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ROYAL COMMISSION ON FARM MACHINERY

**FARMERS' ATTITUDES
TO FARM MACHINERY PURCHASES**

Alexander Segall

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ROYAL COMMISSION ON FARM MACHINERY

FARMERS' ATTITUDES TO FARM MACHINERY PURCHASES

A SURVEY CONDUCTED IN THE PRAIRIE PROVINCES,
IN MID-1967

by

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While this study was prepared independently for the Royal Commission on Farm Machinery and is being published under its auspices, the views expressed herein are those of the author and not necessarily those of the Commissioner.

Dr. Clarence L. Barber — Commissioner
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1. INTRODUCTION

Objectives of the Study

The purpose of this study was to gain an understanding of the attitudes and behaviour of Prairie farmers in regard to the purchasing of farm machinery.

The farmers' machinery-purchasing behaviour was investigated in an effort to answer the following questions:

- What are the most frequently used sources of information about farm machinery?
- Which sources of information do the farm operators find most useful?
- Do the farm operators feel that available sources of information about new farm machinery are adequate?
- What additional information about farm machinery do the farm operators feel is required?
- Where do the farm operators generally purchase their farm machinery and other farm supplies?
- How many miles do the farm operators actually travel from their farms to the farm implement dealer's place of business?
- How many miles would they be willing to drive to an 'adequate' dealer (i.e., one with a good supply of repair parts and a good repair service)?

The study also investigated the decision-making process of the farm machinery buyer. For example, how do the farm operators decide *when* to buy new farm machinery? Do they have any specific method for establishing a limit on the amount of capital to be invested in farm machinery? What is the relative importance of various factors influencing their decision to purchase new farm machinery?

The other aspect of this decision-making process concerns *where* the farm operators decide to buy their new farm machinery, and the importance of various factors entering into their choice. What services and characteristics of implement dealers are considered to be important by the farm operators?

2 ATTITUDES TO FARM MACHINERY PURCHASES

In addition, an attempt was made in this study to evaluate the attitudes of Prairie farm operators towards seven dimensions or aspects of the farm machinery industry:

- Improvements in farm machinery.
- Testing of new farm machinery.
- Research on new farm machinery.
- Repair service.
- Company warranties on farm machinery.
- Farm machinery company advertising.
- Financing of farm machinery.

The variance in the attitudes of the farm operators towards each of these dimensions of the farm machinery industry, related to selected socio-economic factors (age, education, ethnic group, size of farm, type of farming, value of sales), was also investigated.

Finally, a brief section of the study was devoted to the financing of farm machinery. Information was gathered on the type of machinery financed, the amount borrowed, and the willingness of farm operators to finance farm machinery as opposed to a house, farm buildings, farm land or a personal automobile.

Description of the Sample

The data for this study were collected by the intensive interviewing of a random sample of 85 Prairie farm operators. Six farming districts were randomly selected in Manitoba, Saskatchewan and Alberta, and within each district a random sample of male farm operators was then drawn. Farm operators were interviewed in the Beausejour, Portage la Prairie and Minnedosa areas of Manitoba, the North Battleford area in Saskatchewan, the Camrose area of northern Alberta, and the Namaka-Strathmore area of southern Alberta.

As indicated in Table 1, 42 per cent of the farm operators were classified as wheat or small-grain farmers, deriving 50 per cent or more of their annual income from the sale of wheat or oats, barley and other small grains. Fifty-seven per cent of the farm operators were classified as mixed farmers, with the major portion of their income derived from the sale (in various combinations) of livestock, field crops, and grain.

Although there is a considerable range in the size of farms in the three provinces, it is interesting to note the small percentage of farmers in the sample (8 per cent) who had less than a quarter-section under cultivation (Table 2). The majority of the farm operators (64 per cent) had between 160 and 640 acres under cultivation.

TABLE 1
DISTRIBUTION OF FARM OPERATORS
ACCORDING TO TYPE OF FARMING

Type	Farm Operators	
	No.	%
Wheat	10	12
Small grains	26	30
Field crops	0	0
Dairy	1	1
Poultry	0	0
Fruits and vegetables	0	0
Mixed (livestock combination)	24	28
Mixed (field crops combination)	3	4
Mixed (other combinations)	21	25
Total	85	100

The farm operators were asked to estimate the value of their sales from farm production for each of the years 1966, 1965 and 1964. The figures in Table 3 represent the average of this three-year period.

TABLE 2
DISTRIBUTION OF FARM OPERATORS
ACCORDING TO SIZE OF FARM

Acres Under Cultivation	Farm Operators	
	No.	%
Under 160	7	8
160-320	25	30
321-480	14	16
481-640	15	18
641-800	8	9
801-960	5	6
Over 960	11	13
Total	85	100

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TABLE 3
DISTRIBUTION OF FARM OPERATORS ACCORDING
TO VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year average)	Farm Operators	
	No.	%
Less than \$5,000	21	25
\$ 5,000-\$ 9,999	34	40
\$10,000-\$20,000	25	29
Over \$20,000	5	6
Total	85	100

The age distribution of the farm operators interviewed in this study appears to reflect the increasing migratory trend displayed by rural youth. Many of the farmers commented that they were concerned about where tomorrow's generation of farmers would come from. Table 4 reveals that, whereas only 8 per cent of the farm operators were under 30 years old, 73 per cent of them were between 40 and 70.

TABLE 4
AGE DISTRIBUTION OF FARM OPERATORS

Age	Farm Operators	
	No.	%
Under 20	1	1
20-29	6	7
30-39	12	14
40-49	17	20
50-59	29	34
60-69	16	19
Over 70	4	5
Total	85	100

The distribution of the farm operators by formal education and ethnic group is presented in Tables 5 and 6. Although a substantial number of the farm operators had at least some high school education (33 per cent), most of them had not gone beyond elementary school. The majority of the farmers belong to three main ethnic groups: British (39 per cent), Scandinavian (24 per cent), and German (13 per cent).

TABLE 5
EDUCATION DISTRIBUTION OF FARM OPERATORS

Highest Grades Completed	Farm Operators	
	No.	%
0- 6	8	9
7- 9	49	58
10-12	22	26
Over 12	6	7
Total	85	100

Almost all the farmers interviewed had purchased a major piece of farm machinery quite recently: 70 per cent within the last year, and 98 per cent within the last five years (Table 7). The largest number of purchases were combines and tractors (Table 8). Their recent experiences in purchasing farm machinery enabled the farm operators to more readily comment on the situation in Western Canada.

TABLE 6
DISTRIBUTION OF FARM OPERATORS
ACCORDING TO ETHNIC GROUP

Ethnic Group (national background)	Farm Operators	
	No.	%
British	33	39
French	2	2
German	11	13
Italian	0	0
Jewish	0	0
Mennonite	1	1
Dutch	1	1
Polish	4	5
Russian	1	1
Scandinavian	20	24
Ukrainian	7	8
Asiatic	0	0
Native Indian	0	0
Other European	0	0
Other	5	6
Total	85	100

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TABLE 7

DISTRIBUTION OF FARM OPERATORS ACCORDING TO DATE
OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date	Farm Operators	
	No.	%
Within last year	59	70
2-5 years ago	24	28
6-9 years ago	1	1
Over 10 years ago	<u>1</u>	<u>1</u>
Total	85	100

TABLE 8

DISTRIBUTION OF FARM OPERATORS ACCORDING TO TYPE
OF FARM MACHINERY PURCHASED MOST RECENTLY

Type	Farm Operators	
	No.	%
Combine	18	21
Tractor	28	33
Plow	2	2
Cultivator	6	7
Disk	5	6
Swather	7	8
Sprayer	0	0
Auger	0	0
Harrow	3	4
Baler	6	7
Other	<u>10</u>	<u>12</u>
Total	85	100

2. FARM MACHINERY PURCHASING BEHAVIOUR

Sources of Information Utilized

There is a wide variety of sources from which Prairie farmers may gain information about new farm machinery. However, as indicated in Table 9, the extent to which these sources of information are used by the farm operators varies considerably. The two most frequently utilized sources of information about farm machinery are informal discussions with friends, neighbours and relatives (62 per cent) and watching machinery in operation on neighbours' farms (55 per cent). The mass media (farm magazines, newspapers, and radio and television) play a somewhat less important role in the diffusion of information about farm machinery. It is interesting to note the limited role played by the more formal sources of information -- implement dealers, and government agencies (i.e., the agricultural representative and the agricultural extension staff).^{1/}

From this evidence one might conclude that the informal personal channel of communication (i.e., the network of inter-personal relationships between the farmer and his friends, neighbours and relatives) still plays the major role in providing the farm operator with information about new farm machinery.

The farm operators were asked to indicate which one of these information sources they regarded as the most useful (i.e., the one that best helps them to keep up to date on new farm machinery). The sources of information were then ranked in order of importance, beginning with the one most frequently cited as the most useful source of information about farm machinery (Table 10). It was found that the two most frequently used sources (watching

^{1/} Similar finding reported by the author in "The Communication Process and the Adoption of New Farming Practices: A Study of the Attitudes of Farm Operators in Southern Manitoba Toward Irrigation", unpublished Master's thesis, University of Manitoba, 1967.

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machinery in operation on neighbours' farms, and talking with friends, neighbours, and relatives) were, in fact, regarded as the most useful sources of information about farm machinery. In general, there appears to be a relationship between the manner in which the farm operators perceive the various sources of information (i.e., in terms of usefulness), and the extent to which they make use of each of these sources of information about farm machinery.

TABLE 9

EXTENT TO WHICH THE VARIOUS SOURCES OF INFORMATION ABOUT FARM MACHINERY ARE UTILIZED BY THE FARM OPERATORS

Sources of Information	Extent Used					
	Frequently		Now and Then		Seldom or Never	
	No.	%	No.	%	No.	%
Articles in farm magazines	30	35	40	47	15	18
Machinery company literature	15	18	38	45	32	37
Talking with implement dealers and salesman	13	15	32	38	40	47
Watching machinery demonstrations at fairs	14	17	28	33	43	50
Talking with friends, neighbours, and relatives	53	62	23	27	9	11
Agricultural representative	9	11	20	23	56	66
Radio and TV programs	16	19	33	39	36	42
Articles in newspapers	21	25	47	55	17	20
Advertising	10	12	32	38	43	50
Agricultural extension staff	2	2	25	30	58	68
Watching machinery in operation on neighbours' farms	47	55	25	30	13	15

TABLE 10

MOST USEFUL SOURCES OF INFORMATION
ABOUT FARM MACHINERY

Sources of Information	Farm Operators	
	No.	%
Watching machinery in operation on neighbours' farms	27	32
Talking with friends, neighbours, and relatives	16	19
Watching machinery demonstrations at fairs	11	13
Articles in farm magazines	9	10
Talking with implement dealers and salesmen	7	8
Machinery company literature	4	5
Agricultural representative	4	5
Articles in newspapers	4	5
Radio and TV programs	2	2
Advertising	1	1
Agricultural extension staff	<u>0</u>	<u>0</u>
Total	85	100

The majority of the farm operators appear to be satisfied with the sources of information about new farm machinery available to them. Sixty-two per cent of them said they feel the available sources of information about new farm machinery are adequate. On the other hand, 34 per cent of the farm operators expressed dissatisfaction. The remaining 4 per cent did not respond to this question. Those who said they were not satisfied with the available sources of information about new farm machinery were asked to indicate the type of additional information they feel is required by prairie farmers. Their responses are summarized in Table 11.

