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Testing the Structure of Canadian Farm Incomes

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EXECUTIVE SUMMARY

The purpose of this study was to improve the understanding of the structure of farms according to income status in Canada. The objectives of this study were the following:

- To assess how the subsets of farms according to income level have been taken into account in previous farm income research
- To test the structure of Canadian farms as it relates to farm income (i.e. income adequacy) and profitability (i.e. by using EBITDA/Sales and EBITDA/Assets) with data on farm incomes and financial characteristics
- To assess the extent to which the data presented on Canadian farm incomes reflects the underlying distribution of farms according to income
- To determine the implications of the above for policies to address farm income problems

To meet the above objectives, the study is conducted in three phases. First, a brief review of the existing literature on farm incomes was reviewed. Next, queries of the existing farm income database were devised relating to income adequacy and farm profitability. These were undertaken by Statistics Canada on a custom basis, and using background from the Extraction System of Agricultural Statistics (ESAS) from Statistics Canada, an application that allows searching and sampling of the Statistics Canada Whole Farm Database. Finally, the results were interpreted in the current farm income context.

Within each province, farm sales category and in each year, the data were grouped into quartiles to provide an illustration of the distribution of farm household incomes. To allow sufficient data to present quartiles, certain sales categories were combined. Specifically, the bottom three sales categories were combined, to give sales categories of $10,000-$99,999, $100,000-$250,000, $250,000-$500,000, and >$500,000. The quartiles gave an indication of the distribution of operator's combined operating income and off-farm income.

The results showed the following:

- Previous studies measuring farm income status have found a significant diversity in farm incomes that vary across region, farm type, and farm size.
- Previous work also indicated that measuring off-farm income is critical in accurately reflecting the income status of farms.
- Profitability of farms has not been a major focus of research on farm incomes. This is surprising, given that, even if farming and off-farm income provides adequate incomes, if farms are unprofitable they are long-run unsustainable from the perspective of attracting capital and future generations of farmers.
- Data on the income of farm operators (net farm operating income plus operator off-farm income) showed that, if $35,000 is held as a low income cutoff, many farms across provinces, farm types, and sizes are experiencing low incomes. Where this is occurring, income from other family members is needed to finance debt servicing, capital replacement and family living expenses.

- The above finding was significant, because farms were found below the low income cut-off irrespective of size. In most cases, the first quartile of farms had a similar level of net operating and operator off-farm income, across farm sales categories.
- There was clearly more variability in net operating income plus operator off-farm income within a farm sales category than across categories. Generally, the first quartile level of total operator income was quite similar, regardless of farm size. The fourth quartile level of total operator income was generally largest for the largest farms, with a linear trend according to farm sales category.
- The above results contrast with those based on averages, which would suggest that net operating income and operator off-farm income increase with size. In particular, the mean data suggest that operator off-farm income initially decreases as farms get larger, but then increases again for the larger farm sizes.
- A variable representing earnings before interest, taxes, depreciation, and amortization, EBITDA (a common measure of business income from operations) was generated to analyze farm operating profit. When expressed as a ratio relative to sales, the efficiency of farms in generating EBITDA can be compared across farm sizes. The results showed that there is more variability in EBITDA/Sales within a farm size category than there is across farm sizes, as was noted in the analysis of income adequacy. In other words, there are highly profitable farms that are quite small, and unprofitable farms that are relatively large.
- The analysis of EBITDA/Sales also showed some evidence of tightening over time. This suggests that farm operating profit relative to sales has been tightening over time.
- Interestingly, the anticipated relationship between EBITDA/Sales and size (measured by sales category) was not observed; generally, the largest category had a lower EBITDA/Sales ratio. There are a number of factors capable of explaining this, including the structure of hired labour on larger farms, transitional adjustment due to expansion, and greater diversification of larger farms (as confirmed by the background data)
- EBITDA was also measured as a ratio relative to assets. The results showed EBITDA/Assets broadly increasing with sales category. This is consistent with improved capacity utilization as farm size increases, which was confirmed in the background asset profile. However, the pattern of greater variability within sales categories than across sales category persisted.
- The background data reveal strong asset values across farm types and provinces. Based on averages, most farms with greater than $250,000 in sales had assets valued at over $1 million, and the largest sales category commonly averaged assets valued at well over $1 million.
- There is also a clear down trend in EBITDA/Assets. Relative to past periods, EBITDA has been decreasing relative to asset values.

The analysis uncovered three significant findings that are material in understanding farm incomes.

- There is tremendous variability in operating income, even within a farm sales category. There are farms with sales well over $500,000 that struggle to generate operating income, and some small farms that are very efficient in generating operating income. This basic fact is somewhat masked by the fact that the top farms in largest sales category tend to perform better than the top farms in smaller categories, and by the fact that averages suggest that operating profit performance is strongly tied to size.
- Off-farm income has a crucial role in sustaining farm households. Generally, the lower quartile of farm operators only generate enough operating income and off-farm income to cover overhead expenses; family living expenses must therefore be covered by other family members working off the farm.
- Operating income measured relative to revenue or assets is tightening over time. This implies the some or all of the following is occurring: revenue is falling over time, expenses are increasing, or farm program payments are decreasing.

The detailed results here show that, for many farms, it is likely that operator incomes are simply insufficient to justify the farm as an ongoing business entity. In particular, we observe farms across size ranges in which the operator's net operating income is less than $35,000. It is unlikely that the three claimants to this income stream- family living expenses, capital depletion, and debt servicing- could be served without addition income from other family members. Indeed, average overhead cost across farm sizes is about $36,000.

A robust finding was that the first quartile of farms, almost regardless of sales level or farm type, were faced with low income or profitability challenges. The table below puts this in broad perspective. The table presents data on the number of farms in the Tax Data Program sample for 2003 according to the farm sales categories applied in the Statistics Canada data extraction for Alberta, Saskatchewan, Manitoba, Ontario, Quebec and Price Edward Island. Noting the consistent finding that the first quartile of farms (regardless of farm size) broadly experienced low income or low profitability challenges, the third column represents the maximum number of farms that might be considered to be affected by these[1]. The results presented in the table suggest that about 45,000 farms in the 6 provinces, most of which have less than $100,000 in sales, are apt to be affected by low operator incomes or low profitability.

[1] It represents a maximum because the analysis of income adequacy was completed on unincorporated farms only, and Table 6.1 includes both incorporated and unincorporated farms

Table 6.1 Total Number of Farms Potentially Impacted by Low Operating Income or Low Operating Profit, 6 Provinces, 2003

Sales Category	Total Number of Farms	25th Percentile of Farms
$10,000-$99,999	108,550	27,138
$100,000-$249,999	38,665	9,666
$250,000-$50,000	19,300	4,825
>$500,000	11,630	2,908
Total	178,145	44,536

Source: Statistics Canada, incorporated and unincorporated farms

The remarkable variability in farm operator income and farm operating income, which is robust across provinces, farm types, and sales categories, can only be explained by differences in management ability. This suggests that a renewal and expansion of efforts in farm management education and training is needed.

The results obtained here lend support to the already pervasive view that economic conditions in agriculture are worsening. At the aggregate level, financial conditions on Canadian farms with respect to farm income and profitability are tightening over time. The government expenditures data show that program payments are not keeping pace with the margin squeeze between farm revenue and operating expenses (i.e. between 1995 and 2003 farm cash receipts increased by 26% while net operating expenses increased by 40%). Ultimately, this is a problem from the perspective of Canadian agricultural competitiveness for the largest farms in the lower quartiles that have potential as commercial farm businesses. It is also a problem for the smaller farms that rely on family off-farm income, the failure of which would create a rural social problem. While this cost squeeze is concerning at the aggregate level, the analysis conducted within this study clearly shows that there are farms (top quartile) in each sales category performing at or near historical profitability levels over the time period reviewed. The tremendous variability observed in profitability between the top quartile and bottom quartile of each farm sales category makes it unlikely that the same government policy instrument could resolve the farm income problem for all farms.

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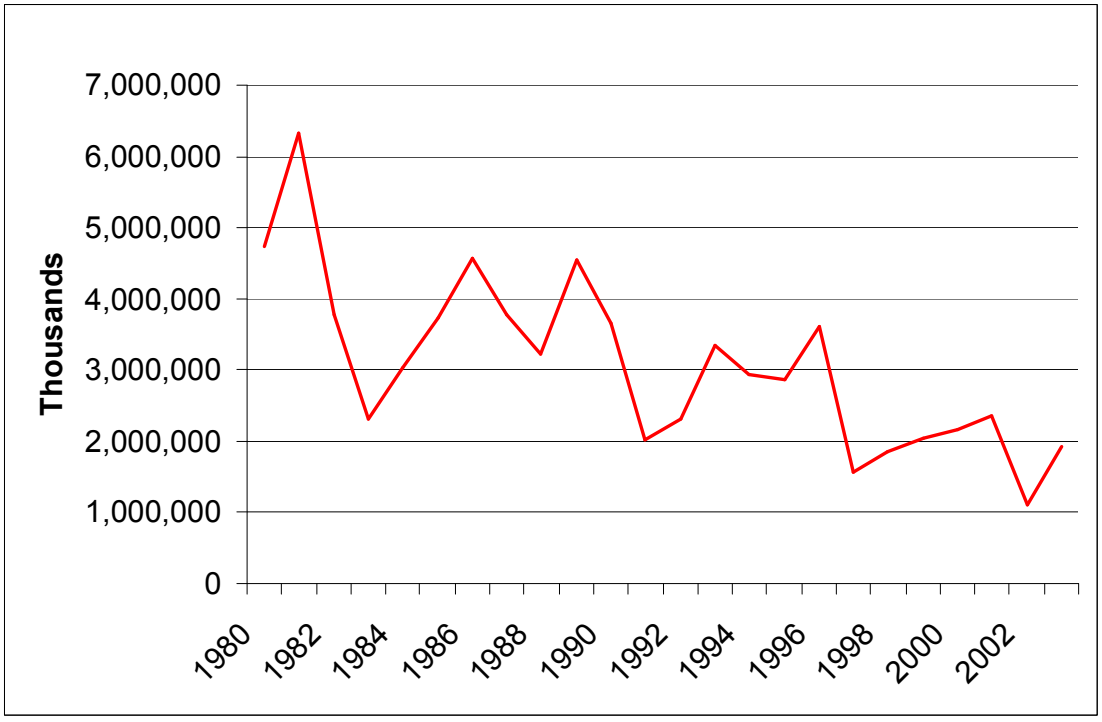
1.0 Introduction

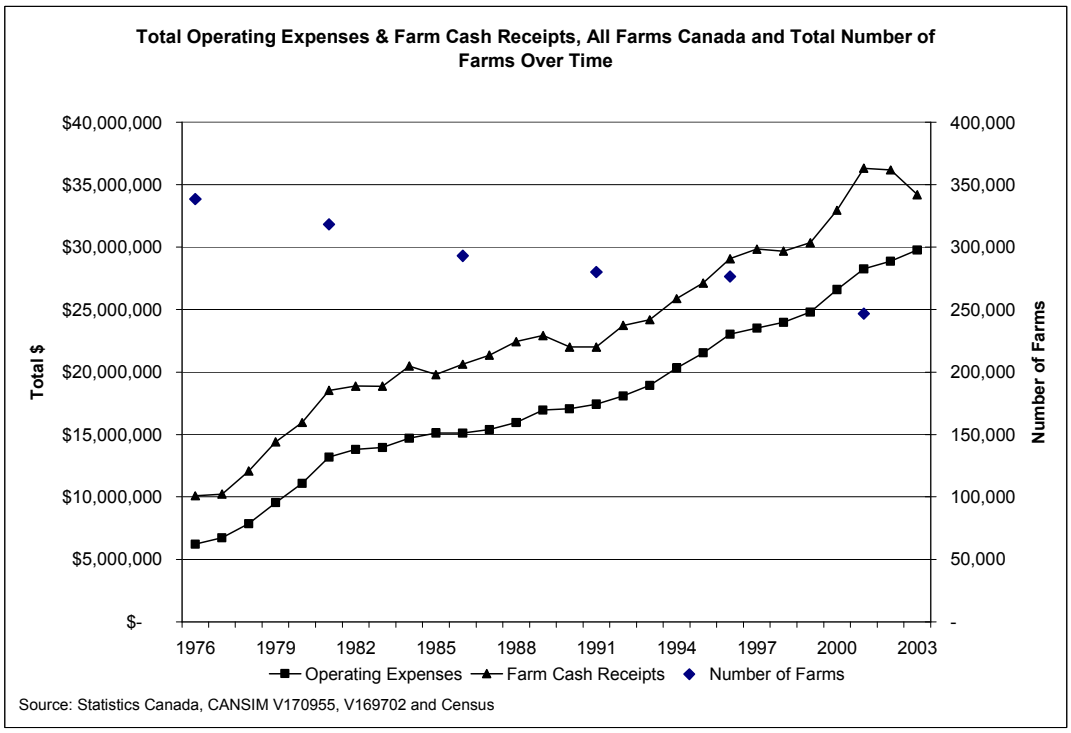
Increasingly, the awareness exists of a farm income problem in Canadian agriculture. For example, recently both nominal and real farm incomes have decreased, and the real price of farm products in Canada have been decreasing. Figure 1.1 below shows that aggregate Canadian farm income, when purchasing power is accounted for, has been in long-term decline. Since the early 1980's, real net farm income has fallen by around $4 billion, or 67%. Figure 1.2 displays falling farm numbers from 1976 to 2003 and the recent downswing in aggregate farm cash receipts relative to operating expenses. However, despite this decline in nominal and real farm incomes, farm net worth has been increasing to the point were in 2003 the average Canadian farm had assets of approximately $1.1 million, liabilities of $200,000 and net worth of $900,000. Yearly values for assets, liabilities, and net worth for all Canadian farms is displayed in Figure 1.3.

Figure 1.1 Real Canadian Farm Income



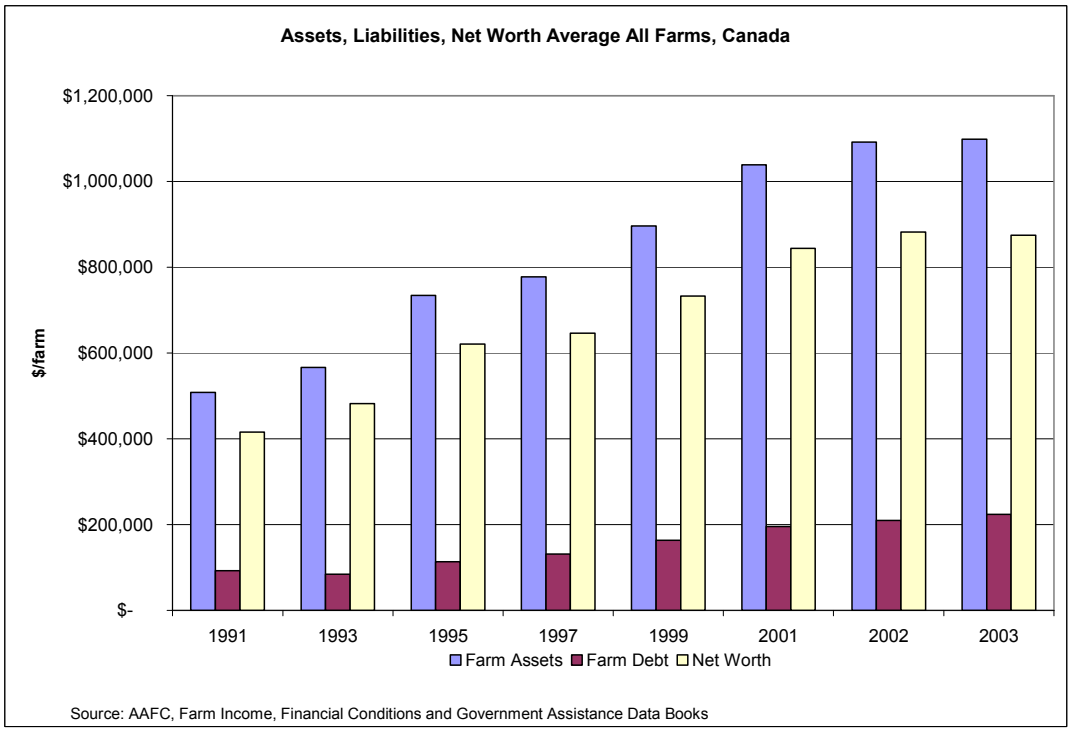
Source: Statistics Canada. Total Net Farm Income deflated by the CPI, All Goods

Figure 1.2



Source: Statistics Canada, CANSIM V170955, V169702 and Census

Figure 1.3



Source: AAFC, Farm Income, Financial Conditions and Government Assistance Data Books

However, the above characterization, and the broader debate on farm incomes, is based on observations of aggregate and mean farm income data. It is unclear whether this data is broadly representative of conditions on farms, or whether farms are characterized by a differential distribution according to income. The implications of a differential distribution of farms according to income is quite profound. For example, while aggregate and mean measures suggest a strained farm income situation, it could be that specific subsectors are facing more or less severe income strains than indicated by average measures, If this were the case, a single measure would not be sufficient to describe the income status of farms. Secondly, it would not be clear that farm income policies motivated by a single measure of income would be appropriately targeted. Finally, public assistance allocated to agriculture may not be appropriately targeted if diverse subsectors are not accurately represented using standard data and measures. Thus, the general structure of farms according to income status is significant in understanding farm incomes and directing farm policy.

The purpose of this study is to improve the understanding of the structure of farms according to income status in Canada.

1.1 Objectives

The objectives of this study are the following:

- To assess how the subsets of farms according to income level have been taken into account in previous farm income research
- To test the structure of Canadian farms with respect to farm income (i.e. income adequacy) and profitability (i.e. by using EBITDA/Sales and EBITDA/Assets – these terms are defined later in Section 4) with data on farm incomes and financial characteristics
- To assess the extent to which the data presented on Canadian farm incomes reflects the underlying distribution of farms according to income
- To determine the implications of the above for policies to address farm income problems

1.2 Approach

To meet the above objectives, the study is conducted in three phases.

First, the existing literature in which empirical estimates are made regarding to the structure of farm incomes is reviewed. This review will help determine the baseline understanding of farm incomes, the data applied, and the apparent implications for research in this study.

Given these findings, the structure of Canadian farm incomes will be tested. The specific nature of the analysis follows from the nature of previous research, the availability of appropriate data have not previously been available, and issues that are of contemporary

interest because of current conditions. Data analysis is undertaken based on customized queries by Statistics Canada, and using the Extraction System of Agricultural Statistics (ESAS) from Statistics Canada, an application that allows searching and sampling of the Statistics Canada Whole Farm Database.

1.3 Organization of the Report

Section 2 below provides a review of previous research relevant to the nature and structure of Canadian farm income. Section 3 develops an analysis and empirical tests related to the adequacy of farm income. Section 4 develops analyses and empirical tests related to farm operating profitability and efficiency. Section 5 interprets the results from Sections 3 and 4 and provides additional background. Section 6 concludes the paper.

2.0 Literature on Canadian Farm Income

This section provides a review of concepts and previous studies that have been completed that focus on farm income problems. Section 2.1 considers alternative conceptions of farm income and farm income problems. Section 2.2 provides a review of previous farm income research completed in the Canadian context. Section 2.3 considers farm income research conducted elsewhere. Section 2.4 makes observations on the trends in the literature, and draws conclusions with regard to the need for additional or updated research.

2.1 Conception and Measurement of Farm Income Problems

Historically, much of the discussion related to incomes in agriculture has focused on the so-called *Farm Problem*. The farm problem, as described by Pasour (1990) is one of chronic low prices and low incomes in primary agriculture. Under this conception, farm prices and incomes exist in the following dynamic. Because of low prices, government payments are made to farmers to support farm incomes. As a result of government payments, needed adjustments do not occur, and there is a supply response to the payments. This additional supply further depresses farm prices, and generates renewed demands for government payments to agriculture.

The above description of the farm income problem is overly simplistic, and begs precise definition. In particular, the specific conception of low income is not identified. In this regard, at least five conceptions of income problems in agriculture are evident:

- Farm income adequacy
- Farm income returns to capital employed
- Operating income generated relative to sales
- Equality relative to the non-farm segment
- Rate of change and variability in costs and returns

Farm income adequacy relates the level of income realized relative to the needs for family living. Thus, income is measured relative to a baseline that measures the cost of living. Farm income relative to capital employed measures the efficiency of capital used in agriculture. It is thus a measure of profitability. To the extent that the income generated from capital employed in agriculture is lower than in other segments of the economy, investment in agriculture is unsustainable and will not be replaced. Operating income measures the cash generated from farm business operations that can be used for income and capital; businesses reallocate enterprises over time toward enterprises that generate greater ability to service income and capital. It is also a measure of profitability. Farm income relative to non-farm income is significant in determining the purchasing power of farm households relative to non-farm households. Rate of change in incomes measures the variability in farm incomes over time. Risk averse farmers prefer less variability in income to greater variability in income; farms that average an adequate income but experience extreme fluctuations can have their sustainability threatened.

In investigating the above income problems, a number of analytical approaches have been used. These include the following:

- Descriptive analysis of historic accounting data
- Simulation of farm income under alternative conditions for a representative farm
- Statistical estimation of farm income from accounting data

The first approach involves disaggregating and observing historic farm income information, as reported in income tax or survey databases. Under this approach, the differences between farm subsets must be interpreted in the context of what is not directly observed from the data. For example, the data may show that one farm type had a higher level of income than another. The explanation of this observation must occur from information outside the database, which frequently prompts secondary investigation such as a consideration of price trends faced by the alternative farm types. The principal advantage of this approach is that it deals with actual experience in farm income, rather than simulated values. The main disadvantage is that accounting data leaves to speculation the cause of observed income data; the nature of prices, yields, and technology is not observed.

The farm income implications of alternative price, input cost, yields, and technology can be investigated using a representative farm model. The model is designed to reflect the size, technology, financial structure, input prices, and output prices of a farm that is indicative of the overall industry within a given region. Farm income implications are simulated by altering or shocking specific variables (such as price or yield) and then observing the impact. Thus, current conditions with regard to prices and yields substituted in the model should reflect accurate simulations of farm income, given the technology and financial structure. The main advantage of this approach lies in its precise reference to the detailed aspects of production and marketing that result in farm incomes. The disadvantages are that the results are simulated values rather than primary data, and as such will tend to miss some of the effects of adjustment. In addition, because the unit of analysis is a single farm with specific technology and financial structure, it can be difficult to accurately infer aggregate results.

The relationship between farm income and the independent variables causing it can also be estimated statistically. This involves collecting accounting data from a cross-section of farms over a period of time, and then regressing independent variables (prices, costs, yields, etc) on income variables. The notion to be tested is that the impact of a given percentage change observed in independent variables can be used to infer the accompanying percentage impact on income. The advantage of this approach is that it can be used to forecast impacts on farm income of changes in prices, costs, and other factors influencing income. However, it carries with it all the disadvantages of the descriptive analysis, along with statistical estimate error and the fact that the estimates will only be valid in the neighbourhood of historical values. There can be significant forecast error as the magnitude of change in independent variables increases.

To investigate farm income issues as they apply to this study, the academic and government research literature was searched and reviewed. The search proceeded as follows. "Farm income" and "farm income problems" were applied as the basic literature review criteria. By structuring the literature review in this way, the related literature on "farm management" and "farm profitability" was avoided. The reason for this was simply that the farm management/farm profitability literature is enormous in scope. It also deals largely with the normative aspect of farm profitability (how farm profitability could be improved) rather than the positive issue of what farm profitability conditions are or have been. Thus, the search tended to focus on studies that considered the state of farm income relative to the cost of living, and studies that evaluated historic farm income relative to what profitability "should be" as indicated by stated criteria. The sections below provide a review of economic research work in farm incomes that falls under the approaches described above.

2.2 Research on Farm Income Adequacy

Much of the literature on farm income in Canada comes in the form of reports and studies completed based on periodic data collection. For example, Agriculture and Agri-food Canada publishes the *Farm Income Issues Data Source Book*. This publication is a resource book of statistics on farm income in Canada. It provides information on structural change in Canadian agriculture; farm income, assets and liabilities of the primary agriculture sector; variability and diversity of Canadian farm income and farm family finances. Its sources include the Statistics Canada Whole Farm Database, the Statistics Canada Census Database, the AAFC Farm Financial Survey, and other sources.

Among the many findings contained in the 2005 Farm Income Issues Data Source Book, the percentage of Canadian farm households in its low-income cutoff class has decreased from 14% in the mid 1980's to less than 4% as of 2002. As of 2000, approximately 45% of Canadian farm households engaged in off-farm work, which is significantly lower than that in the US (55%). Off-farm income appeared to be the most significant for Canadian beef, greenhouse/nursery, and cash crop farms.

The report also establishes the following Canadian farm income typologies:

- Retirement- Family farms where the oldest operator is 60 years or older and receiving a pension income, and where no children are involved in the day-to-day operation of the farm
- Lifestyle- Small-size family farms (revenues of $10,000 to $49,999) with total family off-farm income of $50,000 or more
- Low Income- Small and medium-size family farms (total revenues of $10,000 to $99,999) with total family income less than $35,000
- Small business-focus- Family farms with total operating revenues of $10,000 to $49,999
- Medium business-focus- Family farms with total operating revenues of $50,000 to $99,999

- Large business-focus- Family farms with total operating revenues of $100,000 to $499,999
- Very large business focus- Family farms with total operating revenues of $500,000 and over
- Non-family Farms- Hutterite Colonies, communal operations and other non-family farms Non-family farms

The distribution of these typologies was reported as of 2003. These are summarized in Tables 2.1 and 2.2. Table 2.1 shows that the very large and large business-focused farms account for the bulk of farm revenues and government payments. Smaller, retirement, and lifestyle farms make up a much larger proportion of the number of farms. Table 2.2 shows that, for most farm types, the majority of farms are in the medium size category or larger. The clear exception is beef farms, in which the majority are retirement, lifestyle, or low-income.

Table 2.1 Distribution of Canadian Farms by Income Typology, 2003

	Number of Farms	Government Payments	Revenues
	Percent		
All farms	100	100	100
Very large business-focus	8	31	47
Large business-focus	35	46	38
Medium business-focus	7	4	2
Small business-focus	4	1	1
Low income	17	6	4
Lifestyle	11	2	1
Retirement	18	10	7

Table 2.2 Distribution of Canadian Farms by Type and Income Typology, 2003

	Horticulture	Hog	Dairy	Beef	Grains & Oilseeds
			Percent		
All farms	100	100	100	100	100
Very large business-focus	16	29	19	3	6
Large business-focus	28	47	72	21	38
Medium business-focus	9	3	x	8	9
Small business-focus	5	1	x	4	5
Low income	13	12	4	26	12
Lifestyle	12	2	x	16	9
Retirement	17	6	x	22	21

Hoppe *et al* (2004) compared the structure of farm incomes in Canada and the US. A common typology was developed to compare Canadian and US farm Structure. The Canadian farm typology was based on the Farm Financial Survey, and the US one is based on the Agricultural Resource Management Survey. The Canadian typology (which

has a different definition for small farms) was applied to the US. Direct comparisons of farm structure in the two countries were then made relating to farm size and specialization, and in farm families reliance in off-farm income.

The results showed that, in some respects, farm structure is similar in the US and Canada, as both countries have a diverse set of farms, which makes farm typologies useful for structural analyses. Revenues are heavily concentrated in the large and very large categories in Canada and in the US, as well as nonfamily farms. Farm families in both countries have come to rely on off-farm income, with this reliance being more pronounced in the US. There are also important differences between the two countries. Nearly half of the US farms are in the retirement and lifestyle groups, while large, business-focused farms are the largest single group in Canada. The average farm size is also larger in Canada.

Biggs *et al* (2004) also considered the structure of farm incomes in Canada and US. Data on the number of farms by sales class, the concentration of sales and other production-related variables, and the distribution of income and receipts was analyzed in the study. For Canada, the data applied was from the Census of Agriculture and Statistics Canada Whole Farm Database. For the US, data from the Agricultural Resource Management Study survey was used. The period of the data was 1987-2001.

The results suggested that farm income in Canada is becoming more unequally distributed among farm operations, although it remains more equally distributed than US farm income. The distribution of farm income and revenues has changed over space and time in Canada and the US. Comparison of Gini coefficients suggested a somewhat greater inequality of the shares of net cash income in the US than in Canada and a greater inequality in some farm cash receipts compared to others. Statistically significant increases in Ginis occurred mostly in Canada over the period. The authors suggest that considerable more research is required to better understand what is driving these changes.

Waithe *et al* (2000) considered differences between farm and non-farm families in Canada between 1985 and 1995. The analysis used data from the Survey of Consumer Finances in comparison with the Whole Farm Database to measure disposable income and low income cut-off's as indicators of economic well being for farm and non-farm households. The results showed that there was narrowing of the gap between farm and non-farm households between the mid 1980's and mid 1990's. The principal change over the period was a decrease in the middle of the distribution for non-farm households. The study did find that farm family disposable income generally lags relative to non-farm families. There was also a persistent decline in low-income cutoffs among both groups over the period.

Hum *et al* (1995) developed a framework to study aspects of government policies which influence the adequacy and stability of income to farm operators and their families. The study specified a model of farm household behaviour and income determination and

developed its use in assessing the implications of alternative income support policies on the distribution of income among farm households

The results indicated that farm production, consumption and labour supply decisions will vary among farm operators according to a variety of underlying factors such as operator characteristics (education, farm and off-farm work experience) and farm characteristics (type of farm, size and degree of capitalization). These results differ from other studies of labour supply in the non-farm sector in that the usual determinants of labour supply (market wage and other income) are augmented by farm input and output prices.

Gundersen *et al* (2000) considered farm income inequality in the US and the impact of farm programs targeted to farm income typologies. The study examined four scenarios for government assistance to agriculture based on the concept of ensuring some minimum standard of living. Instead of looking at traditional farm program instruments such as crop insurance, direct payments and environmental conservation programs, Gundersen *et al* considered how government spending could be reduced, while still ensuring that all full time farmers receive an income to meet their basic needs. The concept of a farm household safety net was based on standards commonly used in the economics literature and in Federal assistance programs for low-to-moderate-income households.

Four safety net scenarios were considered that would assure farm households a certain level of income or consumption:

- Assured income equal to that of the median nonfarm household in the region.
- Assured income equal to 185 percent of the poverty line.
- Assured income equal to the average nonfarm household's annual expenditures.
- Assured income equal to the median hourly earnings of the nonfarm self-employed ($10 per hour).

The analysis estimated the distribution effects and costs of the four scenarios for the time period of 1993-1997, and projected results for the time period from 1999-2003. Data from the Agricultural Resource Management Study compiled by the USDA Economic Research Service was used.

In reviewing the data, eight farm income typologies were considered:

- Limited resource farms (Any farm with: (1) gross sales less than $100,000, (2) total farm assets less than $150,000, and (3) total operator household income less than $20,000)
- Retirement farms (Small farms whose operators report they are retired)
- Residential lifestyle farms (Small farms whose operators report they had a major occupation other than farming)
- Farming, low sales farms (Farms with sales less than $100,000 whose operators report farming as their major occupation. Excludes limited resource farms whose operators report farming as their major occupation)

- Farming, high sales farms (Farms with sales between $100,000 and $249,999 whose operators report farming as their major occupation)
- Large family farms (Sales between $250,000 and $499,999)
- Very large family farms (Sales of $500,000 or more)
- Non-family farms (Farms organized as nonfamily corporations or cooperatives, as well as farms operated by hired managers.

The results showed that lower income farm households would benefit relatively more from the safety net scenarios compared with current farm programs. It also found that geographical location plays a role and that farm households in the Northern Crescent, the Eastern Uplands, the Southern Seaboard, and the Fruitful Rim would all generally receive a higher level and a greater proportion of benefits under the four safety net scenarios than under the current programs. The authors recommended that a clear understanding of objective and intended beneficiaries be a starting point for the discussions of future farm policy.

2.3 Research on Farm Profitability Level as an Income Problem

Hopkins (2001) considered the reference from aggregate measures of farm income back to the farm-level. The objective of the analysis was to examine how well current data on farm-sector income reflects the actual financial needs of farmers and their families, and to assess the success of these measures as benchmarks for policy intervention. The paper argued that current measures of farm income are inadequate tools for determining the need for government intervention in the ever broadening array of farm-related policies which extend to address food safety, food assistance, rural economic health, economic well-being of farm families, and conservation and environmental concerns. The question is also asked whether or net income measures are even appropriate for determining the need for income support payments to farmers. Over the years, using farm sector income measures as a policy benchmark have produced modest and uneven results.

Disadvantages of using a single aggregate measure of performance for measuring farm-sector income were found to include the following: aggregate farm income masks wide variations; aggregate farm income excludes off-farm income; it does not reflect wealth (accumulation); it does not reveal debt problems; it is not indicative of farm business failures; it does not capture the intrinsic benefits to farming. Therefore, policy requires a more comprehensive approach to measuring farm income.

Mishra and Goodwin (1997) investigated the impact of farm income variability on off-farm income. The premise behind this study was that, if farmers are risk averse, greater farm income variability should increase off-farm labour supply. This effect was confirmed in a sample of Kansas farmers. It was also found that farm operators and spouses who receive significant income support through government farm programs are less likely to work off the farm. This may suggest that policy changes reducing farm

income support payments may increase off-farm employment of farmers and their spouses.

The analysis uses a simultaneous-equations Tobit estimator that accounts for joint labour supply decisions. The results confirm that the off-farm labour supply of farmers is positively correlated with the riskiness of farm incomes. Farmers who experienced greater farm income variability in the 1980's were significantly more likely to work off the farm.

Bonnen and Schweikhardt (1998) considered the current state of the "farm problem" in US agriculture and the apparent policy implications. The paper examined the notion that, over recent decades there has been a growing consensus among agricultural economists that traditional farm programs and their subsidies are no longer necessary, and this is based on the belief that the "farm problem" no longer exists or that farmers are now capable of managing their economic problems without government help.

The study posed the question: "why are we neglecting to think about current farm and agricultural policy matters in the long term, historical context of the transformation of a pre-industrial agriculture into an industrialized farm sector"? It compares today's farm policy context and the resulting issues to those experieced in the midst of industrial transformation of agriculture, which produced the classic "farm problem".

The conclusions of the paper were the following. The fragmentation of the farm sector into subsectors of widely differing economic characteristics means that the traditional focus on the farm sector aggregate supply function as the appropriate approach in explaining the "farm problem" is obsolete. Farming and the total agricultural sector is fragmenting into highly differentiated commodity and market subsectors with different economic characteristics. Consequently, policy for agriculture in the future will have to be highly differentiated by commodity and market.

Mishra and Sandretto (2002) measured the variability in real net farm income in the U.S. agricultural sector and per farm and assessed whether variability has diminished over the period 1933 to 1999. The role of nonfarm income in reducing the variability in total farm household income was also examined. The data used in this analysis was aggregate, and included indicators such as net farm income, aggregate real net farm income and off-farm income. The results indicated that variability in real net farm income in the sector and at the farm level has not diminished, but that nonfarm income has helped to reduce the variability in total farm household income.

Hill (1999) considers the scarcity of reliable statistics on the income of farmers and their households in the European Union, despite the fact that incomes of the agricultural community is at the centre of agricultural policy. The paper argues that EU policy has been built on assumptions about incomes in agriculture that have remained largely

unsubstantiated by official statistics. The information available does not provide an adequate representation of farm income.

Agricultural income statistics in the EU come in two forms: the residual reward for the production of agricultural commodities (Economic Accounts for Agriculture and Income Indicators published by Eurostat, which are aggregate economic accounts for agricultural production); and personal incomes of farmers and their households and covers all sources of incomes. The latter type of information is less readily available.

Main findings on household incomes of agricultural households, according to aggregate sector accounts:

- The numbers of agricultural holdings are not reliable guides to the number of agricultural households
- Many households with some income from farming are not agricultural households
- As a group, agricultural households have substantial income outside of farming
- Official statistics on farming income overstate the instability of the total income of agricultural households
- Agricultural households are relatively lightly taxed.
- Agricultural households, as a group, do not have low average incomes

Allanson and Hubbard (1998) investigated the nature of farm income distribution is assessing farm income problems in Europe. The paper developed operational rules for ranking income distributions that could be used, given appropriate data, to address a range of policy issues concerning the economic welfare of the agricultural community, the comparability of agricultural and non-agricultural incomes, and the extent and depth of poverty in farming. The study applied a stochastic dominance procedure consistent with social preferences for higher incomes and a more equal distribution of income. A comparative analysis of the farm family income situation in the member states of the EU was performed. Data from the Farm Accountancy Data Network (FADN) for various EU member states was applied. A comparative analysis of farming income levels across the member states of the EU-12 was performed using FADN data on farm family income per holding for the years 1990/91 to 1994/95.

Results from this analysis suggested that overall, the farm family income situation in the Northern European states was more favourable than in the Mediterranean states, given the existence of wide disparities in mean income levels. However, because some farms experienced negative incomes problem, the Northern states do not uniformly dominate the Mediterranean states. Using the second degree stochastic dominance procedure lead to a less clear-cut assessment than a simple comparison of mean income levels.

2.4 Observations

The literature observed above presents consistent and recurring themes that are relevant for this study. First, the distribution of farm income according to demographics is fundamental in assessing income problems. Analyses in Canada suggest that the larger farm typologies account for the bulk of revenue and operating income, but represent a minority of farms. Results observed in the US and other countries are similar, and other studies take explicit consideration inequality in the distribution of income. As a result, we cannot speak of a single "farm income problem". Rather, income is diverse across farm sizes, types, and regions. Furthermore, as Hopkins has argued, treating sectoral income as a benchmark for farm incomes creates the danger of erroneous conclusions and policy prescriptions that could actually exacerbate the problem.

Secondly, the appropriate unit of analysis is the farm household, rather than the farm. This is because of the growing prevalence and importance of off-farm income. As shown in Culver's 2003 Canadian data, significant segments of Canadian agriculture, particularly beef and grains/oilseeds, are lifestyle operations in which farm income is a minority of household income. Thus, particularly in respect of income adequacy as a farm income problem, by ignoring off-farm income a very significant dimension would be left out.

The literature has dealt predominantly with three of the five income issues outlined in section 2.1. Much of the literature has addressed farm income from the perspective of rural poverty or income adequacy. This would appear to be the dominant consideration in the Canadian literature and that observed from the US and Europe. Secondly, inequality has been an important consideration in the farm income literature. One thread of this appears to stem from concerns over the industrialization of agriculture; however, others (including those in Canada) deal with inequality as it relates to the purchasing power of farm households relative to non-farm households and of small farms relative to larger farms. Finally, some consideration has been given to income variability. However, this has been less of a focus than income adequacy and inequality. Little research was observed that explicitly dealt with operational profitability relative to sales or operating expenses, nor in terms of farm profitability to service or justify capital deployed.

The above suggests the following with respect to work in this study:

- It is critical that analyses related to income adequacy consider farm household income, rather than simply income from the farm business
- Income from the farm business is an income issue as it relates to efficiency and the sustainability of farms. This has not been generally recognized in the farm income literature.
- Previous work shows that the structure of farm income in Canada is diverse. This diversity is critical in understanding where farm household incomes do (or don't)

exist. This study can contribute to the existing work by subsetting farm income data to further explore the implications of diversity in farm incomes

- The fact that income relative to size, measured either in sales or assets, has not been explored in large part presents an opportunity for this study.
- Income inequality relative to the non-farm segment has been explored at a relatively detailed level in Canada. However, this has not been undertaken for some time, so an opportunity may exists to make comparisons between farm household incomes and non-farm household incomes, at least on an anecdotal basis.

3.0 Income Adequacy

Among the potential farm income problems identified above is the income adequacy of farms. That is, does farming provide a level of income that could be sufficient in the context of family living and other expenses? Under this conception, the farm income problem can be recast as a rural poverty issue. Thus, to the extent that farm incomes are low relative to the cost of living, a social problem exists.

This section considers the status of Canadian agriculture from the perspective of farm income adequacy. Section 3.1 describes the assumptions and analysis performed to assess farm income adequacy. Section 3.2 presents the results of the analysis. Section 3.3 interprets the results.

3.1 Data and Assumptions

To explore the nature of farm income adequacy, the intent was to measure the maximum amount of cash the farm operator received from farming and from other sources. The implication of this is that non-cash farm expenses are excluded from the measure of income, and that the off-farm income should be included. The maximum cash income available from the farm business is given by operating income (revenue less operating expenses). Depreciation and other non-cash costs can be deferred in the short run. Thus, farm operating income and off-farm income provide a benchmark of income that could be used for living expenses, capital depletion, and debt servicing.

To measure the above, data were obtained from the Statistics Canada Whole Farm Database, specifically from the Tax Data Program. The data were for unincorporated farms only[2], by farm sales category, by farm type, and by province for the period 1990 to 2002[3] for individual farm operators[4]. The analysis was performed for 6 provinces: Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and PEI. For each province, the top 7 farm types were selected for analysis according to net operating income. Table 3.1 below presents a summary of the farm types analyzed by province.

Within each province, farm sales category and in each year, the data were grouped into quartiles to provide an illustration of the distribution of farm household incomes. To allow sufficient data to present quartiles, certain sales categories were combined. Specifically, the bottom three sales categories were combined, to give sales categories of $10,000-$99,999, $100,000-$250,000, $250,000-$500,000, and >$500,000. The

[2] It was not possible to isolate operator off-farm income for incorporated farms, due to the likelihood of double counting on partnership and shareholder-owned operations
[3] Data on off-farm income is not yet available for 2003
[4] The off-farm income of farm family members is not included; this data was not available within the scope of this study

quartiles gave an indication of the distribution of operator's combined operating income and off-farm income.

Table 3.1 Farm Types Analyzed by Province, Ranked by 2002 Net Operating Income

	PEI	Quebec	Ontario	Manitoba	Saskatchewan	Alberta
1	Potato	Dairy	Dairy	Oilseed & Grain	Oilseed & Grain	Oilseed & Grain
2	Dairy	Poultry	Oilseed & Grain	Beef	Beef	Beef
3	Poultry	Hog	Poultry	Hog	Other Animal	Other Crop
4	Hog	Oilseed & Grain	Greenhouse	Dairy	Other Crop	Other Animal
5	Beef	Other Crop	Hog	Other Animal	Dairy	Dairy
6	Other Animal	Beef	Other Crop	Potato	Hog	Hog
7	Oilseed & Grain	Other Veg & Melon	Beef	Other Crop	Poultry	Potato
Total, 7 Farm Types	$44,298,469	$898,064,828	$1,233,274,628	$696,743,922	$1,427,713,776	$1,627,325,395
Provincial Total	$45,693,783	$1,016,203,265	$1,314,951,809	$724,304,066	$1,434,796,347	$1,664,518,274
7 Farm Types as % of Total	96.9%	88.4%	93.8%	96.2%	99.5%	97.8%

3.2 Results

Appendix A presents the results of this analysis. Appendix Figures 1 to 23 present the 1998-2002 average Net Farm Operating Income plus Operator Off-farm Income for each quartile and farm size category. Figures 24 to 59 present the time series of data in each quartile according to farm size, type, and province for the period 1990-2002. In several cases, and particularly for PEI, insufficient data existed for fragmentation into quartiles, and the data could not be presented. The specific definitions of farm types are presented in Appendix F and the breakdown of included farm revenue and expense items is presented in Appendix G.

At a broad level, the results show the following. First, for farms in the $10,000-$100,000 farm sales category (and, to a lesser extent, the $100,000-$250,000 sales category), it was a robust finding that total operator income did not exceed $35,000 until the third quartile. If the data within a quartile were characterized by a normal distribution, then the quartiles would represent approximately the 13th percentile, the 38th percentile, the 63rd percentile, and the 88th percentile, respectively. Thus, under these conditions, the results would suggest generally that at least 38% of farms in the same generated less than $35,000 for family living expenses, debt servicing, and capital depletion. It should be noted that the $35,000 level represents somewhat of an arbitrary choice, apart from the fact that Statistics Canada has established this as a low income cutoff on a *household* basis. The measure here deals with farm operator income.

The figures in the appendix also show that, surprisingly, the first quartile of total operator income was similar across sales ranges. This was a very robust finding. The very clear implication is that there is more variability in this measure of total operator income within a farm size category than there is across size categories. It also implies that farm size is not necessarily a good predictor of this measure of operator profitability. The first quartile of the largest farms typically had Net Farm Operating Income plus Operator Off-farm Income of $35,000 or less.

Related to the above observation, there is a significant difference in Net Farm Operating Income plus Operator Off-farm Income in the largest sales category across quartiles. A common observation is that the fourth quartile was well above the third quartile, sometimes by a factor of magnitude.

Finally, as illustrated in Figures 23 to 56, there has not been broad or significant change in the distributions within a sales class over time. Indeed, there is significant volatility in the quartiles from year to year. However, upon closer look it can be confirmed that, on a relative basis, the fourth quartile is growing faster than the first quartile. In many cases, the first quartile Net Farm Operating Income plus Operator Off-farm Income is stagnant or declining over time, while the fourth quartile is actually growing rapidly.

3.3 Observations

The above results offer at least two immediate observations. First, given the tremendous range in Net Farm Operating Income plus Operator Off-farm Income within size category, farm management must be a major determining factor. There must be significant opportunity to increase incomes by providing farm management assistance to farms in the first and second quartiles, regardless of size.

