87	88 89 90	NC	DK
d. Rented (or will rent) fewer acres?	85 86 87	88 89 90	NC	DK
e. Diversified (or plan to diversify) your operation by adding other crops?	85 86 87	88 89 90	NC	DK
f. Diversified (or plan to diversify) your operation by adding livestock?	85 86 87	88 89 90	NC	DK
g. Worked (or will work) at an off-farm job? (If yes) specify occupation _____ (use numbers from blue Occupation List) and enter your 1987 gross employment earnings \$ _____	85 86 87	88 89 90	NC	DK
h. Did (or will) your spouse work at an off-farm job? (If yes) specify occupation _____ (use numbers from blue Occupation List) and enter your spouse's 1987 gross employment earnings \$ _____	85 86 87	88 89 90	NC	DK
i. Enter more land into the CRP?		88 89 90	NC	DK
j. Plan to retire from farming?		88 89 90	NC	DK
k. Plan to quit farming and find another occupation?		88 89 90	NC	DK
l. Other changes, either past or future? SPECIFY _____	85 86 87	88 89 90	NC	DK

11. a. What were (or will be) your estimated start-up costs per acre for putting your CRP land into a permanent ground cover? (Include grass seed, trees, fertilizer, chemicals, and field operations)? \$ _____/ACRE
- b. How much per acre did (or will) the government pay of your start-up costs? \$ _____/ACRE
- c. What are your estimated annual upkeep costs per acre for your CRP land for weed control, insect control, or other maintenance costs? (Exclude property taxes, land payments, and interest.) \$ _____/ACRE
12. a. How much do (or will) you receive from the government for your annual CRP payment? \$ _____/ACRE
- b. How much more/less does CRP pay compared to average cash rent for this type of land in your area?
\$ _____/ACRE MORE or \$ _____/ACRE LESS or _____ ABOUT THE SAME

13. a. About what year was the land you entered into CRP originally broken out of sod? (CIRCLE NUMBER)
- | | | |
|----------------|-----------------|--------------|
| 1 BEFORE 1900 | 4 1941 TO 1960 | 7 DON'T KNOW |
| 2 1901 TO 1920 | 5 1961 TO 1980 | |
| 3 1921 TO 1940 | 6 1981 OR LATER | |
- b. When was your CRP land most recently broken out of sod?
- | | | |
|----------------|-----------------|--------------|
| 1 BEFORE 1900 | 4 1941 TO 1960 | 7 DON'T KNOW |
| 2 1901 TO 1920 | 5 1961 TO 1980 | |
| 3 1921 TO 1940 | 6 1981 OR LATER | |
14. Was your CRP land enrolled in the "Soil Bank Program" of the 1950s and 1960s? (CIRCLE NUMBER)
- 1 NO
- 2 YES → How many acres? _____ ACRES
- 3 DON'T KNOW
15. What seeding/tillage method was used to establish your CRP cover? (CIRCLE NUMBER)
- 1 NO-TILL
- 2 MINIMUM-TILL
- 3 CONVENTIONAL
- 4 BROADCAST
- 5 OTHER (specify) _____
16. a. Did you plant any trees or shrubs on your CRP land?
- 1 NO
- 2 YES → How many acre _____ (A.) or linear feet _____ (Ft.) were planted?
- b. Would you have planted more acreage to trees, if the initial cost would have been cost-shared at a higher percentage? Therefore making the initial cost of establishment of trees closer to that of the establishment of grass. (CIRCLE NUMBER)
- 1 NO
- 2 YES
- c. Did you consider establishing water impoundments as a permanent cover on your CRP land?
- 1 NO
- 2 YES
17. a. Realizing that it will be nearly 10 years before this decision is made, what do you presently intend to do with your CRP land when your contract expires? (CIRCLE AS MANY AS APPLY)
- 1 KEEP IT WITH A PERMANENT GROUND COVER
- 2 USE IT MYSELF FOR PASTURELAND
- 3 RENT IT TO SOMEONE ELSE FOR PASTURELAND
- 4 GROW TREES ON IT
- 5 SELL IT
- 6 LEASE IT FOR RECREATIONAL USES SUCH AS HUNTING
- 7 TURN IT INTO CROPLAND AND FARM IT MYSELF
- 8 TURN IT INTO CROPLAND AND RENT IT TO SOMEONE ELSE
- 9 OTHER (Specify) _____
- 10 DON'T KNOW
- b. What tillage method do you plan to use or do you prefer being used on this land after CRP contract expires? (CIRCLE NUMBER)
- 1 NO-TILL
- 2 MINIMUM-TILL
- 3 CONVENTIONAL
- 4 OTHER (Specify) _____
-

DEMOGRAPHIC AND FAMILY CHARACTERISTICS

We would next like to ask a few questions about you and your household for statistical purposes.