10 ATTITUDES TO FARM MACHINERY PURCHASES

Thirty-five per cent of these farm operators were not able to enlarge on their views, or simply stated that more "honest" information is required. However, as indicated in Table 11, 38 per cent of the farm operators feel that additional information based upon the testing of farm machinery by an independent agency (or more specifically a government agency) should be made available to the Prairie farmers.

TABLE 11
 ADDITIONAL INFORMATION ABOUT FARM MACHINERY
 REQUIRED BY FARM OPERATORS

Type of Information	Farm Operators	
	No.	%
More information based upon government testing of farm machinery (e.g., as previously done by the Agricultural Machinery Agency in Saskatchewan)	6	21
More information based on performance tests and comparison field testing conducted by an independent agency	5	17
More information on durability of parts	2	6
More information about the operation of the machinery (i.e., how to use and when; field demonstrations)	6	21
More "honest" information	4	14
No response	<u>6</u>	<u>21</u>
Total	29	100

Farmers' Shopping Patterns

As indicated in Table 12, the majority of the farm operators interviewed in this study (73 per cent) purchase all of their farm machinery from private companies. Furthermore, 14 of the 18 farmers who said they purchase their farm machinery from both private companies and a co-operative association purchase 75 per cent or more of this machinery from the private companies. In other words, even those farm operators who do patronize the

co-op for farm machinery give only a very small percentage of their business to the Canadian Co-operative Implements Limited.^{2/}

TABLE 12
DEALER FROM WHOM FARM OPERATORS GENERALLY PURCHASE
FARM MACHINERY

Type of Dealer	Farm Operators	
	No.	%
Co-operative association	1	1
Private company	62	73
Both of above	18	21
Other (e.g., auction)	<u>4</u>	<u>5</u>
Total	85	100

On the other hand, Prairie farmers tend to buy many of their farm supplies (other than machinery) from co-operative associations (Table 13). Nineteen per cent of the farm operators buy their farm supplies solely from co-operative associations. An additional 55 per cent patronize both co-ops and private companies, and show a marked preference for the co-op; 32 of the 47 farmers who buy from both types of dealers purchase half or more of their supplies from co-ops.

TABLE 13
DEALER FROM WHOM FARM OPERATORS GENERALLY PURCHASE
FARM SUPPLIES (OTHER THAN FARM MACHINERY)

Type of Dealer	Farm Operators	
	No.	%
Co-operative association	16	19
Private company	21	25
Both of above	47	55
Other	<u>1</u>	<u>1</u>
Total	85	100

^{2/} C.C.I.L. is the only farm machinery co-operative in Western Canada, the area in which this survey was conducted.

12 ATTITUDES TO FARM MACHINERY PURCHASES

These findings tend to substantiate the generally recognized fact that the farmers' support of a co-operative association such as the Canadian Co-operative Implements Limited (C.C.I.L.) has not been nearly as strong as in the case of many other co-ops in Western Canada. In order to gain insight into this apparently inconsistent behaviour, the farmers who purchase most of their farm supplies from co-ops, but most of their farm machinery from private companies, were asked to explain briefly the major reason for this behaviour. The reasons cited for not buying farm machinery from the co-op are listed in Table 14.

Although a wide range of reasons was cited by the farm operators to explain why they are not willing to buy machinery from C.C.I.L., there appear to be two major inter-related reasons for this behaviour. Basically the farmers object to the line of machinery handled by C.C.I.L. Sixty-one per cent of the farmers expressed dissatisfaction with the C.C.I.L. line. They said co-op machinery (primarily tractors and combines) is too small to handle the job adequately, and since the machines are foreign-made there is likely to be a problem in obtaining repair parts. It is important to note that the farmers are not opposed to the structure of the organization, and many said they would be willing to buy from C.C.I.L. if it handled a "desirable" line of farm machinery. A variety of the reasons offered by the farm operators with respect to this question are worthy of further investigation, including the fact that 11 per cent of the farmers simply do not buy farm machinery from C.C.I.L. because there is no co-op implement dealer in their immediate area.

In an effort to understand the pattern of Prairie farmers' shopping for farm machinery, two questions were raised: (1) How many miles do the farm operators now travel from their farms to the implement dealer's place of business? (2) How many miles would they be willing to drive to an "adequate" dealer (i.e., one with a good supply of repair parts and a good repair service)?

The data gathered (Table 15) indicate that the shopping pattern displayed by the Prairie farmers is highly localized. For example, 60 per cent of the farmers interviewed travel 15 miles or less to their dealer's place of business, and a total of 84 per cent travel 25 miles or less.

TABLE 14

REASONS CITED BY FARM OPERATORS TO EXPLAIN WHY THEY PURCHASE
 MOST OF THEIR FARM SUPPLIES FROM CO-OPERATIVE ASSOCIATIONS
 BUT MOST OF THEIR FARM MACHINERY FROM PRIVATE COMPANIES

Reasons	Farm Operators	
	No.	%
No co-op implement dealer in the area (not enough co-op depots)	7	11
Line of machinery carried by co-op; not enough variety and machines too small	27	43
Prefer doing business with private enterprise	3	5
Co-op servicing of machinery not satisfactory	3	5
No real savings through co-op	1	2
Co-op equipment not durable enough	3	5
Foreign-made machinery (repair parts problem)	12	18
Resale value of machinery low	1	2
Co-op machinery not adequately advertised	1	2
Frequent changes in line of machinery handled	1	2
Co-op dealer just recently opened in the area (not well established)	2	3
Neighbours had bad experience with co-op machinery (primarily combine and tractor)	<u>1</u>	<u>2</u>
Total	62	100

TABLE 15

MILES TRAVELLED BY FARM OPERATORS FROM THEIR FARMS
TO IMPLEMENT DEALER'S PLACE OF BUSINESS

Miles	Farm Operators	
	No.	%
Less than 5	3	4
6-10	19	22
11-15	29	34
16-20	11	13
21-25	9	11
26-30	0	0
31-35	2	2
36-40	8	9
More than 40	4	5
Total	85	100

Furthermore, it is significant to note that the majority of these farmers are not willing to drive any farther than they do at present. Fifty-seven per cent of the farmers said they would only be willing to drive 25 miles or less to reach an "adequate" dealer (Table 16). However, the fact should not be overlooked that 35 per cent of the farm operators said they would be willing to travel 30 miles or more to reach a dealer with a good supply of repair parts and a good repair service, while at present only 16 per cent of the farmers actually travel this distance.

TABLE 16

NUMBER OF MILES FARM OPERATORS WILLING TO DRIVE
TO AN "ADEQUATE" IMPLEMENT DEALER

Miles	Farm Operators	
	No.	%
Less than 5	3	4
6-10	10	12
11-15	14	16
16-20	11	13
21-25	10	12
26-30	7	8
31-35	1	1
36-40	14	16
More than 40	15	18
Total	85	100

Later in the interview each farmer was asked to agree or disagree with this general statement: "Most farmers would rather drive more miles to a well-run, well-stocked implement dealer, than go to a small neighbourhood agency". Sixty-eight per cent of the farm operators agreed with this statement, 7 per cent were uncertain and the remaining 25 per cent disagreed. The fact that the majority of the farm operators agreed with this statement appears to be inconsistent with the attitudes described above. One possible explanation for this apparent discrepancy can be offered: while they feel that "most farmers" would be willing to drive many miles to reach an "adequate" dealer, on a personal level they feel that such a dealer should be readily accessible within their own immediate area (i.e., within a 25-mile radius of their farms).

3. THE DECISION-MAKING PROCESS

General Rationality Index

A Rationality Index was computed for each of the farm operators interviewed to assess the levels of rationality in decision-making among Prairie farmers in regard to farm management in general. For the purposes of this study, rationality was defined in terms of a means-ends schema: behaviour is rational to the extent that it is likely to be effective in the achievement of economic ends. The Index measures the following four dimensions of rationality: (1) sources of authority utilized; (2) kinds and degree of knowledge; (3) traditional versus changing criteria for action; and (4) vague versus explicit justification for action. As indicated in Table 17, the majority of the farm operators (65 per cent) scored high on this Index and were thus classified as rational.

The farm operators with high rationality scores tend to utilize more authoritative sources of information in their decision-making. For example, these farmers rely on soil tests and the general recommendations of government authorities in determining how much fertilizer to apply to their crops and what types of crops to plant. Moreover, the "rational" farmers use and value planning and deliberation in managing their operation, and they keep more complete records than the farm operators with lower scores on the Rationality Index.

TABLE 17

DISTRIBUTION OF FARM OPERATORS ACCORDING TO THEIR SCORES
ON A GENERAL INDEX OF RATIONALITY

Level of Rationality	Farm Operators	
	No.	%
Non-Rational	0	0
Intermediate	30	35
Rational	55	65
Total	85	100

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Based on this information, an attempt was made to investigate the relationship between the farmers' scores on this general measure of rationality in decision-making, and a specific type of behaviour involved in farm management, i.e., the purchasing of new farm machinery.

Investment in Farm Machinery

Each farm operator was asked to indicate whether he could profitably invest in more farm machinery during the next three years. Only 26 of the 85 farmers (30 per cent) felt they could. (Of the remainder, 50 per cent said they would not be able to invest, and 20 per cent did not respond to this question.) The 26 farm operators who responded favourably were then asked to indicate the amount they felt they could profitably invest in farm machinery. Their responses are presented in Table 18.

TABLE 18
AMOUNTS FARM OPERATORS THOUGHT THEY COULD PROFITABLY
INVEST IN FARM MACHINERY

Amounts	Farm Operators	
	No.	%
\$ 1,000 or less	0	0
\$ 1,001-\$ 3,000	10	39
\$ 3,001-\$ 5,000	8	31
\$ 5,001-\$ 9,000	4	15
\$ 9,001-\$15,000	4	15
\$15,000 or more	0	0
Total	26	100

It is important to note that the question under consideration at this point is not how many farm operators are willing to invest money in more farm machinery, or how much they are willing to invest, but rather the major factors influencing their decision. Do the farm operators have a method for determining the amount of capital they can afford to invest profitably in new farm machinery? The reasons cited by the farm operators to explain how they establish a "limit" on the amount of capital they can afford to invest in farm machinery are presented in Table 19.

A total of 45 per cent of the farm operators did not appear to have a specific method for determining the amount of capital to be invested in new farm machinery. This includes the 22 per cent

who did not respond to the question, another 18 per cent who gave responses that were not codable within the framework of this question (listed as "other"), and finally 5 per cent who explicitly stated they have no specific method. Among those who indicated a method, the two major factors cited as influencing this crucial decision were: (1) amount of income (18 per cent) and (2) "need" for new machinery (19 per cent). However, neither of these reasons involves a great deal of planning and deliberation. Based on the finding that the farm operators are at best only able to offer vague (rather than explicit) justification for their action, plus the fact that the majority of the farmers do not utilize authoritative sources of information about farm machinery, it is possible to describe their behaviour on this dimension of farm management, i.e., the purchasing of new farm machinery, as low in terms of rationality.