Secondly, it suggests that without the assistance of family off-farm income (which is not accounted for here), the many farms of all size ranges with Net Farm Operating Income plus Operator Off-farm Income below $35,000 could not continue. One interpretation of this is that in many cases farming is not providing a sustainable living, even on large farms and even when operator off-farm income is accounted for. In these cases, the inference is that income from a spouse or other family members is needed to cover family living expenses, interest on debt, and depreciation.

Appendix B provides some context regarding adequacy of income relative to average farm overhead expenses by farm type; Table 3.2 provides a summary of averages across all farm types. The tables present average interest, property tax, and capital cost allowance expense by farm type for Canada from the ESAS database. Table 3.2 shows that, on average, total overhead cost averaged about $36,000 per farm over the period 1998-2002. Appendix B shows that the range in average overhead expense lies between $25,000 for beef farms to over $100,000 for potato farms. Interestingly, the $35,000 net

operating and off-farm income benchmark laid out above corresponds closely with the average total overhead cost. The implication is that farm operators with

Table 3.2 Average Farm Overhead Costs, All Farm Types, Canada

Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	230,230	$10,884	$2,795	$18,782	$32,461
1999	226,645	$12,135	$2,816	$19,580	$34,531
2000	224,630	$13,434	$2,872	$20,207	$36,513
2001	224,670	$14,366	$3,002	$20,444	$37,812
2002	218,570	$13,368	$3,186	$21,699	$38,253
Avg 98-02	224,949	$12,837	$2,934	$20,142	$35,914

$35,000 or less in net operating and off-farm income must depend exclusively on family off-farm income to provide for family living.

The findings in this section have broad implications. Although previous research has recognized variability in incomes across farm types and sizes, the magnitude and extent has not previously been recognized. The observation that for most farm types, after accounting for operator off-farm income, the first quartile of most sales categories (including the over $500,000 category) is at or around $35,000, is astounding. This means that, given that overhead costs average $36,000/farm, family living expenses must be entirely paid for from off-farm income earned by other members of the household. It thus brings into question the future sustainability of a broad range of farms.

4.0 Farm Profitability

In Section 2 profitability was identified as a farm income issue from the perspective of farm business earnings relative to the scale of the business, and relative to the value of capital deployed. Profitability is critical in securing farm labour and future generations of farmers, as well as incomes of farm households dependent on farming as a sole or majority source of income. Profitability is also the determinant of investment in agriculture relative to other sectors of the economy, and of reinvestment within agriculture as existing assets are depleted.

To evaluate the profitability status of Canadian agriculture, data was extracted from the Statistics Canada Whole Farm Database. Analyses were conducted with two datasets fragmented by farm sales category, by farm type, and by province for the period 1990 to 2003. First, data collected under the Tax Data Program (TDP) for incorporated and unincorporated farms was analyzed. This data is a time series, from which an average of about 200,000 farms per year were drawn, for the provinces and farm types described previously in Section 3.0. The information from this source is collected from income taxes filed by individual farm operators and from incorporated farms, and relates to sales and expenses, reported on a cash basis. Secondly, data collected under the Farm Financial Survey (FFS) was analyzed. The information from this source is obtained from a mail survey which collects data on revenue, expenses, assets, and liabilities. The FFS is a panel of data, consisting of data drawn from 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2002, and 2003.

Using the above data sources, a variable was defined that would be approximately equivalent to Earnings Before Interest, Taxes, depreciation and Amortization (EBITDA). For the TDP data, this was defined as Net Operating Income plus Net Interest Expenses and Net Property Tax[5]. For the FFS data, this was defined as Total Operating Revenues - Total Operating Expenses + Interest Paid On Farm Debt[6]. Within each province, farm type, and sales category, the data were sorted into a distribution of EBITDA defined by quartiles. This was used to explore the distribution of EBITDA according to the following sales categories; $10,000 - $100,000; $100,000 - $249,999; $250,000 - $499,999 and $500,000 and over. Using these two measures, each province (i.e. Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and Prince Edward Island) was then subdivided into different farm types (e.g. beef, hogs, dairy, poultry and eggs, grains and oilseeds, potatoes, greenhouse and floriculture, and etc.) and the results analyzed.

To be interpreted correctly, EBITDA needs to be appropriately understood as a measure of operating profitability. EBITDA measures the margin a business obtains from its operations to fund debt, taxes, capital replacement, and owner/family unpaid labour and management. It is typically used as a ratio relative to sales or relative assets.

[5] R2500 + R2126 + R2127
[6] F601 – F606 + F605

EBITDA/Sales measures the efficiency a business exhibits in generating funds from operations for capital, interest, tax and family living relatives to its intensity of activity (as measured by sales). EBITDA/Assets measures the efficiency of a business in generating margin (EBITDA) relative to the value of assets deployed. This latter ratio illustrates another aspect of EBITDA. Asset values will themselves tend to be driven by EBITDA, simply because the budget for capital assets is contained within EBITDA.

To the extent that cash expenses are substitutes for owned capital use, the relative magnitude of EBITDA will differ. For example, consider a feedlot operation in which feeder cattle and feed are purchased and slaughter cattle are sold. In this operation, almost all expenses are realized as cash. In contrast, consider a cash crop operation which purchases seed, fertilizer, chemicals and fuel, but has a significant proportion of expenses relating to depreciation of machinery, which is a non-cash cost. In this context, the cash crop farm will tend to have a structurally higher EBITDA/Sales than the feedlot, simply because a smaller proportion of its expenses are realized as cash.

The implication of the above is that EBITDA/Sales is used more commonly as a benchmark of relative efficiency and profitability within a given farm type. It is also used in a time series as an indicator of changes in operational profitability over time. EBITDA/Assets, on the other hand, offers greater application as a comparator of operational profitability relative to the value of assets deployed across farm types. The reason is the following. Returning to the example of the feedlot and cash crop farm, the cash crop farm has a higher proportion of its expenses as depreciation on assets, and must therefore have a higher value of long-term assets. Thus, for precisely the same reason that the cash crop farm will tend to have a structurally higher level of EBITDA, the cash crop farm will tend to have a higher value of long-term assets. When EBITDA is taken relative to assets, these two factors will tend to offset, so it is generally more appropriate to compare EBITDA/Assets across farm types.

4.1 Results Using Tax Data Program Information

As described above, information from the tax data program was extracted to obtain data on EBITDA for incorporated and unincorporated farms, sorted into quartiles. From this original sort, the EBITDA data were converted to ratios relative to sales. Thus, EBITDA/Sales was observed by quartile for the four sales categories and for the top 7 farm types in Alberta, Saskatchewan, Manitoba, Ontario, Quebec, and Prince Edward Island. The extraction provided results of EBITDA/Sales across the distribution of farm sizes and as a time series.

Appendix B below presents the results from the analysis. The figures present the 1999-2003 average EBITDA/sales for the four sales categories. The tables present the trend in EBITDA/Sales since 1990.

Several observations can be drawn from the information presented in Appendix B. First, it is immediately evident that, regardless of farm type or province, there is a greater variation in EBITDA/Sales within a sales category than there is across sales categories. This was a robust finding.

Secondly, it is evident that some farms, notably those in the third and fourth quartile, generate significant operating cash relative to sales. The figures in Appendix B show that the fourth quartile commonly has EBITDA/Sales in excess of 30% or even 40%. These farms are relatively efficient at generating margin for capital replacement, debt servicing, taxes, and family income.

Third, by looking at the tables in Appendix B some trends are evident. Looking at the bottom quartiles in particular, across farm types and provinces, there is weak evidence of a downward trend in EBITDA/Sales over time. This trend was somewhat inconsistent, but nonetheless evident in the lower quartiles. The same trend was not observed in the upper quartiles; EBITDA/Sales varied from year to year, but it was not broadly down trending in recent years.

Finally, a surprising observation relates to EBITDA/Sales for the category of largest farms. The figures in Appendix B generally show that for the largest sales category, the upper quartiles (especially the fourth quartile) falls below the lower sales categories in terms of EBITDA/Sales. On the surface, this would appear to indicate diseconomies to scale, which contradicts the analysis in Section 3 in which the fourth quartile of the largest sales category was observed to be well above the lower categories. There are several factors that may explain this anomaly:

- The largest farm category, as an open-ended category, will tend to have the greatest heterogeneity of farms. Some farms in this category may include additional farm enterprises, as well as on-farm processing or marketing operations, where farms in the lower sales categories generally will not. Such enterprises may have an entirely different structure of cash relative to non-cash expenses than the identified farm type.
- Related to the above, and as previously noted, the largest category (and the fourth quartile of the largest category) will tend to have a very large variance.
- Relative to the lower sales categories, the largest farms will tend to have been the source of more farm expansions. With expansions, there will be transitionally lower returns as "ramping up" occurs.
- For beef farms, the farms in the largest category will tend to be dominated by feedlots while the farms in the smaller categories will tend to be cow-calf operations. A relatively small proportion of expenses are realized as cash on a cow calf operation, while a very high proportion of expenses will be realized as cash for a feedlot. As such, a feedlot should have a structurally lower EBITDA/Sales compared with a cow-calf farm, and the largest sales class will thus tend to have a lower EBITDA/Sales than the lower sales classes for beef farms.

- Finally, the largest farm size categories are likely to have greater use of hired labour, and labour expense is included in EBITDA. Smaller farms, in contrast, will use less hired labour, and will more commonly make use of owner income withdrawals rather than formal wages and salaries, which are apt not to be reported as labour expense.

4.2 Results Using the Farm Financial Survey Data

The above analysis of EBITDA/Sales from the Tax Data Program was repeated using data collected in the Farm Financial Survey. In addition, because asset values are collected in the Farm Financial Survey, EBITDA/Assets was calculated in quartiles sorted according to EBITDA. Thus, measures of EBITDA/Sales and EBITDA/Assets were calculated for the same dataset of farms.

The results are presented in the graphs in Appendix C and the tables in Appendix D. They show the following. First, within each sales category, for each farm type and each province, the farms in the first two quartiles typically struggle to exhibit signs of profitability using either EBITDA/Sales or EBITDA/Assets. While those farms in the third and fourth quartiles generally show good signs of profitability, farms in the first quartile of each sales category have negative returns. Farms in the second quartile exhibit negative to slightly positive values for the profitability. Frequently, fourth quartile farms have EBITDA/Sales values over 40% and EBITDA/Asset values exceeding 10%. This means that farms of a given size, type, and location do not necessarily guarantee a better return or operating profit efficiency.

There are a couple of exceptions to this overall statement with the first one being Ontario Greenhouse, Nursery and Floriculture production. For this farm type the profitability values tend to be greater, especially for quartile 4 farms in the largest category. For this group of farms the EBITDA/Asset values are consistently 18% or greater between 1998 and 2003. The second exception is beef farms in the $500,000 and Over Sales category. It is thought this grouping likely has a significant number of beef feedlots included which operate on high volume and small margins. Thus, as expected the EBITDA/Sales values are smaller (i.e. Alberta Beef Farms, fourth quartile: 2002 – 26% versus Alberta Oilseed and Grains, fourth quartile: 2002 - 41%).

Secondly, the amount of variability exhibited in the profitability measures for each farm type within a sales category tends to be similar between provinces over time. However, surprisingly, there can be significant variation between provinces for any given year. For example, quartile 2 beef farms in Alberta within the $250,000 to $499,999 sales category in 2002 had a EBITDA/Asset value of 15% while the Ontario value was 7%.

Third, there appears to be some indications of the impact of the Quebec ASRA safety net program. ASRA is often cited for playing a significant role in the expansion of the Quebec hog and oilseed and grain sectors. Surprisingly, when the profitability measures

are examined they do not differ much from those found in other provinces. The one exception to this comment is the 4th quartile EBITDA/Assets results in the $250,000 - $499,999 sales category for hogs. For this category, the Quebec values are almost double those found in other provinces.

Fourth, relating to supply management, the profitability measures applied to dairy farms (and also poultry farms, although the data were more limited) show that generally all four quartiles exhibit positive values and they tend not change much over time. This means dairy farms don't experience the extreme highs and lows often associated with non-supply managed commodities. For example, in the $250,000 - $499,999 sales-Ontario dairy farm category, EBITDA/Assets ranged from 6% to 12% between 1994 and 2003. For the same period and sales category for Ontario beef farms, EBITDA/Assets ranges from 6% to 25%.

There is also a trend relating EBITDA/Assets to farm size. Generally, as farm size increases, EBITDA/Assets also increases. While this is subject to the variability across farm size categories, for the same quartile across size categories EBITDA/Assets increases. This is an indication of economies of scale and improved capacity utilization on behalf of larger farms.

Finally, there does appear to be a time trend evident in EBITDA/Assets. Where trends are observed EBITDA/Assets has been declining over time. For example, consider the fourth quartile of the $250,000-$500,000 and $500,000 and over sales categories for Alberta, Saskatchewan, Ontario, and Quebec grain and oilseed farms. EBITDA/Assets ratios in each case were mostly ranging between 10-20% in the mid-1990's. The most recent estimates suggest that these have since slipped to below 10%. This trend is also observed broadly in hogs, dairy, poultry, and to some extent in beef. The implication is that, in these segments, the margin being generated relative to the value of assets deployed is declining. Thus, relative to the value of assets, the budget available for capital replacement is declining.

4.3 Observations

Both sets of data used to assess farm profitability produced remarkably consistent results. First, it is clear that farm size is not a good proxy for operating profitability. This is evident from the consistent finding that there is more variability in the operating profit ratio (EBITDA/Sales) within a farm size than there is across farm sizes. However, there is evidence of economies of scale, as illustrated by the fourth quartile of successively larger farms increasing in EBITDA/Sales. The caveat related to this is the surprising observation related to the largest sales category which showed a break in the scale economy trend (the nature of which is described above). The apparent implication of the above is that differences in management must explain a significant portion of observed farm profitability. There are some farms under $100,000 in sales which are, relative to their size, quite profitable.

Secondly, there are signs that profitability is coming under stress in recent years relative to history. This is most evident in the time trend in EBITDA/Assets for several significant farm types. It is also evident, though to a lesser extent, from the EBITDA/Sales results. These trends are most evident among specific farm types; relatively less variation in trend is observed across provinces. Finally, since farm program payments are included as revenue in EBITDA, it is evident that program payments must not have kept up with eroding profitability.

The results of the profitability analysis thus confirm the key trend observed in the analysis of income adequacy- variability. There are some small farms with sales under $100,000 which, relative to their level sales, are very efficient in generating operating profit. There are also some large farms in excess of $500,000 in sales which are quite unprofitable. The apparent explanation is differences in management. It would also appear that the role of good management will only increase, given the trend in EBITDA/Assets and EBITDA/Sales that was observed, profitability conditions experienced by farms appear to have tightened.

5.0 Interpretation

In order to interpret the results observed on income adequacy and farm profitability, the characteristics of the underlying data set were further analyzed. Mean data fragmented by province, farm type, and farm sales category (as above) were considered. These data were obtained using the Extraction System for Agricultural Statistics (ESAS) from Statistics Canada. Information on costs and returns were obtained from the Tax Data Program database as a time series, and information on assets was taken from the Farm Financial Survey, which is collected as panel data that skips years.

5.1 Background Data Observed From the Tax Data Program

To provide context on income adequacy and farm profitability, farm demographic data was extracted from ESAS. Observed data include farm numbers, total operating revenues ($/farm), net operating income ($/farm), off-farm income excluding taxable capital gains ($/reporting individual), total crop acreages (acres/reporting farm), and selected livestock numbers (head/reporting farm). The data analysis and discussion consider trends in these by revenue class. Revenue classes include $10,000-$24,999, $25,000-$49,999, $50,000-$99,999, $100,000-$249,999, $250,000-$499,999, and $500,000 and over. These were reported for Alberta, Saskatchewan, Manitoba, Ontario, Quebec and PEI have been selected for discussion. In each province, the top seven farm types, in terms of total net operating income, have been selected. The criteria for choosing these provinces was described in Section 3. The time period covers 1992-2002. The exception is off-farm income which covers 1993-2002 (no data is available for 1992).

Analyses of this background data resulted in well over 200 figures and over 40 tables. Due to the sheer size and detail of the information presented, the data and detailed discussion is presented in Annex 1 as a separate document. The broad observations based on the analysis are discussed here.

5.1.1 Data Limitations

There are some limitations with the ESAS data related to this analysis. Because farm types are subdivided by revenue classes, there are instances in which, due to low farm numbers, confidentiality protocols or missing data result in no figures being reported. Data not reported either due to confidentiality or no figures available to report are both treated as 0 in the graphs and tables. This will result in these graphs and tables being considered incomplete and makes it difficult to do comparisons between revenue classes and farm types. Also, the farm revenue subdivisions are those established by Statistics Canada, so the $10,000-$100,000 revenue class considered above is further broken down into $10,000-$24,999, $25,000-$49,999, and $50,000-$99,999.

The impact of incomplete data is most apparent in some of the farm types that are less significant in each of the provinces in terms of farm numbers, total operating revenues, and total net operating income. The livestock figures are also greatly affected by this because in some cases there are very few farms reporting any livestock for that specific farm type and so makes it more likely to run into instances of confidentiality or no reported data. Poultry livestock figures are not a reliable data series due to data only being available for the years 1995-1997. Off-farm income is not available for the 1992 year, therefore these graphs present 1993-2002.

Farm numbers, total operating revenues, and net operating income are all for the same set of farms. Off-farm income is stated on a per reporting individual basis. Total crop acreages and livestock figures are on a per reporting farm basis. Off-farm income, total crop acreages, and livestock figures do not necessarily represent the same farms as those for farm numbers, total operating revenues, and net operating income.

5.1.2 Farm Numbers

In Alberta, Saskatchewan, and Manitoba, farm types are dominated by oilseed and grain farms and beef farms. Mixed operations (Other Animal and Other Crop) also represent significant farm numbers in these provinces. The general trend in overall farm numbers has been a decline with the exception of Alberta which has about the same number. The two largest revenue classes for most farm types generally have seen increasing farm numbers. In cases, certain farm types have seen their total farm numbers increase.

The above relates to the pattern in farm numbers according to type, province, and size in Annex 1. Tables 5.1 and 5.2 below provide a summary of the number of farms represented on the farm size categories applied in the Statistics Canada data extraction. The data show several remarkable trends. First, tremendous resorting has been occurring away from farms in the $10,000-$99,999 and $100,000-$250,000 categories and into the sales categories above $250,000. This has occurred both as specific farms moved from lower to higher farm sales categories, and as smaller farms exited the industry. Second, the growth in the number of larger farms has been rapid and aggressive. The largest category has grown by 4-5 fold since 1990, and the $250,000 to $500,000 category has grown by 2-3 fold. Finally, the number of farms in the $250,000 to $500,000 and >$500,000 sales categories are relatively small. They constitute only between 1/6 and 1/4 of the population represented by the data in the Tax Data Program and the Farm Financial Survey, respectively.

Table 5.1 Number of Farms by Sales Category in Covered in Statistics Canada Data Extraction, 6 Provinces, Tax Data Program Data*

Year	$10,000-$99,999	$100,000-$249,999	$250,000-$500,000	>$500,000	Total
1990	149,420	43,425	9,795	3,095	205,735
1991	144,780	45,480	10,005	2,975	203,240
1992	143,620	46,545	11,165	3,600	204,930
1993	141,890	49,815	12,070	4,085	207,860
1994	139,580	51,700	13,990	4,745	210,015
1995	134,775	51,610	15,935	5,770	208,090
1996	131,370	50,445	17,140	6,855	205,810
1997	132,225	50,110	17,480	7,735	207,550
1998	128,400	48,070	17,215	7,465	201,150
1999	126,645	45,555	17,265	8,030	197,495
2000	122,280	45,305	18,630	9,700	195,915
2001	118,960	45,265	20,395	10,940	195,560
2002	115,185	43,030	19,970	11,655	189,840
2003	108,550	38,665	19,300	11,630	178,145

*Includes incorporated and unincorporated farms

Table 5.2 Number of Farms by Sales Category in Covered in Statistics Canada Data Extraction, 6 Provinces Farm Financial Survey Data

Year	$10,000-$99,999	$100,000-$249,999	$250,000-$500,000	> $500,000	Total
1989	112,625	45,025	6,110	2,025	165,785
1991	108,195	45,870	9,070	2,300	165,435
1992*	76,845	24,185	3,870	1,275	106,175
1993	109,645	45,075	8,745	2,565	166,030
1995	99,165	44,095	11,790	3,680	158,730
1997	82,290	45,240	17,000	7,860	152,390
1999	75,710	41,690	15,765	7,640	140,805
2001	65,075	35,565	18,985	9,310	128,935
2002	66,115	36,880	20,235	10,595	133,825
2003	71,245	34,325	18,195	10,680	134,445

* Contains data only on farms in Western Canada

5.1.3 Total Operating Revenues

Revenues appear relatively stable in the lower revenue classes, with greater growth in revenue in the larger sales classes. There is significantly more variability in the two largest categories with the $500,000 and over class showing the most variability. Some farm types show a significant increase in average revenue when moving from the $250,000-$499,999 to the $500,000 and over class (i.e. other animal, hog, beef, dairy, potato). In the western provinces (Alberta, Saskatchewan, Manitoba), the farm types with the consistently highest average revenues ($/farm) for all farms are potato, dairy, hog, and poultry and egg. The farm types with the consistently lowest average revenues are other crop, oilseed and grain, and beef.

5.1.4 Net Operating Income

Net operating income (NOI) is generally increasing in farm size, with more dramatic increases in net operating income at the larger size ranges. There is also much more variability in net operating income than in total operating revenues. For the most part, only the two largest revenue classes provide an average of more than $35,000 in net operating income. Some farm types (dairy, oilseed and grain) show the three largest classes providing more than $35,000. In the western provinces, the farm types with the consistently highest average NOI ($/farm) are potato, dairy, hog, and poultry and egg. The farms with the consistently lowest average NOI are beef, other crop, and oilseed and grain.

5.1.5 Off-Farm Income

Off-farm income for individual operators increased across literally all farms observed between 1993 and 2002. However, off-farm income appears to exhibit a surprising pattern with respect to farm size that is robust across farm types and provinces. As farm size increases, average off-farm income initially decreases. Interestingly, this trend reverses itself in the upper farm size categories. In particular, off-farm income starts to increase again in the two highest revenue classes ($250,000-$499,999 and $500,000 and over).

5.1.6 Total Crop Acreage

The average farm size according to acreage has increased for most farm types. There are mixed results when considering farm types by revenue class. Some farm types have seen individual revenue classes increase their acreage while some revenue classes have decreased their average acreage.

5.1.7 Livestock Inventory

The data on livestock inventory by farm type and size was found to contain significant incomplete data. For livestock farm types (beef, dairy, hog, other animal), results show that as revenue class increases, livestock numbers increase significantly.

5.2 Background Data From the Farm Financial Survey

Consistent with the analysis in Section 4.2, data from the Farm Financial Survey was analyzed for 1995, 1997, 1999, 2001, and 2002 for each of the 6 provinces considered above, for the top 7 farm types (according to net operating income). The analyses were completed for the 6 revenue classes. In each case, the following data were extracted:

- Average market value of land and buildings per reporting farm
- Average market value of breeding livestock per reporting farm
- Average market value of machinery per reporting farm
- Average market value of quota per reporting farm
- Average market value of total assets per reporting farm
- Average level of debt per reporting farm
- Average net worth per reporting farm

The results of this analysis are presented in Annex 1 Tables 1 to 37 below. The rows of each table report the average value of assets per farm, the average debt/asset ratio per farm and average level of equity per farm. The columns present the annual time series with each of the farm size categories. Discussing each table would be onerous; instead, in this section we observe trends, commonalities, and contrasts among the tables. The caveats associated with interpreting the data are as stated above for the Tax Data Program information. In many cases, data was unavailable fragmented to the level of specific revenue classes due to small sample sizes. Data are shown as blanks in these cases.

The first significant observation from the Farm Financial Survey data is that, over time, farm equity has generally been at least stable or slowly growing. There are at least two potential explanations for this. One is that farmers in the leading commodities in each province have been successful in keeping current with debt or paying it down. The other is that increases in the market value of assets have increased the value of farm equity. The test of the first cause would be changes in debt/asset ratios. In many cases debt/asset ratios are observed as falling over time, although robust trends are difficult to observe. It is likely that increases in market value also explain increases in farm equity.

Another observation is that the levels of investment in land, buildings, and machinery increase on a less than proportional basis as the sales category increases. For example, moving from the $10,000-$24,999 sales category to the $25,000-$49,999 sales category, if the value of assets deployed were proportional to sales, the asset value would increase by a factor of 2 to 2.5. By observing the tables below, it can be seen that the value of assets is generally less than proportional to sales. This is less evident with the over

$500,000 in sales, simply because it is an open-ended sales category. The apparent interpretation of this trend is that capacity utilization improves with the scale of operation. The trend was robust across farm types and provinces.

Finally, the data appear to offer some inferences regarding diversification. This can be observed from the value of quota assets on farms in non-supply managed categories, and from the value of breeding livestock on crop farms. The tables show a trend in the data such that diversification (as defined above) increases with farm size. This suggests, interestingly, that economies of scope may exist as farm size increases. This is somewhat surprising; the image of the mixed farm is more typically that of a small farm with a variety of livestock species and crops. The observation from the tables suggests that the mixed farm of today tends to be relatively large.

The data in Annex 1 show that financial leverage (measured as the debt/asset ratio), on average, are relatively low. The implication is that (on average) farmers' debt level is low relative to the value of assets. For the most part, the debt/asset ratio is in the range of 15%-25%. Considering that a rule of thumb commonly used by lenders is that new investment projects should have a debt/asset ratio of less than 60% to go forward, on average most farms have strong leverage ratios. To characterize the relatively more leveraged farms, the debt/asset ratios were analyzed to determine the farms that had a ratio in excess of 30% for two periods or more from which the panel of data were drawn[7].

These are presented in Table 5.3 below. The rows in the table represent farm type, while the columns represent the provinces analyzed. It must be noted that in many cases, insufficient data existed for specific farm types and provinces (notably for PEI). However, there are some clear commonalities in the data. First, hog farms tended to be leveraged more frequently than other farm types. This likely results from relatively rapid expansion in recent years, along with the lingering effect of cyclical downturns. Secondly, the table suggests that farms in Quebec were leveraged more frequently than farms in other provinces. One interpretation of this is that Quebec farms are more capable of supporting debt relative to the same farm types in other parts of the country. A potential explanation of this may lie in the ASRA program in Quebec which, as mentioned above, has the effect of removing a substantial amount of risk from non-supply managed enterprises.

[7] Note that no claim is intended that a debt/asset ratio over 30% is highly leveraged; rather, it is a means to describe the relatively more leveraged farms observed in the data

Table 5.3 Farms with a Relatively Higher Leverage Ratio (Debt/Asset > 30%), by Farm Sales Class

	Alberta	Saskatchewan	Manitoba	Ontario	Quebec	PEI
Beef	>$500,000			>$500,000	$50,000-$99,999 $100,000-$249,999 $250,000-$500,000 >$500,000	
Hog	$100,000-$249,999 $250,000-$500,000	> $500,000	$100,000-$249,999 $250,000-$500,000	$50,000-$99,999 $250,000-$500,000 >$500,000	$50,000-$99,999 $100,000-$249,999 $250,000-$500,000 >$500,000	
Dairy			> $500,000		>$500,000	
Potato			> $500,000			> $500,000
Greenhouse				$50,000-$99,999 $100,000-$249,999 $250,000-$500,000 >$500,000		
Grain/Oilseed				>$500,000	$250,000-$500,000 >$500,000	
Other Crop				$50,000-$99,999	$10,000-$24,999 $50,000-$99,999 $100,000-$249,999 $250,000-$500,000 >$500,000	
Other Vegetable/Melon					$100,000-$249,999 $250,000-$500,000	

5.3 Observations on Data Extraction Results and Background Data

From the background data, some surprising insights emerge. First, *on average*, only farms in the higher farm sales categories (generally farms with $250,000-$499,999, or in excess of $500,000) broadly generate in excess of $35,000 in operating income. The implication is that farms in lower sales categories are simply not in a position to generate a fulltime income as a stand-alone occupation, and that the largest two categories-only 1/6 to 1/4 of farms- exceed $35,000 in income. It is also a useful reminder that net operating income can only be a short term measure; eventually depreciation must be realized as an expense and interest on debt paid. If fixed costs were considered, even fewer farms would generate the equivalent of $35,000 in income.

However, reflecting this back on the observations resulting from the extraction by quartiles in sections 3 and 4 reveals that the analysis of averages are overly simplistic. There are a significant number of farms in even the largest sales category that would not generate $35,000 expressed as operating income.

The background data also reveals important observations relating to off-farm income. Off-farm income decreases with farm size, but then increases sharply for larger farms. This paints somewhat of a bleak picture for mid-sized farms. The very small farms that have little realistic possibility of earning a full-time living must have significant off-farm income just to cover living expenses. The larger farms may have sufficient size and division of labour that off-farm income can be earned. It appeared that the mid-sized farms had the lowest levels of off-farm income, but many also had relatively low levels of farm income.

Evidence is not observed indicating a leverage problem on Canadian farms. On average, most leverage ratios are low, and farm equity is increasing. It is unclear from the data whether this results from farmers successfully paying down debt, or from increases in the market value of assets.

What is evident is that the value of farm assets is material. Essentially all farms with in excess of $250,000 in sales are carrying assets valued at $1 million or more. Farms in supply management were somewhat of an exception, in that farms with less than $250,000 in sales commonly have assets valued at over $1 million. In the case of farms in excess of $500,000 in sales, the asset values is frequently well above $1 million. This is significant, because the findings of the analysis by quartile showed that farms in every sales category experienced low operator total income and low EBITDA relative to sales and assets. The implication is that, while farms have high average levels of assets and, as indicated above, high levels of net worth, in many cases these assets are not generating income proportionally.

It is also material that, according to the mean data from ESAS, as farm sales grow, the value of assets (especially land and buildings and machinery) grows less than

proportionally. This is consistent with the observations in Section 4 showing that EBITDA/Assets increases as farm size increases. As noted above, this is consistent with economies of scale and improvements in capacity utilization as farm size increases.

The mean data also show greater evidence of farm diversification on larger operations; for example, for non-livestock farm types, the number of livestock in inventory was generally higher for the large farm class. Similarly, larger farms in non-supply managed farm types tend to hold more quota than smaller farms. Thus, rather than smaller farms being highly diversified and lacking specialty in any one enterprise, it appears that diversification occur more on large farms, so there are indications of economies of both scale and scope. This provides some insight relating to the surprising finding that EBITDA/Sales declines for the largest farms and the largest farms tend to be diversified into other enterprises that may have a different structure related to EBITDA/Sales.

Thus, the results reflecting the variability in sections 4 and 5 appears to contradict the results summarized as means. For example, the mean data suggest that net operating income increases with farm size, which the analysis of quartiles reveals to be overly simplistic. The background data also reveal, surprisingly, that operator off-farm income first decrease, then increases with respect to farm size. Finally, the mean data suggest that farm asset values and net worth are relatively strong and growing; however, the analyses in Sections 3 and 4 reveal that for many farms, operating income is not performing relative to farm asset values.

6.0 Conclusions

The purpose of this was to evaluate the structure of farm incomes in Canada. The objectives were the following:

- To assess how the subsets of farms according to income level have been taken into account in previous farm income research
- To test the structure of Canadian farms with respect to farm income (i.e. income adequacy) and profitability (i.e. by using EBITDA/Sales and EBITDA/Assets) with data on farm incomes and financial characteristics
- To assess the extent to which the data presented on Canadian farm incomes reflects the underlying distribution of farms according to income
- To determine the implications of the above for policies to address farm income problems

To meet these objectives, a brief literature review of past research related to farm incomes was conducted. Queries were run by Statistics Canada that provided detail on the distribution of farm incomes and profitability measures, and background mean data from which to interpret the queries were extracted from ESAS. The results were interpreted in the context of the notion of the farm problem.

The results showed the following:

- Previous studies measuring farm income status have found a significant diversity in farm incomes that vary across region, farm type, and farm size.
- Previous work also indicated that measuring off-farm income is critical in accurately reflecting the income status of farms.
- Profitability of farms has not been a major focus of research on farm incomes. This is surprising, given that, even if farming and off-farm income provides adequate incomes, if farms are unprofitable they are long-run unsustainable from the perspective of attracting capital and future generations of farmers.
- Data on the income of farm operators (net farm operating income plus operator off-farm income) showed that, if $35,000 is held as a low income cutoff, many farms across provinces, farm types, and sizes are experiencing low incomes. Where this is occurring, income from other family members is needed to finance debt servicing, capital replacement and family living expenses.
- The above finding is significant, because farms were found below the $35,000 low income cut-off irrespective of size (i.e. suffered from income inadequacy). In most cases, the first quartile of farms had a similar level of net operating and operator off-farm income, across farm sales categories.
- There was clearly more variability in net operating income plus operator off-farm income within a farm sales category than across categories. Generally, the first quartile level of total operator income was quite similar, regardless of farm size. The fourth quartile level of total operator income was generally largest for the largest farms, with a linear trend according to farm sales category.

- The above results contrast with those based on averages, which would suggest that net operating income and operator off-farm income increase with size. In particular, the mean data suggest that operator off-farm income initially decreases as farms get larger, but then increases again for the larger farm sizes.
- A variable representing earnings before interest, taxes, depreciation, and amortization, EBITDA (a common measure of business income from operations) was generated to analyze farm operating profit. When expressed as a ratio relative to sales, the efficiency of farms in generating EBITDA can be compared across farm sizes. The results showed that there is more variability in EBITDA/Sales within a farm size category than there is across farm sizes, as was noted in the analysis of income adequacy. In other words, there are highly profitable farms that are quite small, and unprofitable farms that are relatively large.
- The analysis of EBITDA/Sales also showed some evidence of tightening over time. This suggests that farm operating profit relative to sales has been tightening over time.
- Interestingly, the anticipated relationship between EBITDA/Sales and farm size (measured by sales category) was not observed; generally, the largest category had a lower EBITDA/Sales ratio. The expected relationship was that there would be some economies of size, meaning larger farms would have a bigger EBITDA/Sales. There are a number of factors capable of explaining this, including the structure of hired labour on larger farms, transitional adjustment due to expansion, and greater diversification of larger farms (as confirmed by the background data).
- EBITDA was also measured as a ratio relative to assets (another measure of profitability). The results showed EBITDA/Assets broadly increasing with sales category. This is consistent with improved capacity utilization as farm size increases, which was confirmed in the background asset profile. The pattern of greater variability within sales categories than across sales category persisted, however. The background data reveal strong asset values across farm types and provinces. Based on averages, most farms with greater than $250,000 in sales had assets valued at over $1 million, and the largest sales category commonly averaged assets valued at well over $1 million. Evidence is not observed indicating a leverage problem on Canadian farms. On average, most leverage ratios are low, and farm equity is increasing. It is unclear from the data whether this results from farmers successfully paying down debt, or from increases in the market value of assets.
- There is also a clear down trend in EBITDA/Assets. Relative to past periods, EBITDA has been decreasing relative to asset values. The implication is that, while farms have high average levels of assets and, as indicated above, high levels of net worth, in many cases these assets are not generating income proportionally.

6.1 Implications

This analysis has uncovered three significant findings that are material in understanding farm incomes. First, there is a tremendous variability in operating income, even within a farm sales category. There are farms with sales well over $500,000 that struggle to generate operating income, and some small farms that are very efficient in generating operating income. This basic fact is somewhat masked by the fact that the top farms in largest sales category tend to perform better than the top farms in smaller categories, and by the fact that averages suggest that operating profit performance is strongly tied to size. Secondly, off-farm income has a crucial role in sustaining farm households. Generally, the lower quartile of farm operators do not generate enough operating income and off-farm income to cover overhead expenses; family living expenses must therefore be covered by other family members working off the farm. In addition, many quartile two farms for the various production types are also struggling to meet the basic $35,000 income adequacy level. Third, operating income measured relative to revenue or assets is tightening over time (i.e. getting smaller). This implies that some or all of the following is occurring: revenue is falling over time, expenses are increasing, or farm program payments are decreasing.

The detailed results here show that, for many farms, it is likely that operator incomes are simply insufficient to justify the farm as an ongoing business entity. In particular, we observe farms across size ranges in which the operator's net operating income is less than $35,000. It is unlikely that the three claimants to this income stream - family living expenses, capital depletion, and debt servicing could be served without additional income from other family members. Indeed, average overhead cost across farm sizes is about $36,000.

With regard to this, first, it is unlikely that farm businesses dependent on the income of other family members will attract future generations, and it is therefore likely that these farms will not be sustainable into the future. To the extent that these farms rely on family off-farm income, many off-farm jobs available in rural areas are likely to be relatively low-paying. For example, if spousal income from working in rural or small town retail, clerical, manufacturing, or food service segments is providing the source of family off-farm income to support operator farm and off-farm income, it is likely that household income as a whole would be relatively low.

The remarkable variability in off-farm operator income and farm operating income, which is robust across provinces, farm types, and sales categories, can only be explained by differences in management ability. This suggests that a renewal and expansion of efforts in farm management education and training is needed.

Interestingly, the analysis of variability via quartile, fragmented to the degree which it was, failed to highlight a specific farm type or province that had more (or less) of an income adequacy or profitability problem relative to others. Part of the rationale for

fragmenting the data to the extent done here was to provide the potential that specific farm types, sizes and provinces with specific needs could be highlighted. It also resulted in tremendous amount of data being analyzed (as evident in the appendices and annex). Presumably, had 2004 data been available, the specific situations faced by beef producers due to BSE and the poor pricing environment of 2004 facing grain/oilseed and potato producers might better have been reflected.

Another aspect of variability is that some accepted and subscribed views relating to the structure of farm incomes may need to be reevaluated. For example, the farm typologies referred to above must be interpreted with some caution in light of these results. Within the very large business-focused farms, for example, farms with total operator income of less than $35,000 will be found along with farms having a much larger total operator income. In fact, the degree of variability in the data brings into question the use of averages in making policy prescriptions. The variability reveals a difficulty in targeting assistance to farmers that averages would not suggest.

A fairly robust finding was that the first quartile of farms, almost regardless of sales level or farm type, were faced with low income or profitability challenges. Table 6.1 allows for some broad perspective on variation in income/profitability and the potential magnitude of farm income difficulties. The table presents data on the number of farms in the TDP sample for 2003 according to the farm sales categories applied in the Statistics Canada data extraction for the six provinces analyzed. The second column of the table presents the total number of farms represented in 2003. The third column represents the 25th percentile, or first quartile of the total. Accounting for the consistent finding that first quartile farms (regardless of farm size) experienced low income or suffered from profitability challenges, the third column represents the estimated number of farms that might be affected (i.e. however, it should be noted that frequently quartile two farms also had profitability problems). It represents a maximum because the analysis of income adequacy was completed on unincorporated farms only, and Table 6.1 includes both incorporated and unincorporated farms. However, the inference is that up to almost 45,000 farms, most of which have less than $100,000 in sales, are apt to be affected by low operator incomes or low profitability.

Table 6.1 Total Number of Farms Potentially Impacted by Low Operating Income or Low Operating Profit, 6 Provinces, 2003

Sales Category	Total Number of Farms	25th Percentile of Farms
$10,000-$99,999	108,550	27,138
$100,000-$249,999	38,665	9,666
$250,000-$50,000	19,300	4,825
>$500,000	11,630	2,908
Total	**178,145**	**44,536**

Source: Statistics Canada, incorporated and unincorporated farms

Given the findings of the previous studies, variability in farm income across size is not an entirely surprising finding. However, the magnitude and extent of variability found is remarkable. We believe that this study has gone further than any previous work in exploring this aspect of farm income structure. It must also be pointed out that, as shown in Table 6.1, most of the farms with potential low income or profitability problems have sales under $100,000. As a reviewer pointed out, these are not at all large enterprises, and for the most part it would be naïve to expect a full-time income from them. The implication is that it is not surprising that farms with less that $100,000 in sales face income challenges. However, the findings show that even with operator off-farm income, these farms face income challenges.

Finally, the results here lend support to the already pervasive view that economic conditions in agriculture are worsening. Conditions in farm income and profitability terms are tightening over time, and the data show that program payments are not keeping pace with the decline. These findings are consistent with observations at the aggregate level.

Net operating expenses have increased, however, at a higher rate than receipts. Expenses have increased from $21.5 billion in 1995 to $30.0 billion in 2003. This represents an increase of $8.5 billion or 40%. Government expenditures in support of agriculture have varied from year to year but have been relatively stable in nominal terms. In the 1996-1997 year, total federal and provincial expenditures were $5.3 billion. Expenditures were $6.1 billion in the 2002-2003 year. This is a $0.8 billion increase or 15% increase. Government expenditures have since increased significantly, but mainly as a result of BSE related support. This combination of net operating expenses increasing at a faster rate than total cash receipts and government expenditures has put a financial squeeze on Canadian farms, which is reflected here as declining EBITDA/Sales and (especially) EBITDA/Assets.

Ultimately, this is a problem from the perspective of Canadian agricultural competitiveness for the largest farms in the lower quartiles that have potential as commercial farm businesses. It is also a problem for the smaller farms that rely on family off-farm income, the failure of which would create a rural social problem. The tremendous variability observed here makes it unlikely that the same policy instrument could resolve both issues.

There are many challenges in developing policy to address the Canadian farm income problem. Some of these challenges include: regional/provincial issues – they vary greatly between Saskatchewan, Ontario and Quebec; willingness and ability of different provincial governments to support farmers; the importance of complying with NAFTA rules since countervail from the U.S. is a very real threat and overrides the development of any government program; the increased urbanization of Canada which doesn't understand or know why farmers need financial assistance; and the difficulties of

operating in a mixed environment i.e. supply management versus non-supply management.

Over the years there have been many studies examining farm income and many different types of farm programs developed, however, the questions asked 20 years ago remain the same: 1) What is adequate farm income support?; 2) How do we measure variability of farm income?; 3) What program provides the greatest improvement in income adequacy?; and 4) How much would a particular program of income support cost? These are difficult questions to answer because of the dynamic nature of farm level decision-making caused by life cycle behaviour. The typical farm operator will accumulate equity capital over his lifetime, so that the ratio of owned to financed capital will rise with the age of the operator and total amount of capital employed. However, this behaviour may be influenced by government support programs.