18. What is your marital status? (CIRCLE NUMBER)

- 1 SINGLE, NEVER MARRIED
- 2 MARRIED
- 3 SEPARATED
- 4 DIVORCED
- 5 WIDOWED

19. a. In what county and state do you live? _____ County _____ State
 b. How long have you lived in this county? _____ YEARS

20. What is your current employment status? (CIRCLE NUMBER(S) AND FILL IN THE BLANKS)

- 1 PART-TIME _____ AND _____ (Enter number(s) from blue Occupation List)
- 2 FULL-TIME _____ (Enter number from blue Occupation List)
- 3 UNEMPLOYED
- 4 GOING TO SCHOOL
- 5 RETIRED

21. a. How old are you? _____ YEARS
 b. If married, how old is your spouse? _____ YEARS

22. What is the highest level of education that you (and your spouse, if married) have completed? (CIRCLE NUMBER ON SCALE BELOW)

RESPONDENT:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17+
Grade School									High School				College/Vo-Tech				

SPOUSE:

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17+
Grade School									High School				College/Vo-Tech				

23. Counting yourself, how many persons live at your residence? _____
 24. How many of these persons are under age 19? _____

IF YOU FARMED IN 1987, PLEASE CONTINUE WITH QUESTION 25.

IF YOU HAVE QUIT OR RETIRED FROM FARMING PRIOR TO THE 1987 CROP YEAR, GO TO QUESTION 27.

IF YOU WERE NOT PERSONALLY FARMING CRP LAND PRIOR TO ITS ENROLLMENT, GO TO QUESTION 27.

FINANCIAL CHARACTERISTICS

IF YOU FARMED IN 1987, please answer these financial questions. If you are in a partnership or corporation, please answer for the entity and not just for your share. PLEASE BE ASSURED THAT RESPONSES ARE AVERAGED OVER SEVERAL COUNTIES AND YOUR INDIVIDUAL RESPONSES WILL BE KEPT STRICTLY CONFIDENTIAL.

25. What was your gross farm income (including government payments and custom work performed for others, but excluding hunting and oil or gas lease income) in 1987? (THIS INFORMATION IS FOUND ON LINE 12 OF FEDERAL TAX FORM 1040F.) \$ _____
26. What was your net cash farm income (gross cash farm income less gross cash farm expenses) in 1987? (LINE NO. 37 ON THE BOTTOM OF FORM 1040F) \$ _____

27. What was the approximate value of all your farm and personal assets as of January 1, 1988? Please exclude any assets related to other businesses you own or may be involved in. \$ _____

28. How much total debt did you have against your farm and personal assets as of January 1, 1988? \$ _____

29. How did (or how will you) spend your CRP income? (CIRCLE AS MANY AS APPLY)

- 1 SAVINGS AND OTHER INVESTMENTS
- 2 RETIRE → Instate? (CIRCLE ANSWER) NO YES
- 3 LEISURE ACTIVITIES → Mostly instate? (CIRCLE ANSWER) NO YES
- 4 PAY OFF THE CRP LAND DEBT
- 5 OTHER DEBT RETIREMENT
- 6 LIVING EXPENSES
- 7 OTHER (Specify) _____

30. This last section asks your opinion about various issues. Please indicate whether you strongly agree (SA), agree (A), neither agree nor disagree (N), disagree (D), or strongly disagree (SD). (CIRCLE YOUR RESPONSE)

	(SA)	(A)	(N)	(D)	(SD)
a. The CRP benefits me financially.	1	2	3	4	5
b. The CRP offers protection for fragile land.	1	2	3	4	5
c. The CRP is costing the federal government too much money.	1	2	3	4	5
d. The 45 million acre national limit should be raised.	1	2	3	4	5
e. Eligibility requirements for placing land into CRP should be eased.	1	2	3	4	5
f. Counties should have the option to go beyond their limit of 25% of its tillable acreage for enrolling CRP land.	1	2	3	4	5
g. The CRP rewards poor farming practices.	1	2	3	4	5
h. The CRP is reducing the sales of local agribusiness suppliers (such as fertilizer and machinery dealers).	1	2	3	4	5
i. The CRP provides wildlife habitat.	1	2	3	4	5
j. Eligibility for CRP entry should be based on soil characteristics and topography rather than on management and tillage practices.	1	2	3	4	5

31. Additional comment _____

Thank you for your time.

PLEASE RETURN THIS SURVEY IN THE ENCLOSED POSTPAID ENVELOPE.

Preliminary results will appear in a future issue of **North Dakota Farm Research**. A report will be available in about two months. If you would like a copy, please return the blue sheet or write to:

North Dakota State University
 Agricultural Economics Department
 F. Larry Leistritz or Jay A. Leitch
 P.O. Box 5636
 Fargo, ND 58105



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