TABLE 19
REASONS CITED BY FARM OPERATORS TO EXPLAIN
HOW THEY ESTABLISH A "LIMIT" ON THE AMOUNT
THEY CAN AFFORD TO INVEST IN FARM MACHINERY

Reasons	Farm Operators	
	No.	%
No response	20	22
No specific method	4	5
Amount of income	15	18
Cash available	3	4
Return on investments	5	6
Self-imposed debt limit	6	7
Investment in farm machinery limited to a specific percentage of gross or net income	0	0
Limit to number of units purchased per year	0	0
"Need" for new machinery	16	19
Amount required for other farm necessities	1	1
Other	<u>15</u>	<u>18</u>
Total	85	100

Reasons for Purchasing New Farm Machinery

The study investigated two additional dimensions of the decision-making process employed by the farm machinery buyer. How do the farm operators decide *when* to buy new farm machinery? How do they decide *where* to buy it?

The importance of various factors in influencing the farm operators' decision to purchase their most recent unit of farm machinery was evaluated, and the findings are presented in Table 20.

The major reason cited by the farm operators for purchasing their most recent unit of new farm machinery was the desire to own larger equipment. For example, 70 per cent of the farmers stated that a very important factor in their most recent decision to purchase new farm machinery was the necessity of owning larger machines in order to get the work done within the time available (i.e., harvesting). At a later point in the interview each of the farm operators was asked to agree or disagree with the following general statement: "There is an ever increasing demand on the part of the Prairie farmers for larger farm machinery". Ninety-two per cent of the farmers agreed with this statement, 7 per cent disagreed and the remaining 1 per cent were uncertain. Thus it is evident that most of the farm operators now are buying larger farm machinery and feel this trend is likely to continue in Western Canada.

Another reason cited by many of the farm operators (56 per cent) as playing a very important role in influencing their decision to purchase new farm machinery was the simple fact that their old unit was wearing out and giving them considerable trouble. Thus it appears that a certain percentage of the farmers not only decide when to buy new farm machinery, but also how much capital to invest in this equipment, on the basis of a general "need" for new farm machinery.

It is interesting to note that approximately one-third of the farm operators interviewed cited what may be described as "prestige factors" as being very important in influencing their decision to purchase new farm machinery. For example, 34 per cent of the farmers said it is very important to own a full line of well-kept new farm machinery, and 39 per cent said it is just good business to keep up to date in farm machinery. To these farm operators, owning new farm machinery may be viewed as an end in itself, rather than as a means to an end.

TABLE 20

IMPORTANCE OF VARIOUS REASONS IN INFLUENCING
THE FARM OPERATORS' DECISION TO PURCHASE
MOST RECENT UNIT OF FARM MACHINERY

Reasons	Degree of Importance					
	Very Important		Not Very Important		Un-important	
	No.	%	No.	%	No.	%
Old unit was wearing out and giving considerable trouble	48	56	11	13	26	31
Wanted a newer model because of the big improvements made over the one owned	36	42	15	18	34	40
Have increased size of farming operation and therefore needed a larger model (more power)	34	40	9	11	42	49
Not satisfied with the performance of the brand owned, and felt a different brand would do a better job	19	22	9	11	57	67
Have needed a new one, and situation improved, so could afford it	39	46	12	14	34	40
Dealer made such a good offer, thought I had better take it	29	34	9	11	47	55
Owning a full line of well-kept new farm machinery	29	34	5	6	51	60
It is just good business to keep up to date in machinery	33	39	13	15	39	46
Wanted a larger model in order to get job done on time	60	70	11	13	14	17
Wanted a larger model in order to make better use of available labour	43	50	10	12	32	38
Decided not to hire the machine work done any longer	14	16	3	4	68	80

Reasons for Choice of Implement Dealer

An attempt was also made to assess the importance of various factors in determining why farmers purchase their farm machinery where they do. The findings are presented in Table 21.

TABLE 21

IMPORTANCE OF VARIOUS REASONS IN INFLUENCING
FARM OPERATORS' DECISION TO PURCHASE
FARM MACHINERY WHERE THEY DO
(I.E., CHOICE OF DEALERS)

Reasons	Degree of Importance					
	Very Important		Not Very Important		Un-Important	
	No.	%	No.	%	No.	%
Dealer has a reputation for standing behind the machinery he sells	75	88	6	7	4	5
Dealer has a reputation for honesty	75	88	7	8	3	4
Dealer has a good repair and service department	74	87	10	12	1	1
Dealer gives me a good deal	59	70	25	29	1	1
Dealer does not try to force me to buy until I'm ready	46	54	11	13	28	33
Dealer has a complete line of machinery	51	60	22	26	12	14
Dealer is always friendly	51	60	18	21	16	19
Dealer's place of business is easy to get to	60	70	14	17	11	13
Dealer-owned rather than company-owned store	15	18	15	18	55	64
Adequate parking space is available close to dealer's place of business	30	35	15	18	40	47
He is the only dealer in my area selling the brand I want	17	20	23	27	45	53
Dealer carries an adequate line of farm supplies in addition to his line of machinery	34	40	12	14	39	46
Co-operative store rather than company-owned store	24	28	9	11	52	61

Personal characteristics of the dealer were ranked as the most important factors in influencing the farm operators' decision to purchase farm machinery where they do. Eighty-eight per cent

of the farmers said it is very important that the dealer have a reputation for standing behind the machinery he sells, as well as a reputation for honesty. A third personal characteristic -- being friendly -- was ranked somewhat lower, but was still considered to be very important by 60 per cent of the farmers.

The fact that 87 per cent of the farm operators said it is also very important that the dealer have a good repair and service department seems to indicate that favourable personal characteristics alone might not be sufficient to influence the farm operators' choice of dealer. The dealer's selling strategy is also regarded as very important by many of the farm operators. It is interesting to note that only 20 per cent of the farmers stated that a preference for a particular brand of machinery significantly influenced their choice of dealer.

In view of the finding presented earlier, that the farmers' shopping pattern (for farm machinery) is highly localized, it is not surprising to find that 70 per cent of the farmers feel it is very important that the dealer's place of business be easy to get to. One finding rather difficult to interpret is that 28 per cent of the farmers said it is very important that the dealer represent a co-operative store rather than a privately owned one. This finding is rather surprising in view of the data presented earlier, indicating the limited number of farm operators who actually purchase machinery from Canadian Co-operative Implements Limited.

In an effort to gain further understanding of the Prairie farmers' machinery purchasing behaviour, the opposite side of the question was also investigated. The farm operators were asked whether there was an implement dealer in their area from whom they would *not* be willing to purchase any farm machinery. (Twenty-eight per cent of the farmers said "Yes", 70 per cent said "No", and 2 per cent did not respond to the question.) The 24 farmers (28 per cent) who responded in the affirmative were asked to state the major underlying reason for their reluctance to buy farm machinery from a particular implement dealer in their area. Rejection was based mainly on the personal characteristics of the dealer (Table 22). For example, 71 per cent of the farmers offered the following reasons: the dealer is dishonest (34 per cent), the dealer is unfriendly (20 per cent), and the dealer does not stand behind his product (17 per cent).

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TABLE 22

REASONS CITED BY FARM OPERATORS TO EXPLAIN
WHY THEY ARE NOT WILLING TO PURCHASE
ANY FARM MACHINERY FROM A PARTICULAR
IMPLEMENT DEALER IN THEIR AREA

Reasons	Farm Operators	
	No.	%
Prices unreasonable (too high)	1	4
Dealer is dishonest	8	34
Dealer has bad reputation	2	8
Dealer does not stand behind product	4	17
Dealer is unfriendly (attitude)	5	20
Poor supply of repair parts (and repair service)	3	13
Dealer does not handle a complete line of machinery	<u>1</u>	<u>4</u>
Total	24	100

4. ATTITUDES TOWARDS THE FARM MACHINERY INDUSTRY

In this section of the study an attempt was made to evaluate the attitudes of Prairie farm operators towards six dimensions of the farm machinery industry: improvements in farm machinery; testing of new farm machinery; research on new farm machinery; repair service; company warranties on farm machinery; and farm machinery company advertising. The variance in the attitudes of the farm operators towards each of these dimensions of the farm machinery industry, related to selected socio-economic factors (i.e., type of farm, size of farm, value of sales from farm production, age, education, ethnic group, date of most recent purchase of major farm machinery, and type of farm machinery purchased most recently), was also investigated. The tables representing these data are presented in the Appendices at the end of this paper.

Improvements in Farm Machinery

As indicated in Table 23, many of the farm operators fall in the neutral range on this particular attitude measure. There is, however, a noticeable trend in a negative direction in regard to the farm operators' attitudes towards the improvements being made in farm machinery. For example, many of the farmers felt that farm machinery has improved in performance over the years, although not necessarily in quality. In addition, there was a fair amount of uncertainty on the part of the farmers in their attitudes towards the many different model sizes on the market, and the necessity of many current changes in farm machinery.

TABLE 23
FARM OPERATORS' ATTITUDES TOWARDS THE IMPROVEMENTS
MADE IN NEW FARM MACHINERY

Attitude	Farm Operators	
	No.	%
Positive	12	14
Neutral	34	40
Negative	39	46
Total	85	100

Testing of New Farm Machinery

The farm operators interviewed strongly disapprove of the type of testing of new farm machinery being done by machinery companies today (i.e., 73 per cent of the farm operators displayed a negative attitude -- see Table 24). Many of the farmers stated that sufficient testing is not done on new farm machinery by the companies before it is sold to the farmers, and that the farmer is still the "major tester" of new farm machinery. It will be recalled that Chapter 2 indicated that a large percentage of the farm operators feel that an independent agency (or more specifically a government agency) should be testing new farm machinery to provide the potential machinery buyer with more unbiased information.

TABLE 24

FARM OPERATORS' ATTITUDES TOWARDS COMPANY TESTING
OF NEW FARM MACHINERY

Attitude	Farm Operators	
	No.	%
Positive	2	2
Neutral	21	25
Negative	<u>62</u>	<u>73</u>
Total	85	100

Research on New Farm Machinery

Sixty-three per cent of the farm operators said they are not satisfied that sufficient research is being done on the design and durability of new farm machinery (Table 25). These farm operators, who displayed a negative attitude, believe that more research is necessary on the design of farm machinery to provide greater ease of repair and cut down repair costs. For example, 90 per cent of the farmers interviewed believe that there should be greater standardization of repair parts on farm machinery. Of the remaining farm operators, 4 per cent were uncertain, and 6 per cent disagreed or stated that they did not believe that it would be possible to develop interchangeable repair parts on farm machinery.

TABLE 25

FARM OPERATORS' ATTITUDES TOWARDS COMPANY RESEARCH
ON NEW FARM MACHINERY

Attitude	Farm Operators	
	No.	%
Positive	4	5
Neutral	27	32
Negative	<u>54</u>	<u>63</u>
Total	85	100

Repair Service

Although many of the farmers (46 per cent) were uncertain in their beliefs about the repair service they now receive, it is important to note that a substantial proportion of the farmers (44 per cent) displayed favourable attitudes (Table 26). The latter farmers agreed that most local implement dealers have an adequate supply of repair parts and facilities for servicing and repairing farm machinery. They tempered the completeness of this agreement, however, by stating that the small local implement dealer could not be expected to carry a complete inventory of repair parts.