APPENDIX A

Combined Net Operating Income and Operator Off-farm Income Using Unincorporated Tax Filer Data

Figure A1 Net Operating and Off-farm Income, Alberta Beef Farms

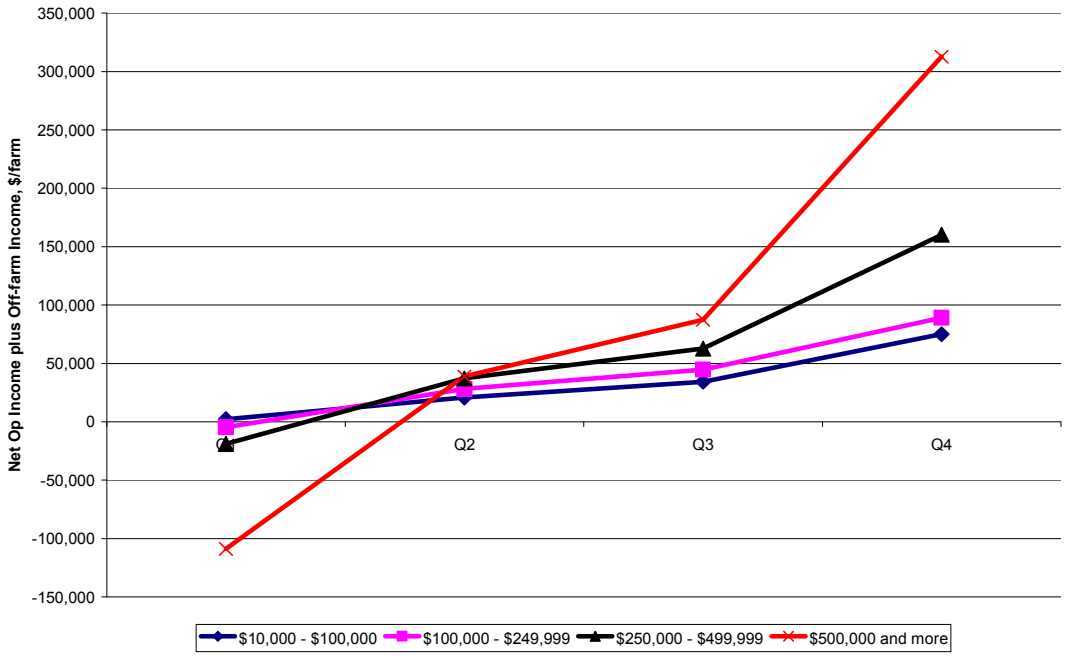


Figure A2 Net Operating and Off-farm Income, Alberta Grain and Oilseed Farms

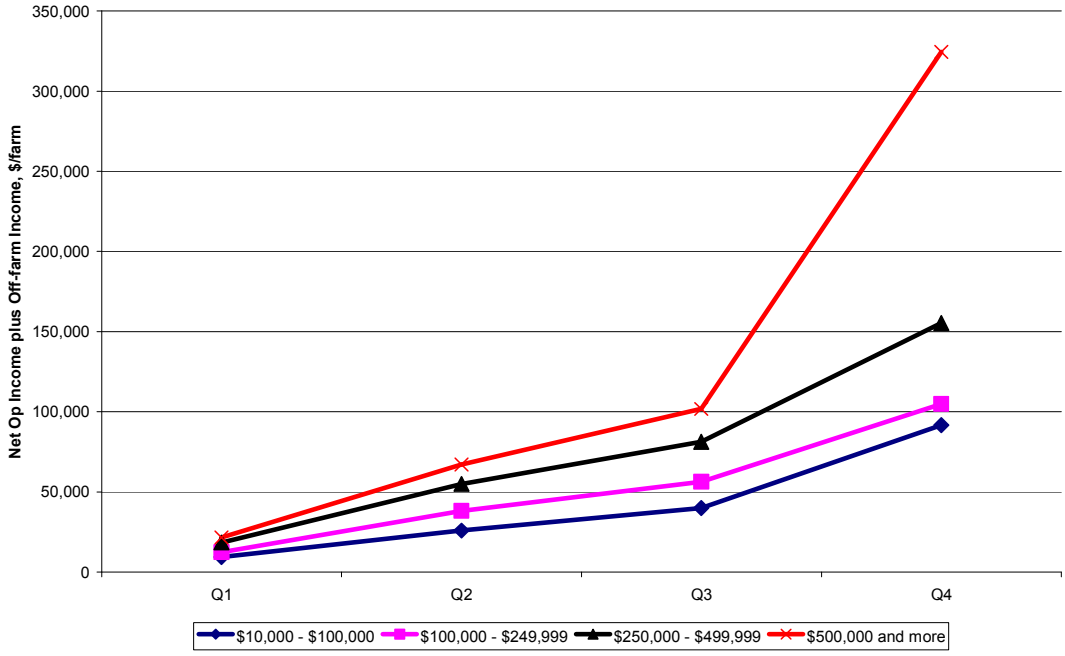


Figure A3 Net Operating and Off-farm Income, Alberta Hog Farms

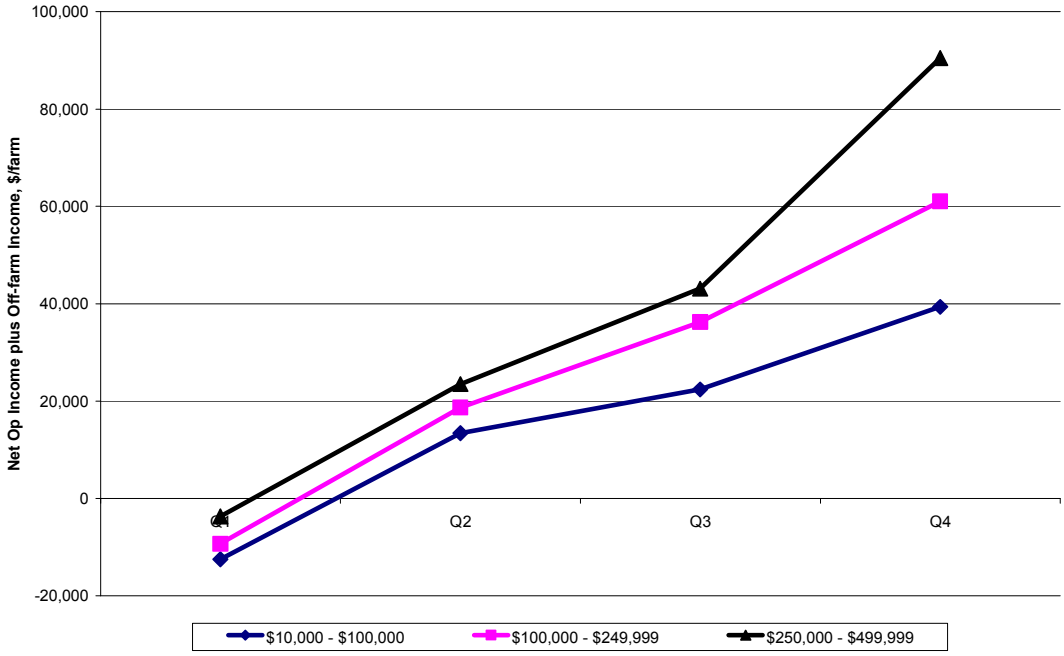


Figure A4 Net Operating and Off-farm Income, Alberta Hog Farms

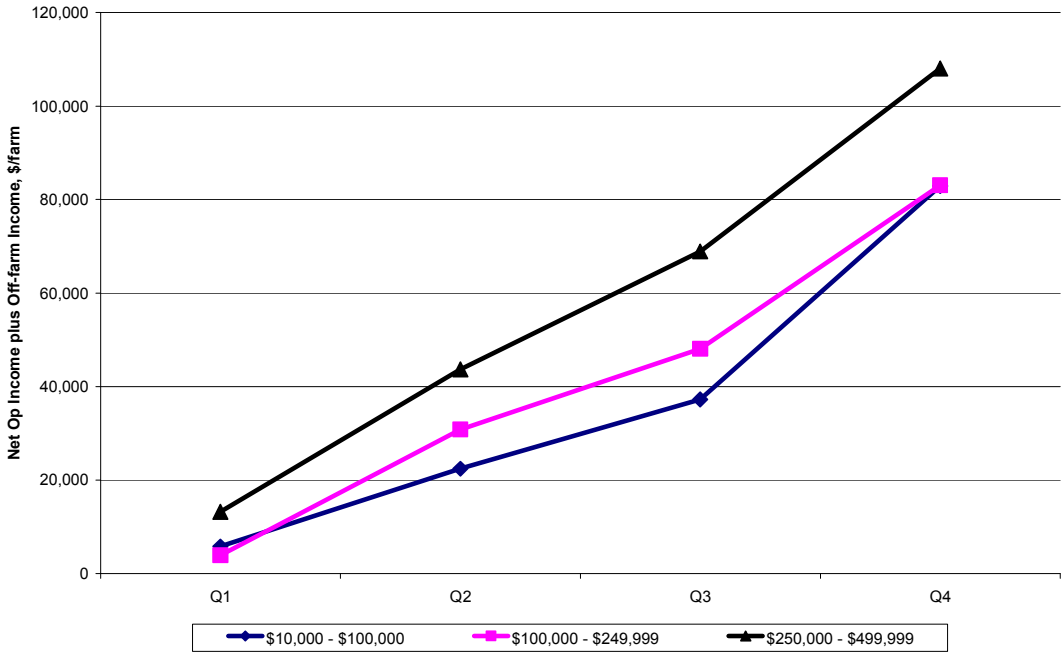


Figure A5 Net Operating and Off-farm Income, Saskatchewan Beef Farms

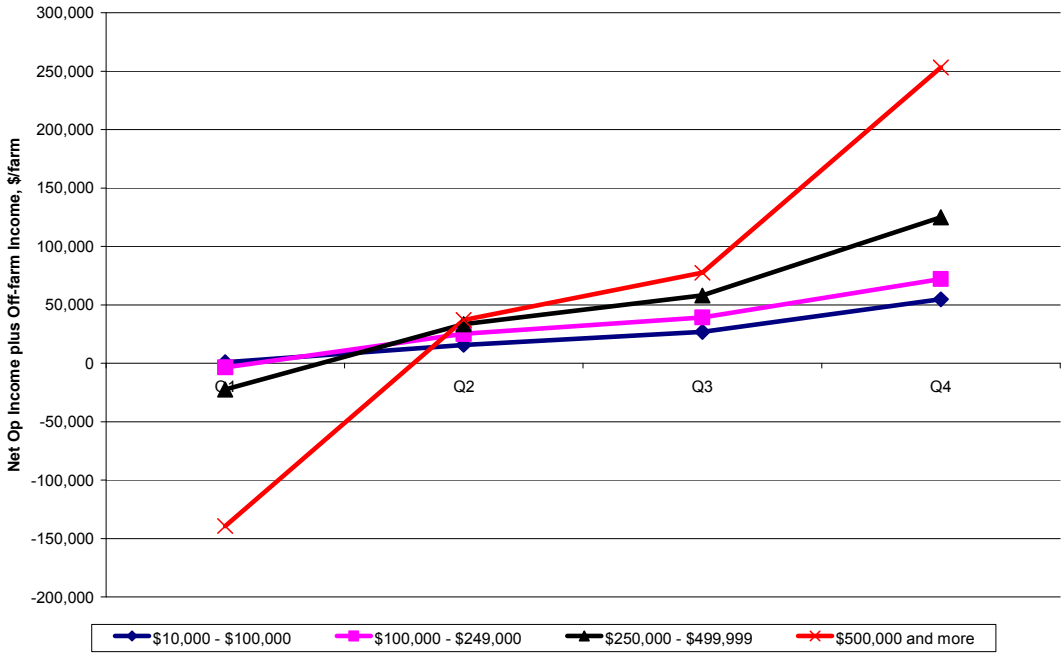


Figure A6 Net Operating and Off-farm Income, Saskatchewan Grain and Oilseed Farms

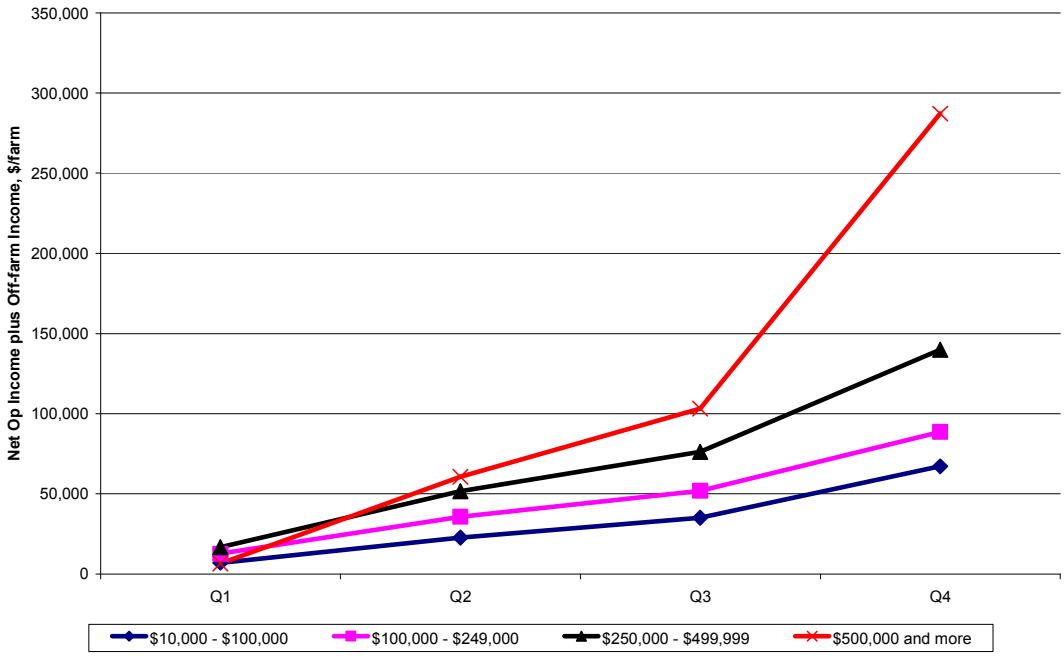


Figure A7 Net Operating and Off-farm Income, Manitoba Beef Farms

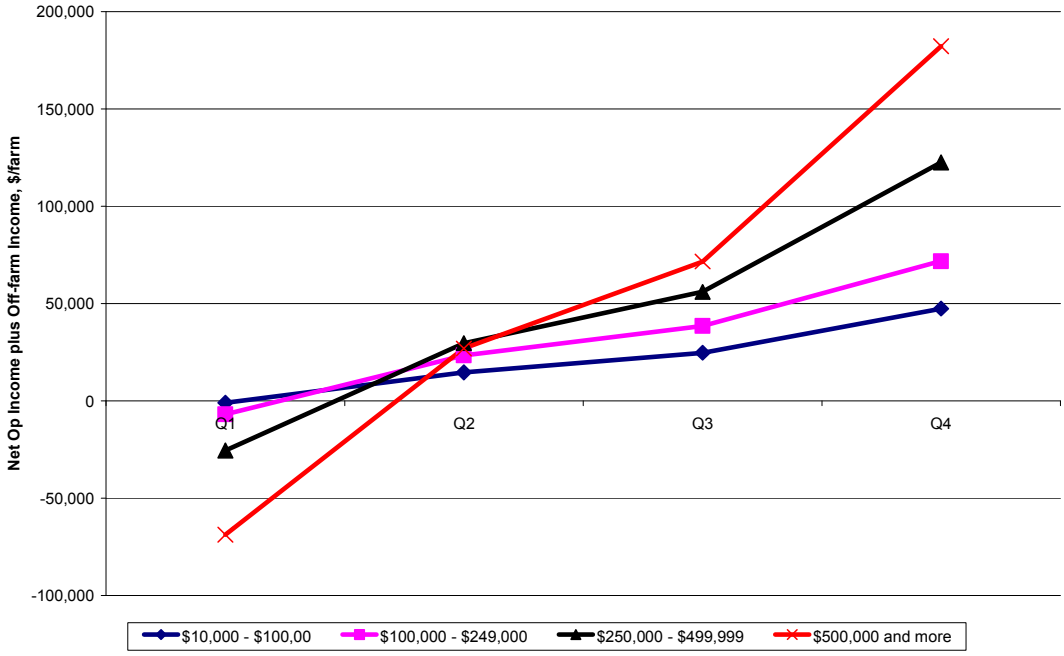


Figure A8 Net Operating and Off-farm Income, Manitoba Grain and Oilseed Farms

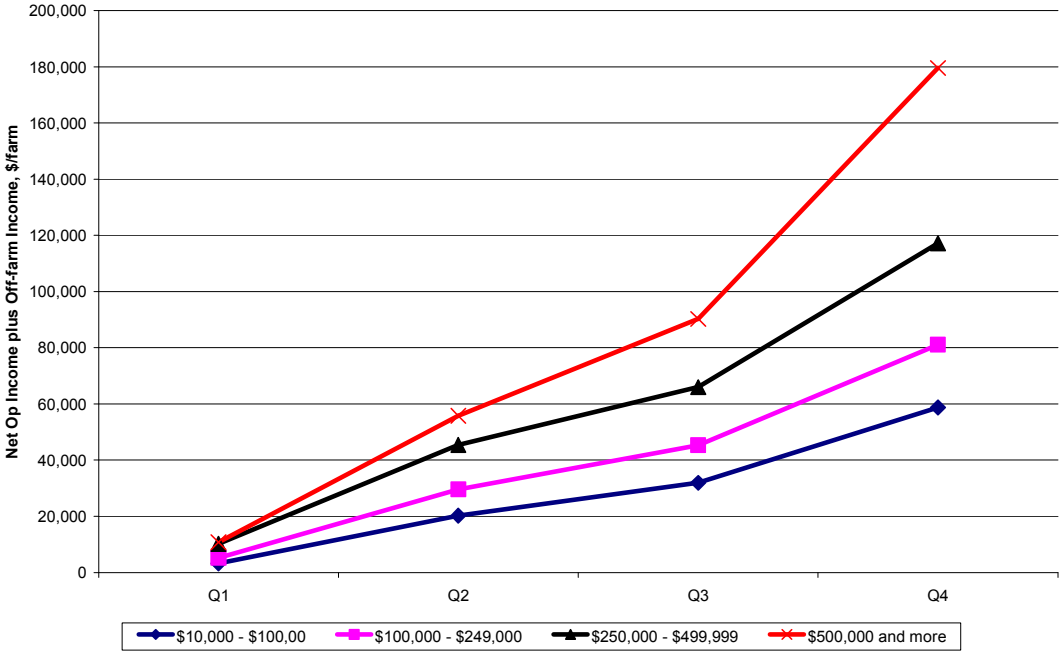


Figure A9 Net Operating and Of-farm Income, Manitoba Hog Farms

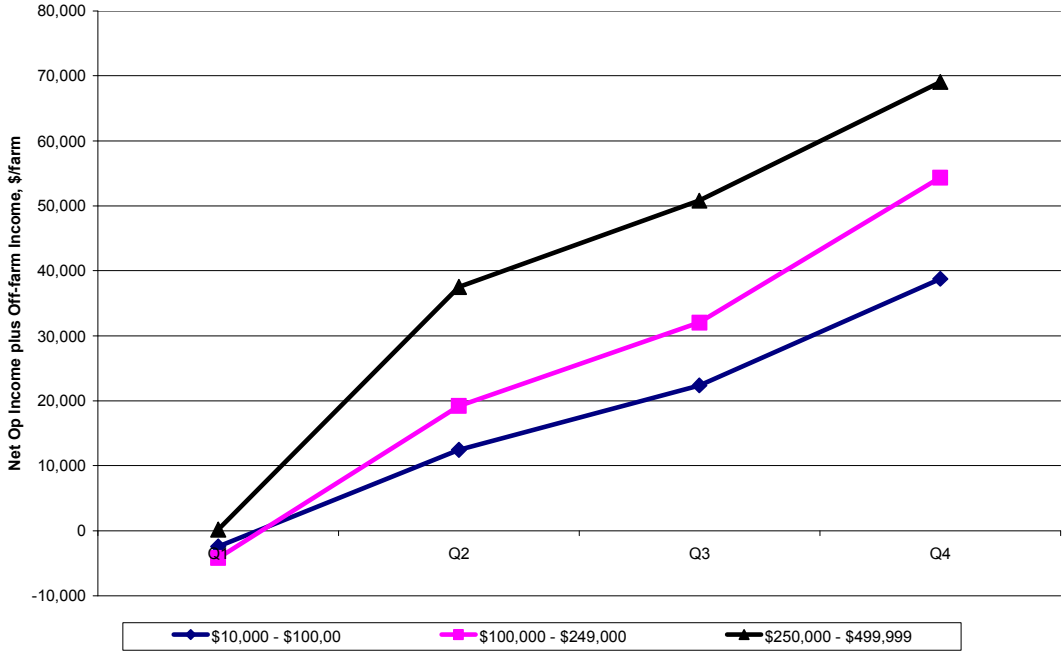


Figure A10 Net Operating and Off-farm Income, Manitoba Dairy Farms

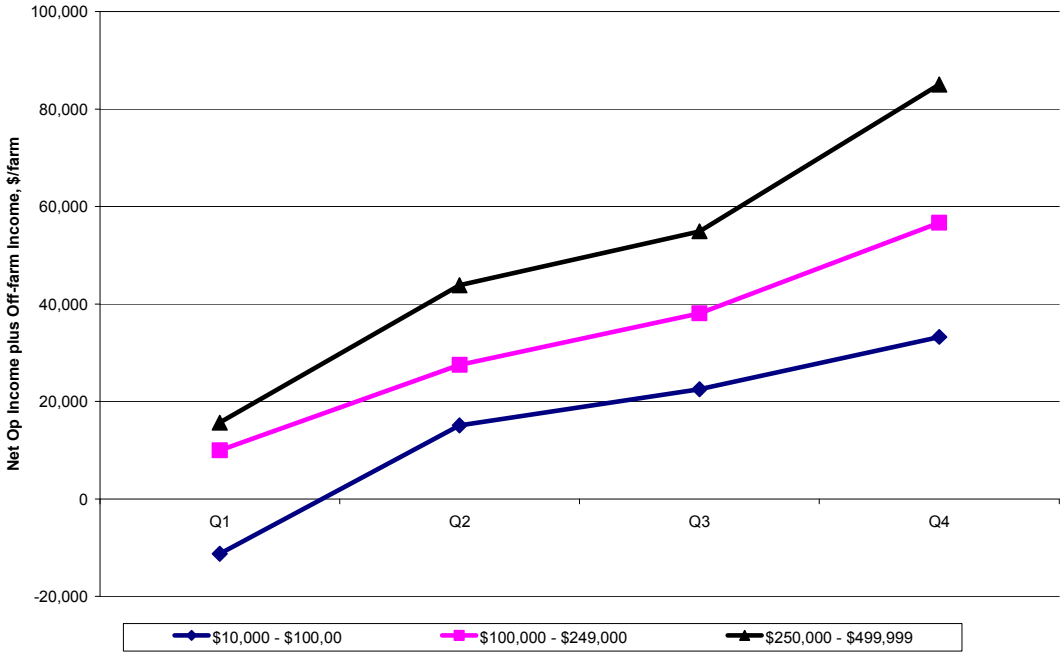


Figure A11 Net Operating and Off-farm Income, Ontario Dairy Farms

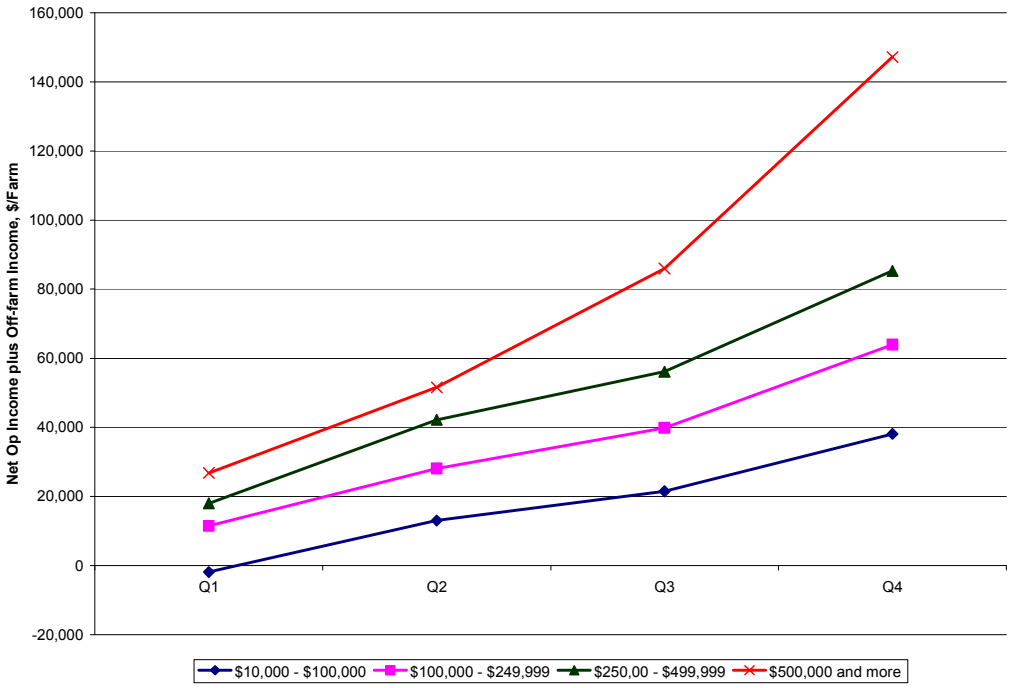


Figure A12 Net Operating and Off-farm Income, Ontario Grain and Oilseed Farms

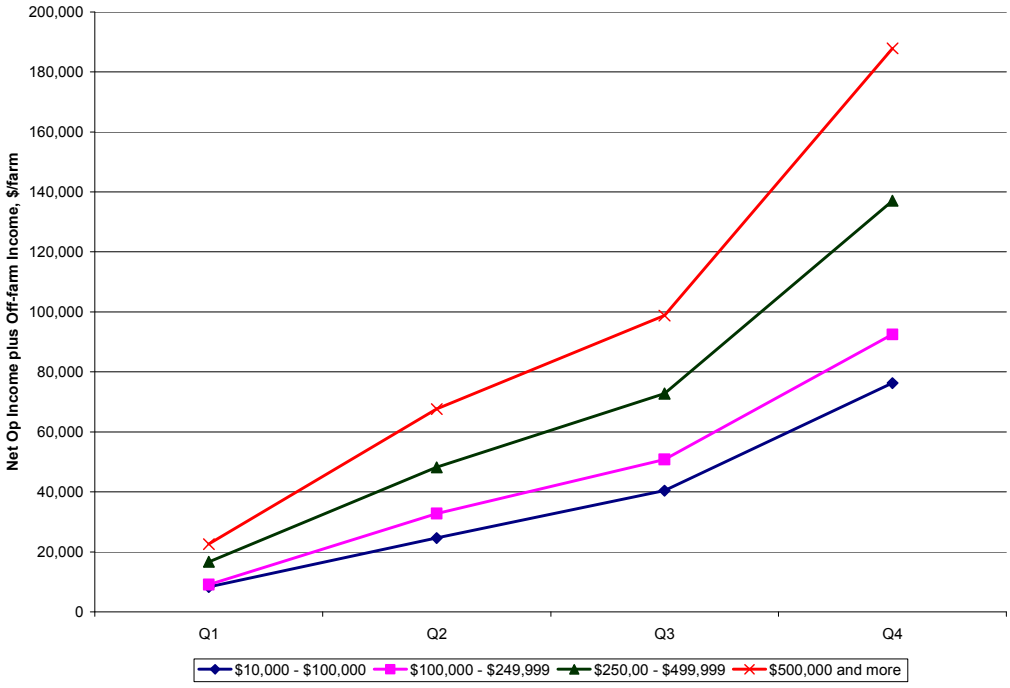


Figure A13 Net Operating and Off-farm Income, Ontario Beef Farms

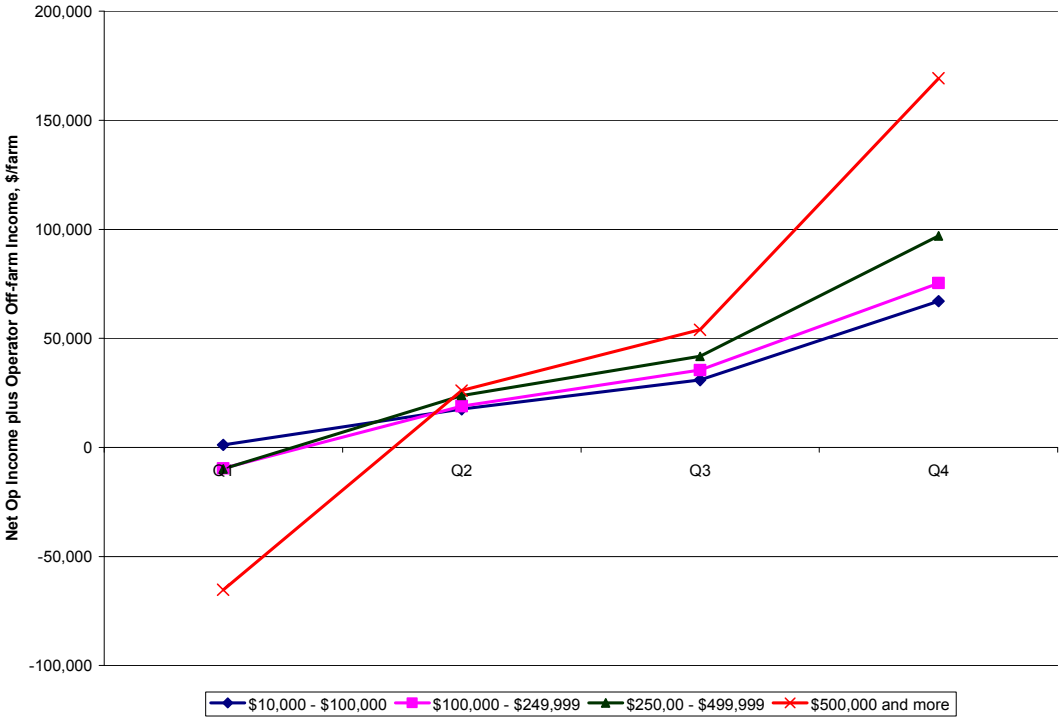


Figure A14 Net Operating and Off-farm Income, Ontario Hog Farms

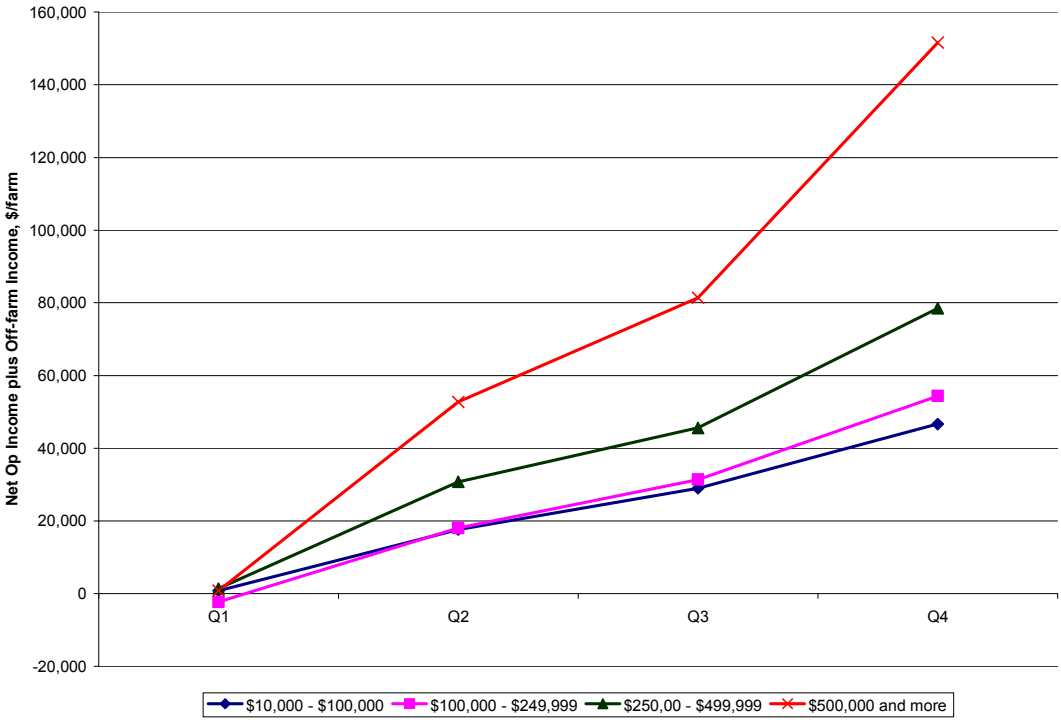


Figure A15 Net Operating and Off-farm Income, Ontario Poultry Farms

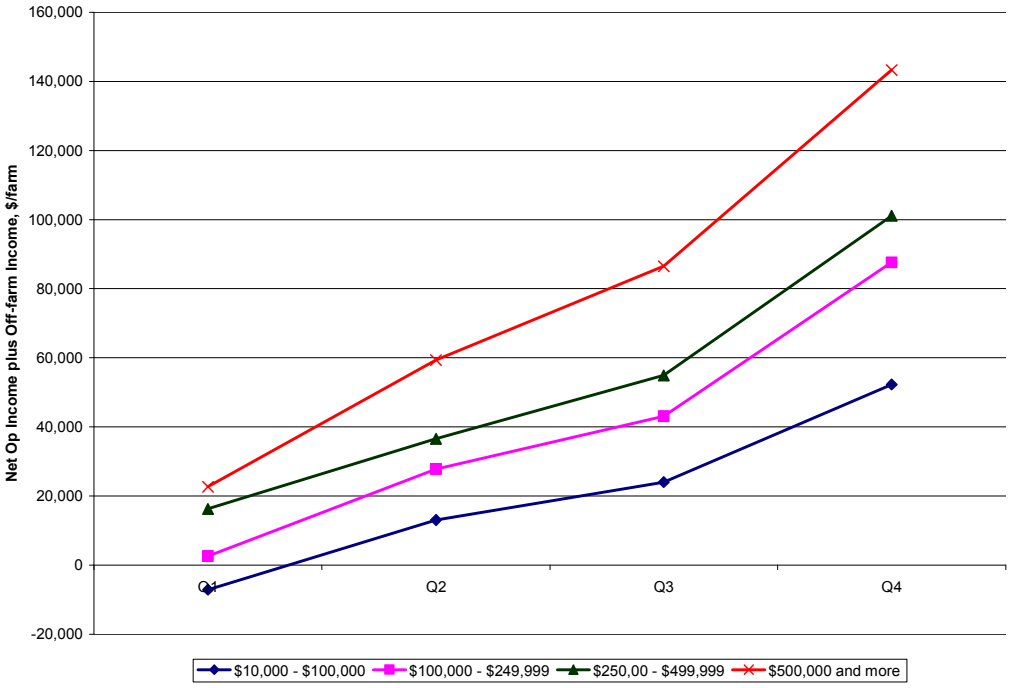


Figure A16 Net Operating and Off-farm Income, Ontario Other Crop Farms

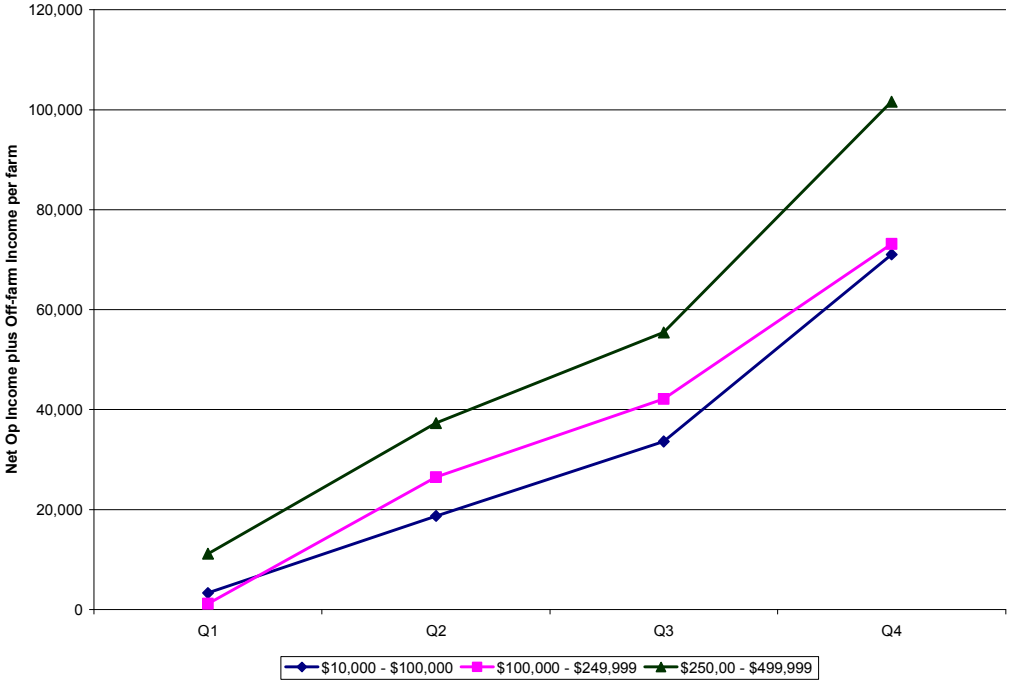


Figure A17 Net Operating and Off-farm Income, Quebec Grain and Oilseed Farms

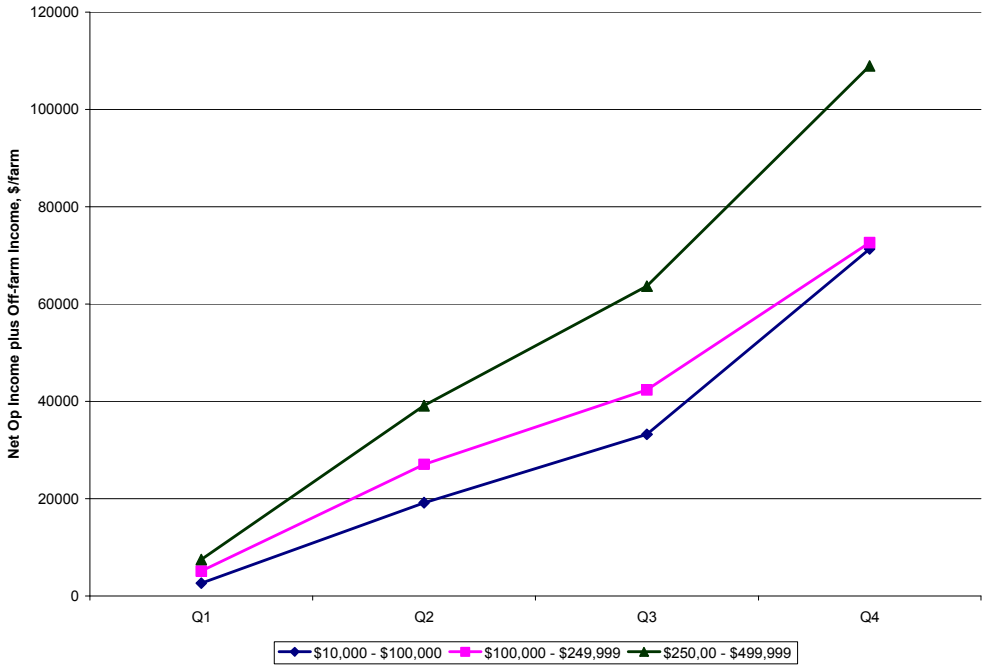


Figure A18 Net Operating and Off-farm Income, Quebec Vegetable and Melon Farms

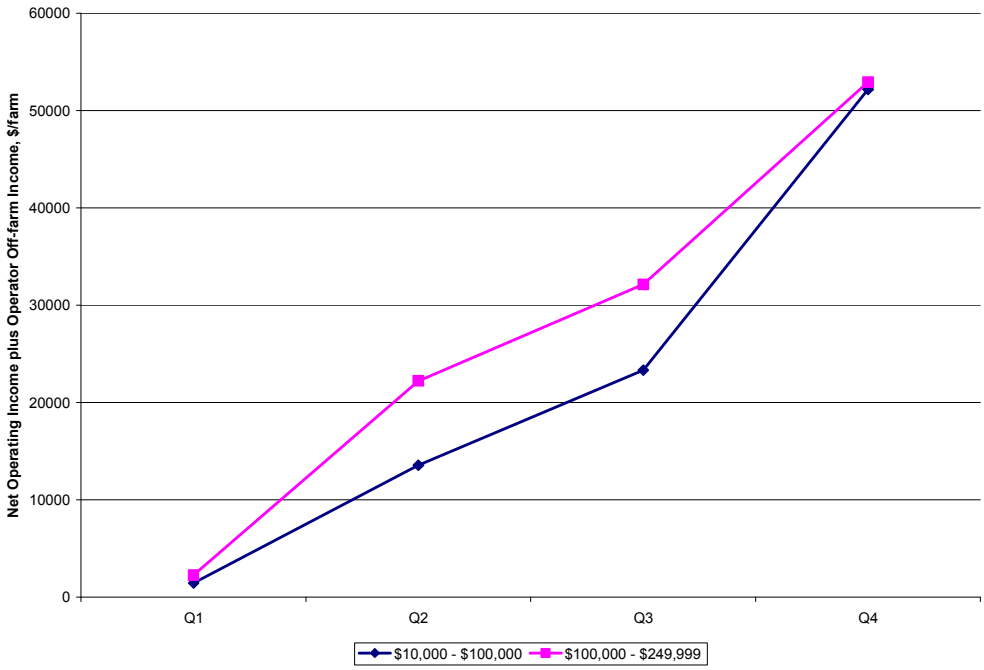


Figure A19 Net Operating and Off-farm Income, Quebec Other Crop Farms

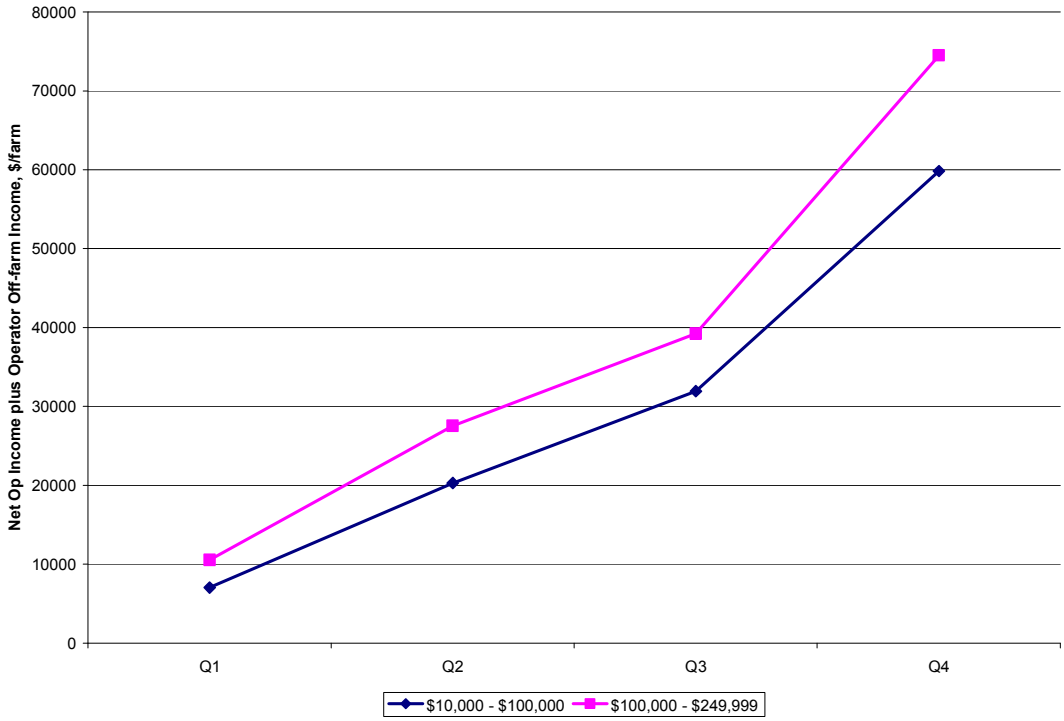


Figure A20 Net Operating and Off-farm Income, Quebec Beef Farms

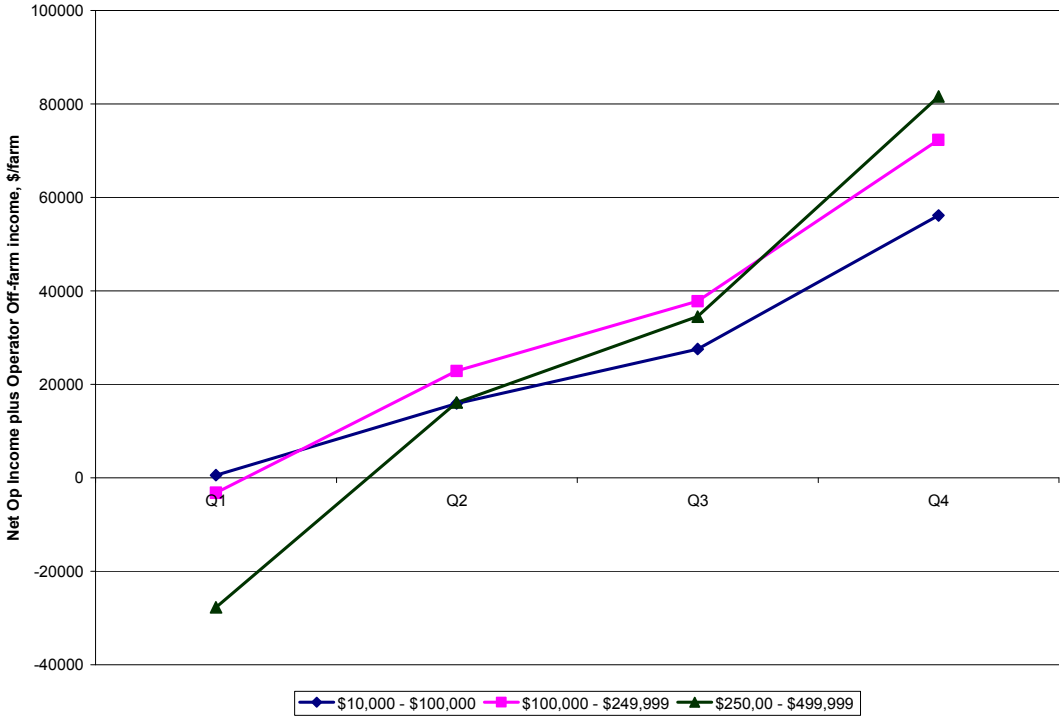


Figure A21 Net Operating and Off-farm Income, Quebec Dairy Farms

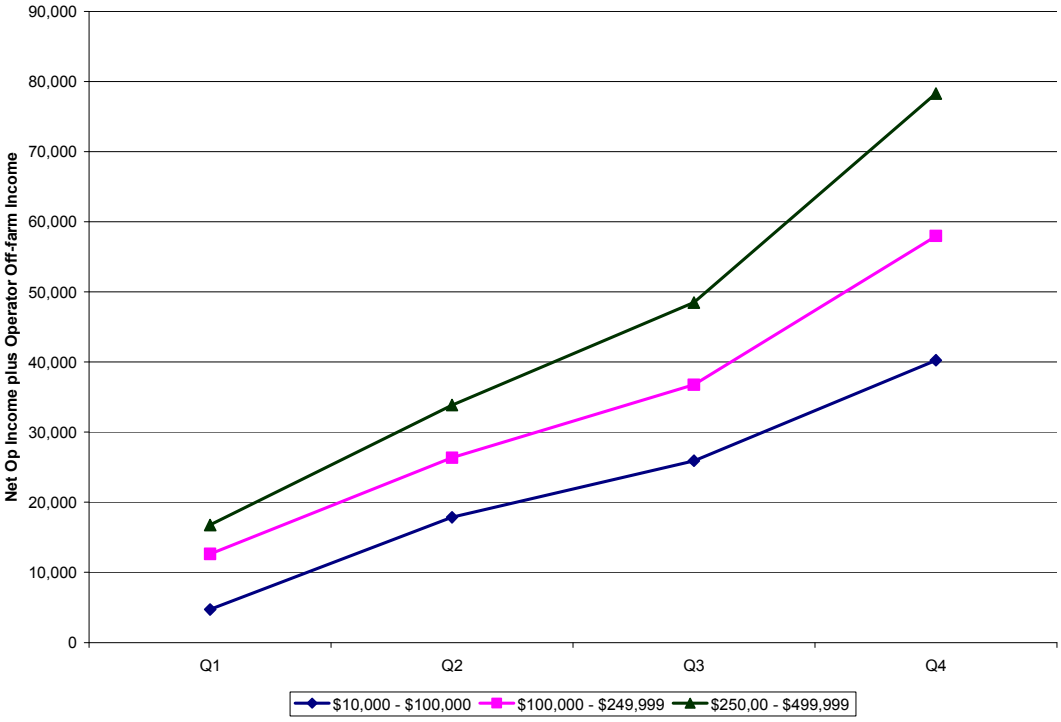


Figure A22 Net Operating and Off-farm Income, Quebec Hog Farms

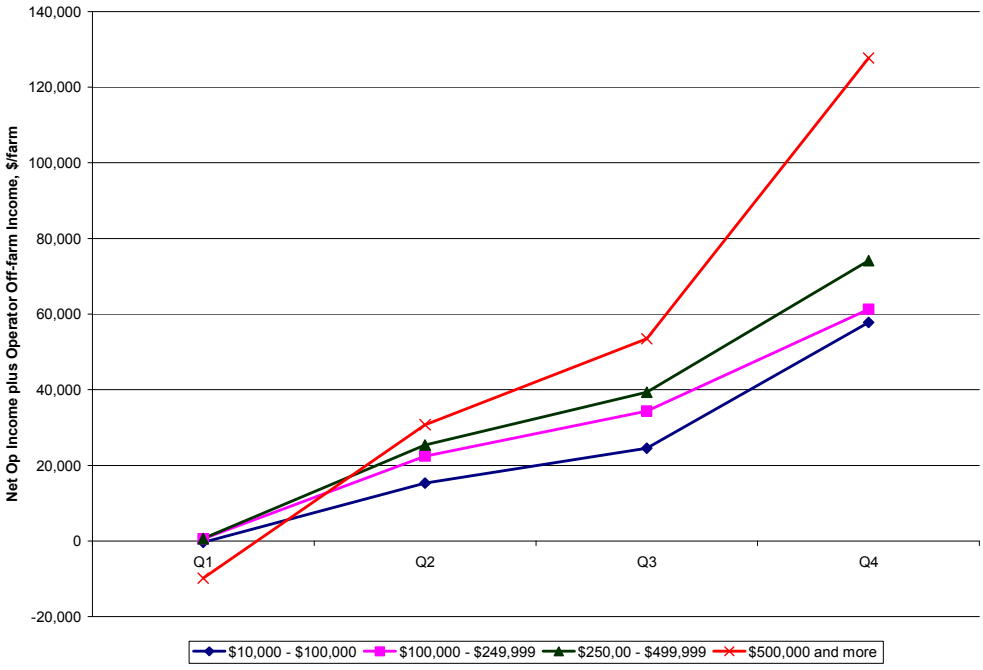


Figure A23 Net Operating and Off-farm Income, Quebec Poultry Farms

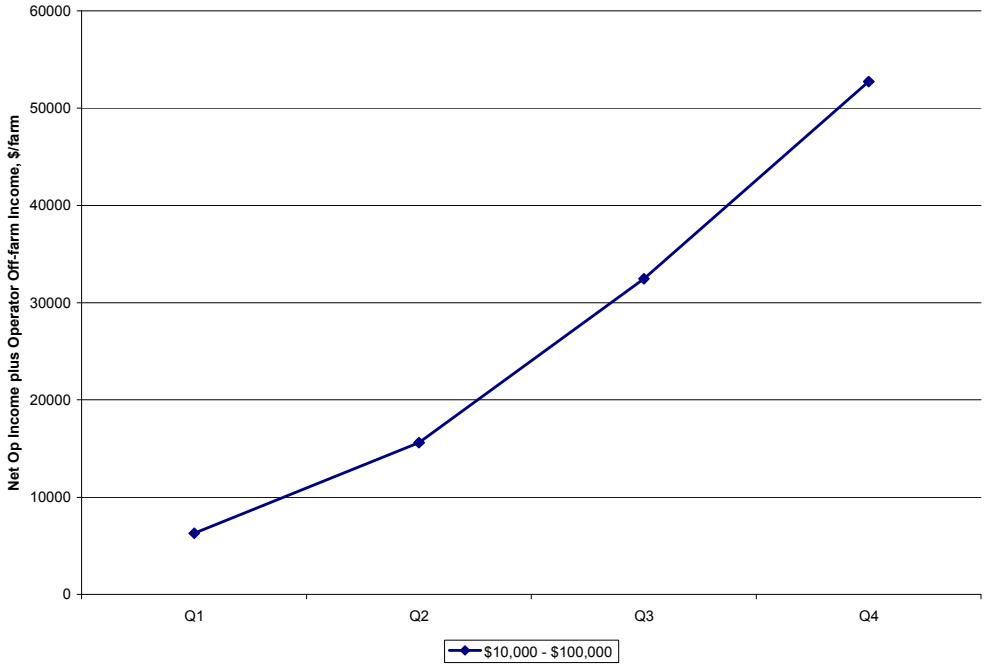


Figure A24 Net Operating Income and Off-farm Income, Alberta Grains and Oilseeds, Sales Under $100,000: 1990-2002

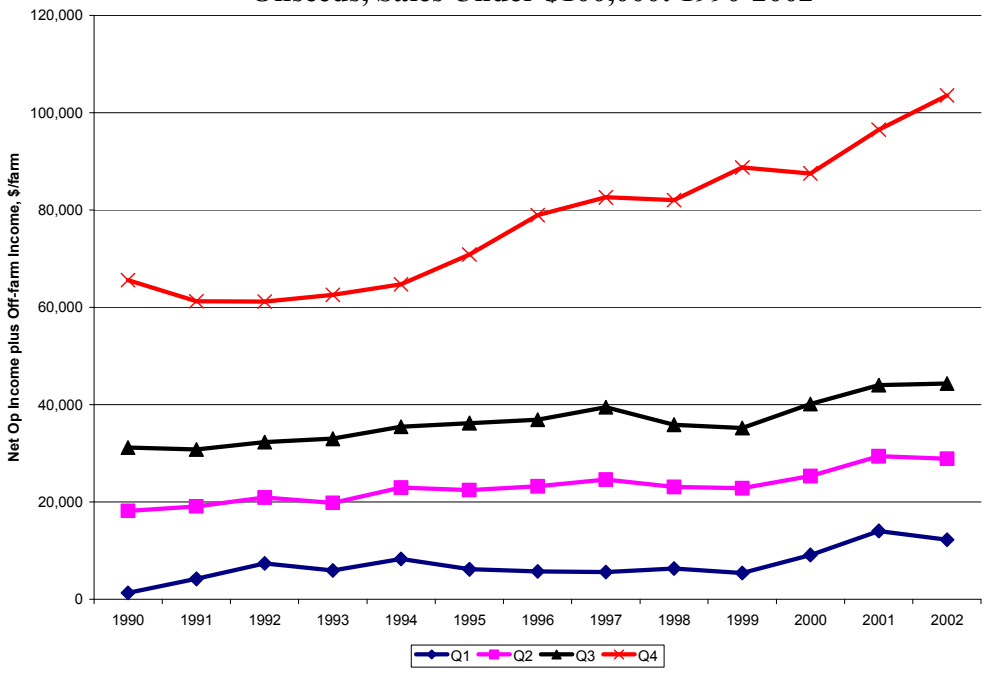


Figure A25 Net Operating Income and Off-farm Income, Alberta Grains and Oilseeds, Sales $100,000 to $249,000: 1990-2002

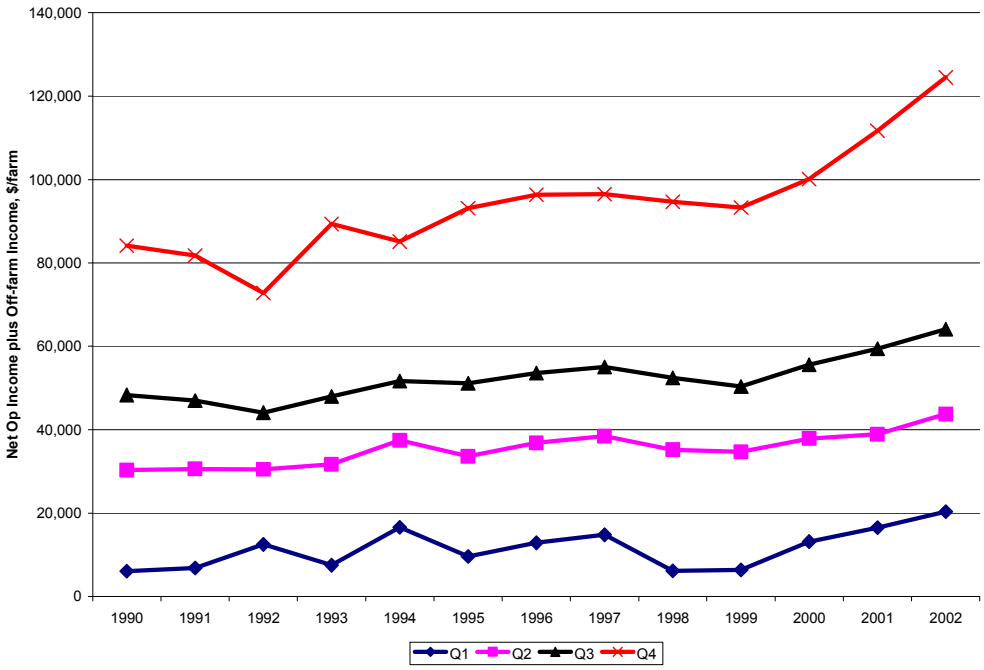


Figure A26 Net Operating Income and Off-farm Income, Alberta Grains and Oilseeds, Sales $250,000 to $499,000: 1990-2002

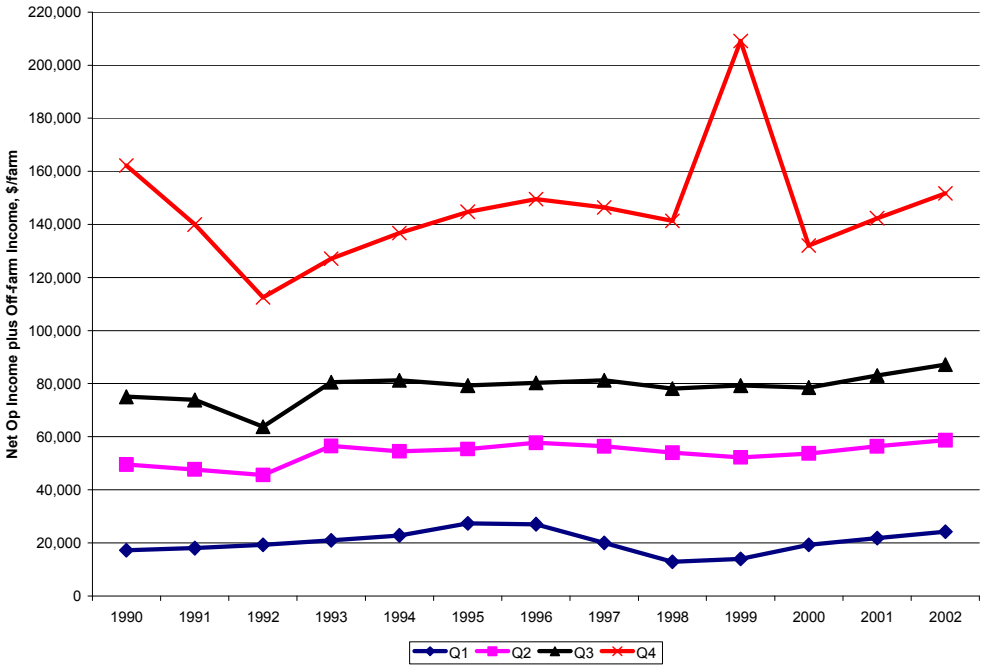


Figure A27 Net Operating Income and Off-farm Income, Alberta Grains and Oilseeds, Sales $500,000 and more: 1994-2002

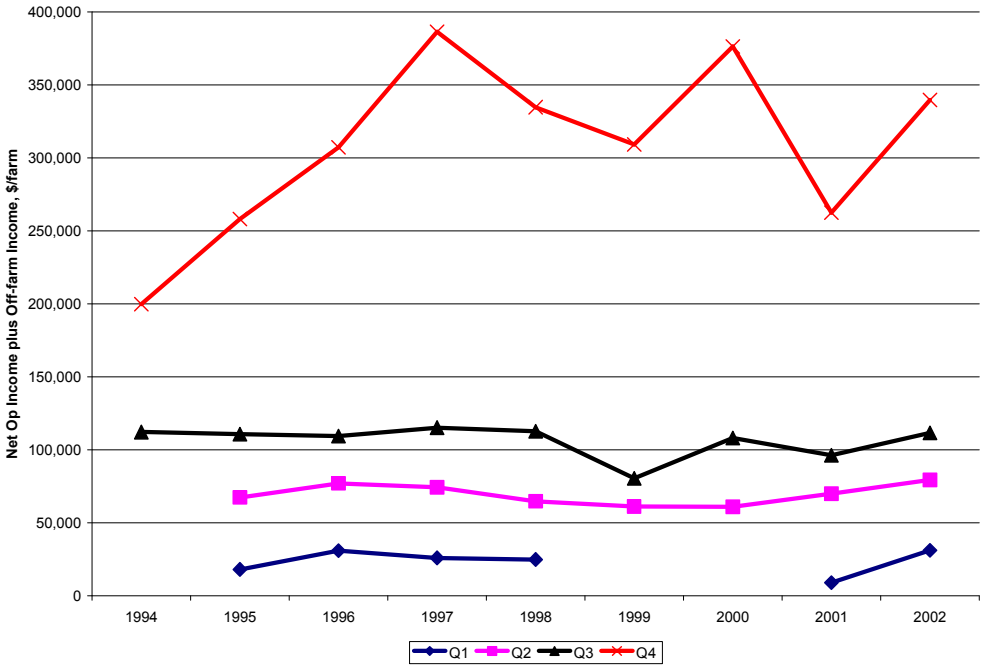


Figure A28 Net Operating Income and Off-farm Income, Alberta Beef Farms, Sales under $100,000: 1990-2002

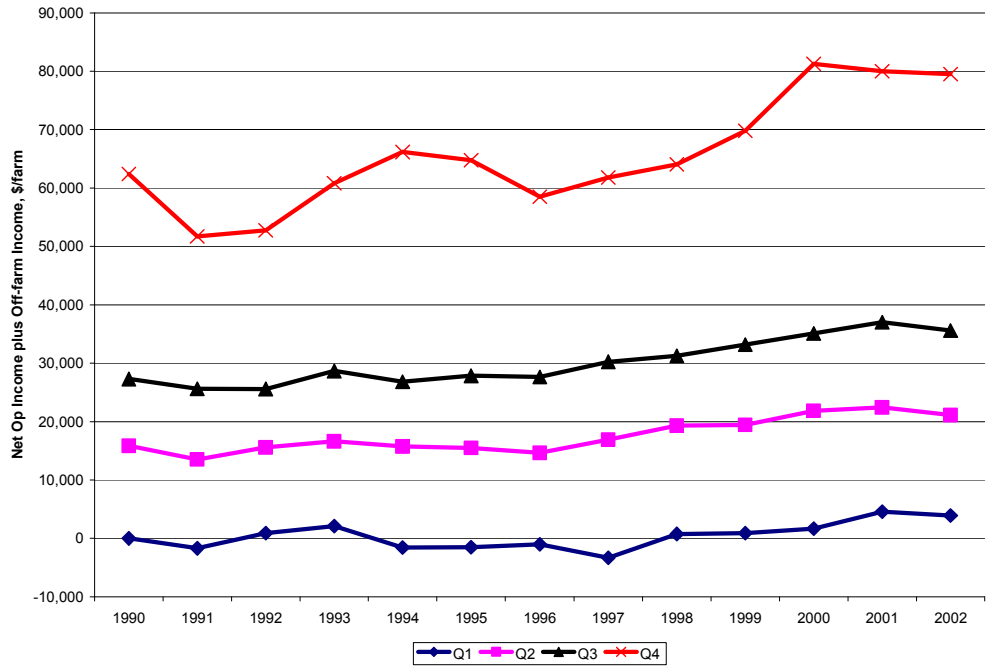


Figure A29 Net Operating Income and Off-farm Income, Alberta Beef Farms, Sales $100,000 to $249,000: 1990-2002

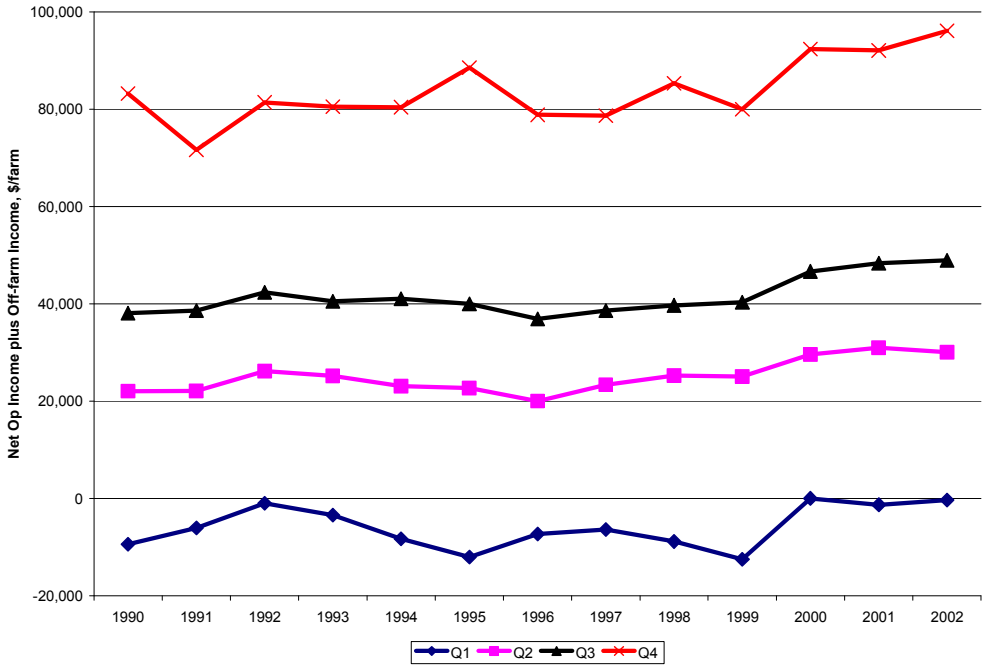


Figure A30 Net Operating Income and Off-farm Income, Alberta Beef Farms, Sales $250,000 to $499,000: 1990-2002

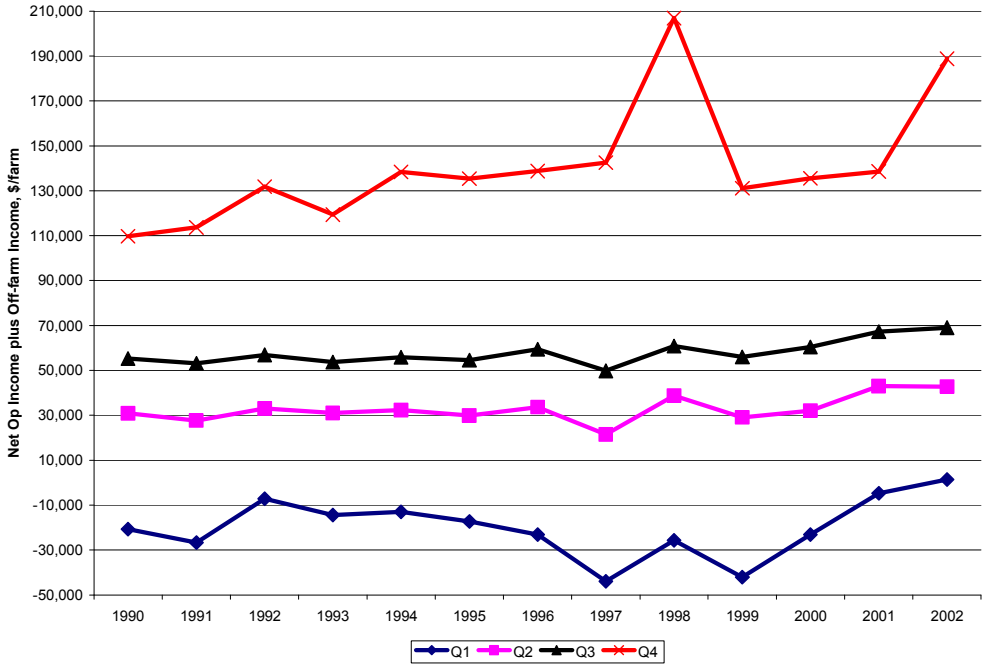


Figure A31 Net Operating Income and Off-farm Income, Alberta Beef Farms, Sales $500,000 and more: 1990-2002

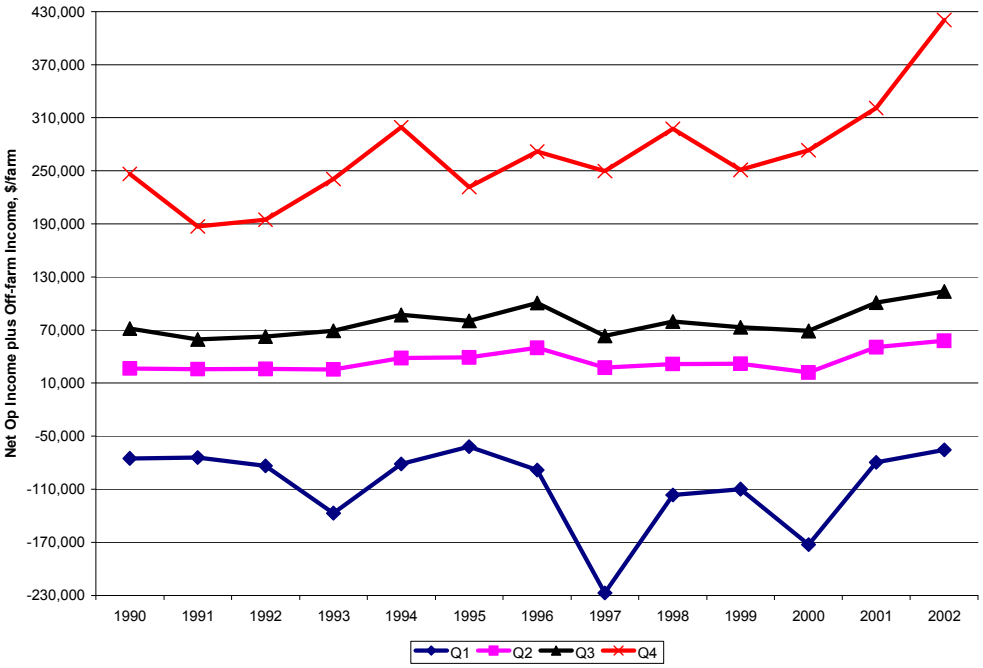


Figure A32 Net Operating Income and Off-farm Income, Saskatchewan Grains and Oilseed Farms, Sales under $100,000: 1990-2002

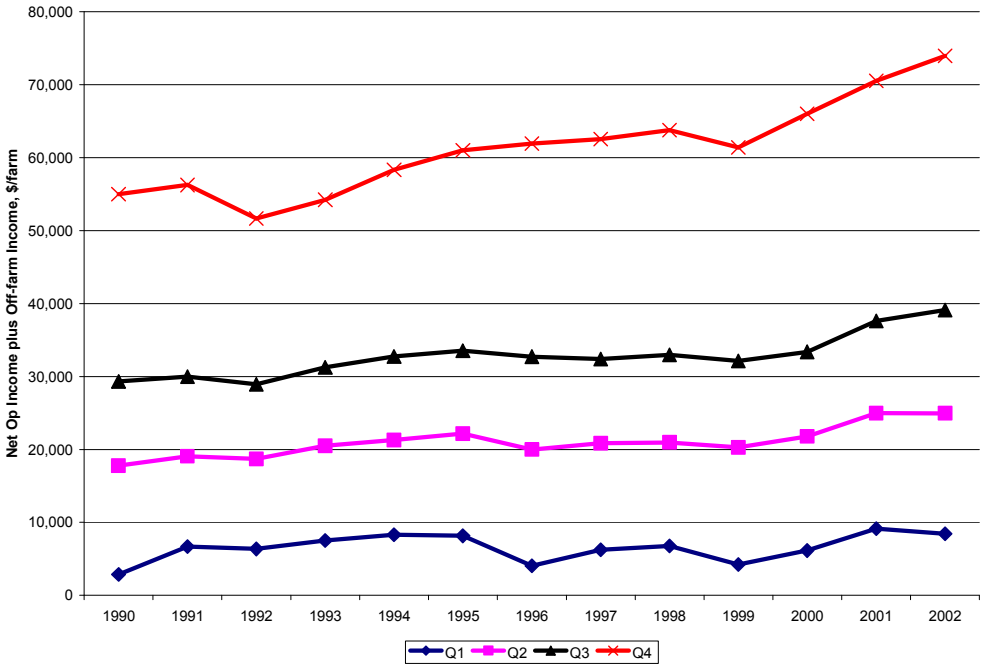


Figure A33 Net Operating Income and Off-farm Income, Saskatchewan Grains and Oilseed Farms, Sales $100,000 to $249,000: 1990-2002Figure 33 Net Operating

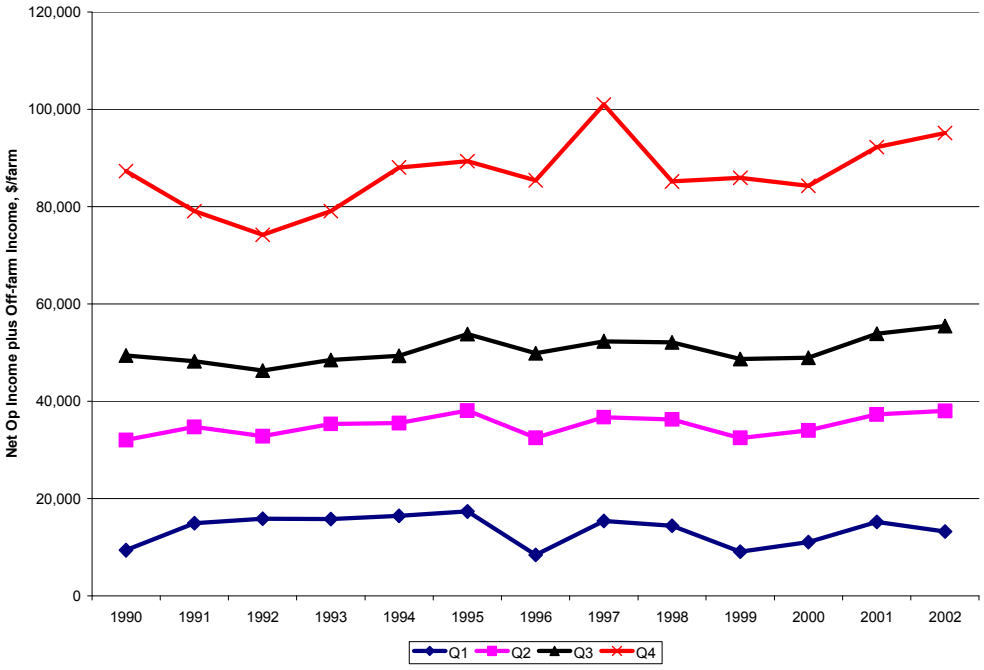


Figure A34 Income and Off-farm Income, Saskatchewan Grains and Oilseed Farms, Sales $250,000 to $499,000: 1990-2002

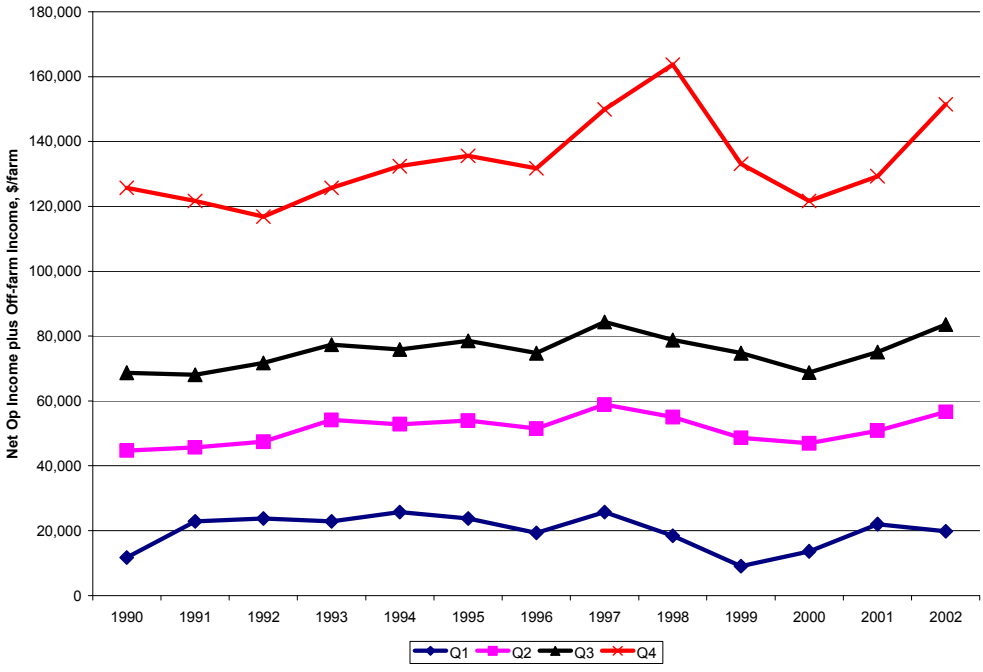


Figure A35 Net Operating Income and Off-farm Income, Saskatchewan Grains and Oilseed Farms, Sales $500,000 and more: 1994-2002

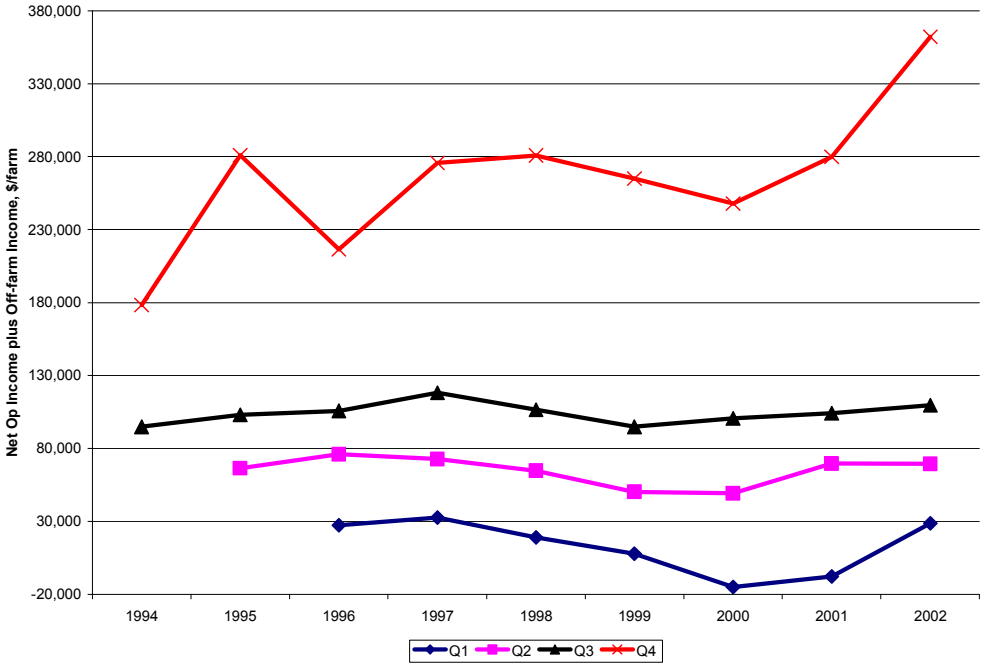


Figure A36 Net Operating Income and Off-farm Income, Saskatchewan Beef Farms, Sales under $100,000: 1990-2002

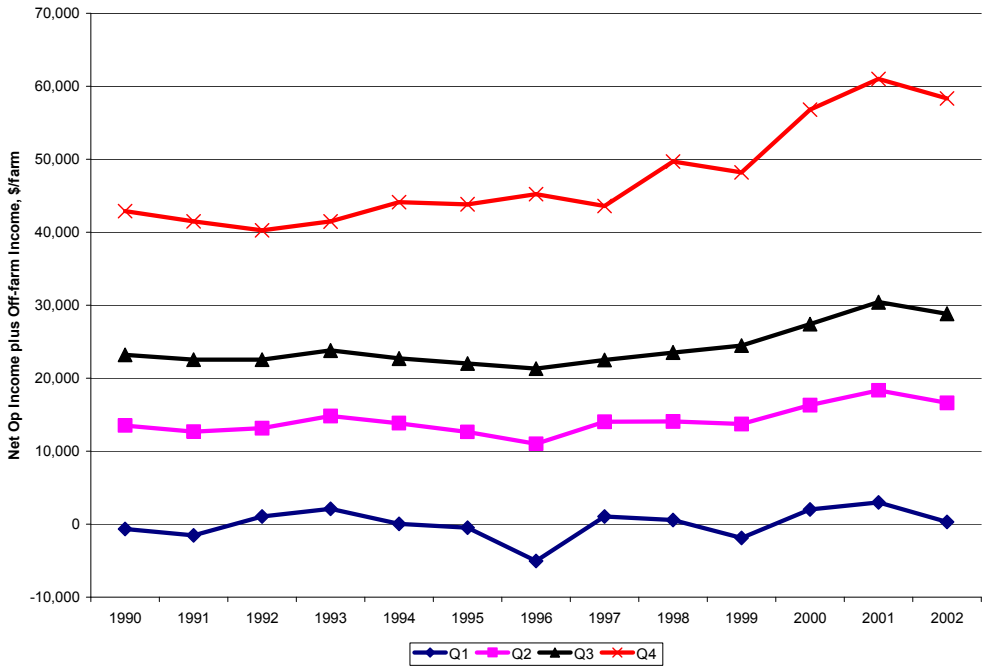


Figure A37 Net Operating Income and Off-farm Income, Saskatchewan Beef Farms, Sales $100,000 to $249,000: 1990-2002

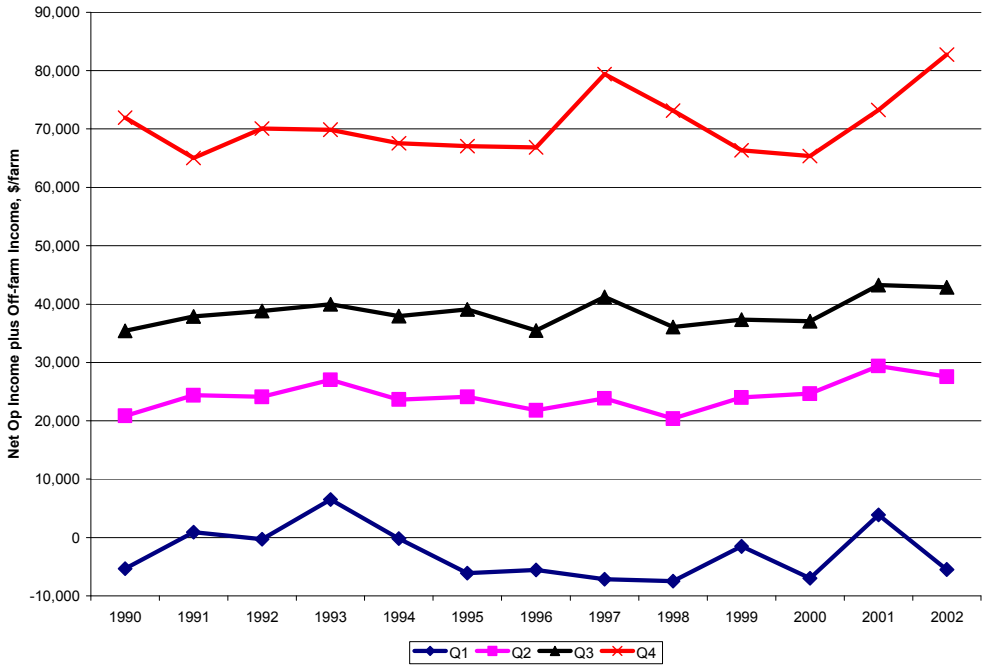


Figure A38 Net Operating Income and Off-farm Income, Saskatchewan Beef Farms, Sales $250,000 to $499,000: 1990-2002

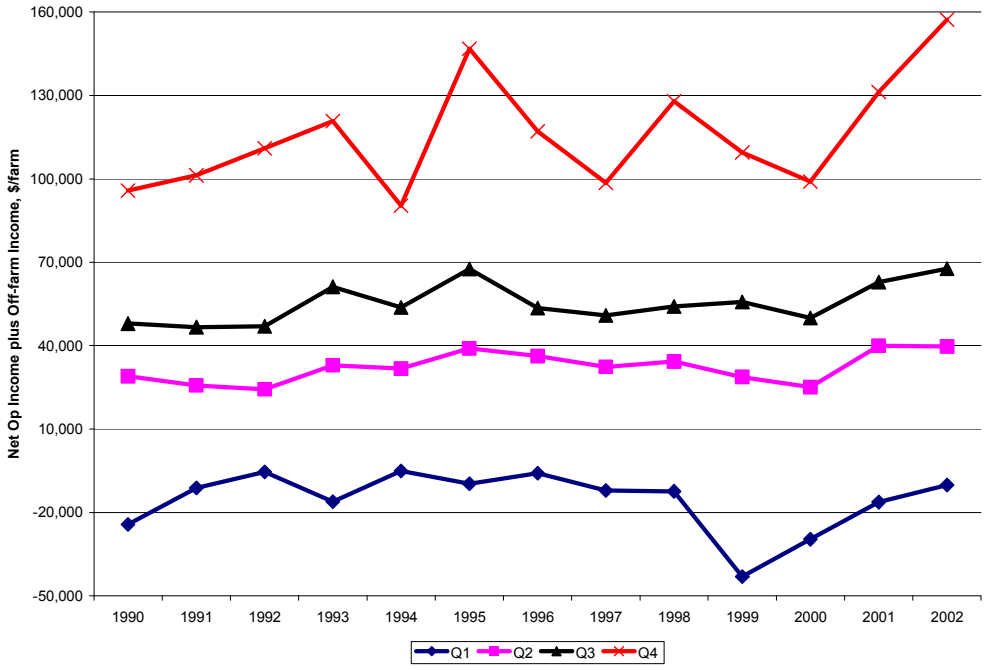


Figure A39 Net Operating Income and Off-farm Income, Manitoba Grain and Oilseed Farms, Sales under $100,000: 1990-2002

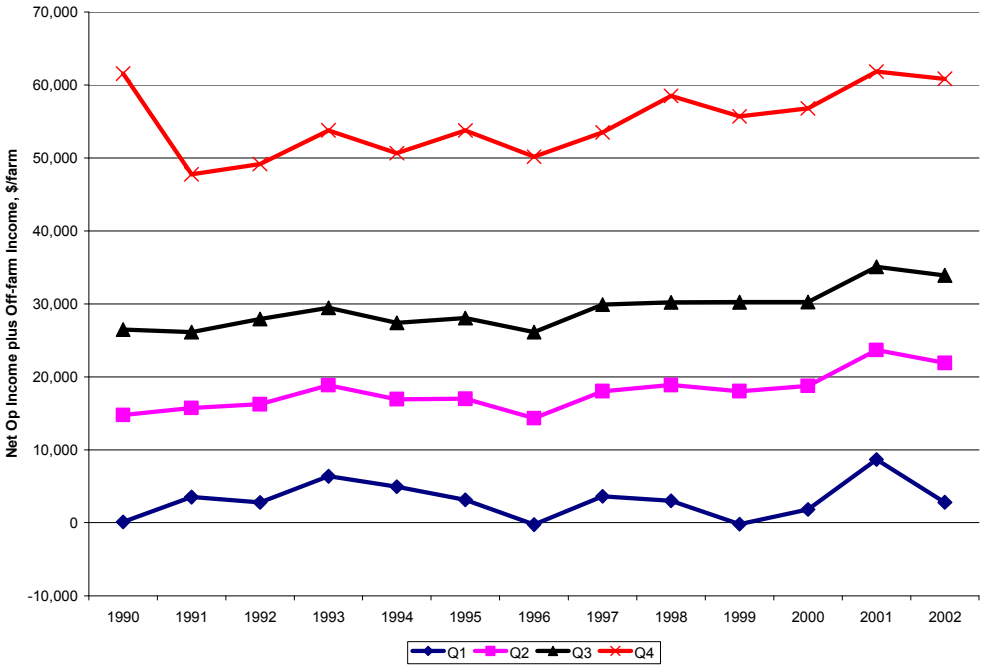


Figure A40 Net Operating Income and Off-farm Income, Manitoba Grain and Oilseed Farms, Sales $100,000 to $249,000: 1990-2002

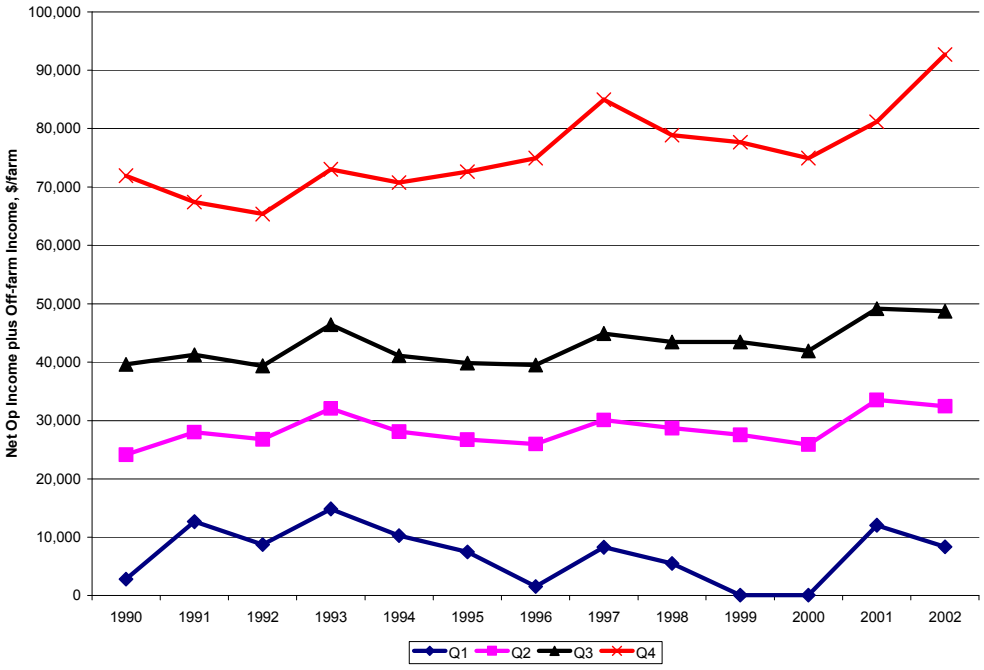


Figure A41 Net Operating Income and Off-farm Income, Manitoba Grain and Oilseed Farms, Sales $250,000 to $499,000: 1990-2002

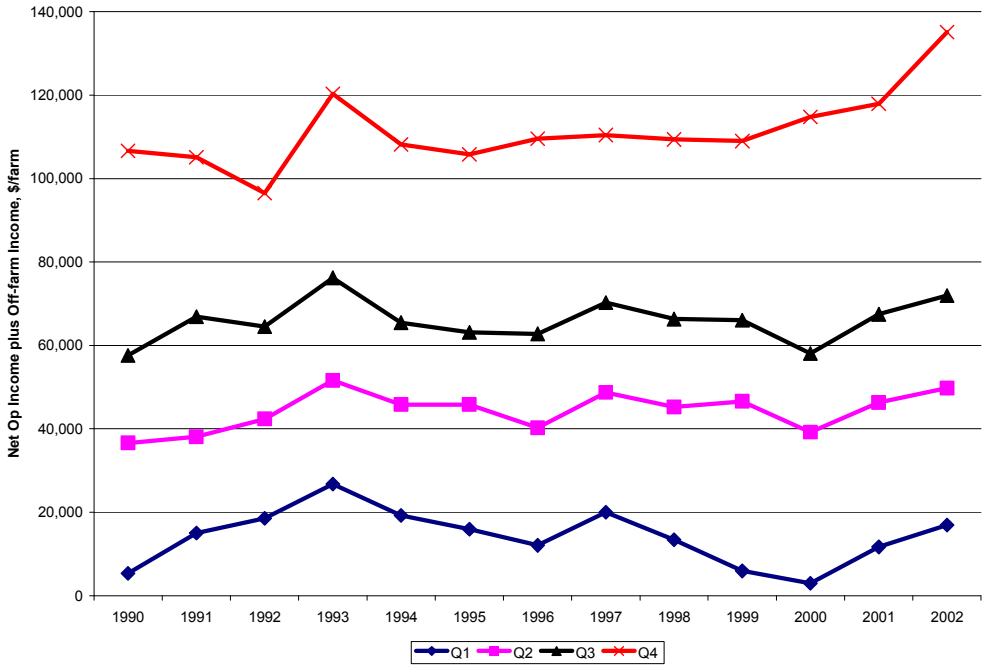


Figure A42 Net Operating Income and Off-farm Income, Manitoba Beef Farms, Sales under $100,000: 1990-2002