TABLE 26

FARM OPERATORS' ATTITUDES TOWARDS REPAIR SERVICE

Attitude	Farm Operators	
	No.	%
Positive	37	44
Neutral	39	46
Negative	<u>9</u>	<u>10</u>
Total	85	100

Company Warranties on Farm Machinery

As indicated in Table 27, the majority of the farmers (66 per cent) displayed negative attitudes towards the type of company warranties now offered on new farm machinery. These farm operators are not satisfied with the type of warranties provided by farm

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machinery companies in regard to parts covered and length of coverage. Most of the farmers interviewed feel that company warranties should be longer, and should be provided on the basis of time of operation (i.e., miles or hours) rather than on the calendar age of the machine.

TABLE 27
FARM OPERATORS' ATTITUDES TOWARDS COMPANY WARRANTIES
ON NEW FARM MACHINERY

Attitude	Farm Operators	
	No.	%
Positive	6	7
Neutral	23	27
Negative	<u>56</u>	<u>66</u>
Total	85	100

Farm Machinery Company Advertising

The majority of the farm operators (as indicated in Table 28) displayed either neutral or negative attitudes towards company advertising of farm machinery. Many of the farmers were uncertain as to whether they would rate farm machinery company advertising as honest, believable and informative. However, a large percentage of the farm operators said they resent expensive and colourful advertising, as they feel it contributes to the high cost of new farm machinery.

TABLE 28
FARM OPERATORS' ATTITUDES TOWARDS COMPANY ADVERTISING
OF NEW FARM MACHINERY

Attitude	Farm Operators	
	No.	%
Positive	12	14
Neutral	38	45
Negative	<u>35</u>	<u>41</u>
Total	85	100

5. FARM MACHINERY FINANCING

About 76 per cent of the farm operators interviewed said they had financed some or all of the farm machinery they were presently using. In view of the fact that 98 per cent of the farmers had purchased machinery during the last 5 years, their experience in terms of financing is, therefore, also rather recent. The types of farm machinery financed most frequently were -- in order of rank -- tractors, combines, swathers, diskers, and cultivators. The cost of the machinery financed ranged from approximately \$1,000 to well over \$11,000. Most of the farm operators had financed farm machinery originally priced between \$3,000 and \$9,000. The amount borrowed by the farm operators to finance their new machinery varied considerably. However, the majority of the farmers (62 per cent) borrowed 50 per cent or more of the original cost of the farm machinery financed.

As indicated in Table 29, Farm Improvement Loans acquired through the bank were utilized most frequently by the farm operators in financing their machinery. Fifty-two per cent of the farmers borrowed money in this way. An additional 22 per cent relied upon personal bank loans, while 11 per cent made use of farm machinery company finance plans.

TABLE 29
SOURCES UTILIZED BY FARM OPERATORS
IN FINANCING FARM MACHINERY

Source of Funds	Farm Operators	
	No.	%
Bank loan (Farm Improvement Loan)	34	52
Bank loan (personal)	14	22
Farm machinery company finance plan	7	11
Finance company	1	1
Government loan (other than F.I.L.)	5	8
Family loan	2	3
Other	2	3
Total	65	100

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The major reason cited by the farm operators for selecting the source of funds utilized in financing their farm machinery was the cost of the funds, i.e., the interest rate (Table 30). Other reasons apparently of some importance in influencing the farmers' choice of the source from which to borrow money were the availability of the funds and the convenience of the source.

TABLE 30
REASONS CITED BY FARM OPERATORS FOR SELECTING THE SOURCE
OF FUNDS UTILIZED IN FINANCING FARM MACHINERY

Reasons	Farm Operators	
	No.	%
Availability of funds	10	15
Convenience of source	10	15
Cost of funds	35	55
Other	<u>10</u>	<u>15</u>
Total	65	100

The farm operators were asked if there was any particular source of funds which they would not make use of in financing machinery. Sixty-three per cent responded "Yes", 21 per cent responded "No", and the remaining 16 per cent did not respond to this question. The farm operators who responded in the affirmative were asked to specify the source from which they would be reluctant to borrow money. As indicated in Table 31, the vast majority of the farm operators (89 per cent) are not willing to borrow money from finance companies. This negative attitude towards finance companies is further illustrated by the fact that only 1 per cent of the farmers actually used the services of finance companies in the financing of their farm machinery (Table 29).

TABLE 31
SOURCE OF FUNDS FROM WHICH FARM OPERATORS ARE RELUCTANT
TO BORROW FOR THE FINANCING OF FARM MACHINERY

Source of Funds	Farm Operators	
	No.	%
Bank loan (Farm Improvement Loan)	1	2
Bank loan (personal)	4	7
Farm machinery company finance plan	0	0
Finance company	48	89
Government loan (other than F.I.L.)	1	2
Family	0	0
Other	<u>0</u>	<u>0</u>
Total	54	100

The major reason, cited by the farm operators for their reluctance to borrow from finance companies in financing farm machinery is that the rate of interest is too high (Table 32).

TABLE 32

REASONS CITED BY FARM OPERATORS FOR RELUCTANCE
TO BORROW FROM A PARTICULAR SOURCE OF FUNDS
IN FINANCING FARM MACHINERY

Reasons	Farm Operators	
	No.	%
No response	1	2
Interest rate too high	52	96
In order to avoid personal involvement	<u>1</u>	<u>2</u>
Total	54	100

An attempt was made in this section of the study to evaluate the willingness of the farm operators to finance farm machinery as compared to a house, farm buildings, farm land, or a personal automobile. In general it was found that the farm operators are more willing to finance farm machinery than either a house or a car (Table 33). A large number of farm operators (41 per cent) are also more willing to finance machinery than farm buildings, although in this case there was a noticeable shift in attitude. Forty-seven per cent of the farmers could not state a preference and felt that they would be equally willing to finance machinery and farm buildings. Farm buildings, as opposed to a house, are apparently viewed as a worthwhile investment from which direct benefits may be derived.

It is interesting to note that only 16 per cent of the farm operators said they would be more willing to finance machinery than land. Fifty-two per cent of the farmers felt that they would be equally willing to finance either machinery or land, while 32 per cent stated that they would be more willing to finance land. This finding lends support to the general view that the Prairie farmers are highly land oriented.

TABLE 33

WILLINGNESS OF THE FARM OPERATORS TO FINANCE
FARM MACHINERY AS COMPARED TO A HOUSE,
PERSONAL AUTOMOBILE, FARM BUILDINGS,
AND FARM LAND

Willingness to Finance	Farm Operators		Willingness to Finance	Farm Operators	
	No.	%		No.	%
House			Personal Automobile		
More	56	66	More	46	54
Less	13	15	Less	24	28
About the same	<u>16</u>	<u>19</u>	About the same	<u>15</u>	<u>18</u>
Total	85	100	Total	85	100
Farm Buildings			Farm Land		
More	35	41	More	14	16
Less	10	12	Less	27	32
About the same	<u>40</u>	<u>47</u>	About the same	<u>44</u>	<u>52</u>
Total	85	100	Total	85	100

A general measure of the farm operators' attitude towards financing revealed that many of the farmers (44 per cent) are uncertain of their feelings about borrowing money (Table 34). Many of the farm operators interviewed said they felt a farmer should strive to increase the size of his business rather than to get out of debt on a small unit. However, at the same time they also said they prefer to wait until they can accumulate their own capital rather than to borrow for farm production purposes. On the other hand, the farm operators (35 per cent) who displayed favourable attitudes towards financing stated that they definitely believe that farmers who enlarge their operation by borrowing make more profit than farmers who have small operations free of debt. (The tables representing the variance in the attitudes of the farm operators towards financing, related to the selected socio-economic factors, are presented in Appendix 7).

TABLE 34
 FARM OPERATORS' ATTITUDES TOWARDS FINANCING

Attitude	Farm Operators	
	No.	%
Positive	30	35
Neutral	37	44
Negative	<u>18</u>	<u>21</u>
Total	85	100

Each farm operator was also asked to agree or disagree with the statement, "A farmer should borrow enough money to have as much equipment as he needs, regardless of how much he is in debt". Seventy-three per cent of the farm operators disagreed with this statement, 8 per cent were uncertain, and the remaining 19 per cent agreed. Thus it is apparent that the majority of the farm operators feel it is necessary to impose certain checks upon the amount of money they borrow. One comment frequently voiced by those interviewed was that funds are too readily available and that today's farmer must be careful not to go into debt over his head.

APPENDIX 1 - ATTITUDES TOWARDS THE IMPROVEMENTS MADE
IN NEW FARM MACHINERY

Tables Representing Variance in Farm
Operators' Attitudes Related to
Selected Socio-Economic Factors

TABLE 1-A
TYPE OF FARMING

Type of Farming	Attitude		
	Positive	Neutral	Negative
Wheat	2	2	6
Small grains	3	14	9
Field crops	0	0	0
Dairy	0	1	0
Poultry	0	0	0
Fruits and vegetables	0	0	0
Mixed (livestock combination)	4	12	8
Mixed (field crops combination)	0	0	3
Mixed (other combinations)	<u>3</u>	<u>5</u>	<u>13</u>
Total	12	34	39

TABLE 1-B
SIZE OF FARM

Number of Acres Under Cultivation	Attitude		
	Positive	Neutral	Negative
Under 160	1	4	2
160-320	1	12	12
321-480	2	4	8
481-640	2	8	5
641-800	2	3	3
801-960	1	1	3
Over 960	<u>3</u>	<u>2</u>	<u>6</u>
Total	12	34	39

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TABLE 1-C
VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year average)	Attitude		
	Positive	Neutral	Negative
Less than \$5,000	3	9	9
\$ 5,000-\$ 9,999	2	16	16
\$10,000-\$20,000	6	8	11
Over \$20,000	<u>1</u>	<u>1</u>	<u>3</u>
Total	12	34	39

TABLE 1-D
AGE

Age	Attitude		
	Positive	Neutral	Negative
Under 20	0	0	1
20-29	4	1	1
30-39	0	7	5
40-49	4	4	9
50-59	4	14	11
60-69	0	6	10
Over 70	<u>0</u>	<u>2</u>	<u>2</u>
Total	12	34	39

TABLE 1-E
EDUCATION

Highest Grade Completed	Attitude		
	Positive	Neutral	Negative
0- 6	0	5	3
7- 9	5	19	25
10-12	5	6	11
Over 12	<u>2</u>	<u>4</u>	<u>0</u>
Total	12	34	39

TABLE 1-F
ETHNIC GROUP

Ethnic Group (national background)	Attitude		
	Positive	Neutral	Negative
British	6	12	15
French	0	0	2
German	1	3	7
Italian	0	0	0
Jewish	0	0	0
Mennonite	0	0	1
Dutch	0	1	0
Polish	2	2	0
Russian	0	0	1
Scandinavian	1	14	5
Ukrainian	1	2	4
Asiatic	0	0	0
Native Indian	0	0	0
Other European	0	0	0
Other	<u>1</u>	<u>0</u>	<u>4</u>
Total	12	34	39