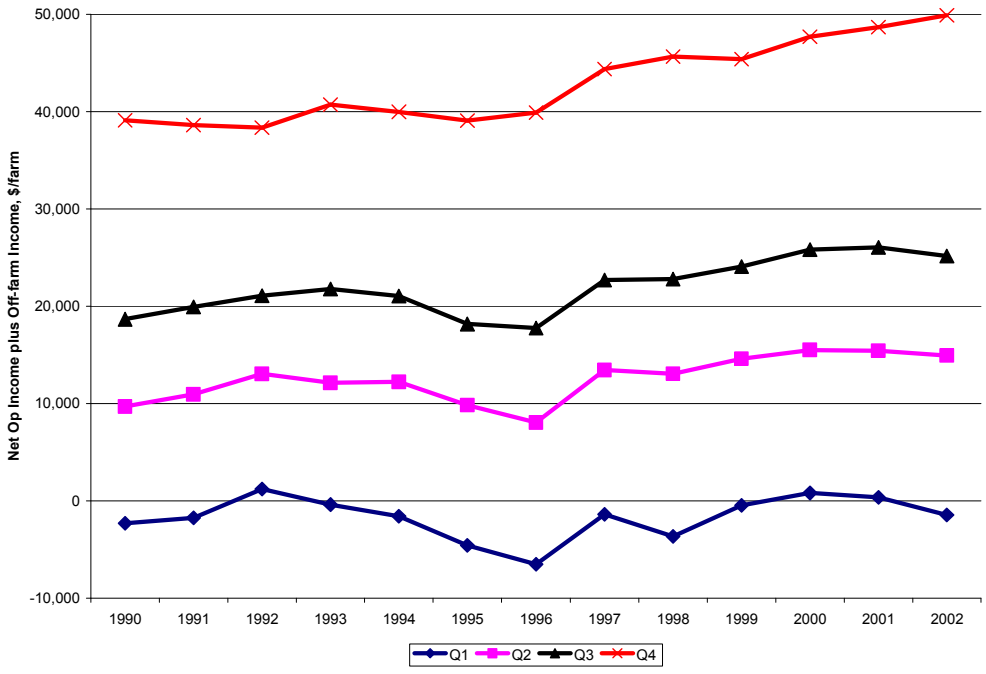


Figure A43 Net Operating Income and Off-farm Income, Manitoba Beef Farms, Sales $100,000 to $249,000: 1990-2002

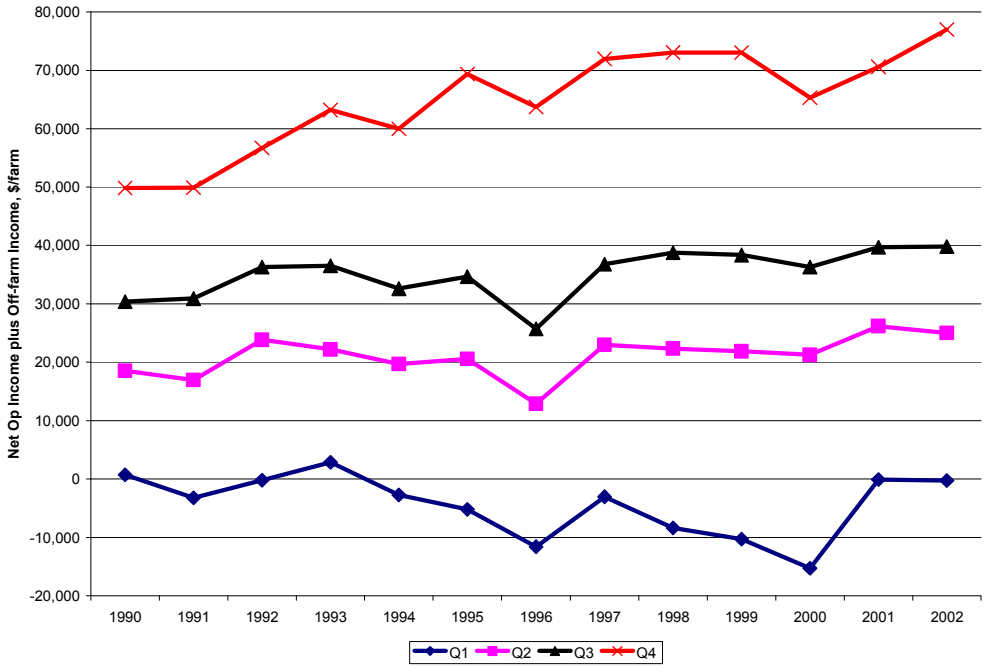


Figure A44 Net Operating Income and Off-farm Income, Manitoba Beef Farms, Sales $250,000 to $499,000: 1990-2002

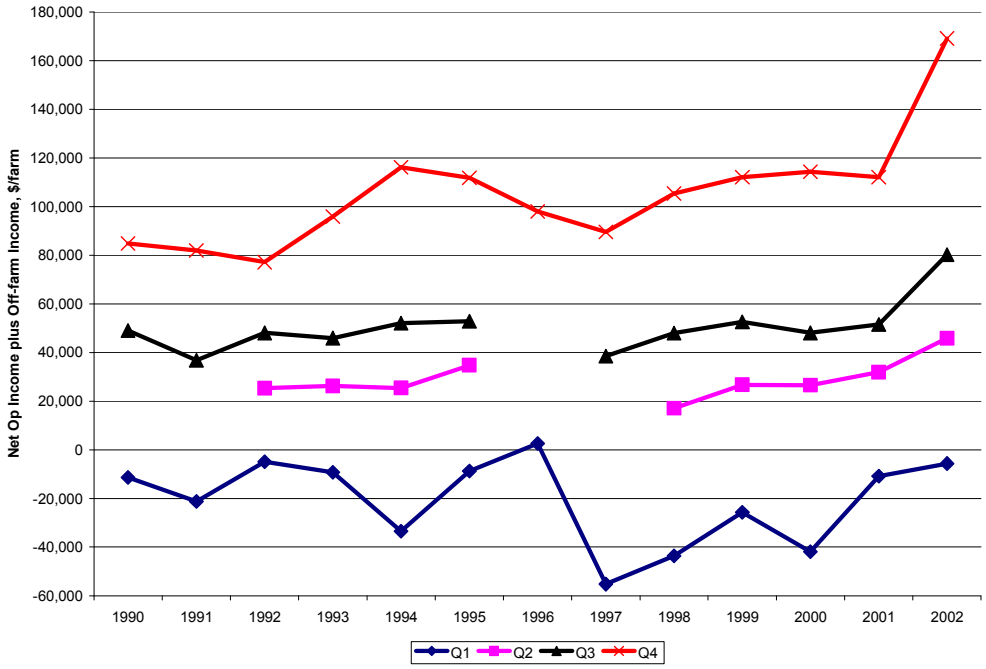


Figure A45 Net Operating Income and Off-farm Income Ontario Grain and Oilseed Farms, Sales under $100,000: 1990-2002

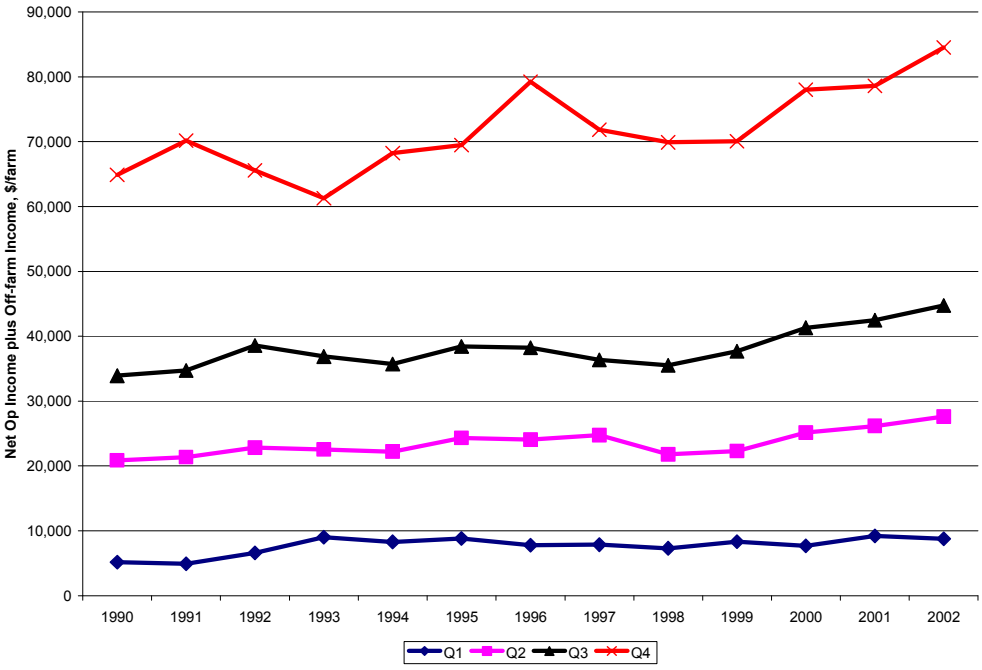


Figure A46 Net Operating Income and Off-farm Income Ontario Grain and Oilseed Farms, Sales $100,000 to $249,000: 1990-2002

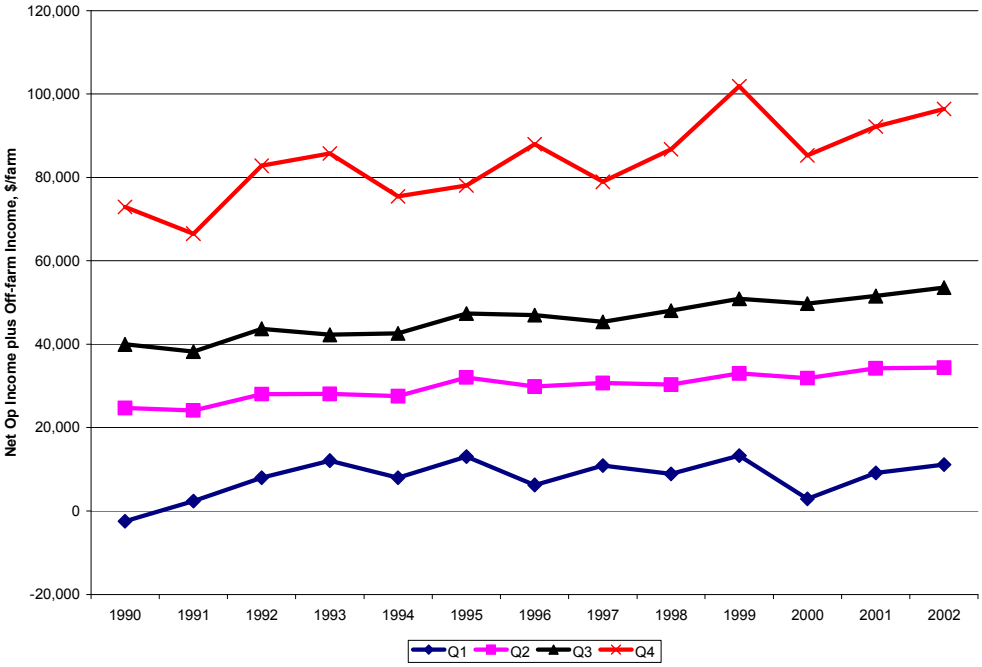


Figure A47 Net Operating Income and Off-farm Income Ontario Grain and Oilseed Farms, Sales $250,000 to $499,000: 1990-2002

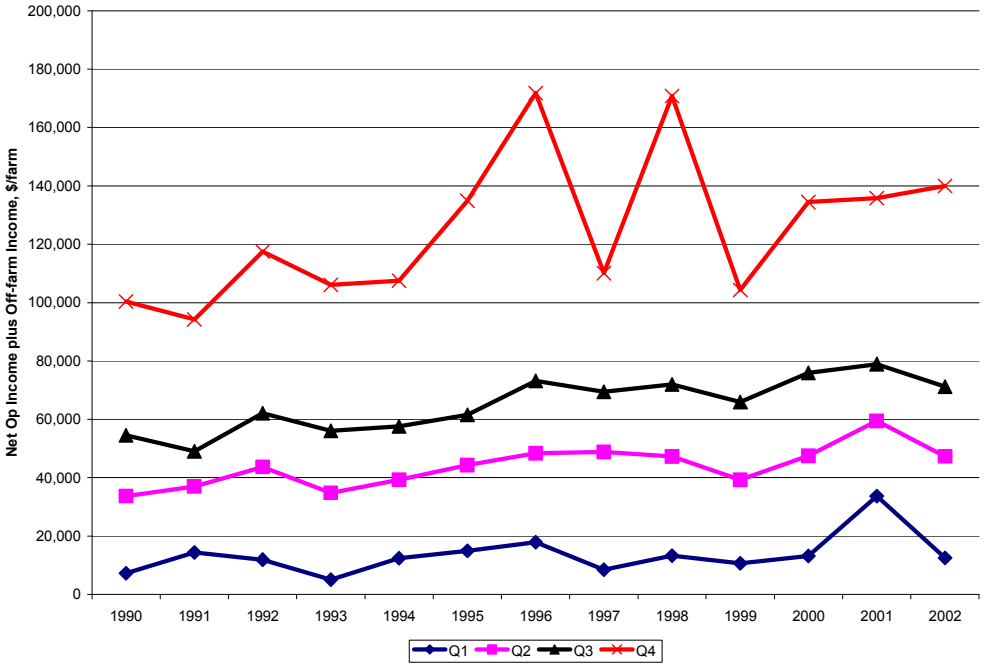


Figure A48 Net Operating Income and Off-farm Income Ontario Dairy Farms, Sales under $100,000: 1990-2002

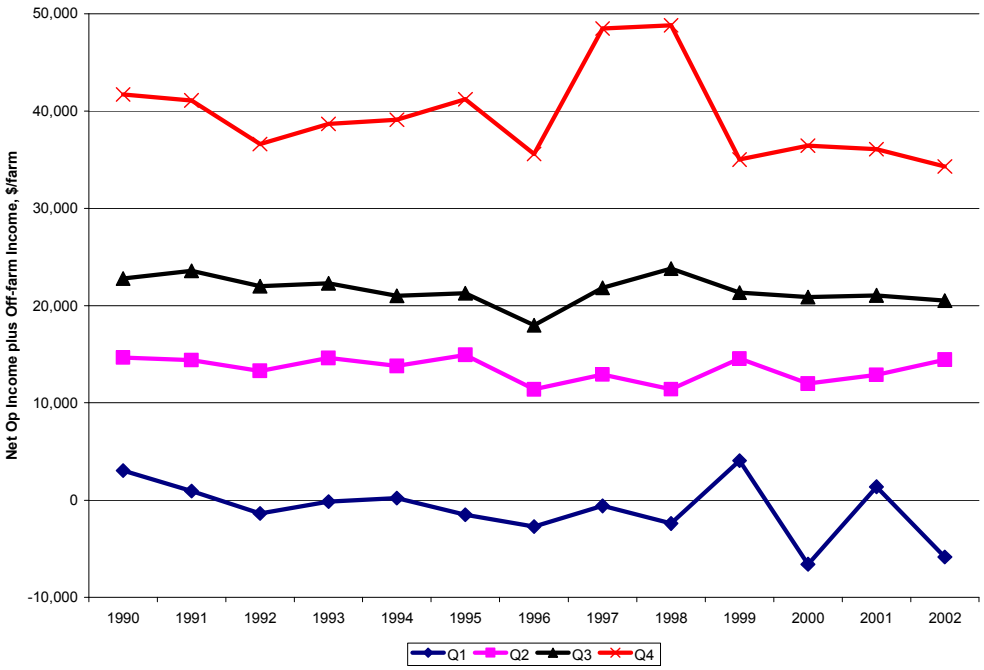


Figure A49 Net Operating Income and Off-farm Income Ontario Dairy Farms, Sales $100,000 to $249,000: 1990-2002

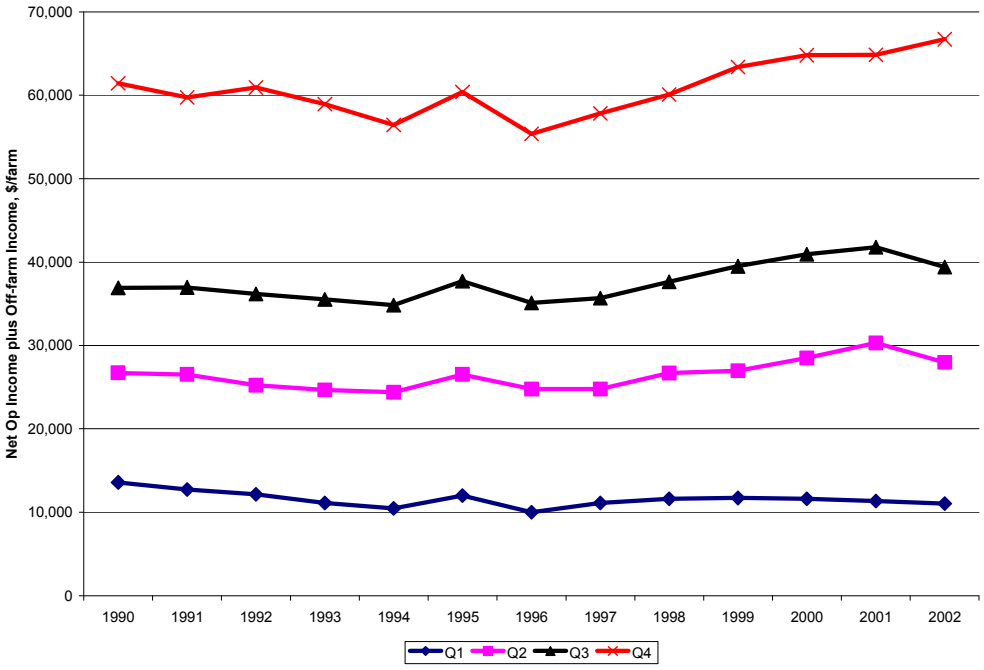


Figure A50 Net Operating Income and Off-farm Income Ontario Dairy Farms, Sales $250,000 to $499,000: 1990-2002

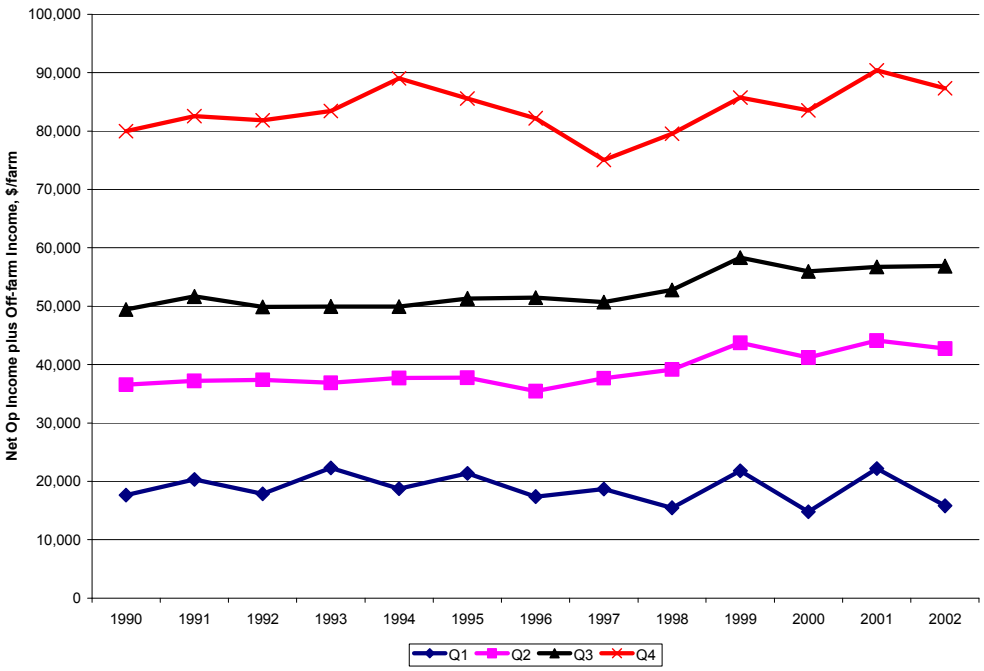


Figure A51 Net Operating Income and Off-farm Income Quebec Grain and Oilseed Farms, Sales under $100,000: 1990-2002

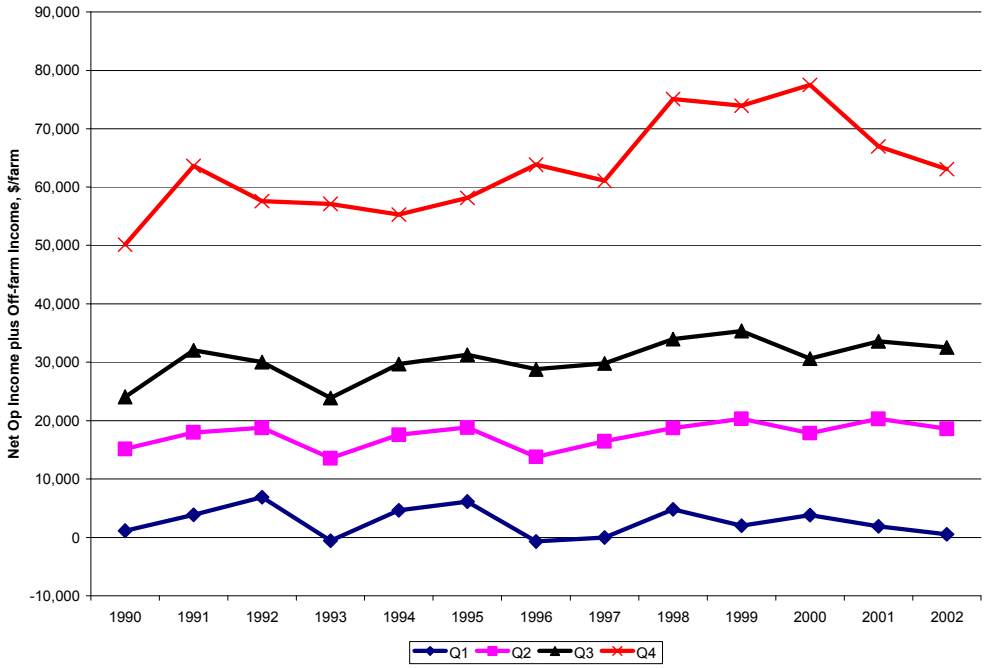


Figure A52 Net Operating Income and Off-farm Income Quebec Grain and Oilseed Farms, Sales $100,000 to $249,000: 1990-2002

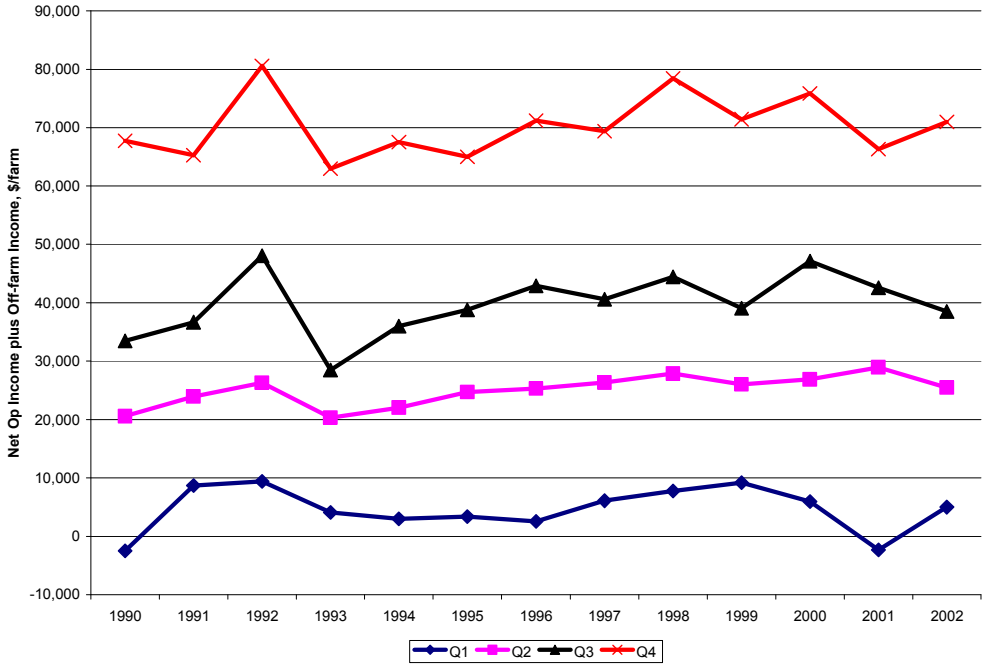


Figure A53 Net Operating Income and Off-farm Income Quebec Grain and Oilseed Farms, Sales $250,000 to $499,000: 1990-2002

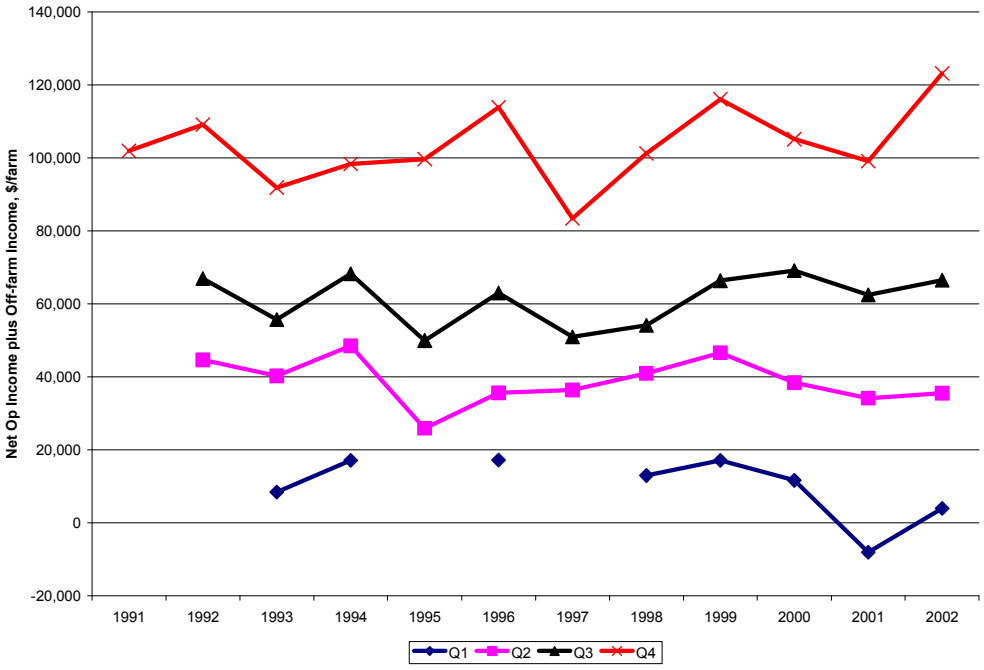


Figure A54 Net Operating Income and Off-farm Income Quebec Dairy Farms, Sales under $100,000: 1990-2002

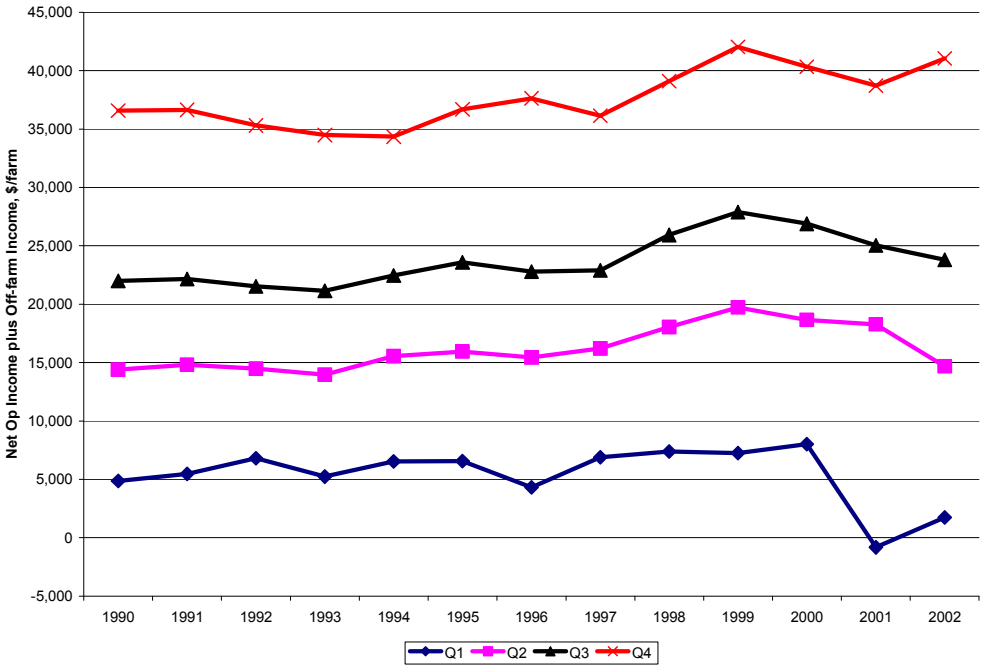


Figure A55 Net Operating Income and Off-farm Income Quebec Dairy Farms, Sales $100,000 to $249,000: 1990-2002

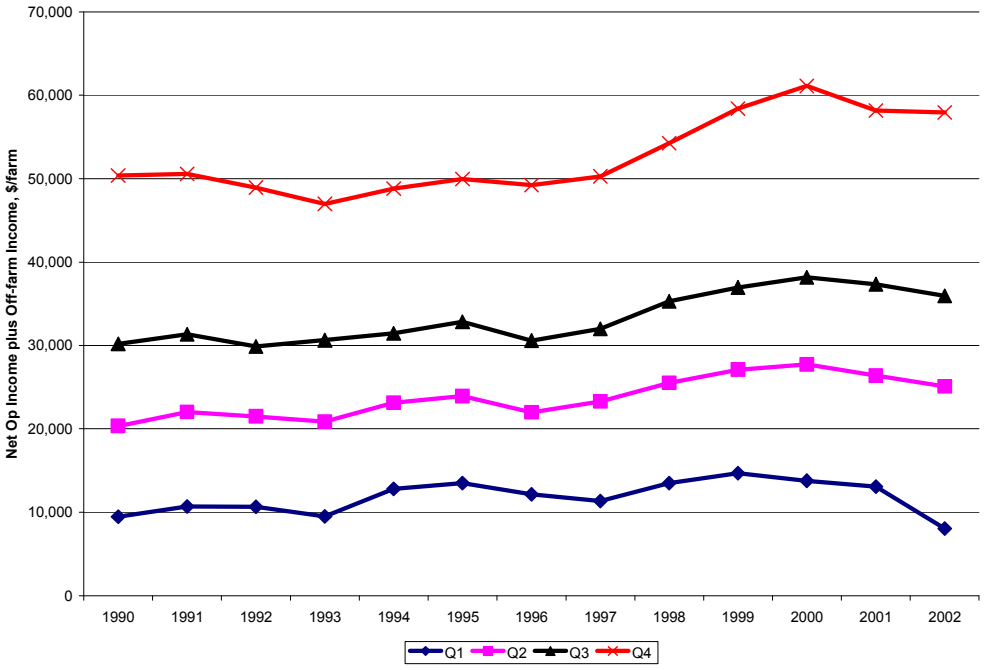


Figure A56 Net Operating Income and Off-farm Income Quebec Dairy Farms, Sales $250,000 to $499,000: 1990-2002

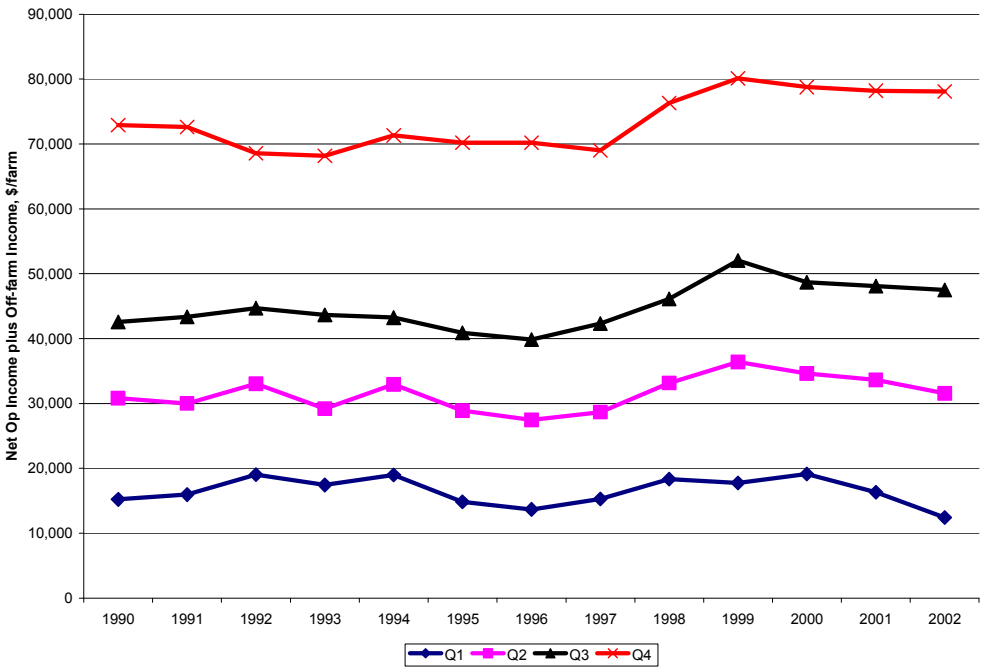


Figure A57 Net Operating Income and Off-farm Income Prince Edward Island Potato Farms, Sales under $100,000: 1990-2002

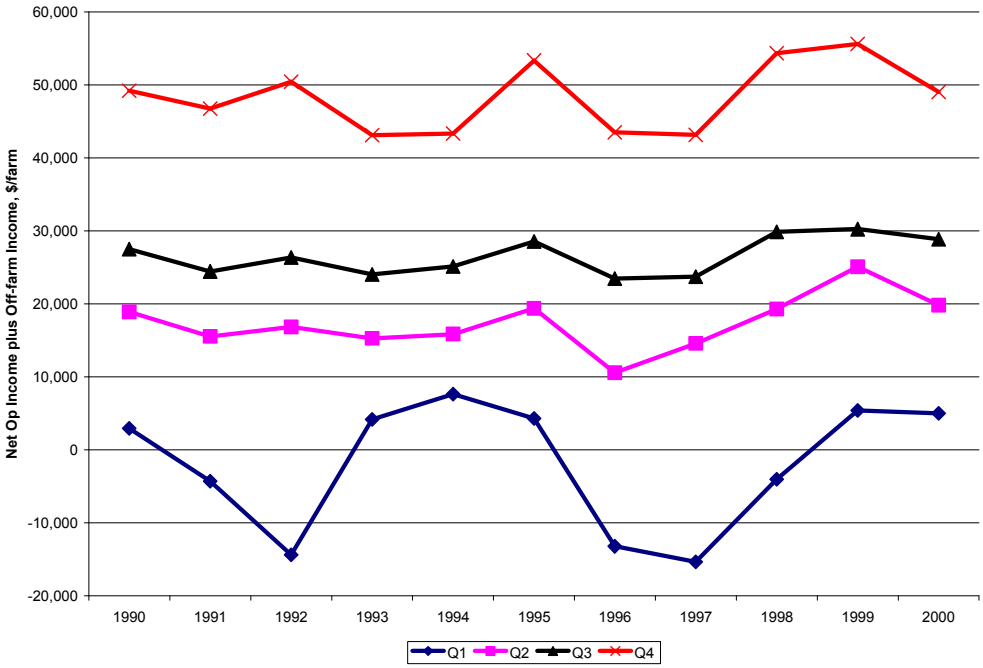


Figure A58 Net Operating Income and Off-farm Income Prince Edward Island Dairy Farms, Sales under $100,000: 1990-2002

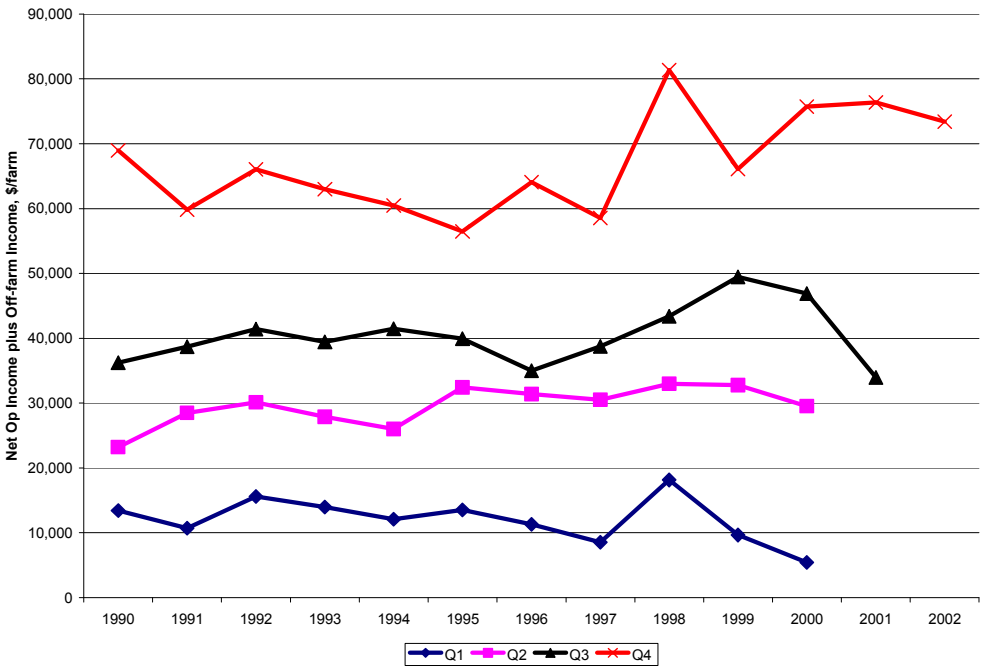
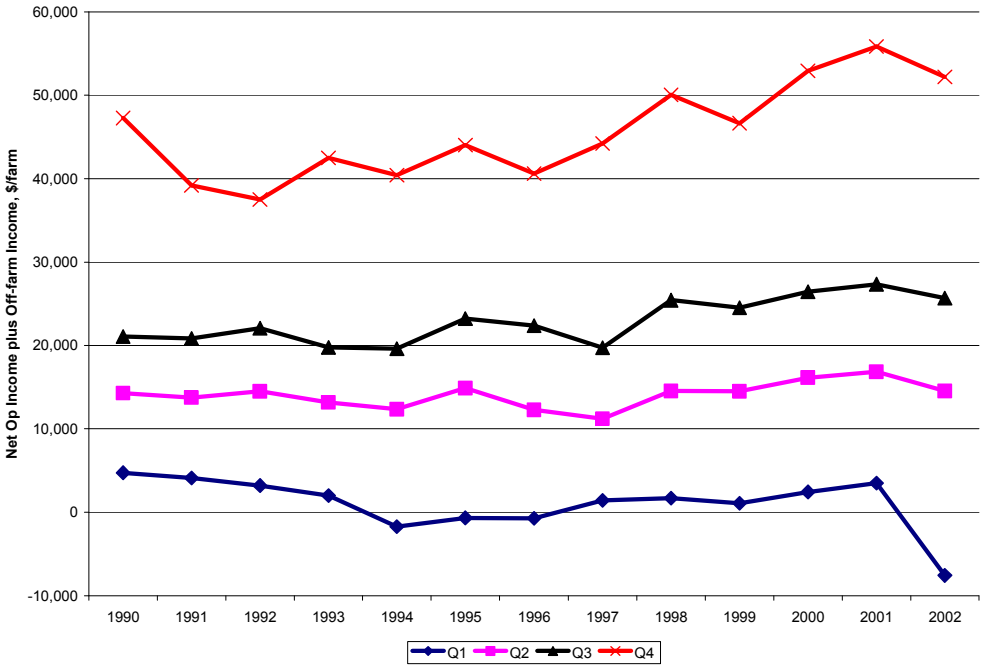


Figure A59 Net Operating Income and Off-farm Income Prince Edward Island Beef Farms, Sales under $100,000: 1990-2002



Appendix B

Average Overhead Expenses

Average Overhead Expenses

Oilseed and Grain Farming			*(Average Per Reporting)*		
Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	96,015	$8,690	$3,266	$18,434	$30,390
1999	88,900	$9,656	$3,383	$18,970	$32,009
2000	85,265	$10,227	$3,458	$18,659	$32,344
2001	84,595	$10,412	$3,572	$18,310	$32,294
2002	80,390	$9,469	$3,823	$19,794	$33,086
Avg 98-02	87,033	$9,691	$3,500	$18,833	$32,025

Potato Farming			*(Average Per Reporting)*		
Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	1,540	$27,940	$4,304	$51,052	$83,296
1999	1,490	$32,430	$4,521	$56,833	$93,784
2000	1,520	$38,834	$4,427	$62,388	$105,649
2001	1,475	$38,827	$4,302	$64,679	$107,808
2002	1,525	$36,790	$4,452	$68,653	$109,895
Avg 98-02	1,510	$34,964	$4,401	$60,721	$100,086

Other Vegetable and Melon Farming			*(Average Per Reporting)*		
Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	3,060	$11,711	$3,050	$20,191	$34,952
1999	2,625	$14,045	$3,184	$23,483	$40,712
2000	2,715	$15,273	$2,839	$25,386	$43,498
2001	2,705	$15,637	$3,334	$23,444	$42,415
2002	2,595	$15,253	$3,641	$26,831	$45,725
Avg 98-02	2,740	$14,384	$3,210	$23,867	$41,460

Fruit and Tree Nut Farming			*(Average Per Reporting)*		
Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	4,870	$11,317	$1,941	$10,846	$24,104
1999	4,615	$13,362	$2,102	$12,361	$27,825
2000	4,920	$13,589	$2,061	$12,829	$28,479
2001	4,685	$15,264	$2,273	$12,662	$30,199
2002	4,690	$12,822	$2,340	$13,089	$28,251
Avg 98-02	4,756	$13,271	$2,143	$12,357	$27,772

Greenhouse, Nursery and Floriculture Production			*(Average Per Reporting)*		
Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total

1998	4,210	$20,816	$3,412	$32,719	$56,947
1999	4,080	$24,021	$3,557	$40,560	$68,138
2000	3,685	$30,540	$3,943	$50,397	$84,880
2001	3,895	$34,022	$3,677	$46,451	$84,150
2002	3,815	$31,837	$3,947	$47,317	$83,101
Avg 98-02	3,937	$28,247	$3,707	$43,489	$75,443

Other Crop Farming *(Average Per Reporting)*

Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	13,750	$7,847	$2,150	$14,026	$24,023
1999	13,600	$8,418	$1,909	$14,172	$24,499
2000	13,790	$8,942	$2,044	$15,339	$26,325
2001	15,780	$9,184	$2,135	$14,742	$26,061
2002	17,310	$8,529	$2,332	$16,366	$27,227
Avg 98-02	14,846	$8,584	$2,114	$14,929	$25,627

Beef Cattle *(Average Per Reporting)*

Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	64,150	$8,000	$1,907	$12,291	$22,198
1999	69,645	$8,657	$1,949	$12,878	$23,484
2000	71,050	$9,476	$2,060	$13,087	$24,623
2001	70,495	$10,224	$2,150	$13,630	$26,004
2002	68,070	$9,299	$2,247	$14,378	$25,924
Avg 98-02	68,682	$9,131	$2,063	$13,253	$24,447

Dairy Cattle and Milk Production *(Average Per Reporting)*

Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	20,275	$18,958	$2,940	$27,797	$49,695
1999	18,995	$22,348	$2,959	$29,805	$55,112
2000	18,520	$26,004	$2,920	$32,938	$61,862
2001	18,040	$29,078	$3,312	$34,965	$67,355
2002	17,065	$29,266	$3,584	$36,392	$69,242
Avg 98-02	18,579	$25,131	$3,143	$32,379	$60,653

Hog and Pig Farming *(Average Per Reporting)*

Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	7,235	$23,718	$3,673	$35,432	$62,823
1999	6,625	$28,832	$4,122	$38,623	$71,577
2000	6,740	$34,752	$4,640	$46,857	$86,249
2001	6,655	$36,506	$5,232	$53,347	$95,085
2002	6,165	$35,782	$5,387	$54,041	$95,210
Avg 98-	6,684	$31,918	$4,611	$45,660	$82,189

02

Poultry and Egg Production			*(Average Per Reporting)*		
Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	4,215	$22,067	$3,039	$33,166	$58,272
1999	4,110	$24,610	$3,254	$36,056	$63,920
2000	4,275	$28,923	$3,262	$40,122	$72,307
2001	4,205	$32,875	$3,698	$45,345	$81,918
2002	4,465	$29,052	$4,037	$43,849	$76,938
Avg 98-02	4,254	$27,505	$3,458	$39,708	$70,671

Other Animal Production			*(Average Per Reporting)*		
Year	Number of Farms	Net Interest Expenses	Net Property Tax	Capital Cost Allowance	Total
1998	10,860	$9,086	$3,415	$20,886	$33,387
1999	11,590	$9,901	$3,054	$22,685	$35,640
2000	12,145	$9,654	$2,800	$19,339	$31,793
2001	12,120	$10,138	$2,586	$18,140	$30,864
2002	12,485	$9,106	$2,828	$20,087	$32,021
Avg 98-02	11,840	$9,577	$2,937	$20,227	$32,741

Source: ESAS, Statistics Canada

Appendix C

Graphs and Tables Displaying EBITDA/Sales by Province and Farm Type Using Tax Filer Rate

Figure C1 EBITDA/Sales, Alberta Grain & Oilseed Farms, 1999-2003 Average

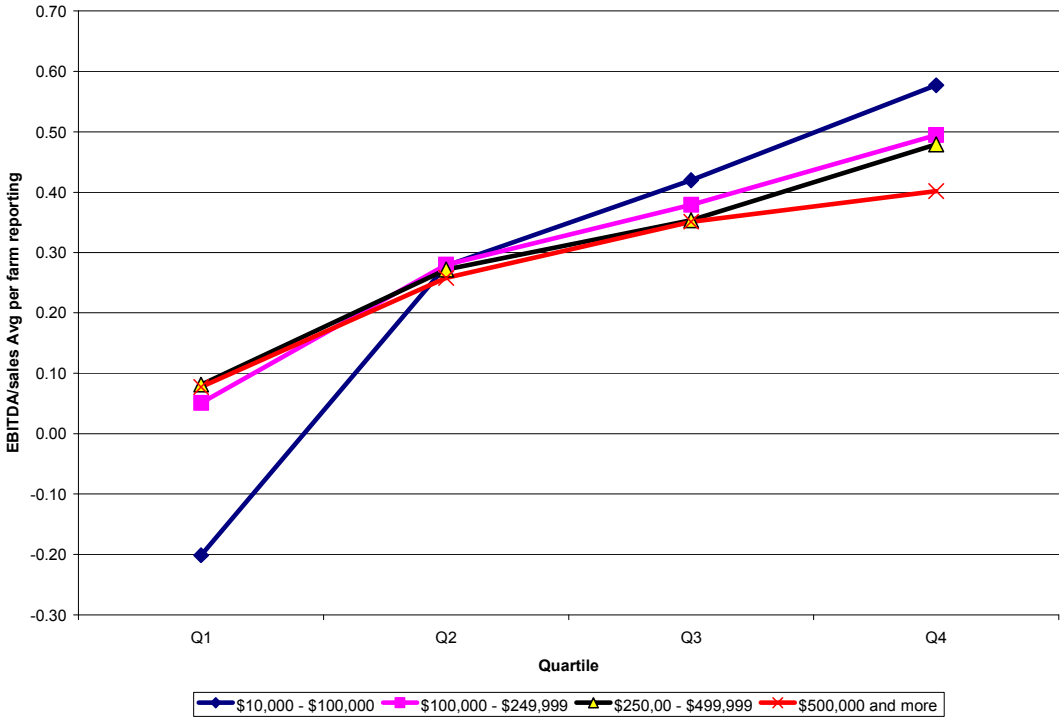


Figure C2 EBITDA/Sales, Alberta Beef Farms, 1999-2003 Average

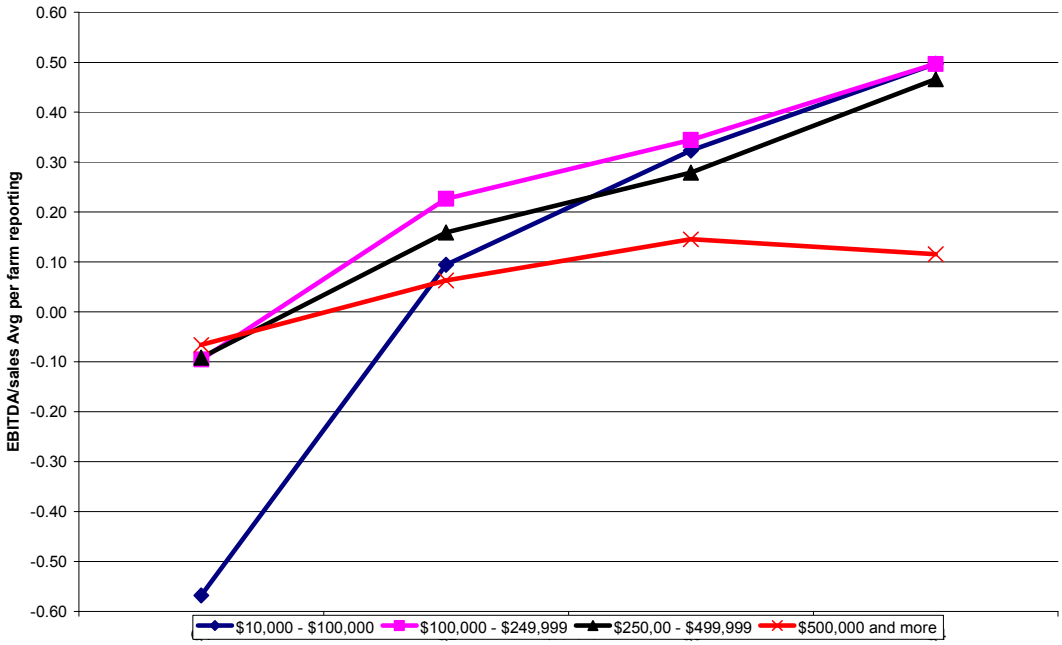


Figure C3 EBITDA/Sales, Alberta Other Crop Farms, 1999-2003 Average

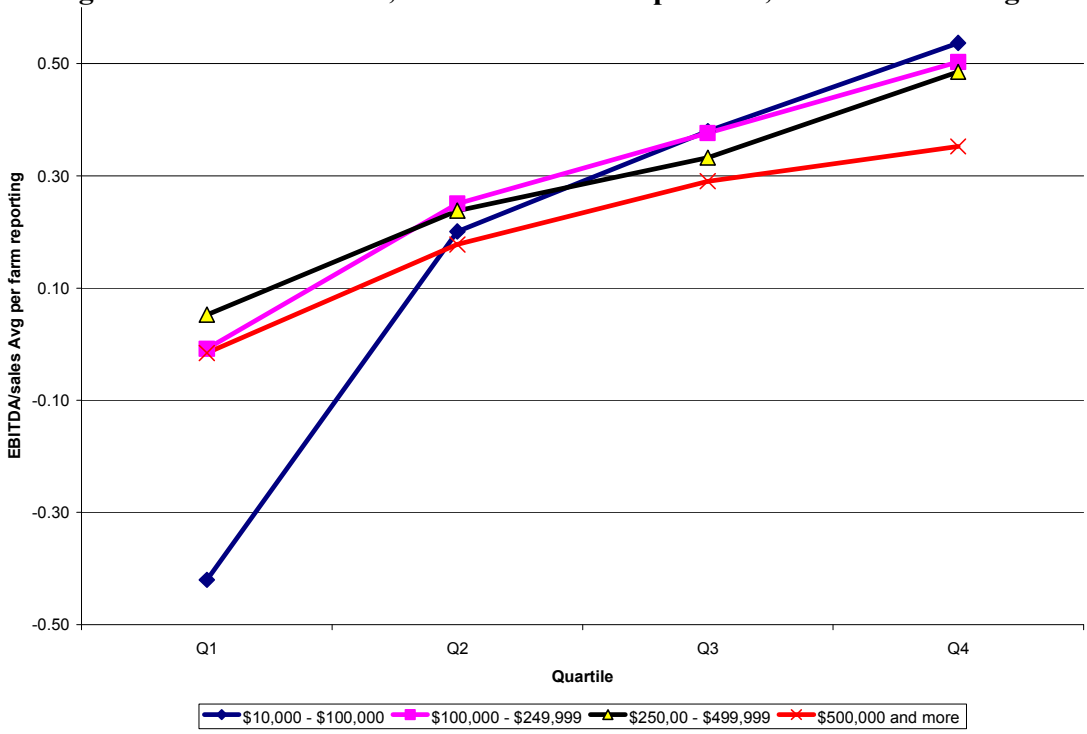


Figure C4 EBITDA/Sales, Alberta Dairy Farms, 1999-2003 Average

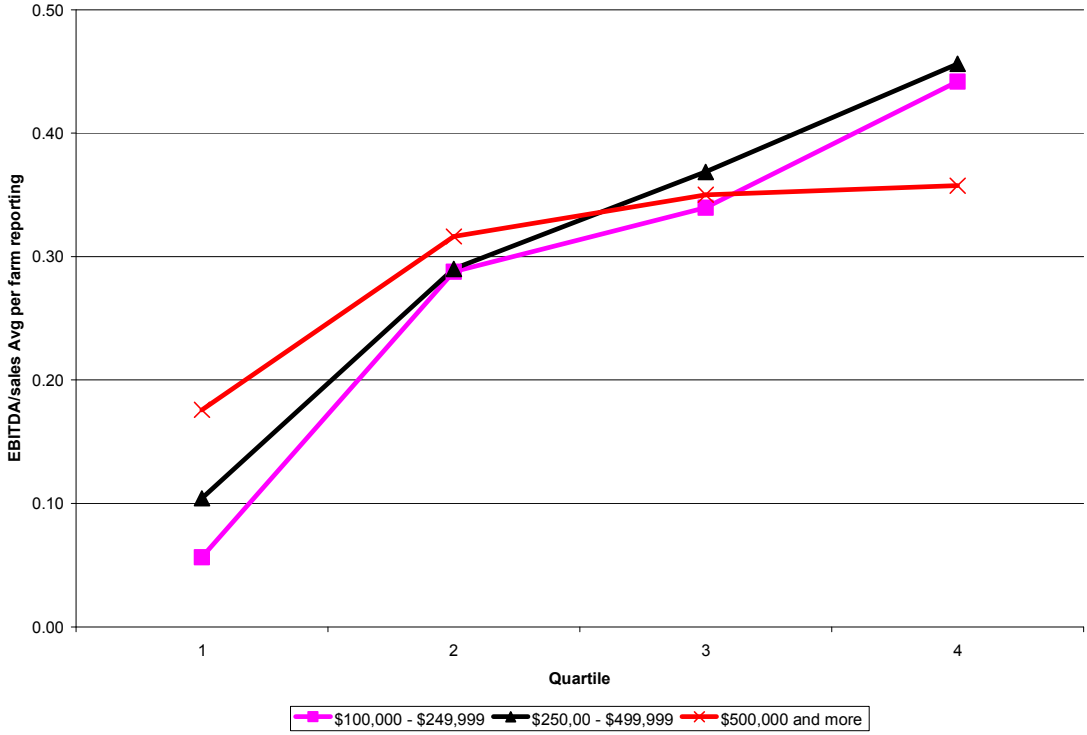


Figure C5 EBITDA/Sales, Alberta Hog Farms, 1999-2003 Average

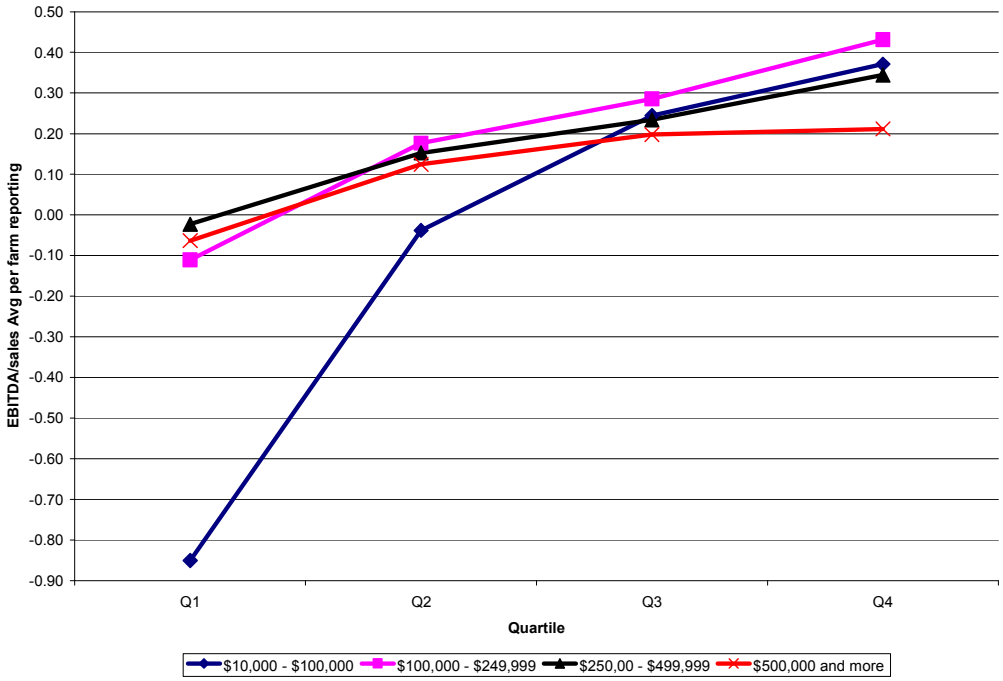


Figure C6 EBITDA/Sales, Alberta Other Animal Farms, 1999-2003 Average

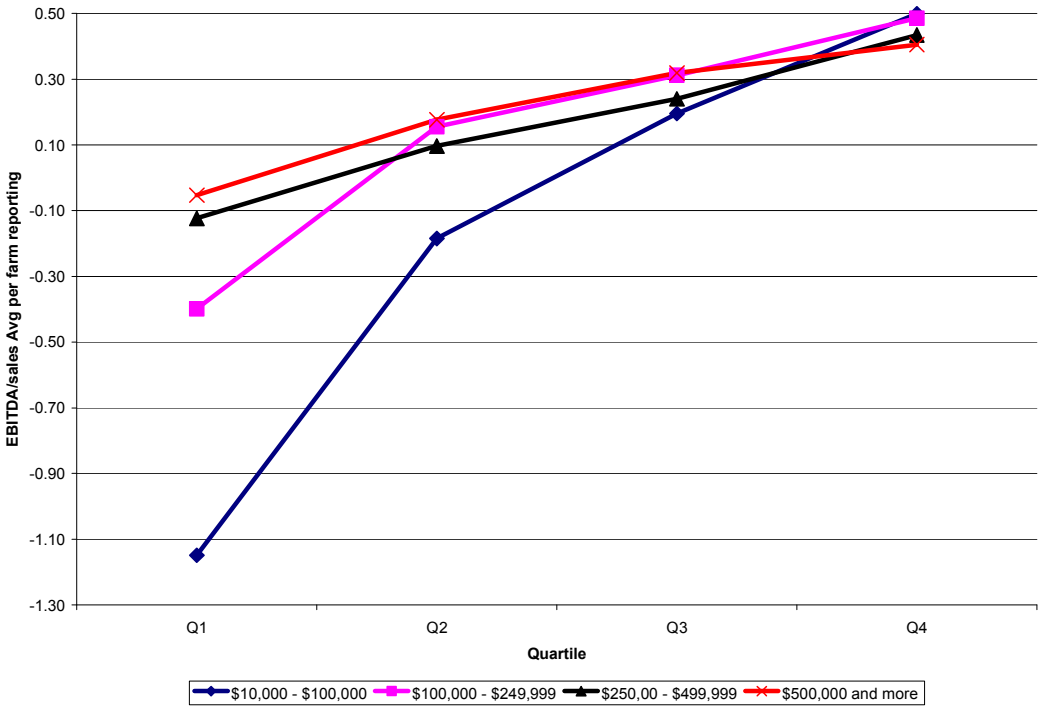


Figure C7 EBITDA/Sales, Saskatchewan Grain & Oilseed Farms, 1999-2003 Average

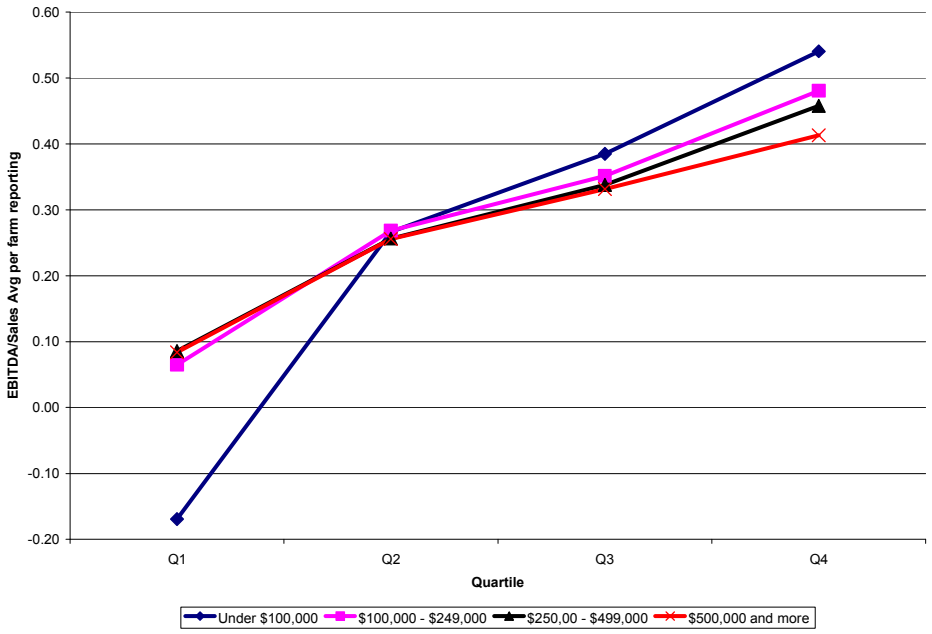


Figure C8 EBITDA/Sales, Saskatchewan Beef Farms, 1999-2003 Average

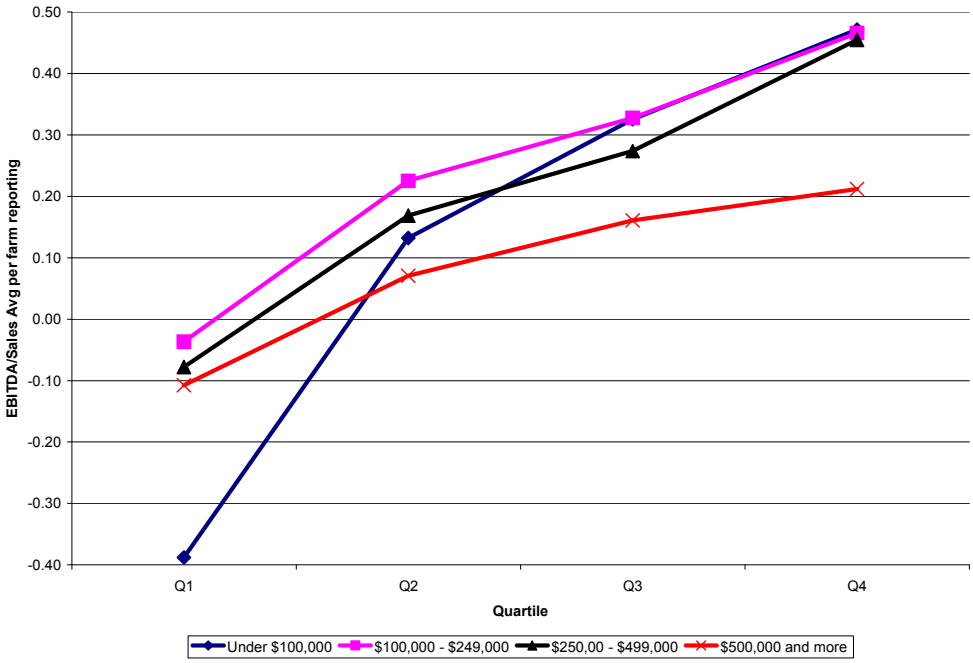


Figure C9 EBITDA/Sales, Saskatchewan Other Crop Farms, 1999-2003 Average

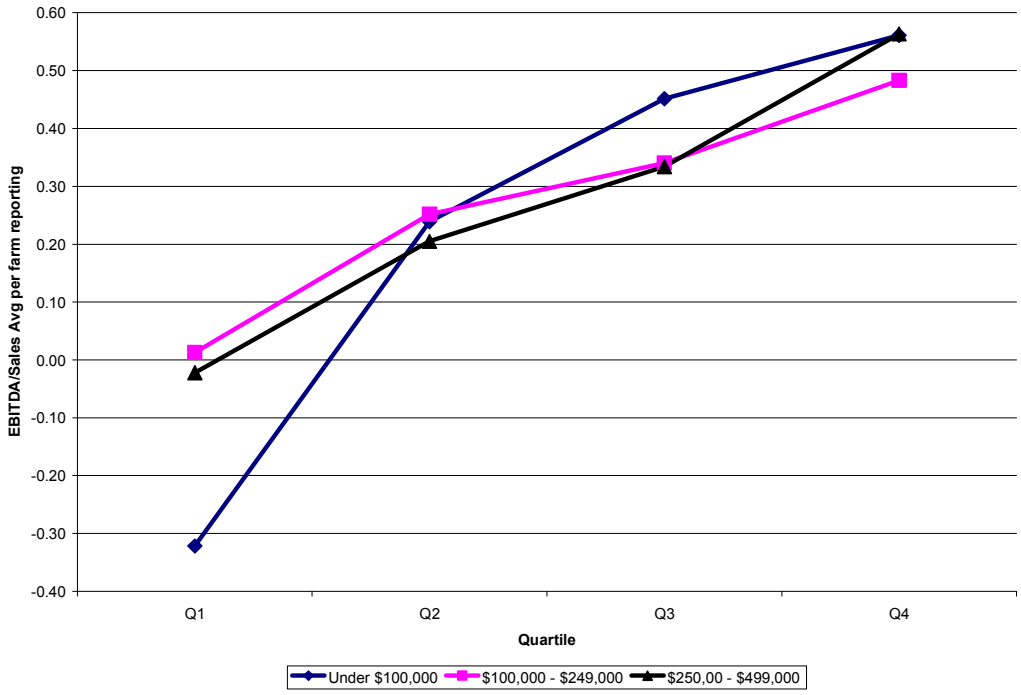


Figure C10 EBITDA/Sales, Saskatchewan Other Animal Farms, 1999-2003 Average

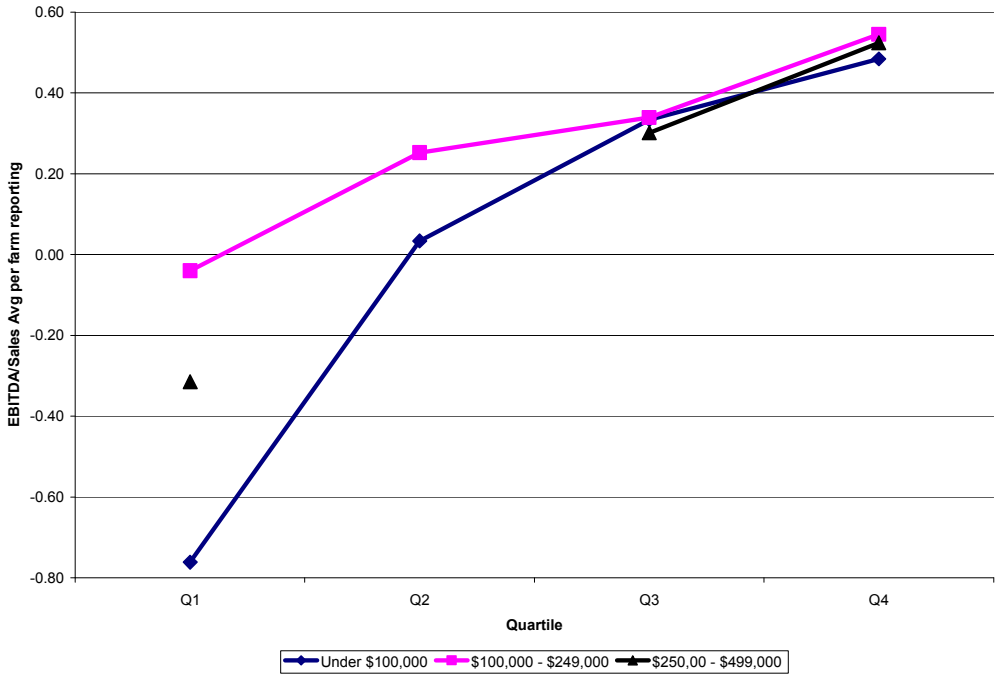


Figure C11 EBITDA/Sales, Manitoba Grain & Oilseed Farms, 1999-2003 Average

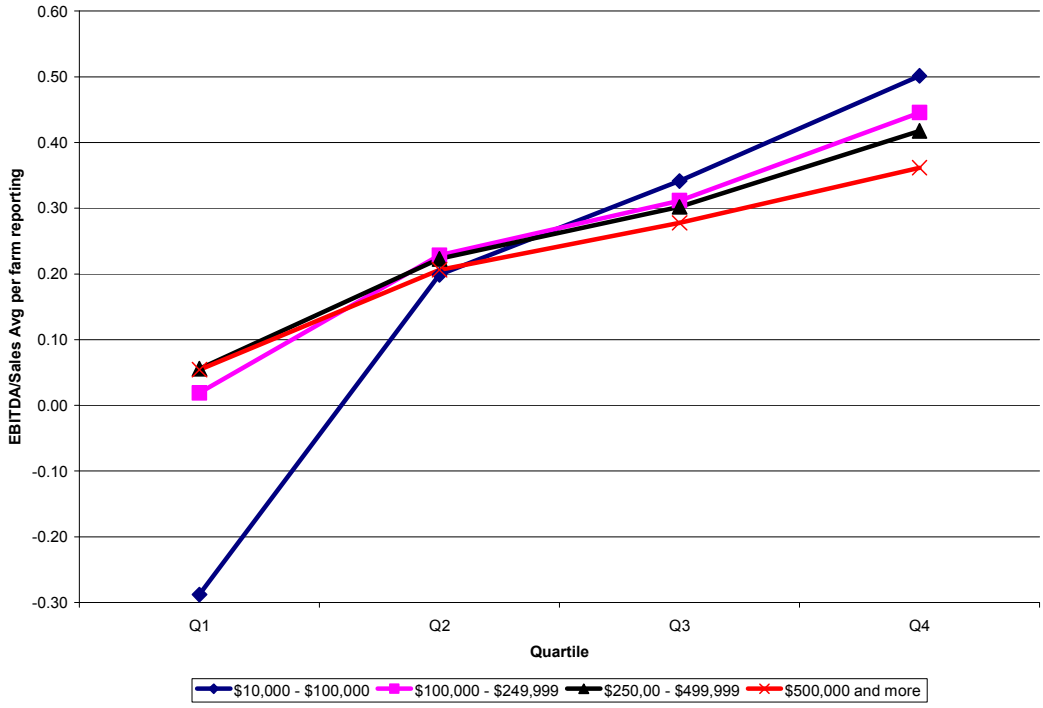


Figure C12 EBITDA/Sales, Manitoba Beef Farms, 1999-2003 Average

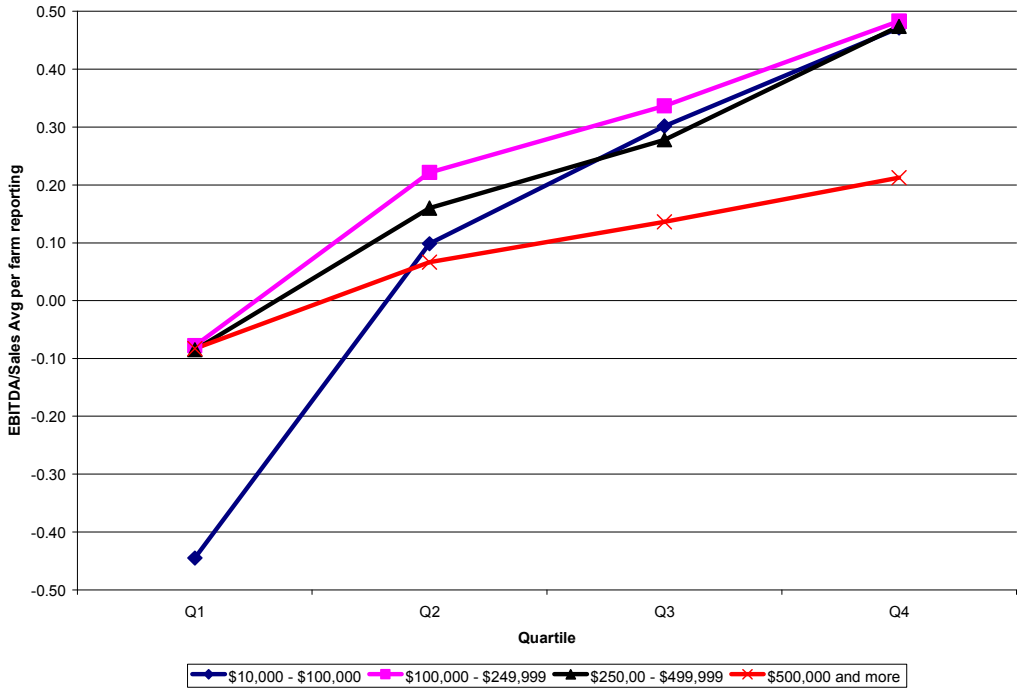


Figure C13 EBITDA/Sales, Manitoba Hog Farms, 1999-2003 Average

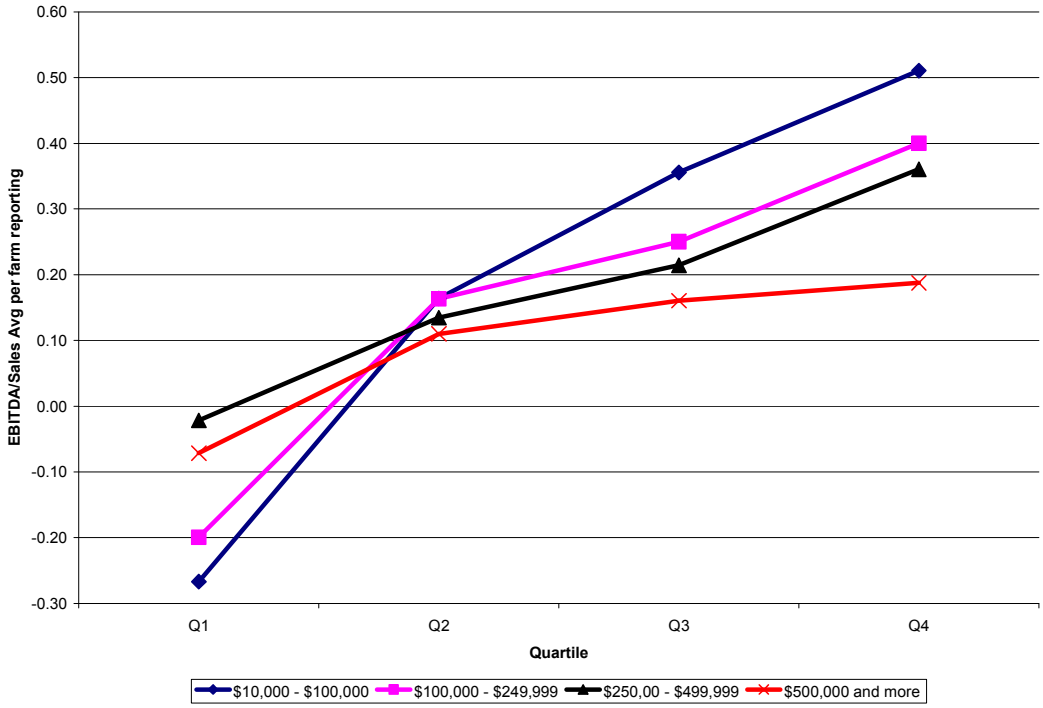


Figure C14 EBITDA/Sales, Manitoba Farms, 1999-2003 Average

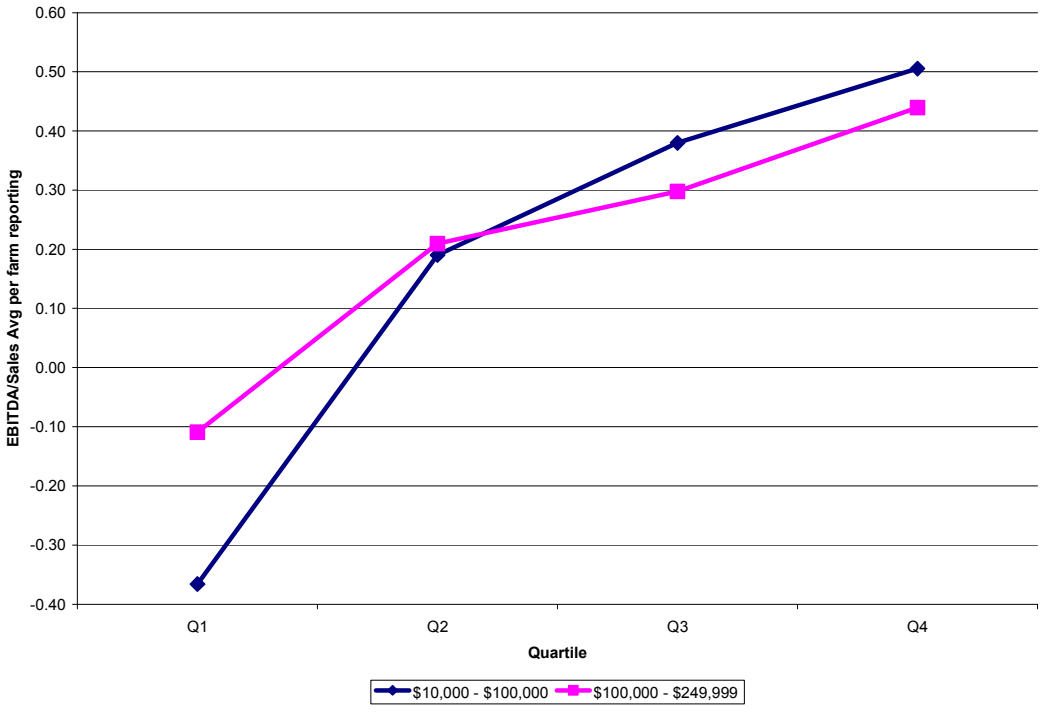


Figure C15 EBITDA/Sales, Manitoba Dairy Farms, 1999-2003 Average

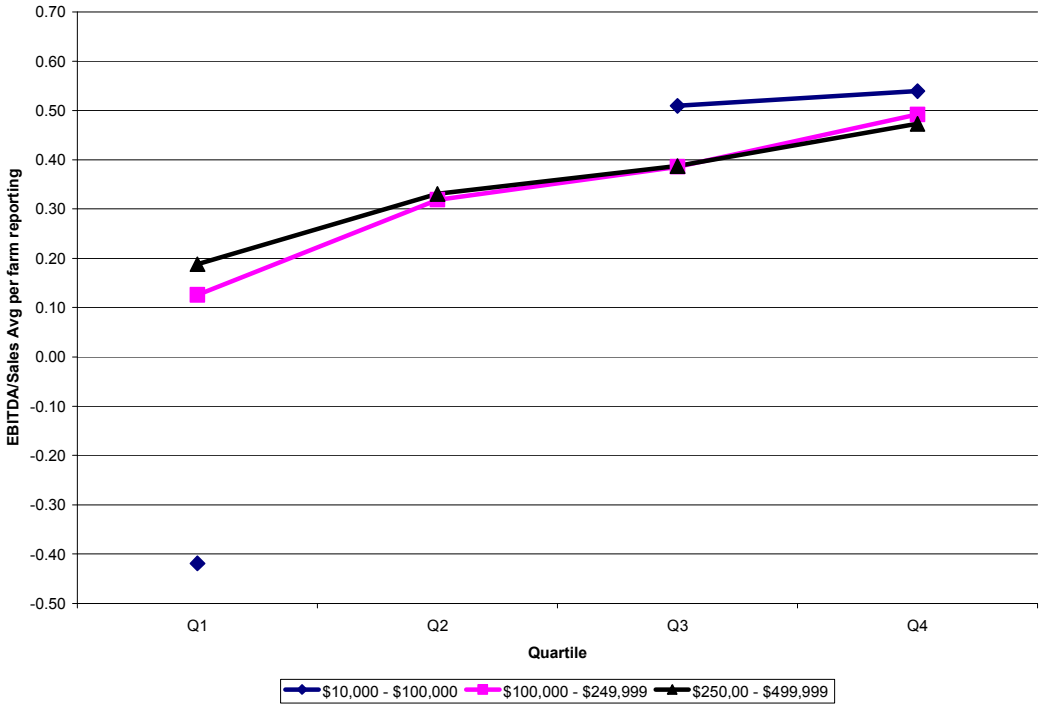


Figure C16 EBITDA/Sales, Manitoba Other Animal Farms, 1999-2003 Average

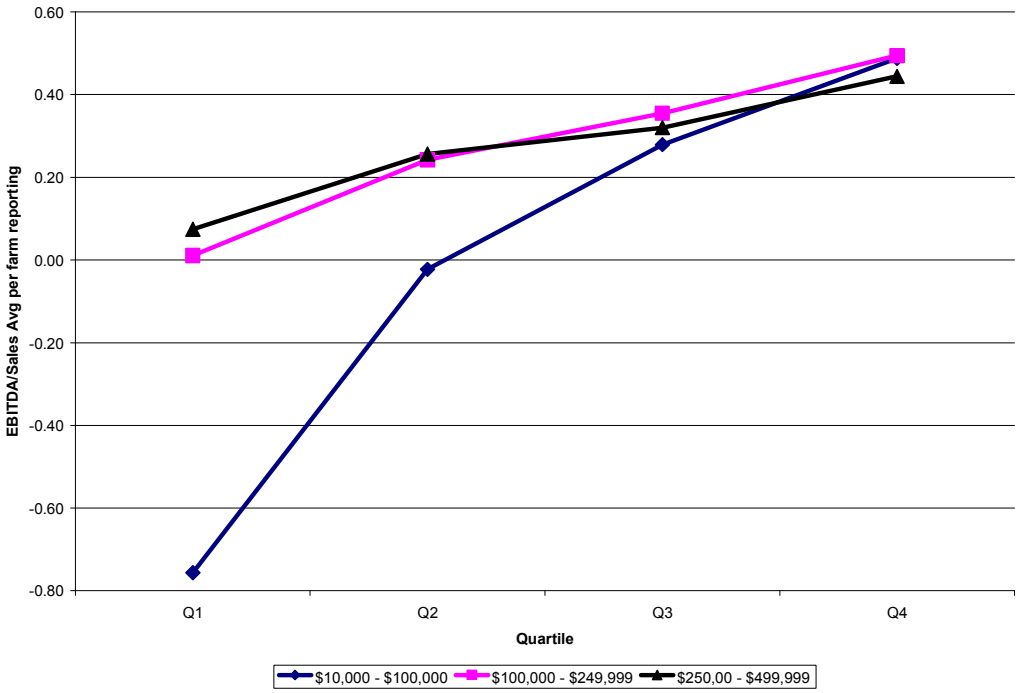


Figure C17 EBITDA/Sales, Ontario Grain & Oilseed Farms, 1999-2003 Average

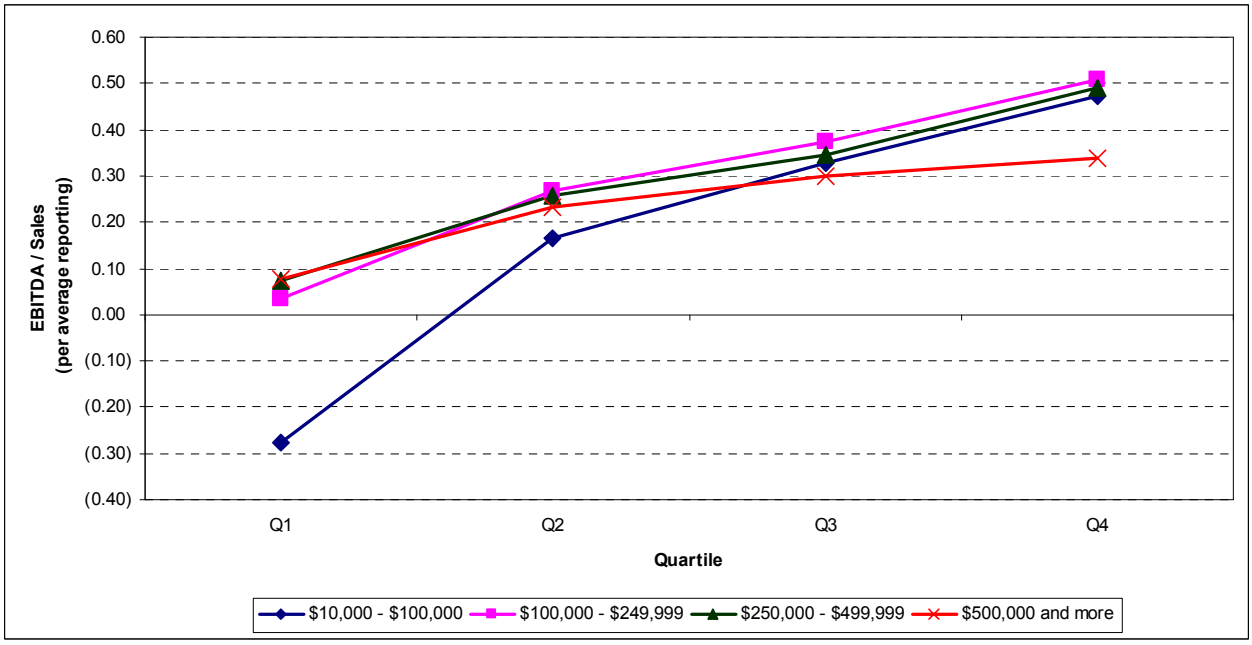


Figure C18 EBITDA/Sales, Ontario Beef Farms, 1999-2003 Average

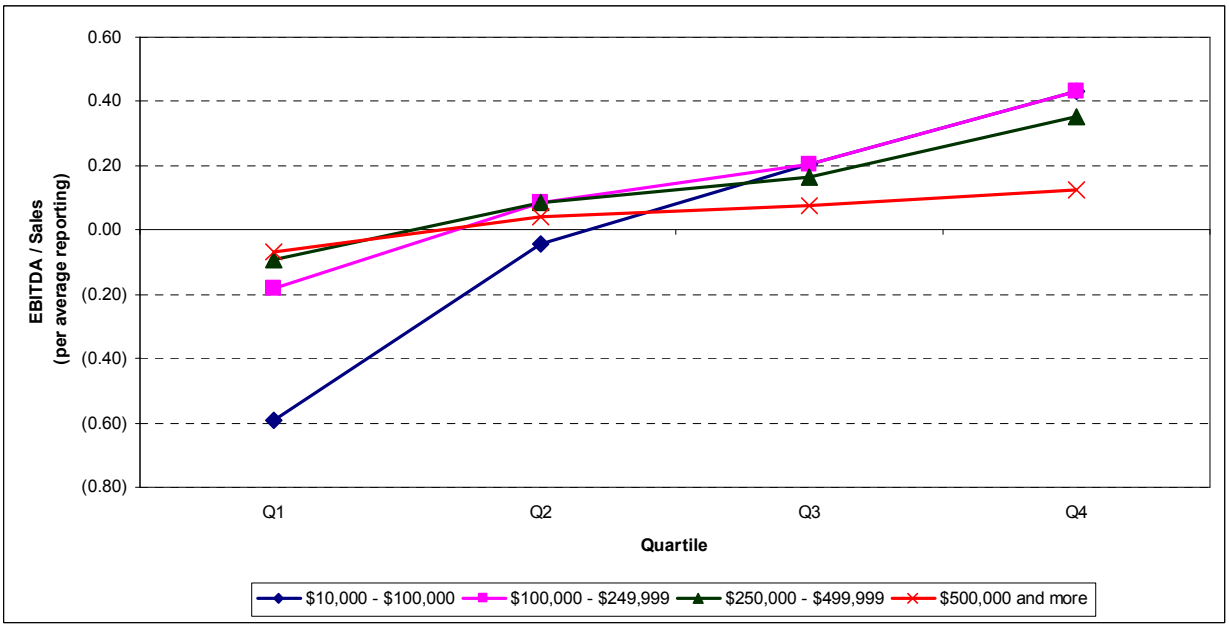


Figure C19 EBITDA/Sales, Ontario Dairy Farms, 1999-2003 Average

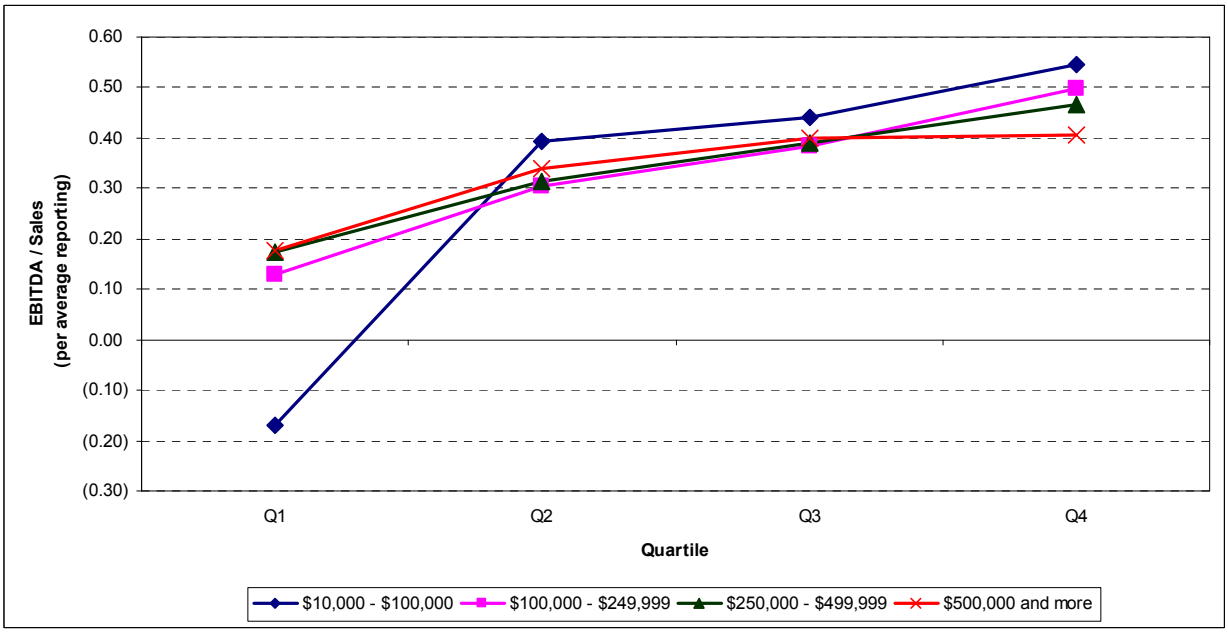


Figure C20 EBITDA/Sales, Ontario Hog Farms, 1999-2003 Average

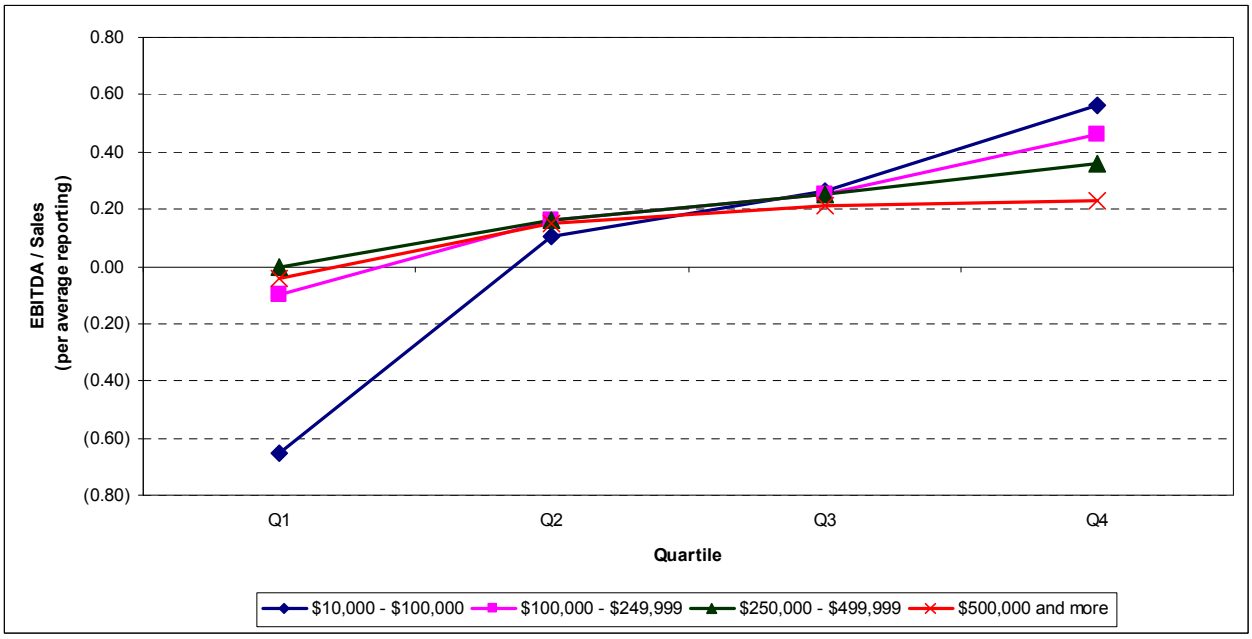


Figure C21 EBITDA/Sales, Ontario Greenhouse Farms, 1999-2003 Average

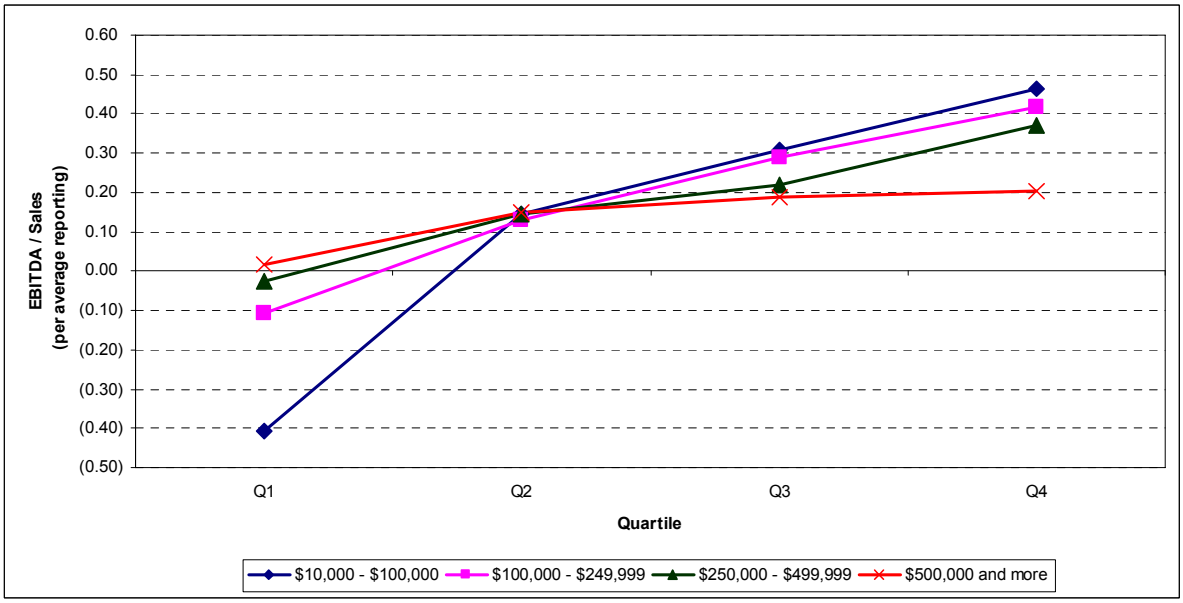


Figure C22 EBITDA/Sales, Ontario Poultry Farms, 1999-2003 Average

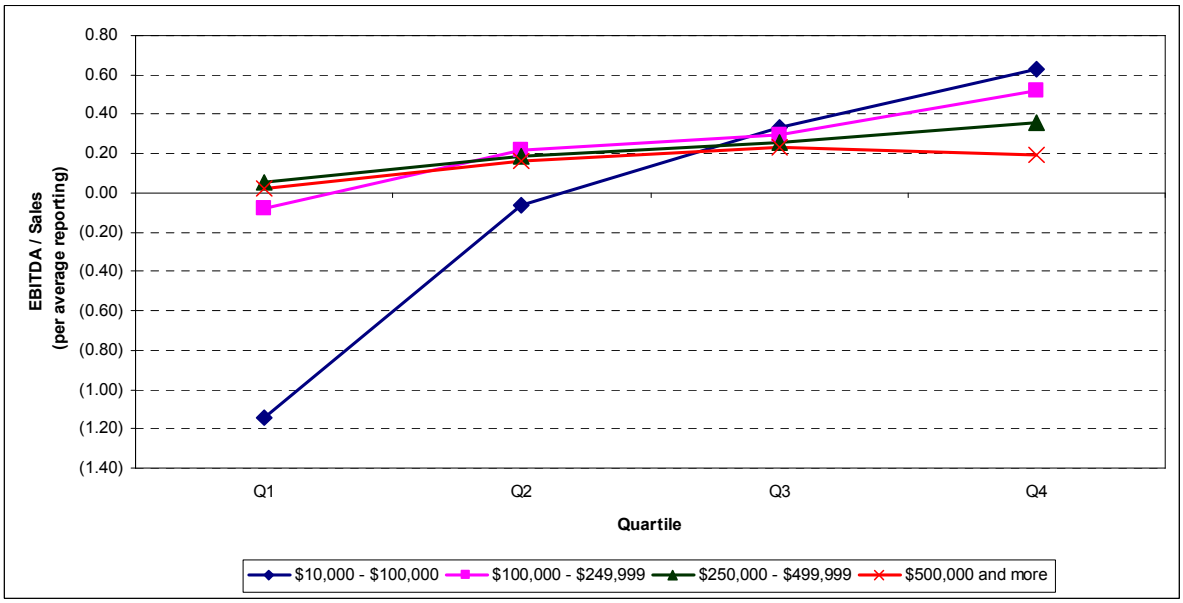


Figure C23 EBITDA/Sales, Ontario Other Crop Farms, 1999-2003 Average

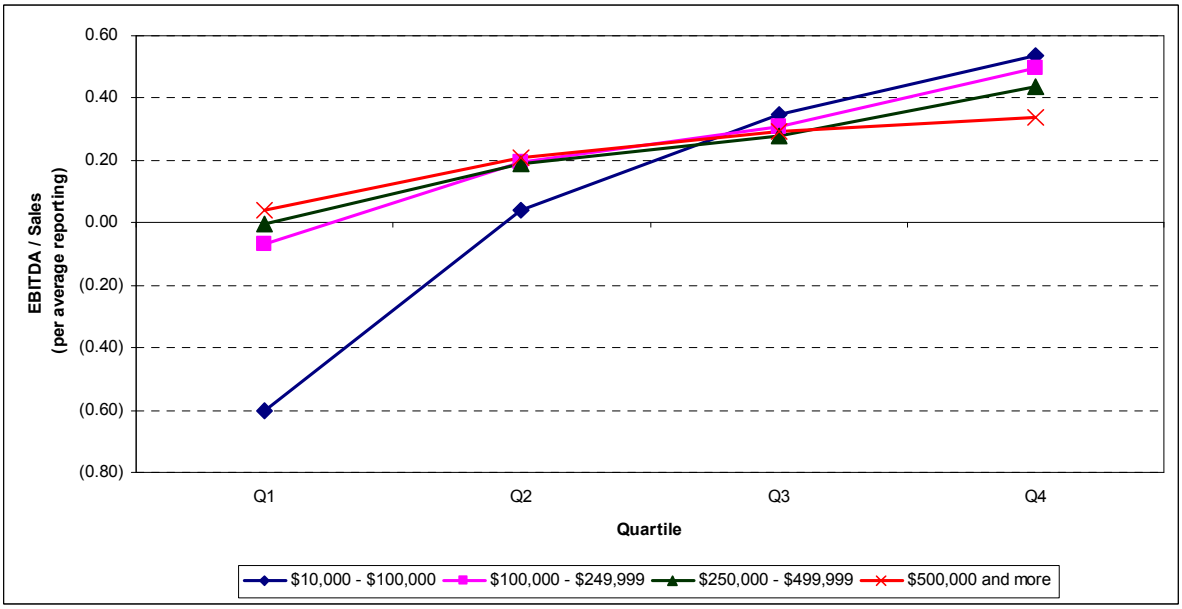


Figure C24 EBITDA/Sales, Quebec Grain & Oilseed Farms, 1999-2003 Average

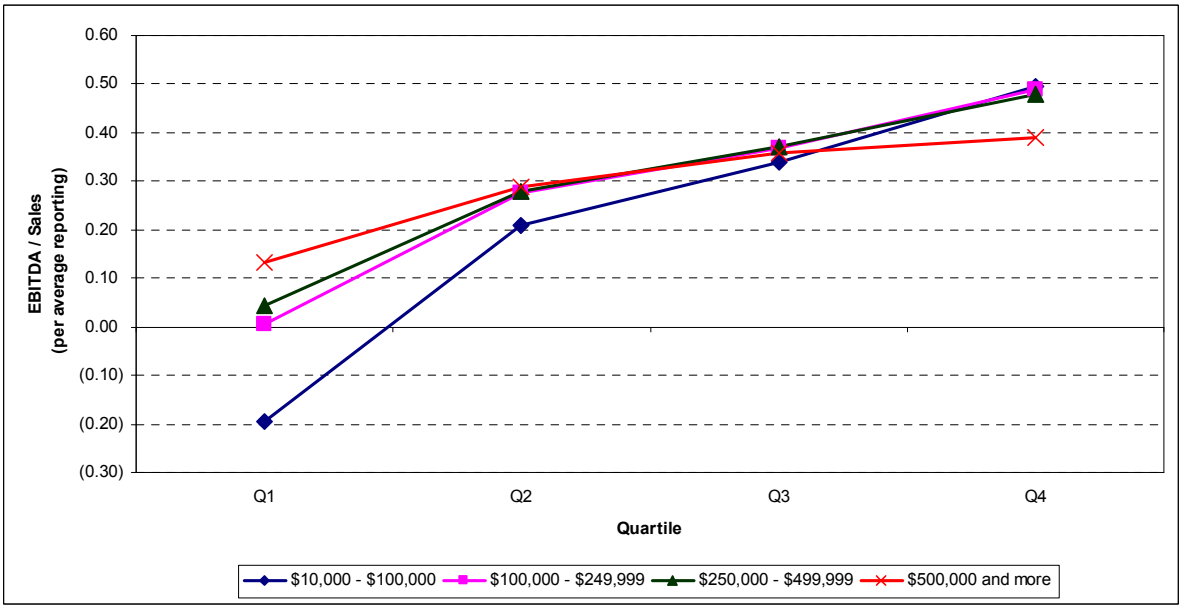


Figure C25 EBITDA/Sales, Quebec Beef Farms, 1999-2003 Average

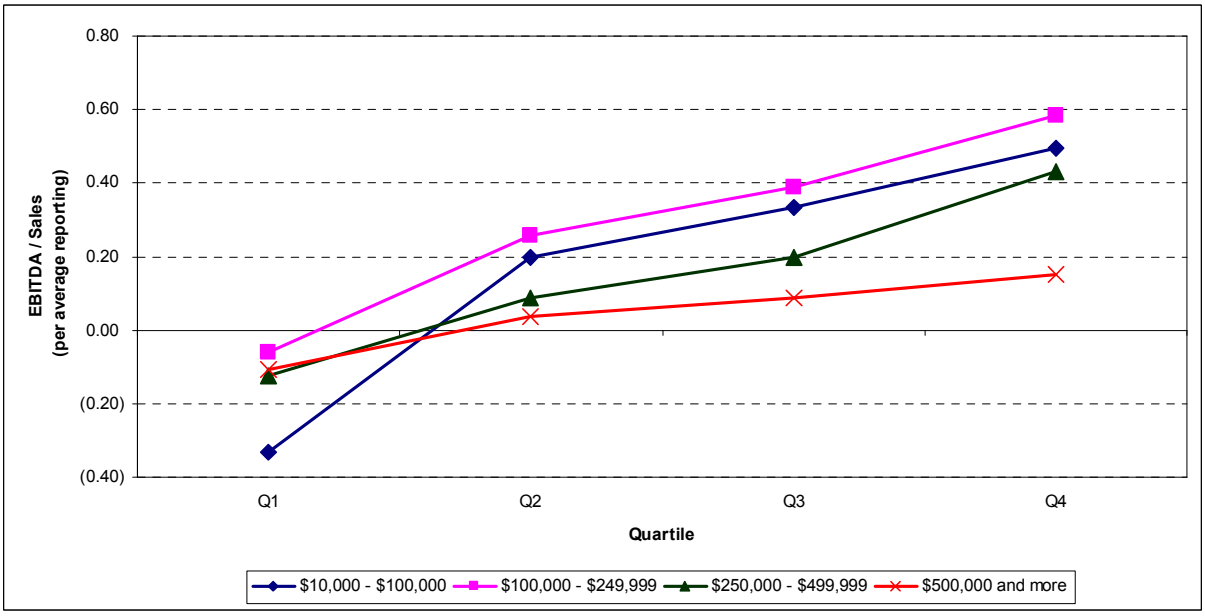


Figure C26 EBITDA/Sales, Quebec Dairy Farms, 1999-2003 Average

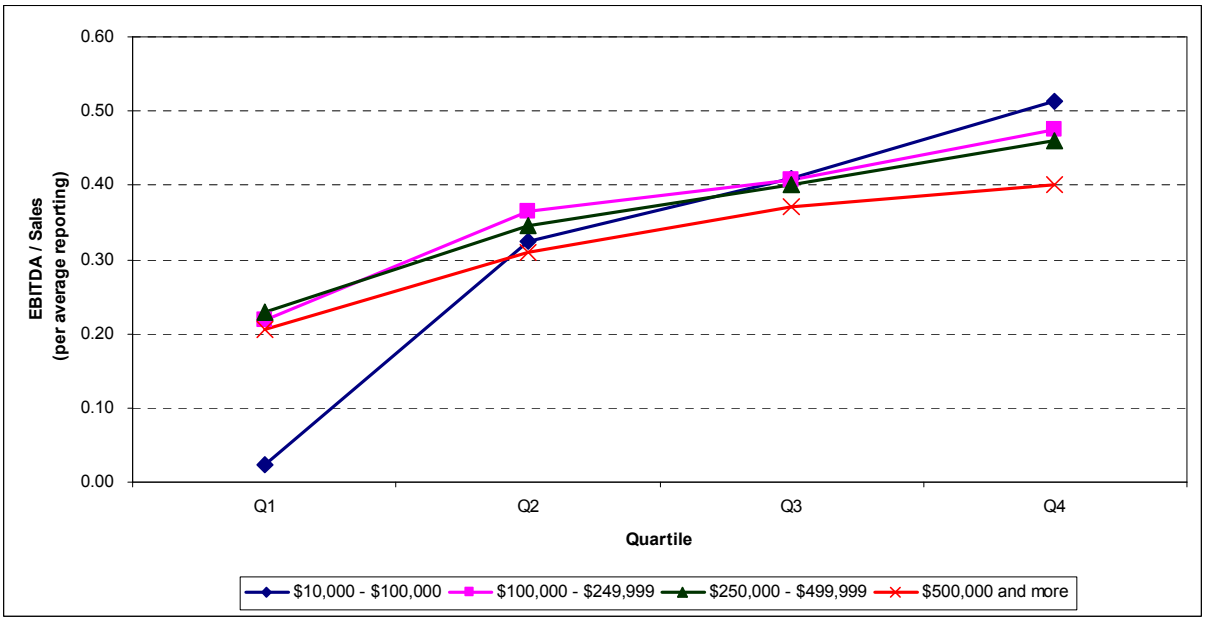


Figure C27 EBITDA/Sales, Quebec Poultry Farms, 1999-2003 Average

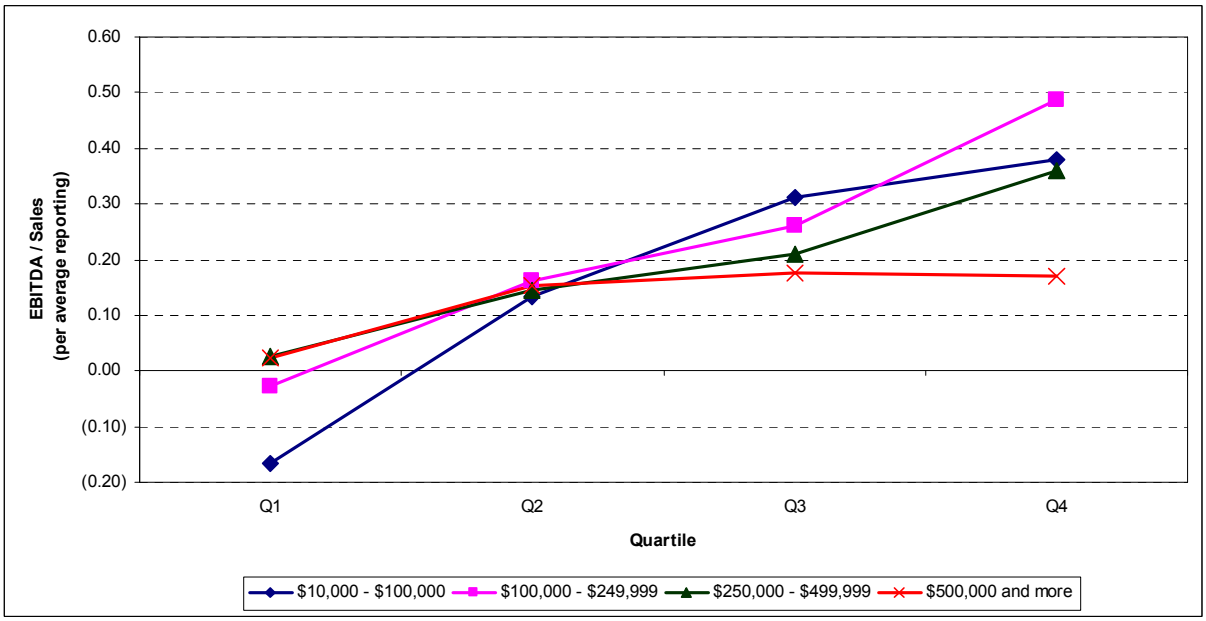


Figure C28 EBITDA/Sales, Quebec Hog Farms, 1999-2003 Average

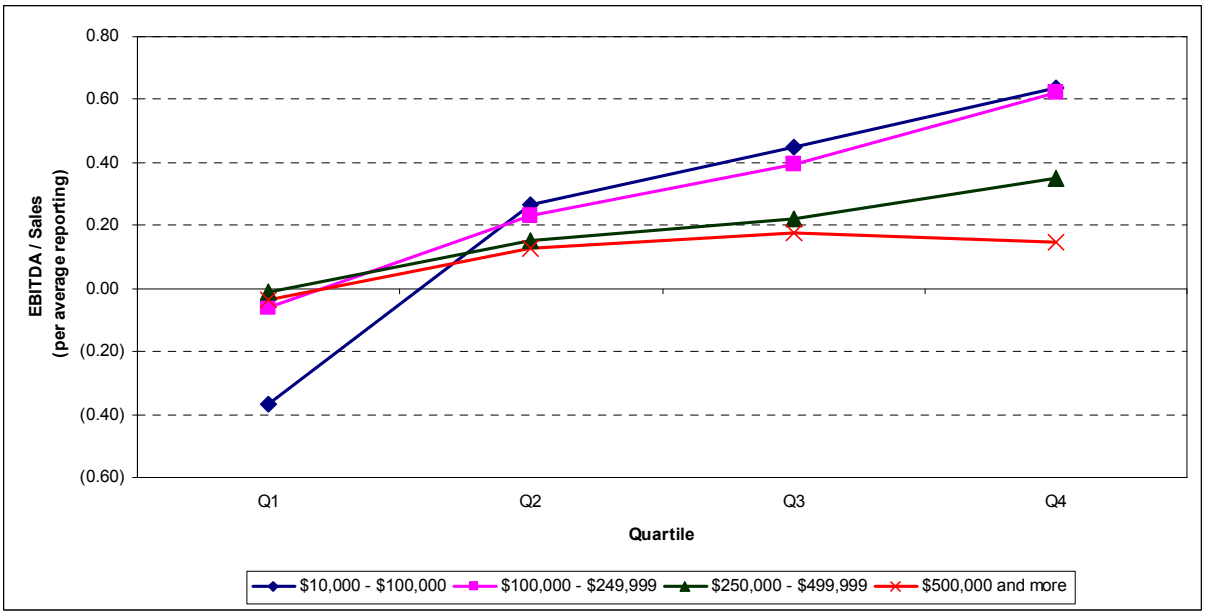


Figure C29 EBITDA/Sales, Quebec Other Crop Farms, 1999-2003 Average

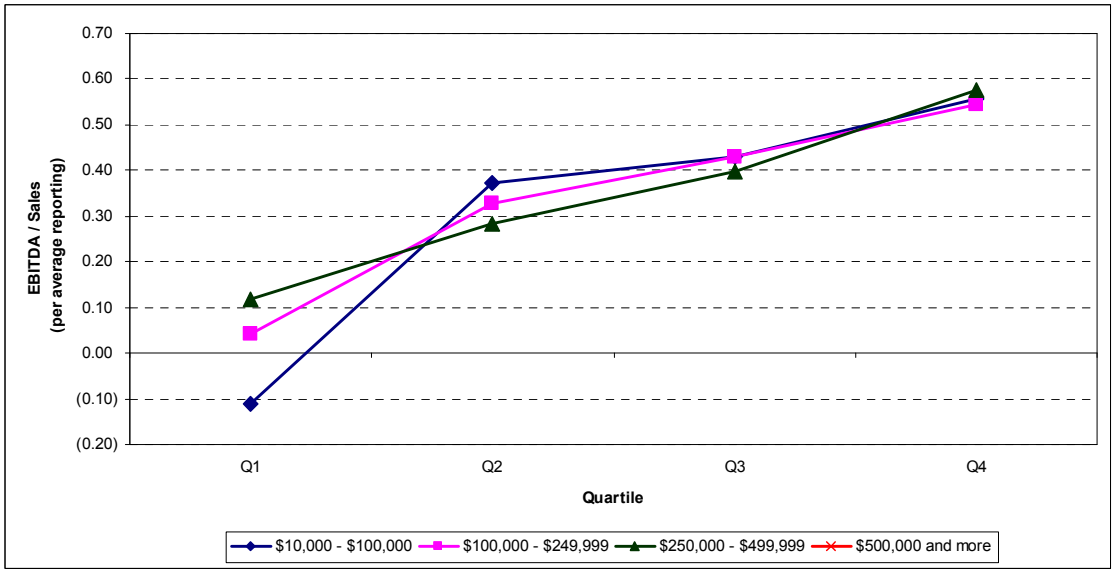


Figure C30 EBITDA/Sales, Quebec Other Vegetable Farms, 1999-2003 Average

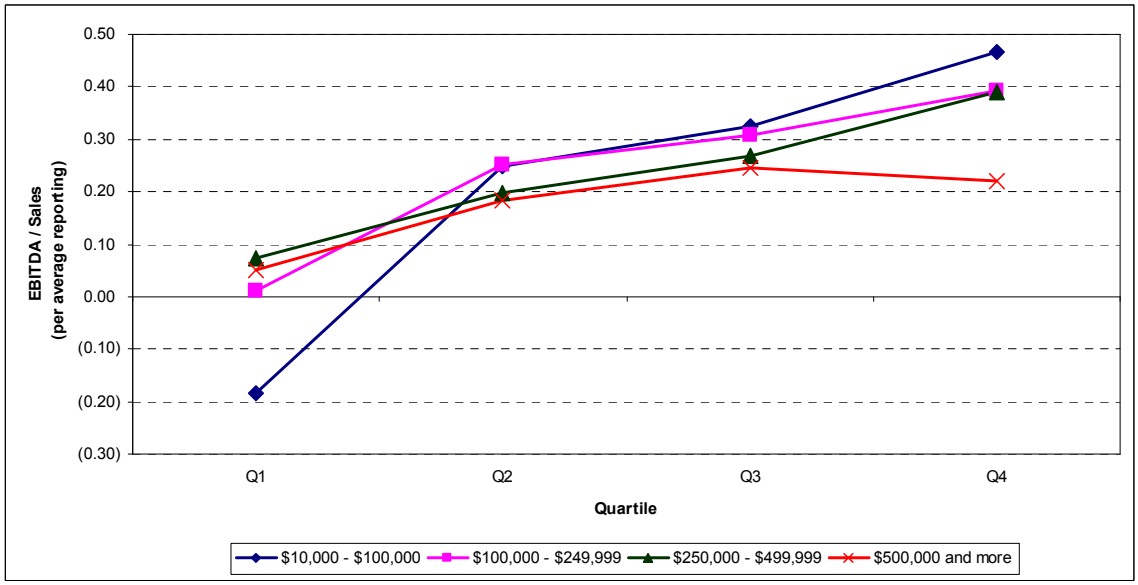


Figure C31 EBITDA/Sales, PEI Potato Farms, 1999-2003 Average

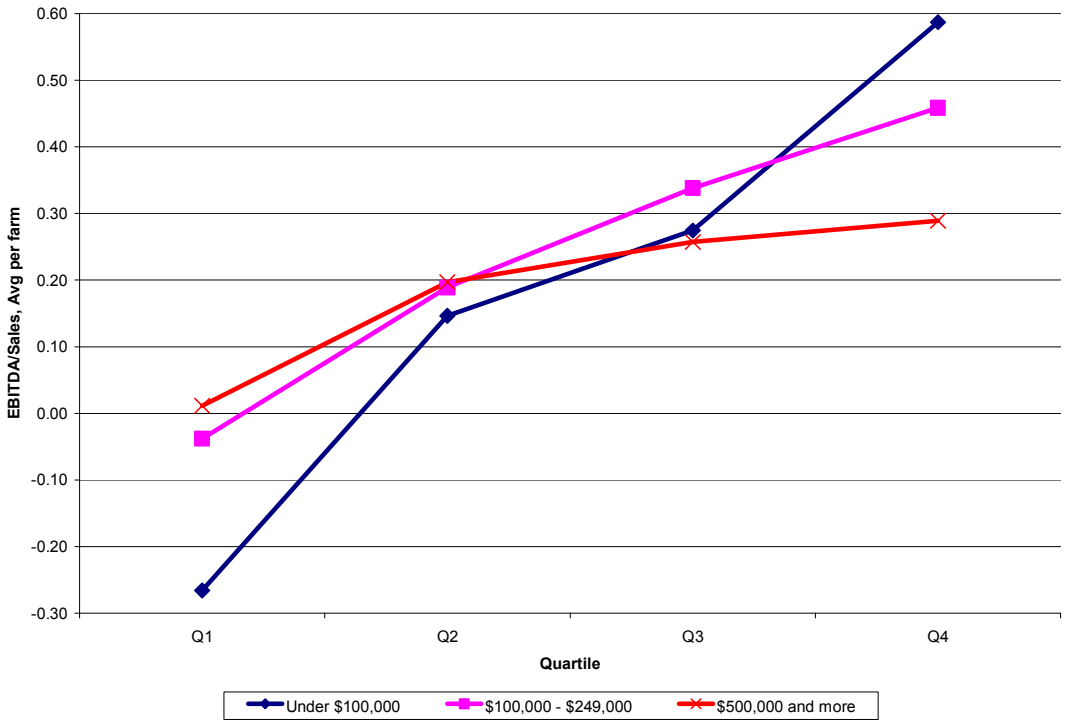


Table C1 EBITDA/Sales, Alberta Grain and Oilseed Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.17)	0.27	0.40	0.52	0.12	0.35	0.43	0.51	0.14	0.32	0.41	0.52	0.02	0.23	0.31	0.38
1991	(0.16)	0.27	0.42	0.51	0.12	0.32	0.43	0.50	0.13	0.30	0.38	0.49	0.09	0.26	0.33	0.37
1992	(0.12)	0.31	0.40	0.50	0.13	0.33	0.39	0.47	0.12	0.27	0.37	0.49	0.10	0.28	0.37	0.39
1993	(0.17)	0.24	0.37	0.51	0.09	0.32	0.40	0.48	0.13	0.31	0.38	0.47	0.09	0.30	0.35	0.38
1994	(0.17)	0.27	0.40	0.50	0.15	0.33	0.39	0.50	0.13	0.30	0.38	0.48	0.12	0.28	0.34	0.41
1995	(0.18)	0.29	0.41	0.54	0.10	0.31	0.39	0.50	0.16	0.31	0.38	0.48	0.10	0.28	0.36	0.43
1996	(0.20)	0.30	0.39	0.55	0.12	0.32	0.41	0.51	0.15	0.30	0.39	0.49	0.12	0.31	0.37	0.45
1997	(0.28)	0.24	0.39	0.59	0.10	0.31	0.40	0.50	0.10	0.28	0.37	0.49	0.11	0.29	0.35	0.38
1998	(0.22)	0.26	0.39	0.52	0.06	0.29	0.37	0.50	0.09	0.28	0.36	0.47	0.14	0.25	0.35	0.37
1999	(0.22)	0.24	0.37	0.54	0.04	0.26	0.36	0.48	0.09	0.26	0.34	0.45	0.08	0.23	0.33	0.35
2000	(0.18)	0.28	0.41	0.57	0.07	0.28	0.38	0.49	0.10	0.28	0.35	0.46	0.09	0.27	0.36	0.37
2001	(0.12)	0.36	0.45	0.58	0.09	0.31	0.41	0.51	0.12	0.28	0.36	0.49	0.12	0.28	0.37	0.43
2002	(0.12)	0.36	0.44	0.59	0.11	0.31	0.41	0.54	0.08	0.28	0.38	0.51	0.09	0.29	0.38	0.47
2003	(0.37)	0.16	0.42	0.61	(0.06)	0.23	0.34	0.46	0.02	0.26	0.34	0.49	0.00	0.21	0.31	0.40

Table C2 EBITDA/Sales, Alberta Beef Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.37)	0.15	0.33	0.50	(0.09)	0.24	0.35	0.51	(0.05)	0.14	0.25	0.44	(0.06)	0.05	0.14	0.16
1991	(0.41)	0.12	0.31	0.48	(0.06)	0.22	0.34	0.48	(0.08)	0.15	0.26	0.42	(0.05)	0.06	0.14	0.14
1992	(0.35)	0.14	0.33	0.49	(0.04)	0.25	0.37	0.52	(0.04)	0.17	0.28	0.44	(0.07)	0.06	0.13	0.15
1993	(0.36)	0.16	0.34	0.50	(0.07)	0.24	0.36	0.49	(0.07)	0.14	0.26	0.43	(0.07)	0.04	0.10	0.14
1994	(0.57)	0.07	0.31	0.49	(0.10)	0.20	0.33	0.50	(0.10)	0.13	0.25	0.44	(0.05)	0.06	0.10	0.13
1995	(0.54)	0.04	0.29	0.49	(0.17)	0.20	0.32	0.49	(0.06)	0.14	0.25	0.43	(0.05)	0.06	0.13	0.11
1996	(0.53)	0.06	0.31	0.49	(0.09)	0.18	0.32	0.50	(0.13)	0.15	0.27	0.49	(0.05)	0.07	0.13	0.13
1997	(0.59)	0.08	0.30	0.52	(0.11)	0.18	0.32	0.48	(0.20)	0.09	0.20	0.40	(0.11)	0.04	0.10	0.12
1998	(0.46)	0.13	0.36	0.50	(0.12)	0.21	0.35	0.49	(0.09)	0.15	0.26	0.43	(0.08)	0.04	0.11	0.11
1999	(0.47)	0.13	0.33	0.51	(0.10)	0.22	0.34	0.49	(0.16)	0.11	0.24	0.45	(0.06)	0.05	0.14	0.11
2000	(0.49)	0.14	0.35	0.51	(0.03)	0.25	0.35	0.51	(0.09)	0.16	0.27	0.46	(0.07)	0.04	0.12	0.11
2001	(0.46)	0.18	0.37	0.50	(0.04)	0.28	0.38	0.53	(0.02)	0.19	0.31	0.47	(0.07)	0.08	0.15	0.11
2002	(0.56)	0.08	0.31	0.50	(0.08)	0.23	0.35	0.49	(0.03)	0.20	0.32	0.50	(0.05)	0.08	0.16	0.14