TABLE 1-G
DATE OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date of Most Recent Purchase	Attitude		
	Positive	Neutral	Negative
Within last year	11	20	28
2-5 years ago	1	14	9
6-9 years ago	0	0	1
Over 10 years ago	<u>0</u>	<u>0</u>	<u>1</u>
Total	12	34	39

TABLE 1-H
 TYPE OF FARM MACHINERY PURCHASED MOST RECENTLY

Type of Farm Machinery	Attitude		
	Positive	Neutral	Negative
Combine	3	6	9
Tractor	6	10	12
Plow	0	1	1
Cultivator	0	2	4
Disk	1	1	3
Swather	1	3	3
Sprayer	0	0	0
Auger	0	0	0
Harrow	0	2	1
Baler	0	4	2
Other	1	5	4
Total	12	34	39

APPENDIX 2 - ATTITUDES TOWARDS COMPANY TESTING OF NEW
FARM MACHINERY

Tables Representing Variance in Farm
Operators' Attitudes Related to
Selected Socio-Economic Factors

TABLE 2-A
TYPE OF FARMING

Type of Farming	Attitude		
	Positive	Neutral	Negative
Wheat	1	2	7
Small grains	0	7	19
Field crops	0	0	0
Dairy	0	1	0
Poultry	0	0	0
Fruits and vegetables	0	0	0
Mixed (livestock combination)	0	7	17
Mixed (field crops combination)	0	0	3
Mixed (other combinations)	<u>1</u>	<u>4</u>	<u>16</u>
Total	2	21	62

TABLE 2-B
SIZE OF FARM

Number of Acres Under Cultivation	Attitude		
	Positive	Neutral	Negative
Under 160	0	3	4
160-320	0	9	16
321-480	0	3	11
481-640	1	1	13
641-800	0	1	7
801-960	0	2	3
Over 960	<u>1</u>	<u>2</u>	<u>8</u>
Total	2	21	62

40 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 2-C
VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year average)	Attitude		
	Positive	Neutral	Negative
Less than \$5,000	0	8	13
\$ 5,000-\$ 9,999	1	6	27
\$10,000-\$20,000	0	5	20
Over \$20,000	<u>1</u>	<u>2</u>	<u>2</u>
Total	2	21	62

TABLE 2-D
AGE

Age	Attitude		
	Positive	Neutral	Negative
Under 20	0	0	1
20-29	0	0	6
30-39	0	3	9
40-49	1	2	14
50-59	1	12	16
60-69	0	3	13
Over 70	<u>0</u>	<u>1</u>	<u>3</u>
Total	2	21	62

TABLE 2-E
EDUCATION

Highest Grade Completed	Attitude		
	Positive	Neutral	Negative
0- 6	1	3	4
7- 9	1	14	34
10-12	0	4	18
Over 12	<u>0</u>	<u>0</u>	<u>6</u>
Total	2	21	62

TABLE 2-F
ETHNIC GROUP

Ethnic Group (national background)	Attitude		
	Positive	Neutral	Negative
British	1	5	27
French	0	0	2
German	0	2	9
Italian	0	0	0
Jewish	0	0	0
Mennonite	0	0	1
Dutch	0	0	1
Polish	0	2	2
Russian	0	1	0
Scandinavian	1	8	11
Ukrainian	0	1	6
Asiatic	0	0	0
Native Indian	0	0	0
Other European	0	0	0
Other	<u>0</u>	<u>2</u>	<u>3</u>
Total	2	21	62

TABLE 2-G
DATE OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date of Most Recent Purchase	Attitude		
	Positive	Neutral	Negative
Within last year	1	15	43
2-5 years ago	1	6	17
6-9 years ago	0	0	1
Over 10 years ago	<u>0</u>	<u>0</u>	<u>1</u>
Total	2	21	62

42 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 2-H

TYPE OF FARM MACHINERY PURCHASED MOST RECENTLY

Type of Farm Machinery	Attitude		
	Positive	Neutral	Negative
Combine	0	3	15
Tractor	1	5	22
Plow	0	0	2
Cultivator	0	1	5
Disk	1	2	2
Swather	0	3	4
Sprayer	0	0	0
Auger	0	0	0
Harrow	0	1	2
Baler	0	3	3
Other	0	3	7
Total	2	21	62

APPENDIX 3 - ATTITUDES TOWARDS COMPANY RESEARCH ON NEW
FARM MACHINERY

Tables Representing Variance in Farm
Operators' Attitudes Related to
Selected Socio-Economic Factors

TABLE 3-A
TYPE OF FARMING

Type of Farming	Attitude		
	Positive	Neutral	Negative
Wheat	1	4	5
Small grains	1	7	18
Field crops	0	0	0
Dairy	0	1	0
Poultry	0	0	0
Fruits and vegetables	0	0	0
Mixed (livestock combination)	1	8	15
Mixed (field crops combination)	0	0	3
Mixed (other combinations)	<u>1</u>	<u>7</u>	<u>13</u>
Total	4	27	54

TABLE 3-B
SIZE OF FARM

Number of Acres Under Cultivation	Attitude		
	Positive	Neutral	Negative
Under 160	2	1	4
160-320	1	12	12
321-480	0	3	11
481-640	0	4	11
641-800	0	3	5
801-960	0	2	3
Over 960	<u>1</u>	<u>2</u>	<u>8</u>
Total	4	27	54

44 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 3-C
VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year average)	Attitude		
	Positive	Neutral	Negative
Less than \$5,000	2	8	11
\$ 5,000-\$ 9,999	1	12	21
\$10,000-\$20,000	1	5	19
Over \$20,000	0	2	3
Total	4	27	54

TABLE 3-D

AGE

Age	Attitude		
	Positive	Neutral	Negative
Under 20	0	0	1
20-29	0	0	6
30-39	0	3	9
40-49	2	4	11
50-59	2	13	14
60-69	0	6	10
Over 70	0	1	3
Total	4	27	54

TABLE 3-E

EDUCATION

Highest Grade Completed	Attitude		
	Positive	Neutral	Negative
0- 6	1	4	3
7- 9	1	17	31
10-12	2	5	15
Over 12	0	1	5
Total	4	27	54

TABLE 3-F
ETHNIC GROUP

Ethnic Group (national background)	Attitude		
	Positive	Neutral	Negative
British	3	9	21
French	0	1	1
German	0	5	6
Italian	0	0	0
Jewish	0	0	0
Mennonite	0	0	1
Dutch	0	0	1
Polish	0	2	2
Russian	0	0	1
Scandinavian	1	8	11
Ukrainian	0	1	6
Asiatic	0	0	0
Native Indian	0	0	0
Other European	0	0	0
Other	0	1	4
Total	4	27	54

TABLE 3-G
DATE OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date of Most Recent Purchase	Attitude		
	Positive	Neutral	Negative
Within last year	2	18	39
2-5 years ago	2	7	15
6-9 years ago	0	1	0
Over 10 years ago	0	1	0
Total	4	27	54

TABLE 3-H
 TYPE OF FARM MACHINERY PURCHASED MOST RECENTLY

Type of Farm Machinery	Attitude		
	Positive	Neutral	Negative
Combine	0	7	11
Tractor	1	10	17
Plow	0	0	2
Cultivator	0	1	5
Disk	0	2	3
Swather	0	3	4
Sprayer	0	0	0
Auger	0	0	0
Harrow	0	0	3
Baler	1	3	2
Other	<u>2</u>	<u>1</u>	<u>7</u>
Total	4	27	54

APPENDIX 4 - ATTITUDES TOWARDS REPAIR SERVICE OF
FARM MACHINERY

Tables Representing Variance in Farm
Operators' Attitudes Related to
Selected Socio-Economic Factors

TABLE 4-A
TYPE OF FARMING

Type of Farming	Attitude		
	Positive	Neutral	Negative
Wheat	6	3	1
Small grains	13	11	2
Field crops	0	0	0
Dairy	1	0	0
Poultry	0	0	0
Fruits and vegetables	0	0	0
Mixed (livestock combination)	10	11	3
Mixed (field crops combination)	0	2	1
Mixed (other combinations)	7	12	2
Total	37	39	9

TABLE 4-B
SIZE OF FARM

Number of Acres Under Cultivation	Attitude		
	Positive	Neutral	Negative
Under 160	4	3	0
160-320	11	13	1
321-480	6	5	3
481-640	7	6	2
641-800	3	3	2
801-960	3	2	0
Over 960	3	7	1
Total	37	39	9

48 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 4-C
VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year period)	Attitude		
	Positive	Neutral	Negative
Less than \$5,000	8	11	2
\$ 5,000-\$ 9,999	16	13	5
\$10,000-\$20,000	11	13	1
Over \$20,000	<u>2</u>	<u>2</u>	<u>1</u>
Total	37	39	9

TABLE 4-D

AGE

Age	Attitude		
	Positive	Neutral	Negative
Under 20	0	0	0
20-29	3	1	2
30-39	5	7	0
40-49	7	8	2
50-59	13	14	2
60-69	7	7	2
Over 70	<u>2</u>	<u>2</u>	<u>0</u>
Total	37	39	9

TABLE 4-E

EDUCATION

Highest Grade Completed	Attitude		
	Positive	Neutral	Negative
0- 6	4	3	1
7- 9	23	23	3
10-12	9	9	4
Over 12	<u>1</u>	<u>4</u>	<u>1</u>
Total	37	39	9

TABLE 4-F
ETHNIC GROUP

Ethnic Group (national background)	Attitude		
	Positive	Neutral	Negative
British	13	15	5
French	1	1	0
German	3	6	2
Italian	0	0	0
Jewish	0	0	0
Mennonite	0	0	1
Dutch	0	1	0
Polish	1	3	0
Russian	0	1	0
Scandinavian	12	8	0
Ukrainian	4	2	1
Asiatic	0	0	0
Native Indian	0	0	0
Other European	0	0	0
Other	<u>3</u>	<u>2</u>	<u>0</u>
Total	37	39	9

TABLE 4-G
DATE OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date of Most Recent Purchase	Attitude		
	Positive	Neutral	Negative
Within last year	23	29	7
2-5 years ago	14	8	2
6-9 years ago	0	1	0
Over 10 years ago	<u>0</u>	<u>1</u>	<u>0</u>
Total	37	39	9

50 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 4-H

TYPE OF FARM MACHINERY PURCHASED MOST RECENTLY

Type of Farm Machinery	Attitude		
	Positive	Neutral	Negative
Combine	3	13	2
Tractor	10	15	3
Plow	1	1	0
Cultivator	5	1	0
Disk	5	0	0
Swather	4	2	1
Sprayer	0	0	0
Auger	0	0	0
Harrow	2	1	0
Baler	3	3	0
Other	4	3	3
Total	37	39	9

APPENDIX 5 - ATTITUDES TOWARDS COMPANY WARRANTIES
ON NEW FARM MACHINERY

Tables Representing Variance in Farm
Operators' Attitudes Related to
Selected Socio-Economic Factors

TABLE 5-A
TYPE OF FARMING

Type of Farming	Attitude		
	Positive	Neutral	Negative
Wheat	1	2	7
Small grains	3	7	16
Field crops	0	0	0
Dairy	0	1	0
Poultry	0	0	0
Fruits and vegetables	0	0	0
Mixed (livestock combination)	1	9	14
Mixed (field crops combination)	0	0	3
Mixed (other combinations)	<u>1</u>	<u>4</u>	<u>16</u>
Total	6	23	56