2003	(0.86)	(0.06)	0.26	0.46	(0.23)	0.16	0.30	0.46	(0.15)	0.13	0.25	0.44	(0.08)	0.07	0.16	0.10

Table C3 EBITDA/Sales, Alberta Dairy Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.70)	0.23	0.38	0.55	0.14	0.36	0.43	0.50	0.20	0.35	0.41	0.49				
1991		0.24	0.42	0.63	0.17	0.38	0.41	0.52	0.15	0.36	0.40	0.48				
1992	(0.16)	0.33	0.45	0.56	0.21	0.37	0.43	0.51	0.15	0.32	0.38	0.46				
1993	0.02		0.41	0.60	0.22	0.36	0.41	0.52	0.18	0.35	0.40	0.48				
1994	(0.49)	0.25	0.49	0.52	0.05	0.28	0.36	0.49	0.15	0.29	0.37	0.46	0.23	0.36	0.37	0.37
1995	(0.86)		0.59	0.58	0.05	0.32	0.41	0.49	0.15	0.29	0.37	0.47	0.17	0.29	0.35	0.36
1996		(0.62)			0.04	0.32	0.40	0.48	0.12	0.31	0.38	0.47	0.19	0.31	0.32	0.37
1997					0.01	0.31	0.39	0.48	0.02	0.30	0.38	0.44	0.05	0.27	0.31	0.36
1998					0.07	0.28	0.37	0.49	0.11	0.31	0.39	0.47	0.22	0.32	0.36	0.39
1999					0.11	0.32	0.38	0.45	0.15	0.34	0.38	0.45	0.21	0.35	0.35	0.35
2000					0.16	0.23	0.35	0.45	0.18	0.34	0.42	0.49	0.16	0.30	0.35	0.38
2001					(0.04)	0.31	0.28	0.43	(0.00)	0.27	0.38	0.48	0.17	0.32	0.37	0.37
2002							0.30		0.09	0.26	0.35	0.41	0.19	0.31	0.34	0.36
2003					(0.01)		0.39		0.10	0.25	0.32	0.45	0.15	0.30	0.34	0.33

Table C4 EBITDA/Sales, Alberta Hog Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.10)	0.14	0.26	0.39	0.09	0.24	0.32	0.39	0.10	0.21	0.25	0.34				
1991	(0.29)	0.23	0.24	0.48	0.02	0.24	0.28	0.41	0.06	0.19	0.25	0.35				
1992	(0.39)	0.12	0.24	0.47	0.02	0.24	0.32	0.40	0.08	0.20	0.29	0.35				
1993	(0.24)	0.06	0.24	0.45	(0.01)	0.24	0.31	0.40	0.06	0.18	0.25	0.37				
1994	(0.51)	(0.06)	0.18	0.38	(0.02)	0.19	0.25	0.39	0.03	0.15	0.22	0.31				
1995	(0.33)	0.11	0.26	0.41	(0.02)	0.20	0.27	0.38	0.02	0.16	0.23	0.32	(0.01)		0.17	0.25
1996	(0.35)	0.06	0.23	0.37	(0.03)	0.16	0.28	0.40	0.04	0.16	0.23	0.35	0.04	0.15	0.16	0.23
1997	(0.27)	0.19	0.30	0.39	(0.05)	0.19	0.29	0.39	0.06	0.17	0.24	0.34	0.04	0.13	0.15	0.21
1998	(0.74)	(0.03)	0.38	0.28	(0.41)	0.13	0.22	0.33	(0.18)	0.05	0.16	0.24	(0.08)	0.10	0.12	0.21
1999	(0.45)	(0.03)	0.34	0.35	(0.21)	0.19	0.26	0.39	(0.07)	0.14	0.23	0.32				
2000	(1.01)	0.11	0.28	0.46	(0.03)	0.21	0.31	0.42	0.05	0.19	0.29	0.42	(0.02)	0.22	0.26	0.23
2001	(1.00)	(0.06)	0.29	0.48	(0.04)	0.19	0.30	0.40	(0.04)	0.17	0.23	0.36	(0.02)	0.17	0.23	0.26
2002		(0.19)	0.07	0.31	(0.18)	0.11	0.28	0.47	(0.05)	0.12	0.21	0.34	(0.13)	0.07	0.13	0.19
2003	(0.95)	(0.03)		0.26	(0.09)	0.17	0.29	0.48	0.00	0.14	0.21	0.28	(0.08)	0.04	0.16	0.17

Table C5 EBITDA/Sales, Alberta Other Animal Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.75)	0.04	0.26	0.40	0.12	0.24	0.39	0.49								
1991	(0.51)	0.02	0.24	0.39	(0.18)	0.22	0.35	0.51								
1992	(0.50)	(0.04)	0.26	0.43	(0.08)	0.23	0.34	0.49			0.27	0.40				
1993	(0.88)	(0.16)	0.22	0.41	(0.07)	0.17	0.29	0.40		0.14	0.24	0.41				
1994	(1.13)	(0.13)	0.28	0.46	(0.24)	0.17	0.25	0.41	(0.13)	0.16	0.25	0.47				
1995	(0.92)	(0.13)	0.17	0.45	(0.07)	0.23	0.30	0.44	0.04	0.22	0.30	0.50				
1996	(1.30)	(0.19)	0.14	0.41	(0.18)	0.23	0.35	0.61	(0.01)	0.16	0.29	0.38				
1997	(1.49)	(0.21)	0.13	0.51	(0.50)	0.16	0.28	0.54	(0.07)	0.16	0.33	0.50				
1998	(1.50)	0.07	0.29	0.46	(0.37)	0.08	0.30	0.53	(0.01)	0.24	0.36	0.49				
1999	(1.59)	(0.11)	0.20	0.55	(0.31)	0.17	0.29	0.47	(0.02)	0.14	0.27	0.48				
2000	(0.83)	(0.01)	0.30	0.50	(0.28)	0.15	0.30	0.47	(0.33)	0.16	0.29	0.49				
2001	(1.45)	(0.24)	0.22	0.41	(0.41)	0.19	0.36	0.46	(0.14)	0.09	0.22	0.36				
2002	(0.79)	(0.27)	0.19	0.55	(0.56)	0.12	0.30	0.48		0.00		0.41	(0.05)	0.18	0.32	0.41
2003	(1.08)	(0.30)	0.07	0.49	(0.43)	0.14	0.31	0.55	0.00	0.09	0.18					

Table C6 EBITDA/Sales, Saskatchewan Grain & Oilseed Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.17)	0.29	0.38	0.49	0.03	0.25	0.36	0.50	(0.08)	0.16	0.28	0.43	(0.05)	0.06	0.13	0.29
1991	(0.23)	0.23	0.36	0.50	0.01	0.26	0.36	0.47	(0.01)	0.16	0.26	0.44	(0.08)	0.06	0.13	0.25
1992	(0.16)	0.23	0.36	0.46	0.05	0.27	0.36	0.48	(0.01)	0.18	0.28	0.47	(0.07)	0.06	0.17	0.20
1993	(0.22)	0.22	0.34	0.46	0.08	0.28	0.37	0.47	(0.03)	0.16	0.28	0.45	(0.10)	0.06	0.16	0.14
1994	(0.31)	0.15	0.33	0.47	0.00	0.25	0.34	0.44	0.01	0.17	0.25	0.40	(0.06)	0.09	0.11	0.18
1995	(0.37)	0.15	0.34	0.46	(0.03)	0.24	0.33	0.44	0.01	0.21	0.29	0.42	(0.04)	0.10	0.16	0.16
1996	(0.40)	0.06	0.30	0.48	(0.03)	0.19	0.31	0.44	0.00	0.17	0.27	0.42	(0.03)	0.11	0.15	0.30
1997	(0.30)	0.16	0.33	0.45	(0.09)	0.24	0.33	0.44	(0.05)	0.16	0.28	0.43	(0.04)	0.06	0.14	0.19
1998	(0.34)	0.14	0.31	0.46	(0.05)	0.19	0.32	0.44	(0.01)	0.16	0.28	0.41	(0.04)	0.05	0.10	0.23
1999	(0.38)	0.15	0.31	0.44	(0.02)	0.22	0.33	0.45	(0.14)	0.15	0.26	0.42	(0.07)	0.05	0.09	0.22
2000	(0.29)	0.16	0.35	0.49	(0.03)	0.24	0.33	0.44	(0.06)	0.14	0.26	0.39	(0.11)	0.04	0.14	0.16
2001	(0.29)	0.21	0.36	0.49	0.02	0.26	0.36	0.47	(0.02)	0.20	0.29	0.52	(0.04)	0.12	0.18	0.24
2002	(0.43)	0.13	0.33	0.49	(0.03)	0.23	0.33	0.52	(0.05)	0.19	0.30	0.53	(0.22)	0.07	0.21	0.26

Table C7 EBITDA/Sales, Saskatchewan Beef Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.17)	0.29	0.38	0.49	0.03	0.25	0.36	0.50	(0.08)	0.16	0.28	0.43	(0.05)	0.06	0.13	0.29
1991	(0.23)	0.23	0.36	0.50	0.01	0.26	0.36	0.47	(0.01)	0.16	0.26	0.44	(0.08)	0.06	0.13	0.25
1992	(0.16)	0.23	0.36	0.46	0.05	0.27	0.36	0.48	(0.01)	0.18	0.28	0.47	(0.07)	0.06	0.17	0.20
1993	(0.22)	0.22	0.34	0.46	0.08	0.28	0.37	0.47	(0.03)	0.16	0.28	0.45	(0.10)	0.06	0.16	0.14
1994	(0.31)	0.15	0.33	0.47	0.00	0.25	0.34	0.44	0.01	0.17	0.25	0.40	(0.06)	0.09	0.11	0.18
1995	(0.37)	0.15	0.34	0.46	(0.03)	0.24	0.33	0.44	0.01	0.21	0.29	0.42	(0.04)	0.10	0.16	0.16
1996	(0.40)	0.06	0.30	0.48	(0.03)	0.19	0.31	0.44	0.00	0.17	0.27	0.42	(0.03)	0.11	0.15	0.30
1997	(0.30)	0.16	0.33	0.45	(0.09)	0.24	0.33	0.44	(0.05)	0.16	0.28	0.43	(0.04)	0.06	0.14	0.19
1998	(0.34)	0.14	0.31	0.46	(0.05)	0.19	0.32	0.44	(0.01)	0.16	0.28	0.41	(0.04)	0.05	0.10	0.23
1999	(0.38)	0.15	0.31	0.44	(0.02)	0.22	0.33	0.45	(0.14)	0.15	0.26	0.42	(0.07)	0.05	0.09	0.22
2000	(0.29)	0.16	0.35	0.49	(0.03)	0.24	0.33	0.44	(0.06)	0.14	0.26	0.39	(0.11)	0.04	0.14	0.16
2001	(0.29)	0.21	0.36	0.49	0.02	0.26	0.36	0.47	(0.02)	0.20	0.29	0.52	(0.04)	0.12	0.18	0.24
2002	(0.43)	0.13	0.33	0.49	(0.03)	0.23	0.33	0.52	(0.05)	0.19	0.30	0.53	(0.22)	0.07	0.21	0.26
2003	(0.54)	0.02	0.27	0.45	(0.12)	0.18	0.29	0.45	(0.12)	0.16	0.26	0.42	(0.10)	0.07	0.18	0.18