TABLE 5-B
SIZE OF FARM

Number of Acres Under Cultivation	Attitude		
	Positive	Neutral	Negative
Under 160	0	1	6
160-320	2	8	15
321-480	0	4	10
481-640	1	6	8
641-800	2	2	4
801-960	0	0	5
Over 960	<u>1</u>	<u>2</u>	<u>8</u>
Total	6	23	56

52 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 5-C

VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year average)	Attitude		
	Positive	Neutral	Negative
Less than \$5,000	1	6	14
\$ 5,000-\$ 9,999	2	8	24
\$10,000-\$20,000	2	8	15
Over \$20,000	<u>1</u>	<u>1</u>	<u>3</u>
Total	6	23	56

TABLE 5-D

AGE

Age	Attitude		
	Positive	Neutral	Negative
Under 20	0	0	1
20-29	1	2	3
30-39	0	6	6
40-49	1	4	12
50-59	2	6	21
60-69	2	4	10
Over 70	<u>0</u>	<u>1</u>	<u>3</u>
Total	6	23	56

TABLE 5-E

EDUCATION

Highest Grade Completed	Attitude		
	Positive	Neutral	Negative
0- 6	1	2	5
7- 9	4	10	35
10-12	1	7	14
Over 12	<u>0</u>	<u>4</u>	<u>2</u>
Total	6	23	56

TABLE 5-F
ETHNIC GROUP

Ethnic Group (national background)	Attitude		
	Positive	Neutral	Negative
British	3	9	21
French	0	1	1
German	0	1	10
Italian	0	0	0
Jewish	0	0	0
Mennonite	0	0	1
Dutch	0	0	1
Polish	0	0	4
Russian	0	0	1
Scandinavian	2	9	9
Ukrainian	1	1	5
Asiatic	0	0	0
Native Indian	0	0	0
Other European	0	0	0
Other	0	2	3
Total	6	23	56

TABLE 5-G
DATE OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date of Most Recent Purchase	Attitude		
	Positive	Neutral	Negative
Within last year	3	16	40
2-5 years ago	3	5	16
6-9 years ago	0	1	0
Over 10 years ago	0	1	0
Total	6	23	56

TABLE 5-H

TYPE OF FARM MACHINERY PURCHASED MOST RECENTLY

Type of Farm Machinery	Attitude		
	Positive	Neutral	Negative
Combine	0	4	14
Tractor	3	4	21
Plow	0	0	2
Cultivator	1	1	4
Disk	1	3	1
Swather	1	4	2
Sprayer	0	0	0
Auger	0	0	0
Harrow	0	1	2
Baler	0	3	3
Other	0	3	7
Total	6	23	56

APPENDIX 6 - ATTITUDES TOWARDS COMPANY ADVERTISING
OF NEW FARM MACHINERY

Tables Representing Variance in Farm
Operators' Attitudes Related to
Selected Socio-Economic Factors

TABLE 6-A
TYPE OF FARMING

Type of Farming	Attitude		
	Positive	Neutral	Negative
Wheat	2	5	3
Small grains	4	9	13
Field crops	0	0	0
Dairy	1	0	0
Poultry	0	0	0
Fruits and vegetables	0	0	0
Mixed (livestock combination)	2	15	7
Mixed (field crops combination)	1	0	2
Mixed (other combinations)	<u>2</u>	<u>9</u>	<u>10</u>
Total	12	38	35

TABLE 6-B
SIZE OF FARM

Number of Acres Under Cultivation	Attitude		
	Positive	Neutral	Negative
Under 160	1	4	2
160-320	3	14	8
321-480	3	6	5
481-640	0	5	10
641-800	3	1	4
801-960	1	2	2
Over 960	<u>1</u>	<u>6</u>	<u>4</u>
Total	12	38	35

56 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 6-C
VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year average)	Attitude		
	Positive	Neutral	Negative
Less than \$5,000	2	12	7
\$ 5,000-\$ 9,999	6	15	13
\$10,000-\$20,000	3	10	12
Over \$20,000	<u>1</u>	<u>1</u>	<u>3</u>
Total	12	38	35

TABLE 6-D

AGE

Age	Attitude		
	Positive	Neutral	Negative
Under 20	0	0	1
20-29	0	2	4
30-39	1	6	5
40-49	2	9	6
50-59	7	14	8
60-69	2	4	10
Over 70	<u>0</u>	<u>3</u>	<u>1</u>
Total	12	38	35

TABLE 6-E

EDUCATION

Highest Grade Completed	Attitude		
	Positive	Neutral	Negative
0- 6	2	3	3
7- 9	8	20	21
10-12	1	12	9
Over 12	<u>1</u>	<u>3</u>	<u>2</u>
Total	12	38	35

TABLE 6-F
ETHNIC GROUP

Ethnic Group (national background)	Attitude		
	Positive	Neutral	Negative
British	5	15	13
French	0	0	2
German	2	5	4
Italian	0	0	0
Jewish	0	0	0
Mennonite	0	0	1
Dutch	0	0	1
Polish	0	1	3
Russian	0	0	1
Scandinavian	2	12	6
Ukrainian	1	3	3
Asiatic	0	0	0
Native Indian	0	0	0
Other European	0	0	0
Other	<u>2</u>	<u>2</u>	<u>1</u>
Total	12	38	35

TABLE 6-G
DATE OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date of Most Recent Purchase	Attitude		
	Positive	Neutral	Negative
Within last year	8	25	26
2-5 years ago	4	12	8
6-9 years ago	0	1	0
Over 10 years ago	<u>0</u>	<u>0</u>	<u>1</u>
Total	12	38	35

58 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 6-H

TYPE OF FARM MACHINERY PURCHASED MOST RECENTLY

Type of Farm Machinery	Attitude		
	Positive	Neutral	Negative
Combine	2	5	11
Tractor	4	14	10
Plow	0	2	0
Cultivator	0	2	4
Disk	3	1	1
Swather	1	2	4
Sprayer	0	0	0
Auger	0	0	0
Harrow	0	3	0
Baler	1	3	2
Other	<u>1</u>	<u>6</u>	<u>3</u>
Total	12	38	35

APPENDIX 7 - ATTITUDES TOWARDS FINANCING OF FARM MACHINERY

Tables Representing Variance in Farm
Operators' Attitudes Related to
Selected Socio-Economic Factors

TABLE 7-A
TYPE OF FARMING

Type of Farming	Attitude		
	Positive	Neutral	Negative
Wheat	5	3	2
Small grains	11	10	5
Field crops	0	0	0
Dairy	0	0	1
Poultry	0	0	0
Fruits and vegetables	0	0	0
Mixed (livestock combinations)	8	9	7
Mixed (field crops combination)	0	2	1
Mixed (other combinations)	<u>6</u>	<u>13</u>	<u>2</u>
Total	30	37	18

TABLE 7-B
SIZE OF FARM

Number of Acres Under Cultivation	Attitude		
	Positive	Neutral	Negative
Under 160	2	2	3
160-320	8	11	6
321-480	7	3	4
481-640	4	7	4
641-800	4	4	0
801-960	0	4	1
Over 960	<u>5</u>	<u>6</u>	<u>0</u>
Total	30	37	18

60 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 7-C
VALUE OF SALES FROM FARM PRODUCTION

Value of Sales (3-year average)	Attitude		
	Positive	Neutral	Negative
Less than \$5,000	8	5	8
\$ 5,000-\$ 9,999	12	15	7
\$10,000-\$20,000	8	15	2
Over \$20,000	<u>2</u>	<u>2</u>	<u>1</u>
Total	30	37	18

TABLE 7-D

AGE

Age	Attitude		
	Positive	Neutral	Negative
Under 20	1	0	0
20-29	3	2	1
30-39	5	4	3
40-49	7	9	1
50-59	10	10	9
60-69	1	11	4
Over 70	<u>3</u>	<u>1</u>	<u>0</u>
Total	30	37	18

TABLE 7-E

EDUCATION

Highest Grade Completed	Attitude		
	Positive	Neutral	Negative
0- 6	1	6	1
7- 9	17	22	10
10-12	7	9	6
Over 12	<u>5</u>	<u>0</u>	<u>1</u>
Total	30	37	18

TABLE 7-F
ETHNIC GROUP

Ethnic Group (national background)	Attitude		
	Positive	Neutral	Negative
British	13	14	6
French	0	1	1
German	2	8	1
Italian	0	0	0
Jewish	0	0	0
Mennonite	1	0	0
Dutch	0	0	1
Polish	3	0	1
Russian	0	1	0
Scandinavian	5	8	7
Ukrainian	4	2	1
Asiatic	0	0	0
Native European	0	0	0
Other European	0	0	0
Other	<u>2</u>	<u>3</u>	<u>0</u>
Total	30	37	18

TABLE 7-G
DATE OF MOST RECENT PURCHASE OF MAJOR FARM MACHINERY

Date of Most Recent Purchase	Attitude		
	Positive	Neutral	Negative
Within last year	20	28	11
2-5 years ago	10	9	5
6-9 years ago	0	0	1
Over 10 years ago	<u>0</u>	<u>0</u>	<u>1</u>
Total	30	37	18

62 ATTITUDES TO FARM MACHINERY PURCHASES

TABLE 7-H

TYPE OF FARM MACHINERY PURCHASED MOST RECENTLY

Type of Farm Machinery	Attitude		
	Positive	Neutral	Negative
Combine	9	4	5
Tractor	9	14	5
Plow	1	1	0
Cultivator	2	3	1
Disk	4	1	0
Swather	1	4	2
Sprayer	0	0	0
Auger	0	0	0
Harrow	1	1	1
Baler	1	3	2
Other	<u>2</u>	<u>6</u>	<u>2</u>
Total	30	37	18

APPENDIX 8

INTERVIEW SCHEDULE

In Section I of the interview schedule background information was gathered in regard to eight socio-economic factors: type of farming; size of farm; value of sales from farm production; age; education; ethnic group; date of most recent purchase of major farm machinery; and type of machinery purchased most recently.

Section II (Rationality Index) was designed to assess the levels of rationality in decision making found among Prairie farmers in regard to farm management, in general. This scale was originally developed by Alfred Dean, Herbert A. Aurback and C. Paul Marsh entitled "Some Factors Related to Rationality in Decision Making Among Farm Operators" (*Rural Sociology*, Vol. 23, 1958, p. 121).

Section III A of the interview schedule was designed to evaluate the extent to which farmers utilize various sources of information in regard to farm machinery.

In Section III B an attempt was made to determine whether the farmers have a "rational" method for determining the amount of capital to be invested in farm machinery.

Section III C involves an assessment of the factors which influence the farmers' decision to purchase new farm machinery.

Section III D was designed to assess the importance of various factors in determining why farmers purchase their farm machinery where they do.

In Section IV (Farm Machinery Financing) data were gathered in regard to the type of machinery financed, the source of funds utilized, and the willingness of the farmers to finance farm machinery as compared to a house, farm buildings, farm land or a personal automobile.

Section V was designed to assess the farmers' attitudes towards a number of dimensions of the farm machinery industry: improvements in farm machinery; testing of new farm machinery;

research on new farm machinery; repair service; company warranties on farm machinery; farm machinery company advertising. This section was also designed to obtain a general measure of the farmers' attitudes towards financing. A series of statements were drawn from the briefs presented to the Royal Commission during the public hearings held in the three Prairie provinces. Twenty statements (including a number of contradictory ones) were included in the interview schedule. Positive and negative statements pertaining to each of the attitude objects were included in order to provide a check upon the farmers' responses. It was therefore necessary to arrange the statements in Appendix D of the interview schedule in such a manner that the statements pertaining to any one attitude object are scattered throughout the list. Scores were calculated for the respondents on each of these scales, and the attitudes expressed by the farmers interviewed were categorized as positive, neutral, or negative.

ROYAL COMMISSION ON FARM MACHINERY

Section I - Background Information

	<u>Code</u>	<u>Column</u>
1. Respondent number: _____		1-3
2. Area:		4
Manitoba - P.T. _____ 1		
Manitoba - N. _____ 2		
Manitoba - S. _____ 3		
Saskatchewan - N. _____ 4		
Saskatchewan - S. _____ 5		
Alberta - N. _____ 6		
Alberta - S. _____ 7		
3. Type of farming (major crops grown):		5
Wheat _____ 1		
Small Grains _____ 2		
Field Crops _____ 3		
Dairy _____ 4		
Poultry _____ 5		
Fruits & Vegetables _____ 6		
Mixed (livestock combination) _____ 7		
Mixed (field crops combination) _____ 8		
Mixed (other combinations) _____ 9		
4. Size of farm (acres under cultivation):		6
under 160 _____ 1		
160 - 320 _____ 2		
321 - 480 _____ 3		
481 - 640 _____ 4		
641 - 800 _____ 5		
801 - 960 _____ 6		
over 961 _____ 7		

66 ATTITUDES TO FARM MACHINERY PURCHASES

- 2 -

Code Column

5. Have you purchased any major farm machinery during the last year?
- Yes _____ 1 7
- No _____
- If no, date of most recent purchase:
- 2 - 5 years ago _____ 2
- 6 - 9 years ago _____ 3
- 10 years or more _____ 4
6. Type of machinery purchased most recently:
- Combine _____ 1 8-9
- Tractor _____ 2
- Plow _____ 3
- Cultivator _____ 4
- Disker _____ 5
- Swather _____ 6
- Sprayer _____ 7
- Auger _____ 8
- Harrow _____ 9
- Baler _____ 10
- Other _____ 11
7. Age:
- under 20 _____ 1 10
- 20 - 29 _____ 2
- 30 - 39 _____ 3
- 40 - 49 _____ 4
- 50 - 59 _____ 5
- 60 - 69 _____ 6
- over 70 _____ 7
8. Education (highest grade completed)
- 0 - 6 _____ 1 11
- 7 - 9 _____ 2
- 10 - 12 _____ 3
- over 12 _____ 4

- 3 -

	<u>Code</u>	<u>Column</u>
9. Ethnic group (national background):		
British _____	1	12-13
French _____	2	
German _____	3	
Italian _____	4	
Jewish _____	5	
Mennonite _____	6	
Dutch _____	7	
Polish _____	8	
Russian _____	9	
Scandinavian _____	10	
Ukrainian _____	11	
Asiatic _____	12	
Native Indian _____	13	
Other European _____	14	
Other _____	15	
10. Could you estimate the value of your sales from farm production per year, during the last 3 years?		
A. <u>1966</u> less than \$5,000 _____	1	14
\$5,000- \$9,999 _____	2	
\$10,000-\$20,000 _____	3	
over \$20,000 _____	4	
B. <u>1965</u> _____	1	15
_____	2	
_____	3	
_____	4	
C. <u>1964</u> _____	1	16
_____	2	
_____	3	
_____	4	
D. 3-year average _____	1	17
_____	2	
_____	3	
_____	4	

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Section II - Rationality Index

Code Column

11. How did you decide how much fertilizer to apply to your crops last year?
- according to soil test _____ 4 18
 - followed the general recommendations of government authorities and/or professionals _____
 - according to careful observation in trial-and-error-like procedures of a fairly scientific nature; critical observation, recording of data, etc. _____
 - on the basis of general knowledge or experience (general, vague) _____ 3
 - followed the recommendations or practices of family, relatives, or other farmers _____
 - from recommendations of commercial interests (other than those from mass media; e.g., salesmen) _____
 - according to information gained through mass media _____
 - don't know _____ 2
 - always used the same amount or same as last year, etc. _____
 - used what he had on hand _____
 - used what landlord sent _____ 1
 - not codable, ambiguous _____
12. Have you had any of your fields soil tested in the last five years?
- yes _____ 4 19
 - no, don't know _____ 2
 - not codable, ambiguous _____ 1
13. How do you decide how much _____ to plant?
- plants what is needed to feed livestock _____ 4 20
 - plants according to market conditions _____
 - for soil conservation practices, rotation, etc. _____

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	<u>Code</u>	<u>Column</u>
plants according to government regulations _____	3	
plants according to general needs _____		
always plants same amount _____	2	
don't know _____		
decided by landlord or other factors beyond his control _____	1	
not codable, ambiguous _____		
 14. Why did you plant this variety(ies) instead of some others?		
followed recommendations of government authorities or professionals _____	4	21
chose to meet specific problems (e.g., disease, climate) _____		
according to his conception of the market (e.g. "companies want it" or "it earns more money") _____		
to experiment with a new variety _____		
recommendations of relatives, neighbors, and other farmers _____	3	
followed recommendations of commercial interests _____		
don't know _____	2	
decided by landlord or other factors beyond his control _____	1	
not codable, ambiguous _____		
 15. What kinds of written records do you keep and what things do you keep them on?		
farm books _____	4	22
ledgers or other records _____		
production records _____		
records of expenditure and income _____		
receipts, checks _____	3	
bills and/or sales _____		
don't know or none (uses memory) _____	2	
not codable, no response _____	1	

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	<u>Code</u>	<u>Column</u>
16. How do you use these written records? to estimate profits and loss of entire farming operation _____ 4		23
input analysis of specific enterprises _____		
to aid in the improvement of practices _____		
to figure income tax and/or social security _____ 3		
don't know _____ 2		
not codable, ambiguous _____ 1		
17. Have you ever tried to figure out on paper what your profit was from any major crop or livestock enterprise on your farm?		
yes _____ 4		24
no, don't know _____ 2		
not codable, ambiguous _____ 1		
18. The difference between the successful farmer and the nonsuccessful one is more in how hard they work than in how much time they spend in planning their farming operations.		
disagree _____ 4		25
agree _____ 2		
don't know _____		
no response _____ 1		
19. Farmers really don't have to think a great deal about what they are going to do on their farms since this is largely decided for them by their land and by what kind of farming their neighbors do.		
disagree _____ 4		26
agree _____ 2		
don't know _____		
no response _____		

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Section III - Farm Machinery Buying HabitsCode ColumnA.

20. Could you please tell me how frequently you
get ideas about farm machinery from the
following sources: (see APPENDIX A)

(a) frequently _____	1	27
now and then _____	2	
seldom or never _____	3	

(b) _____	1	28
_____	2	
_____	3	

(c) _____	1	29
_____	2	
_____	3	

(d) _____	1	30
_____	2	
_____	3	

(e) _____	1	31
_____	2	
_____	3	

(f) _____	1	32
_____	2	
_____	3	

(g) _____	1	33
_____	2	
_____	3	

(h) _____	1	34
_____	2	
_____	3	

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Code Column

(i)	_____ 1	35
	_____ 2	
	_____ 3	
(j)	_____ 1	36
	_____ 2	
	_____ 3	
(k)	_____ 1	37
	_____ 2	
	_____ 3	

21. Which one of these sources of information (see APPENDIX A) do you find most useful? (i.e., helps you to keep up-to-date on new farm machinery)

(a)	_____ 1	38-39
(b)	_____ 2	
(c)	_____ 3	
(d)	_____ 4	
(e)	_____ 5	
(f)	_____ 6	
(g)	_____ 7	
(h)	_____ 8	
(i)	_____ 9	
(j)	_____ 10	
(k)	_____ 11	

22. Do you feel that the available sources of information about new farm machinery are adequate?

yes	_____ 1	40
no	_____ 2	
no response	_____ 3	

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	<u>Code</u>	<u>Column</u>
23. If no, what additional information do you feel you need?		
_____		41

 <u>B.</u>		
24. Do you feel you could profitably invest money in more farm machinery during the next three years?		
yes _____ 1		42
no _____ 2		
uncertain _____ 3		
25. If yes, what amount do you think you could profitably invest in farm machinery?		
\$1,000 or less _____ 1		43
\$1,001 - \$3,000 _____ 2		
\$3,001 - \$5,000 _____ 3		
\$5,001 - \$9,000 _____ 4		
\$9,001 - \$15,000 _____ 5		
\$15,000 or more _____ 6		
26. Could you please tell me how you reached this decision? (i.e., how do you establish a 'limit' on how much you can afford to have invested in farm machinery?)		
no specific method _____ 1		44-45
amount of income _____ 2		
cash available _____ 3		
returns on investments _____ 4		
self-imposed debt limit _____ 5		

	<u>Code</u>	<u>Column</u>
investment in farm machinery limited to a specific percent of gross or net income _____	6	
limit to number of units purchased per year _____	7	
'need' for new machinery _____	8	
amount required for other farm necessities _____	9	
other _____	10	
(please specify) _____		

C.

27. Could you please tell me how important the following reasons were in influencing your decision to purchase your most recent unit of farm machinery? (see APPENDIX B)

(a) very important _____	1	46
quite important _____	2	
not very important _____	3	
unimportant _____	4	

(b) _____	1	47
_____	2	
_____	3	
_____	4	

(c) _____	1	48
_____	2	
_____	3	
_____	4	

(d) _____	1	49
_____	2	
_____	3	
_____	4	

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	<u>Code</u>	<u>Column</u>
(e)	_____ 1	50
	_____ 2	
	_____ 3	
	_____ 4	
(f)	_____ 1	51
	_____ 2	
	_____ 3	
	_____ 4	
(g)	_____ 1	52
	_____ 2	
	_____ 3	
	_____ 4	
(h)	_____ 1	53
	_____ 2	
	_____ 3	
	_____ 4	
(i)	_____ 1	54
	_____ 2	
	_____ 3	
	_____ 4	
(j)	_____ 1	55
	_____ 2	
	_____ 3	
	_____ 4	
(k)	_____ 1	56
	_____ 2	
	_____ 3	
	_____ 4	

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Code Column

D.

28. Where do you generally purchase your farm machinery?

co-operative association _____ 1
 private company _____ 2
 both of above _____ 3
 other _____ 4
 N.A. _____ 5

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29. If both (3), then approximate percentage of purchase from:

co-operative _____
 private company _____

30. How many miles is your dealer's place of business from your farm?

less than 5 _____ 1
 6 - 10 _____ 2
 11 - 15 _____ 3
 16 - 20 _____ 4
 21 - 25 _____ 5
 26 - 30 _____ 6
 31 - 35 _____ 7
 36 - 40 _____ 8
 more than 40 _____ 9

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31. How many miles would you be willing to drive to an 'adequate' dealer? (i.e. one with a good supply of repair parts and good service)

_____ 1
 _____ 2
 (same categories as question 30) _____ 3
 _____ 4
 _____ 5
 _____ 6
 _____ 7
 _____ 8
 _____ 9

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	<u>Code</u>	<u>Column</u>
32. Could you please tell me how important the following reasons are in influencing your decision to purchase your farm machinery where you do? (see APPENDIX C)		
(a) very important _____ 1		60
quite important _____ 2		
not very important _____ 3		
unimportant _____ 4		
(b) _____ 1		61
_____ 2		
_____ 3		
_____ 4		
(c) _____ 1		62
_____ 2		
_____ 3		
_____ 4		
(d) _____ 1		63
_____ 2		
_____ 3		
_____ 4		
(e) _____ 1		64
_____ 2		
_____ 3		
_____ 4		
(f) _____ 1		65
_____ 2		
_____ 3		
_____ 4		
(g) _____ 1		66
_____ 2		
_____ 3		
_____ 4		

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	<u>Code</u>	<u>Column</u>
(h) _____ 1		67,
_____ 2		
_____ 3		
_____ 4		
(i) _____ 1		68
_____ 2		
_____ 3		
_____ 4		
(j) _____ 1		69
_____ 2		
_____ 3		
_____ 4		
(k) _____ 1		70
_____ 2		
_____ 3		
_____ 4		
(l) _____ 1		71
_____ 2		
_____ 3		
_____ 4		
(m) _____ 1		72
_____ 2		
_____ 3		
_____ 4		

33. Is there an implement dealer(s) in your area from whom you would not purchase any farm machinery?

yes _____ 1	73
no _____ 2	
no response _____ 3	

	<u>Code</u>	<u>Column</u>
34. If yes, please state reason briefly? _____ _____ _____		74
35. Where do you generally purchase your farm supplies (other than farm machinery)? co-operative association _____ 1 private company _____ 2 both of above _____ 3 other _____ 4		75
36. If both (3), then approximate percentage of purchase from: co-operative _____ private company _____		
37. Open-ended question for respondents who purchase most of their supplies from co-op, but most of their farm machinery from private company. Why? Please state reason briefly. _____ _____ _____		76

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Section IV - Farm Machinery Financing

	<u>Code</u>	<u>Column</u>
38. Respondent number: _____		1-3
39. Was any of the farm machinery you are now using financed? (i.e. through borrowing)		
yes _____ 1		4
no _____ 2		
no response _____ 3		
40. If yes, then:		
Type of machinery _____		
Cost of machinery _____		
Amount borrowed _____		
41. What was the main source you made use of in financing this machinery?		
bank loan _____ 1		5
farm machinery company finance plan _____ 2		
finance company _____ 3		
government (i.e. farm improvement loan) _____ 4		
family _____ 5		
other _____ 6		
(please specify) _____ _____		
42. Could you please tell me what was your main reason for selecting this source?		
availability of funds _____ 1		6
convenience of source _____ 2		
cost of funds _____ 3		
personal relationship to person granting loan _____ 4		
other _____ 5		

Code Column

(please specify) _____

43. Is there any particular source you would not use?

yes	_____ 1	7
no	_____ 2	
no response	_____ 3	

44. If yes, which source?

	_____ 1	8
	_____ 2	
	_____ 3	
(same categories as question 41)	_____ 4	
	_____ 5	
	_____ 6	

45. Please state reason briefly?

_____ 9

46. Would you be more (or less) willing to finance farm machinery by borrowing than the following items?

(a) House	more	_____ 1	10
	less	_____ 2	
	about the same	_____ 3	
(b) Farm buildings		_____ 1	11
		_____ 2	
		_____ 3	

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	<u>Code</u>	<u>Column</u>
(c) Farm land	_____ 1	12
	_____ 2	
	_____ 3	
(d) Personal automobile	_____ 1	13
	_____ 2	
	_____ 3	

Section V - Farm Machinery Companies

47. Various prairie farmers have made the following statements about farm machinery and other farming matters. Could you please tell me (based upon your experience in farming) whether you agree or disagree with these statements. (see APPENDIX D)

(a) Improvement	(1) SA _____ 1	14
	A _____ 2	
	U _____ 3	
	D _____ 4	
	SD _____ 5	
	(8) SA _____ 5	15
	A _____ 4	
	U _____ 3	
	D _____ 2	
	SD _____ 1	
	(15) SA _____ 5	16
	A _____ 4	
	U _____ 3	
	D _____ 2	
	SD _____ 1	

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	<u>Code</u>	<u>Column</u>
(18)	SA _____ 1	17
	A _____ 2	
	U _____ 3	
	D _____ 4	
	SD _____ 5	
(b) Testing	(2) SA _____ 1	18
	A _____ 2	
	U _____ 3	
	D _____ 4	
	SD _____ 5	
	(9) SA _____ 5	19
	A _____ 4	
	U _____ 3	
	D _____ 2	
	SD _____ 1	
(c) Research	(3) SA _____ 1	20
	A _____ 2	
	U _____ 3	
	D _____ 4	
	SD _____ 5	
	(10) SA _____ 5	21
	A _____ 4	
	U _____ 3	
	D _____ 2	
	SD _____ 1	
(d) Repair	(11) SA _____ 1	22
	A _____ 2	
	U _____ 3	
	D _____ 4	
	SD _____ 5	

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	<u>Code</u>	<u>Column</u>	
(16) SA _____	1	23	
A _____	2		
U _____	3		
D _____	4		
SD _____	5		
(19) SA _____	1	24	
A _____	2		
U _____	3		
D _____	4		
SD _____	5		
(4) SA _____	1	25	
A _____	2		
U _____	3		
D _____	4		
SD _____	5		
(e) Warranty	(5) SA _____	5	26
	A _____	4	
	U _____	3	
	D _____	2	
	SD _____	1	
	(12) SA _____	1	27
	A _____	2	
	U _____	3	
	D _____	4	
	SD _____	5	
(f) Advertising	(6) SA _____	5	28
	A _____	4	
	U _____	3	
	D _____	2	
	SD _____	1	

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	<u>Code</u>	<u>Column</u>
(13) SA _____	1	29
A _____	2	
U _____	3	
D _____	4	
SD _____	5	
(g) Financing		
(7) SA _____	1	30
A _____	2	
U _____	3	
D _____	4	
SD _____	5	
(14) SA _____	5	31
A _____	4	
U _____	3	
D _____	2	
SD _____	1	
(17) SA _____	1	32
A _____	2	
U _____	3	
D _____	4	
SD _____	5	
(20) SA _____	1	33
A _____	2	
U _____	3	
D _____	4	
SD _____	5	

Section VI

48. Additional Comments (i.e. regarding competence of implement dealers, role of farmer in changes in machinery, role of Royal Commission, awareness, usefulness, etc.)

49. General Comments (re. state of household, farm, etc.)

50. General Comments (re. respondent i.e. co-operative, communicative, good rapport)

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APPENDIX ASection IIIA.

20. Could you please tell me how frequently you get ideas about farm machinery from the following sources:
- (a) articles in farm magazines
 - (b) machinery company literature
 - (c) talking with implement dealers and salesmen
 - (d) watching machinery demonstrations at fairs
 - (e) talking with friends, neighbors and relatives
 - (f) agricultural representative
 - (g) radio and television programs
 - (h) articles in newspapers
 - (i) advertising (i.e. ads in newspaper, magazines and radio and television commercials)
 - (j) agricultural extension staff
 - (k) watching machinery in operation on neighbors farm

APPENDIX B

Section III

C.

27. Could you please tell me how important the following reasons were in influencing your decision to purchase your most recent unit of farm machinery?
- (a) old unit was wearing out and giving considerable trouble
 - (b) wanted a newer model because of the big improvements made over the one owned
 - (c) have increased size of farming operation and, therefore, needed a larger model (more power)
 - (d) not satisfied with the performance of the brand owned, and felt a different brand would do a better job
 - (e) have needed a new one, and situation improved, so could afford it
 - (f) dealer made such a good offer, thought I'd better take it
 - (g) owning a full line of well kept new farm machinery
 - (h) it is just good business to keep up-to-date in machinery
 - (i) wanted a larger model in order to get job done on time
 - (j) wanted a larger model in order to make better use of available labor
 - (k) decided not to hire the machine work done any longer

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APPENDIX CSection III

32. Could you please tell me how important the following reasons are in influencing your decision to purchase your farm machinery where you do?
- (a) dealer has a reputation for standing behind the machinery he sells
 - (b) dealer has a reputation for honesty
 - (c) dealer has a good repair and service department
 - (d) dealer gives me a good deal
 - (e) dealer doesn't try to force me to buy until I am ready
 - (f) dealer has a complete line of machinery
 - (g) dealer is always friendly
 - (h) dealer's place of business is easy to get to
 - (i) dealer-owned rather than company-owned store
 - (j) adequate parking space is available close to dealer's place of business
 - (k) he is the only dealer in my area who sells the brand I want
 - (l) dealer carries an adequate line of farm supplies in addition to his line of machinery
 - (m) co-operative store rather than company-owned store

APPENDIX D

Section V

47. Various prairie farmers have made the following statements about farm machinery and other farming matters. Could you please tell me (based upon your experience in farming) whether you agree or disagree with these statements.
- (1) Most farmers feel that farm machinery has improved in quality and performance over the years.
 - (2) Sufficient testing is done on new farm machinery before it is sold to the farmers.
 - (3) Most farmers are satisfied that sufficient research is done on the design and durability of farm machinery.
 - (4) Most farmers believe there should be greater standardization of repair parts (i.e. bearings, belts) on farm machinery.
 - (5) Most farmers feel that company warranties on farm machinery should be longer, and should be provided on the basis of time of operation (i.e. miles or hours) rather than on the calendar age of the machine.
 - (6) Most farmers generally resent expensive and colorful advertising of the minor differences between comparable units of power and mechanical equipment.
 - (7) Most farmers who enlarge their operation by borrowing make more profit than farmers who have small operations free of debt.
 - (8) The average farmer believes that there are too many different sizes and too many unnecessary model changes in farm machinery
 - (9) The farmer is still the 'major tester' of farm machinery.
 - (10) More research is necessary on the design of farm machinery in order to provide greater ease of repair and cut down repair costs.
 - (11) The small local implement dealer cannot be expected to carry a complete inventory of repair parts.
 - (12) Most farmers are satisfied with the type of warranties provided by farm machinery companies today, in regard to parts covered and length of coverage.
 - (13) Most farmers would rate farm machinery company advertising as honest, believable and informative.
 - (14) Farmers should wait until they can accumulate their own capital rather than to borrow for farm production purposes.

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- (15) The farmer regards many changes today (such as 8 speed transmissions) as 'frills' or 'gimmicks' for salesmanship which add nothing to the performance of the farm machinery.
- (16) Most local implement dealers have a complete supply of repair parts available, and adequate facilities for servicing and repairing farm machinery.
- (17) A farmer should strive to increase the size of his business rather than to get out of debt on a small unit.
- (18) There is an ever increasing demand on the part of the prairie farmers for larger farm machinery.
- (19) Most farmers would rather drive more miles to a well-run, well-stocked implement dealer, than go to a small neighborhood agency.
- (20) A farmer should borrow enough money to have as much equipment as he needs, regardless of how much he is in debt.