Table C8 EBITDA/Sales, Saskatchewan Dairy Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990					0.19	0.32	0.38	0.51	0.00							
1991		0.40		0.59	0.15	0.32	0.42	0.50		0.32	0.39	0.46				
1992					0.20	0.38	0.40	0.48								
1993				0.56	0.17	0.35	0.39	0.49	0.20	0.30	0.37	0.49				
1994					0.14	0.32	0.37	0.44		0.29	0.41	0.43				
1995				0.49	0.11	0.25	0.36	0.47	0.13	0.27	0.34	0.45				
1996		0.21			0.18	0.34	0.37	0.46	0.14	0.26	0.38	0.48				
1997					0.15	0.26	0.36	0.42	0.13	0.27	0.36	0.44				
1998				0.76	0.15	0.24	0.32	0.47		0.30		0.43				
1999					0.02	0.28	0.35	0.44	0.13	0.25	0.36	0.51				
2000					0.18	0.35	0.39	0.53	0.17	0.34	0.40	0.46				
2001				0.55					0.14	0.32		0.47				
2002							0.33	0.60								
2003																

Table C9 EBITDA/Sales, Saskatchewan Hog Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.16)	0.35	0.27	0.42	0.19	0.28	0.34	0.39								
1991	(0.18)	0.12	0.25	0.35	0.10	0.30	0.34	0.43								
1992	(0.28)	0.13	0.36	0.35	0.11	0.23	0.30	0.37								
1993	(0.21)	0.11	0.24	0.38	0.09	0.25	0.28	0.36								
1994	(0.34)	0.05	0.28	0.36	(0.01)	0.17	0.27	0.35								
1995	(0.44)	0.04	0.24	0.38	0.05	0.19	0.27	0.36								
1996	(0.34)	0.15	0.35	0.40	0.08	0.19	0.25	0.31								
1997	(0.62)	0.17	0.41	0.67			0.25									
1998		(0.13)	0.21	0.42		0.09	0.17									
1999		(0.11)	0.22	0.34		0.13										
2000			0.16	0.36												
2001								0.37								
2002	(0.34)	0.14		0.64												
2003	(0.47)	0.17		0.68												

Table C10 EBITDA/Sales, Saskatchewan Other Animal Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.09)	0.28	0.35	0.37	0.10	0.26	0.37	0.41								
1991	(0.23)	0.26	0.35	0.46	0.10	0.31	0.34	0.44								
1992	(0.29)	0.20	0.32	0.41	0.13	0.27	0.36	0.45								
1993	(0.39)	0.10	0.31	0.44	0.03	0.29	0.39	0.46								
1994	(0.96)	0.12	0.31	0.43	0.07	0.23	0.33	0.45								
1995	(0.44)	0.09	0.30	0.44	(0.06)	0.21	0.31	0.49								
1996	(0.58)	0.10	0.21	0.41	(0.16)	0.22	0.35	0.46								
1997	(0.32)	0.17	0.46	0.45	0.07	0.23	0.38	0.50								
1998	(0.89)	(0.17)	0.23	0.47	(0.10)	0.17	0.28	0.42								
1999	(1.34)	(0.07)	0.30	0.58	(0.12)	0.18	0.30	0.47								
2000	(0.35)	0.14	0.30	0.51	(0.09)	0.23	0.34	0.59								
2001	(0.44)	0.09	0.39	0.49	0.04	0.30	0.31	0.52			0.28					
2002	(0.56)	0.11	0.40	0.38	0.03	0.29	0.33	0.52	(0.31)		0.32	0.52				
2003	(1.13)	(0.10)	0.28	0.46	(0.07)	0.26	0.41	0.62								

Table C11 EBITDA/Sales, Manitoba Grain & Oilseed Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.16)	0.22	0.36	0.47	0.10	0.30	0.38	0.47	0.13	0.29	0.37	0.47				
1991	(0.14)	0.27	0.35	0.46	0.16	0.30	0.38	0.48	0.12	0.26	0.35	0.44				
1992	(0.14)	0.26	0.35	0.45	0.11	0.27	0.33	0.42	0.10	0.26	0.31	0.42	0.13	0.24	0.29	0.37
1993	(0.08)	0.29	0.38	0.48	0.15	0.31	0.37	0.45	0.14	0.29	0.34	0.45	0.14	0.26	0.33	0.44
1994	(0.11)	0.23	0.34	0.46	0.10	0.27	0.33	0.42	0.12	0.24	0.31	0.42	0.09	0.24	0.31	0.36
1995	(0.15)	0.21	0.31	0.48	0.07	0.26	0.33	0.42	0.11	0.25	0.32	0.41	0.10	0.20	0.30	0.37
1996	(0.26)	0.15	0.29	0.45	0.03	0.24	0.30	0.42	0.08	0.23	0.29	0.40	0.07	0.20	0.29	0.36
1997	(0.19)	0.20	0.33	0.51	0.07	0.26	0.32	0.43	0.13	0.26	0.33	0.42	0.13	0.22	0.30	0.38
1998	(0.21)	0.19	0.33	0.49	0.05	0.25	0.32	0.44	0.10	0.24	0.30	0.40	0.09	0.22	0.29	0.36
1999	(0.34)	0.15	0.32	0.50	(0.01)	0.23	0.32	0.44	0.03	0.23	0.31	0.43	0.04	0.20	0.28	0.36
2000	(0.31)	0.17	0.33	0.47	0.00	0.21	0.29	0.42	0.01	0.20	0.27	0.38	0.01	0.17	0.26	0.31
2001	(0.18)	0.29	0.39	0.52	0.06	0.24	0.32	0.46	0.08	0.23	0.31	0.40	0.06	0.21	0.27	0.35
2002	(0.30)	0.23	0.35	0.53	0.03	0.24	0.32	0.46	0.09	0.23	0.31	0.45	0.10	0.23	0.30	0.41
2003	(0.30)	0.16	0.32	0.48	0.01	0.22	0.31	0.44	0.07	0.23	0.31	0.43	0.05	0.21	0.28	0.37

Table C12 EBITDA/Sales, Manitoba Beef Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.32)	0.14	0.34	0.47	0.07	0.24	0.36	0.40	(0.04)	0.13	0.21	0.36				
1991	(0.31)	0.16	0.33	0.48	(0.01)	0.23	0.33	0.43	(0.03)	0.10	0.21	0.37				
1992	(0.24)	0.21	0.34	0.48	(0.00)	0.23	0.33	0.46	(0.01)	0.12	0.21	0.40				
1993	(0.32)	0.21	0.34	0.46	0.04	0.24	0.35	0.46	(0.03)	0.13	0.24	0.44				
1994	(0.33)	0.15	0.32	0.46	(0.01)	0.20	0.31	0.42	(0.08)	0.14	0.24	0.48	(0.09)	0.04	0.11	0.24
1995	(0.46)	0.08	0.30	0.45	(0.02)	0.20	0.33	0.46	(0.05)	0.14	0.28	0.44				
1996	(0.53)	0.05	0.26	0.43	(0.08)	0.16	0.27	0.47	(0.13)	0.14	0.25	0.45				
1997	(0.37)	0.15	0.31	0.49	(0.03)	0.20	0.29	0.43	(0.20)	0.08	0.16	0.36	(0.07)	0.03	0.10	0.19
1998	(0.44)	0.14	0.31	0.46	(0.07)	0.22	0.33	0.46	(0.12)	0.10	0.22	0.36	(0.03)	0.06	0.15	0.20
1999	(0.38)	0.14	0.33	0.48	(0.08)	0.21	0.35	0.49	(0.08)	0.13	0.23	0.42	(0.13)	0.06	0.10	0.12
2000	(0.32)	0.16	0.32	0.50	(0.13)	0.22	0.33	0.47	(0.11)	0.16	0.27	0.40	(0.10)	0.04	0.12	0.19
2001	(0.44)	0.13	0.32	0.48	(0.00)	0.25	0.36	0.47	(0.03)	0.19	0.31	0.45	(0.09)	0.07	0.15	0.22
2002	(0.41)	0.10	0.30	0.46	(0.01)	0.24	0.35	0.50	(0.04)	0.20	0.34	0.65	(0.04)	0.08	0.16	0.33
2003	(0.67)	(0.05)	0.23	0.44	(0.17)	0.18	0.30	0.48	(0.15)	0.12	0.23	0.45	(0.07)	0.07	0.16	0.20

Table C13 EBITDA/Sales, Manitoba Dairy Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.11)	0.29	0.36	0.48	0.26	0.36	0.47	0.49	0.19	0.32	0.36	0.45				
1991	0.04	0.43	0.39	0.52	0.21	0.38	0.42	0.51	0.17	0.29	0.38	0.45				
1992	0.20	0.42	0.40	0.66	0.20	0.36	0.43	0.51	0.13	0.33	0.36	0.47				
1993	(0.37)	0.31	0.36	0.57	0.23	0.39	0.41	0.51	0.18	0.33	0.38	0.45				
1994	0.11	0.28	0.40	0.53	0.20	0.33	0.39	0.51	0.17	0.29	0.36	0.44				
1995	0.05	0.38	0.50	0.57	0.13	0.33	0.40	0.47	0.12	0.29	0.37	0.42				
1996	0.10	0.34	0.45	0.48	0.15	0.32	0.37	0.44	0.17	0.30	0.33	0.40				
1997	0.15	0.30	0.57	0.81	0.09	0.32	0.41	0.43	0.16	0.26	0.32	0.42				
1998	(0.35)	0.20	0.55	0.83	0.13	0.33	0.41	0.47	0.13	0.28	0.38	0.45				
1999	(0.42)			0.46	0.12	0.36	0.39	0.50	0.16	0.32	0.41	0.47				
2000			0.51		0.15	0.31	0.39	0.48	0.21	0.36	0.41	0.49				
2001					0.19	0.34	0.39	0.53	0.21	0.33	0.40	0.47				
2002				0.62	0.05	0.28	0.39	0.49	0.20	0.35	0.37	0.47				
2003					0.12	0.30	0.38	0.47	0.16	0.29	0.36	0.46				

Table C14 EBITDA/Sales, Manitoba Hog Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.19)	0.16	0.27	0.41	0.08	0.24	0.29	0.38	0.09	0.20	0.26	0.37				
1991	(0.15)	0.10	0.24	0.39	0.03	0.22	0.31	0.38	0.04	0.18	0.26	0.33				
1992	(0.57)	0.08	0.24	0.36	0.02	0.20	0.27	0.38	(0.00)	0.15	0.23	0.33				
1993	(0.40)	0.13	0.26	0.36	(0.03)	0.21	0.26	0.34	0.06	0.19	0.25	0.35				
1994	(0.40)	(0.04)	0.18	0.36	(0.10)	0.16	0.22	0.35	(0.07)	0.15	0.20	0.33				
1995	(0.43)	0.09	0.27	0.38	(0.21)	0.14	0.24	0.36	(0.02)	0.15	0.20	0.31	(0.07)	0.09	0.14	0.27
1996	(0.40)	0.09	0.30	0.34	(0.04)	0.16	0.23	0.35	(0.01)	0.13	0.22	0.34	(0.09)	0.10	0.16	0.23
1997	(0.23)	0.09	0.47	0.43	(0.19)	0.17	0.24	0.37	(0.10)	0.15	0.22	0.31	(0.03)	0.16	0.17	0.26
1998	(0.41)	0.04	0.20	0.38	(0.30)	0.10	0.24	0.38	(0.22)	0.12	0.20	0.34	(0.12)	0.07	0.16	0.15
1999	(0.41)	0.11	0.27	0.53	(0.14)	0.15	0.22	0.32	(0.09)	0.09	0.20	0.30	(0.10)	0.03	0.13	0.18
2000	(0.15)	0.24	0.40	0.62	(0.02)	0.22	0.27	0.45	0.04	0.16	0.22	0.34	(0.00)	0.18	0.22	0.21
2001	(0.25)	0.16	0.38	0.49	(0.03)	0.19	0.29	0.40	0.03	0.19	0.25	0.38	(0.00)	0.19	0.18	0.20
2002	(0.25)	0.20	0.41	0.45	(0.13)	0.12	0.24	0.39	(0.09)	0.11	0.20	0.41	(0.11)	0.09	0.15	0.19
2003	(0.28)	0.10	0.31	0.47	(0.69)	0.14	0.24	0.44	(0.00)	0.13	0.19	0.37	(0.14)	0.05	0.13	0.17

Table C15 EBITDA/Sales, Manitoba Other Animal Farms

	$10,000 - $100,000				$100,000 - $249,999				$250,00 - $499,999				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.35)	0.14	0.36	0.38	0.11	0.26	0.35	0.46								
1991	(0.27)	0.18	0.36	0.42	(0.03)	0.26	0.34	0.41								
1992	(0.33)	0.15	0.30	0.41	0.05	0.24	0.33	0.39								
1993	(0.35)	0.13	0.29	0.42	0.06	0.27	0.36	0.44								
1994	(0.41)	0.14	0.29	0.45	0.13	0.25	0.33	0.46		0.24		0.41				
1995	(0.42)	0.24	0.29	0.50	0.10	0.27	0.37	0.46		0.28	0.32	0.43				
1996	(0.74)	0.18	0.36	0.46	0.09	0.28	0.36	0.44				0.42				
1997	(0.58)	0.21	0.57	0.46	(0.05)	0.21	0.34	0.44		0.16		0.39				
1998	(0.52)	0.11	0.35	0.41	(0.03)	0.23	0.29	0.40								
1999	(0.63)	0.04	0.41	0.49	0.02	0.25	0.34	0.49		0.24						
2000	(0.48)	(0.07)	0.21	0.47	0.08	0.26	0.35	0.47								
2001	(0.82)	(0.03)	0.21	0.49	0.09	0.26	0.33	0.45	0.01	0.27	0.31	0.45				
2002	(0.73)	0.09	0.31	0.48	(0.12)	0.21	0.38	0.50	0.10	0.24	0.29	0.43				
2003	(1.12)	(0.13)	0.26	0.52	(0.01)	0.24	0.38	0.57	0.12	0.28	0.36	0.45				

Table C16 EBITDA/Sales, Ontario Grain & Oilseed Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.23)	0.25	0.38	0.49	(0.01)	0.29	0.40	0.49	0.08	0.24	0.35	0.47	0.11	0.21	0.28	0.37
1991	(0.30)	0.16	0.33	0.49	0.04	0.26	0.36	0.47	0.06	0.22	0.31	0.43	0.03	0.22	0.30	0.33
1992	(0.22)	0.25	0.39	0.50	0.07	0.28	0.37	0.50	0.10	0.27	0.37	0.46	0.08	0.25	0.33	0.39
1993	(0.15)	0.23	0.35	0.47	0.08	0.30	0.36	0.51	0.04	0.23	0.32	0.45	0.05	0.23	0.27	0.35
1994	(0.20)	0.23	0.37	0.49	0.09	0.28	0.34	0.45	0.06	0.24	0.32	0.43	0.08	0.22	0.28	0.32
1995	(0.13)	0.30	0.38	0.49	0.11	0.30	0.38	0.49	0.10	0.26	0.32	0.49	0.12	0.24	0.30	0.37
1996	(0.22)	0.23	0.39	0.54	0.06	0.28	0.39	0.51	0.15	0.30	0.39	0.50	0.12	0.28	0.34	0.40
1997	(0.17)	0.22	0.35	0.52	0.07	0.27	0.39	0.52	0.08	0.27	0.35	0.48	0.13	0.25	0.33	0.35
1998	(0.20)	0.21	0.34	0.50	0.04	0.28	0.37	0.49	0.10	0.28	0.37	0.51	0.06	0.22	0.30	0.34
1999	(0.33)	0.15	0.35	0.49	0.07	0.26	0.37	0.49	0.08	0.26	0.34	0.47	0.09	0.21	0.30	0.33
2000	(0.26)	0.16	0.33	0.46	(0.02)	0.27	0.37	0.54	0.07	0.26	0.36	0.50	0.08	0.23	0.29	0.32
2001	(0.21)	0.20	0.32	0.48	0.03	0.28	0.39	0.52	0.08	0.26	0.36	0.50	0.06	0.24	0.28	0.35
2002	(0.29)	0.16	0.32	0.46	0.07	0.28	0.38	0.50	0.09	0.27	0.33	0.50	0.07	0.24	0.31	0.33
2003	(0.28)	0.15	0.32	0.47	0.04	0.26	0.37	0.49	0.05	0.23	0.34	0.49	0.09	0.24	0.33	0.35

Table C17 EBITDA/Sales, Ontario Beef Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.45)	0.04	0.27	0.45	(0.11)	0.13	0.22	0.40	(0.07)	0.10	0.17	0.37	(0.02)	0.06	0.11	0.16
1991	(0.45)	0.01	0.23	0.43	(0.12)	0.11	0.22	0.36	(0.16)	0.10	0.17	0.27	(0.06)	0.03	0.08	0.12
1992	(0.38)	0.05	0.25	0.47	(0.07)	0.14	0.21	0.39	(0.01)	0.10	0.17	0.30	(0.03)	0.05	0.09	0.16
1993	(0.39)	0.04	0.25	0.43	(0.08)	0.10	0.20	0.35	(0.01)	0.10	0.16	0.27	(0.05)	0.03	0.07	0.13
1994	(0.46)	(0.00)	0.22	0.43	(0.10)	0.08	0.18	0.33	(0.04)	0.07	0.15	0.27	(0.04)	0.04	0.09	0.11
1995	(0.52)	(0.03)	0.20	0.42	(0.09)	0.11	0.19	0.38	(0.05)	0.09	0.16	0.26	(0.04)	0.05	0.07	0.15
1996	(0.56)	(0.06)	0.20	0.43	(0.04)	0.13	0.23	0.41	(0.03)	0.09	0.17	0.31	(0.02)	0.06	0.12	0.20
1997	(0.42)	0.00	0.23	0.47	(0.12)	0.07	0.21	0.41	(0.11)	0.06	0.12	0.24	(0.07)	0.04	0.09	0.14
1998	(0.50)	(0.02)	0.24	0.41	(0.19)	0.08	0.18	0.43	(0.07)	0.07	0.15	0.32	(0.05)	0.04	0.08	0.12
1999	(0.40)	0.01	0.24	0.44	(0.19)	0.08	0.18	0.39	(0.05)	0.08	0.14	0.27	(0.06)	0.04	0.08	0.12
2000	(0.46)	0.01	0.24	0.46	(0.14)	0.09	0.20	0.41	(0.13)	0.08	0.18	0.41	(0.11)	0.03	0.06	0.11
2001	(0.44)	0.02	0.25	0.43	(0.14)	0.11	0.22	0.45	(0.12)	0.09	0.16	0.35	(0.06)	0.04	0.08	0.12
2002	(0.77)	(0.09)	0.18	0.43	(0.23)	0.06	0.18	0.44	(0.07)	0.09	0.17	0.36	(0.04)	0.04	0.09	0.14
2003	(0.90)	(0.15)	0.13	0.39	(0.20)	0.11	0.25	0.47	(0.10)	0.09	0.18	0.37	(0.07)	0.06	0.07	0.14

Table C18 EBITDA/Sales, Ontario Dairy Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	0.01	0.29	0.37	0.52	0.22	0.38	0.44	0.50	0.15	0.33	0.41	0.48	0.13	0.30	0.37	0.38
1991	(0.09)	0.33	0.40	0.50	0.21	0.36	0.43	0.48	0.19	0.33	0.40	0.48	0.09	0.29	0.32	0.39
1992	(0.11)	0.26	0.38	0.50	0.20	0.36	0.41	0.48	0.21	0.33	0.40	0.47	0.15	0.29	0.35	0.38
1993	(0.08)	0.29	0.40	0.50	0.16	0.33	0.39	0.48	0.15	0.31	0.38	0.47	0.15	0.29	0.35	0.37
1994	(0.05)	0.32	0.36	0.52	0.16	0.31	0.39	0.47	0.14	0.29	0.37	0.45	0.16	0.27	0.35	0.35
1995	(0.11)	0.34	0.39	0.52	0.17	0.33	0.40	0.47	0.17	0.31	0.38	0.46	0.14	0.29	0.33	0.38
1996	(0.08)	0.32	0.36	0.47	0.15	0.30	0.37	0.47	0.16	0.31	0.36	0.45	0.17	0.28	0.36	0.35
1997	(0.06)	0.25	0.37	0.59	0.14	0.29	0.36	0.46	0.14	0.30	0.37	0.44	0.15	0.28	0.34	0.35
1998	(0.19)	0.22	0.36	0.53	0.15	0.32	0.37	0.49	0.16	0.31	0.38	0.45	0.14	0.30	0.38	0.35
1999	(0.21)	0.22	0.46	0.52	0.15	0.32	0.42	0.50	0.17	0.34	0.40	0.47	0.17	0.33	0.40	0.39
2000	(0.12)	0.49	0.40	0.52	0.16	0.32	0.38	0.52	0.18	0.32	0.40	0.47	0.17	0.35	0.40	0.42
2001	(0.09)	0.44	0.45	0.52	0.13	0.32	0.38	0.48	0.18	0.31	0.39	0.48	0.20	0.36	0.39	0.41
2002	(0.22)	0.32	0.39	0.55	0.12	0.29	0.37	0.50	0.17	0.30	0.39	0.46	0.18	0.34	0.39	0.41
2003	(0.21)	0.50	0.50	0.63	0.09	0.26	0.36	0.50	0.16	0.30	0.38	0.47	0.17	0.33	0.41	0.41

Table C19 EBITDA/Sales, Ontario Poultry Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.25)	(0.00)	0.22	0.58	0.03	0.21	0.30	0.41	0.10	0.20	0.27	0.33	0.03	0.18	0.24	0.27
1991	(0.28)	0.34	0.34	0.56	0.06	0.19	0.33	0.46	0.09	0.21	0.28	0.36	0.03	0.19	0.21	0.26
1992	(0.49)	0.14	0.34	0.53	0.04	0.19	0.26	0.44	0.06	0.20	0.29	0.37	(0.13)	0.16	0.22	0.24
1993	(0.18)	0.21	0.36	0.38	0.06	0.18	0.26	0.38	0.08	0.19	0.27	0.39	(0.00)	0.15	0.22	0.22
1994	(0.81)	(0.10)	0.36	0.52	0.08	0.20	0.25	0.41	(0.01)	0.15	0.22	0.34	(0.09)	0.15	0.19	0.18
1995	(0.59)	0.17	0.35	0.61	0.04	0.20	0.26	0.39	0.08	0.19	0.28	0.38	(0.01)	0.14	0.21	0.18
1996	(0.34)	(0.03)	0.24	0.52	(0.01)	0.15	0.22	0.35	0.05	0.17	0.24	0.37	(0.01)	0.14	0.20	0.17
1997	(1.00)	(0.02)	0.33	0.59	0.04	0.15	0.22	0.40	0.04	0.17	0.23	0.38	0.03	0.15	0.20	0.21
1998	(0.20)	0.07	0.31	0.45	0.07	0.19	0.27	0.38	0.08	0.23	0.26	0.35	0.03	0.14	0.22	0.19
1999	(1.35)	(0.02)	0.23	0.72	(0.28)	0.18	0.25	0.40	0.09	0.22	0.28	0.39	0.05	0.18	0.24	0.19
2000	(1.32)	(0.36)	0.32	0.43	0.07	0.26	0.31	0.47	0.08	0.20	0.25	0.35	(0.00)	0.15	0.23	0.21
2001	(1.76)	0.06	0.45	0.70	(0.21)	0.23	0.31	0.53	0.07	0.18	0.25	0.36	(0.00)	0.18	0.25	0.18
2002	(0.49)	0.01	0.23	0.67	(0.05)	0.25	0.30	0.64	0.01	0.16	0.23	0.34	0.04	0.16	0.22	0.19
2003	(0.82)	(0.02)	0.44	0.64	0.08	0.18	0.30	0.57	(0.00)	0.17	0.26	0.33	0.02	0.15	0.20	0.19

Table C20 EBITDA/Sales, Ontario Greenhouse Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.27)	0.26	0.25	0.33	0.02	0.17	0.33	0.50	(0.06)	0.12	0.21	0.33	0.01	0.11	0.18	0.23
1991	(0.25)	0.05	0.17	0.41	(0.02)	0.16	0.29	0.44	0.01	0.13	0.21	0.35	(0.01)	0.10	0.20	0.21
1992	(0.20)	0.08	0.24	0.38	0.01	0.13	0.25	0.40	(0.15)	0.08	0.20	0.31	(0.06)	0.11	0.19	0.15
1993	(0.23)	0.13	0.26	0.39	(0.01)	0.12	0.22	0.44	(0.07)	0.09	0.17	0.29	(0.01)	0.10	0.15	0.14
1994	(0.16)	0.01	0.23	0.46	(0.12)	0.12	0.26	0.43	(0.02)	0.10	0.18	0.32	(0.02)	0.10	0.14	0.15
1995	(0.47)	0.17	0.28	0.43	(0.22)	0.15	0.26	0.44	(0.01)	0.11	0.20	0.32	(0.01)	0.12	0.17	0.18
1996	(0.19)	0.17	0.36	0.46	(0.19)	0.14	0.23	0.37	(0.01)	0.09	0.19	0.33	0.03	0.13	0.17	0.17
1997	(0.50)	0.04	0.21	0.43	(0.18)		0.16	0.35	(0.00)	0.15	0.21	0.35	(0.01)	0.12	0.18	0.15
1998	(0.47)	0.17	0.23	0.43	(0.05)	0.09	0.21	0.35	0.01	0.20	0.21	0.33	(0.02)	0.13	0.17	0.20
1999	(0.24)	0.21	0.30	0.46	(0.23)	0.10	0.27	0.47	(0.01)	0.14	0.20	0.37	0.02	0.16	0.16	0.19
2000	(0.70)	0.12	0.40	0.42	(0.08)	0.13	0.33	0.32	(0.09)	0.09	0.17	0.35	(0.02)	0.12	0.15	0.17
2001	(0.36)	0.06	0.21	0.47	(0.03)	0.08	0.26	0.43	(0.00)	0.16	0.21	0.31	0.00	0.10	0.14	0.16
2002	(0.46)	0.19	0.31	0.51	(0.24)	0.07	0.22	0.38	(0.09)	0.12	0.17	0.34	0.00	0.12	0.16	0.15
2003	(0.28)	0.15	0.32	0.47	0.04	0.26	0.37	0.49	0.05	0.23	0.34	0.49	0.09	0.24	0.33	0.35

Table C21 EBITDA/Sales, Ontario Other Crop Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.36)	0.26	0.34	0.51	0.19	0.37	0.39	0.49	0.13	0.28	0.37	0.49				
1991	(0.37)	0.17	0.36	0.50	0.14	0.32	0.36	0.47	0.12	0.29	0.40	0.49				
1992	(0.34)	0.20	0.34	0.51	0.09	0.29	0.37	0.45	0.12	0.24	0.34	0.44				
1993	(0.47)	0.21	0.40	0.50	0.10	0.27	0.33	0.45	0.04	0.23	0.32	0.48				
1994	(0.45)	0.18	0.34	0.48	(0.01)	0.14	0.28	0.43	0.04	0.21	0.28	0.38	0.07		0.32	0.31
1995	(0.37)	0.30	0.37	0.52	0.03	0.31	0.37	0.48	0.11	0.28	0.36	0.46	0.04	0.21	0.32	0.36
1996	(0.52)	0.17	0.43	0.57	0.02	0.23	0.33	0.52	0.08	0.23	0.33	0.47	0.12	0.23	0.29	0.34
1997	(0.35)	0.25	0.39	0.61	0.04	0.24	0.34	0.45	0.11	0.23	0.31	0.40	0.09	0.21	0.30	0.32
1998	(0.26)	0.17	0.38	0.67	0.01	0.21	0.32	0.50	0.08	0.19	0.28	0.39	0.10	0.24	0.25	0.29
1999	(0.50)	0.07	0.33	0.57	0.02	0.23	0.35	0.57	0.02	0.18	0.28	0.40	0.06	0.23	0.29	0.32
2000	(0.55)	0.04	0.29	0.58	(0.09)	0.20	0.32	0.50	0.08	0.20	0.27	0.41	0.03	0.20	0.28	0.31
2001	(0.53)	0.07	0.40	0.57	(0.09)	0.16	0.28	0.42	(0.06)	0.17	0.26	0.39	0.03	0.20	0.29	0.32
2002	(0.64)	0.07	0.38	0.47	(0.04)	0.18	0.30	0.54	(0.03)	0.19	0.25	0.46	0.02	0.20	0.31	0.34
2003	(0.80)	(0.05)	0.33	0.51	(0.15)	0.20	0.28	0.46	(0.02)	0.21	0.32	0.53	0.06	0.22	0.31	0.38

Table C22 EBITDA/Sales, Quebec Grain & Oilseed Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.13)	0.17	0.34	0.51	0.12	0.26	0.35	0.47	0.12	0.27	0.39	0.47				
1991	(0.28)	0.10	0.32	0.45	0.12	0.29	0.40	0.48	0.10	0.28	0.35	0.47				
1992	(0.12)	0.26	0.38	0.46	0.16	0.34	0.44	0.51	0.18	0.28	0.36	0.49				
1993	(0.13)	0.22	0.32	0.46	0.12	0.28	0.34	0.48	0.14	0.30	0.41	0.44				
1994	(0.15)	0.22	0.34	0.45	0.11	0.27	0.37	0.46	0.14	0.27	0.41	0.44				
1995	(0.15)	0.26	0.38	0.47	0.10	0.29	0.36	0.44	0.11	0.26	0.35	0.43				
1996	(0.27)	0.13	0.29	0.44	0.07	0.29	0.38	0.50	0.14	0.31	0.38	0.49	0.18	0.31	0.36	0.42
1997	(0.37)	0.16	0.30	0.46	0.06	0.31	0.38	0.48	0.11	0.25	0.37	0.47	0.12	0.26	0.35	0.44
1998	(0.13)	0.18	0.37	0.50	0.12	0.32	0.39	0.48	0.15	0.30	0.38	0.50	0.20	0.30	0.39	0.40
1999	(0.13)	0.25	0.39	0.49	0.05	0.31	0.38	0.49	0.16	0.34	0.39	0.48	0.18	0.34	0.41	0.41
2000	(0.19)	0.22	0.37	0.53	0.05	0.31	0.38	0.52	0.12	0.29	0.40	0.49	0.21	0.32	0.37	0.41
2001	(0.22)	0.19	0.31	0.46	(0.02)	0.26	0.35	0.47	0.05	0.27	0.37	0.48	0.09	0.27	0.33	0.37
2002	(0.26)	0.21	0.31	0.50	(0.03)	0.25	0.38	0.48	(0.03)	0.21	0.33	0.48	0.07	0.22	0.33	0.38
2003	(0.18)	0.17	0.32	0.51	(0.02)	0.25	0.34	0.49	(0.08)	0.28	0.37	0.48	0.10	0.29	0.34	0.37

Table C23 EBITDA/Sales, Quebec Beef Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.27)	0.18	0.35	0.51	0.00	0.24	0.33	0.48	(0.14)	0.12	0.19	0.35				
1991	(0.38)	0.17	0.38	0.50	(0.08)	0.22	0.37	0.45	(0.22)	0.08	0.19	0.29				
1992	(0.42)	0.14	0.37	0.45	(0.06)	0.20	0.34	0.48	(0.02)	0.12	0.21	0.33	(0.05)		0.15	0.14
1993	(0.32)	0.13	0.29	0.47	(0.03)	0.15	0.30	0.44	(0.16)	0.07	0.18	0.35	(0.02)	0.05	0.10	0.14
1994	(0.53)	0.11	0.31	0.47	(0.21)	0.17	0.32	0.60	(0.18)	0.10	0.20	0.64	(0.04)	0.04	0.10	0.20
1995	(0.33)	0.12	0.32	0.48	0.01	0.22	0.35	0.53	(0.02)	0.09	0.18	0.35	(0.07)	0.04	0.07	0.14
1996	(0.40)	0.16	0.28	0.46	(0.03)	0.19	0.29	0.40	(0.07)	0.09	0.18	0.38	(0.04)	0.06	0.15	0.16
1997	(0.33)	0.15	0.34	0.46	(0.18)	0.16	0.29	0.49	(0.19)	0.06	0.16	0.33	(0.09)	0.02	0.11	0.15
1998	(0.19)	0.14	0.29	0.45	(0.01)	0.23	0.30	0.52	(0.21)	0.08	0.18	0.32	(0.10)	0.06	0.10	0.13
1999	(0.29)	0.18	0.29	0.46	0.00	0.22	0.35	0.48	(0.08)	0.09	0.15	0.34	(0.12)	0.04	0.08	0.15
2000	(0.38)	0.18	0.34	0.49	(0.12)	0.22	0.38	0.61	(0.21)	0.07	0.19	0.43	(0.14)	0.02	0.08	0.16
2001	(0.36)	0.20	0.37	0.54	(0.01)	0.29	0.42	0.59	(0.13)	0.11	0.23	0.49	(0.09)	0.03	0.08	0.14
2002	(0.37)	0.18	0.33	0.49	(0.08)	0.26	0.37	0.60	(0.08)	0.08	0.21	0.49	(0.10)	0.04	0.08	0.14
2003	(0.25)	0.25	0.35	0.48	(0.10)	0.28	0.42	0.62	(0.13)	0.08	0.20	0.40	(0.09)	0.04	0.11	0.17

Table C24 EBITDA/Sales, Quebec Dairy Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	0.18	0.36	0.41	0.51	0.26	0.39	0.42	0.47	0.23	0.32	0.40	0.46				
1991	0.15	0.36	0.40	0.50	0.27	0.38	0.43	0.47	0.22	0.33	0.40	0.46				
1992	0.17	0.34	0.39	0.48	0.24	0.37	0.42	0.46	0.20	0.32	0.39	0.44				
1993	0.18	0.34	0.40	0.49	0.24	0.37	0.41	0.45	0.19	0.33	0.39	0.46				
1994	0.13	0.34	0.40	0.48	0.24	0.37	0.39	0.45	0.19	0.31	0.37	0.45				
1995	0.16	0.34	0.40	0.49	0.25	0.37	0.41	0.46	0.21	0.32	0.37	0.43	0.17	0.28	0.35	0.40
1996	0.06	0.32	0.39	0.48	0.20	0.32	0.38	0.44	0.19	0.29	0.35	0.43	0.15	0.27	0.34	0.36
1997	(0.02)	0.32	0.39	0.50	0.21	0.34	0.38	0.45	0.17	0.30	0.36	0.45	0.19	0.27	0.32	0.38
1998	0.18	0.37	0.41	0.52	0.24	0.36	0.40	0.47	0.24	0.33	0.38	0.45	0.17	0.30	0.35	0.37
1999	0.10	0.35	0.43	0.52	0.25	0.38	0.42	0.49	0.24	0.36	0.40	0.47	0.21	0.30	0.39	0.39
2000	0.22	0.36	0.45	0.51	0.25	0.37	0.41	0.48	0.26	0.36	0.41	0.46	0.23	0.33	0.38	0.42
2001	(0.08)	0.33	0.40	0.51	0.22	0.37	0.42	0.48	0.24	0.34	0.40	0.46	0.21	0.32	0.35	0.39
2002	0.01	0.31	0.42	0.54	0.18	0.35	0.39	0.47	0.20	0.33	0.39	0.46	0.16	0.29	0.36	0.40
2003	(0.14)	0.28	0.36	0.49	0.20	0.35	0.39	0.47	0.21	0.34	0.40	0.45	0.22	0.30	0.37	0.40

Table C25 EBITDA/Sales, Quebec Poultry Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.28)	0.18	0.22	0.44	0.02	0.21	0.30	0.46	0.04	0.17	0.20	0.33	0.05	0.16	0.20	0.22
1991	(0.38)	0.18	0.35	0.62	0.10	0.21	0.29	0.55	0.08	0.17	0.24	0.37	0.06	0.15	0.19	0.23
1992	(0.24)	0.03	0.29	0.50	0.03	0.17	0.25	0.40	0.02	0.16	0.20	0.33	0.00	0.10	0.18	0.17
1993					0.08		0.24	0.49	0.01	0.16	0.21	0.39	0.03	0.16	0.19	0.16
1994	(0.23)	0.13	0.24	0.25	0.02	0.17	0.24	0.45	0.02	0.13	0.19	0.34	0.04	0.13	0.12	0.16
1995	(0.18)	0.11	0.44	0.47	0.04	0.14	0.24	0.36	0.05	0.13	0.19	0.31	0.02	0.11	0.14	0.18
1996	(0.19)	0.07	0.17	0.29	0.02	0.18	0.28	0.46	(0.00)	0.11	0.16	0.31	(0.01)	0.09	0.11	0.18
1997	(0.23)	0.08	0.27	0.41	0.07	0.19	0.34	0.64	0.02	0.12	0.18	0.31	(0.01)	0.12	0.13	0.19
1998	(0.02)	0.24	0.25	0.41	0.07	0.24	0.31	0.55	0.09	0.16	0.20	0.38	0.04	0.17	0.18	0.18
1999	(0.17)	0.14	0.26	0.32	0.05		0.24	0.61	0.03	0.15	0.23	0.39	0.04	0.14	0.20	0.16
2000	(0.08)	0.14	0.40	0.44	0.10	0.16	0.32	0.49	0.03	0.15	0.21	0.36	0.06	0.17	0.19	0.16
2001					(0.06)	0.16	0.28	0.48	(0.03)	0.13	0.22	0.36	0.02	0.15	0.17	0.17
2002	(0.25)	0.06	0.28	0.43	0.00	0.22	0.23	0.49	0.05	0.15	0.20	0.36	(0.00)	0.16	0.18	0.17
2003		0.19		0.33	(0.23)	0.11	0.24	0.36	0.05	0.14	0.19	0.33	(0.00)	0.14	0.14	0.18

Table C26 EBITDA/Sales, Quebec Other Crop Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.15)	0.29	0.42	0.47	0.09	0.29	0.36	0.42	0.14	0.29	0.35	0.45				
1991	(0.17)	0.32	0.37	0.47	0.10	0.31	0.40	0.44	0.10	0.26	0.35	0.42				
1992	(0.21)	0.30	0.39	0.47	0.14	0.32	0.41	0.53								
1993	(0.03)	0.29	0.47	0.51												
1994	(0.17)	0.32	0.46	0.57	0.13	0.32	0.39	0.50								
1995	(0.07)	0.39	0.49	0.57	0.12	0.23	0.38	0.47								
1996	(0.01)	0.35	0.51	0.57	0.02	0.19	0.34	0.49								
1997	0.03	0.38	0.50	0.55	(0.18)	0.27	0.39	0.52								
1998	(0.09)	0.41	0.49	0.61	0.24	0.52	0.59	0.60								
1999	0.04	0.44	0.48	0.59	(0.01)	0.44	0.43	0.61								
2000	(0.17)	0.32	0.39	0.51	(0.04)	0.27	0.46	0.48								
2001	(0.18)	0.38	0.43	0.58	0.16	0.29	0.42	0.57	0.15	0.28	0.39	0.57				
2002	(0.02)	0.41	0.46	0.57	0.04	0.33	0.42	0.56	0.09	0.29	0.41	0.58				
2003	(0.22)	0.31	0.39	0.52	0.05	0.31	0.42	0.50			0.39					

Table C27 EBITDA/Sales, Quebec Hog Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	(0.17)	0.14	0.31	0.40	0.07	0.23	0.28	0.40	0.04	0.18	0.24	0.34	(0.04)	0.14	0.20	0.27
1991	(0.35)	0.12	0.26	0.48	0.04	0.21	0.29	0.41	0.03	0.18	0.24	0.33	(0.14)	0.09	0.16	0.26
1992	(0.12)	0.21	0.32	0.50	(0.00)	0.21	0.29	0.39	0.08	0.19	0.25	0.33	(0.01)	0.11	0.19	0.18
1993	(0.14)	0.14	0.31	0.49	0.04	0.21	0.30	0.38	0.02	0.16	0.21	0.31	(0.04)	0.09	0.17	0.14
1994	(0.34)	0.13	0.24	0.49	(0.06)	0.20	0.24	0.39	0.01	0.13	0.20	0.28	(0.01)	0.10	0.17	0.15
1995	(0.14)	0.19	0.34	0.47	0.04	0.21	0.30	0.39	0.02	0.15	0.20	0.31	(0.04)	0.11	0.16	0.12
1996	(0.24)	0.15	0.33	0.53	(0.10)	0.19	0.30	0.43	0.02	0.15	0.22	0.32	(0.05)	0.09	0.16	0.14
1997	(0.15)	0.28	0.33	0.59	0.06	0.21	0.30	0.54	0.02	0.14	0.19	0.32	(0.04)	0.10	0.16	0.16
1998	(0.20)	0.13	0.33	0.55	(0.09)	0.18	0.30	0.51	(0.11)	0.12	0.20	0.33	(0.03)	0.09	0.15	0.16
1999	(0.76)	0.26	0.36	0.68	0.04	0.25	0.36	0.57	(0.01)	0.15	0.24	0.35	(0.02)	0.12	0.18	0.15
2000	(0.29)	0.16	0.37	0.57	(0.11)	0.25	0.38	0.57	0.03	0.16	0.24	0.34	(0.06)	0.13	0.19	0.15
2001	(0.42)	0.18	0.42	0.65	(0.01)	0.22	0.38	0.60	0.03	0.18	0.23	0.36	0.00	0.15	0.18	0.16
2002	(0.27)	0.40	0.60	0.69	(0.07)	0.18	0.37	0.70	(0.06)	0.13	0.21	0.35	(0.05)	0.12	0.17	0.14
2003	(0.10)	0.34	0.49	0.59	(0.17)	0.26	0.49	0.67	(0.06)	0.13	0.20	0.35	(0.05)	0.11	0.17	0.13

Table C28 EBITDA/Sales, Quebec Other Vegetable Farms

	$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	0.07	0.26	0.35	0.41	0.09	0.24	0.30	0.44								
1991	0.02	0.27	0.33	0.49	0.09	0.26	0.34	0.45								
1992	(0.02)	0.20	0.28	0.40	0.13	0.27	0.37	0.46								
1993	(0.12)	0.20	0.35	0.39	0.10	0.27	0.32	0.47								
1994	(0.11)	0.22	0.30	0.45	0.05	0.24	0.33	0.40								
1995	(0.11)	0.20	0.39	0.44	0.11	0.19	0.29	0.41								
1996	(0.08)	0.19	0.32	0.47	0.04	0.26	0.31	0.39	0.03	0.22		0.46				
1997	(0.08)	0.16	0.27	0.35	0.09	0.26	0.31	0.43								
1998	0.04	0.28	0.32	0.49	0.09	0.23	0.33	0.35	0.06	0.23	0.32	0.33				
1999	(0.20)	0.23	0.37	0.44	0.06	0.24	0.29	0.36	0.08	0.19	0.24	0.38	0.07	0.19	0.22	0.25
2000	(0.14)	0.26	0.36	0.49	0.08	0.29	0.31	0.35	0.11	0.22		0.38	(0.02)	0.18	0.29	0.22
2001	(0.03)	0.26	0.32	0.45	0.05	0.25	0.35	0.40	0.06	0.20	0.26	0.41	0.11	0.21	0.26	0.23
2002	(0.14)	0.27	0.30	0.44	(0.05)	0.30	0.32	0.43	0.06	0.18	0.30	0.39	0.08	0.20	0.21	0.20
2003	(0.40)	0.23	0.28	0.51	(0.08)	0.19	0.27	0.43					0.01	0.14	0.24	0.20

Table C29 EBITDA/Sales, Prince Edward Island Potato Farms

	Under $100,000				$100,000 - $249,000				$250,00 - $499,000				$500,000 and more			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1990	-0.141	0.190	0.381	0.455		0.287		0.487								
1991	-0.210	0.177	0.323	0.471	0.045	0.237	0.302	0.462								
1992	-0.697	0.177	0.292	0.448	0.041	0.190	0.309	0.384								
1993	-0.349	0.126	0.276	0.382	-0.041	0.187	0.264	0.422								
1994	-0.266	0.214	0.356	0.476	-0.004			0.495	0.091							
1995	-0.275	0.182	0.312	0.445	-0.006	0.291			0.052	0.263	0.318	0.502	0.118	0.234	0.269	0.295
1996	-0.351	0.079	0.265	0.455				0.399					0.065	0.197	0.237	0.287
1997	-0.499	0.041	0.222	0.496	-0.178	0.147	0.254	0.406								
1998	-0.227	0.129	0.299	0.471							0.269		0.068	0.217	0.268	0.252
1999	-0.333	0.175	0.328	0.592	-0.038	0.189	0.338	0.459					0.051	0.228	0.307	0.270
2000	-0.199	0.103	0.220	0.448									-0.004	0.184	0.273	0.292
2001													0.015	0.240	0.253	0.289
2002													-0.037	0.155	0.229	0.289
2003		0.162		0.722									0.032	0.179	0.223	0.306

Appendix D

Graphs Depicting EBITDA/Sales and EBITDA/Assets by Farm Type and Province Using Data Obtained From Farm Financial Survey

Figure D1

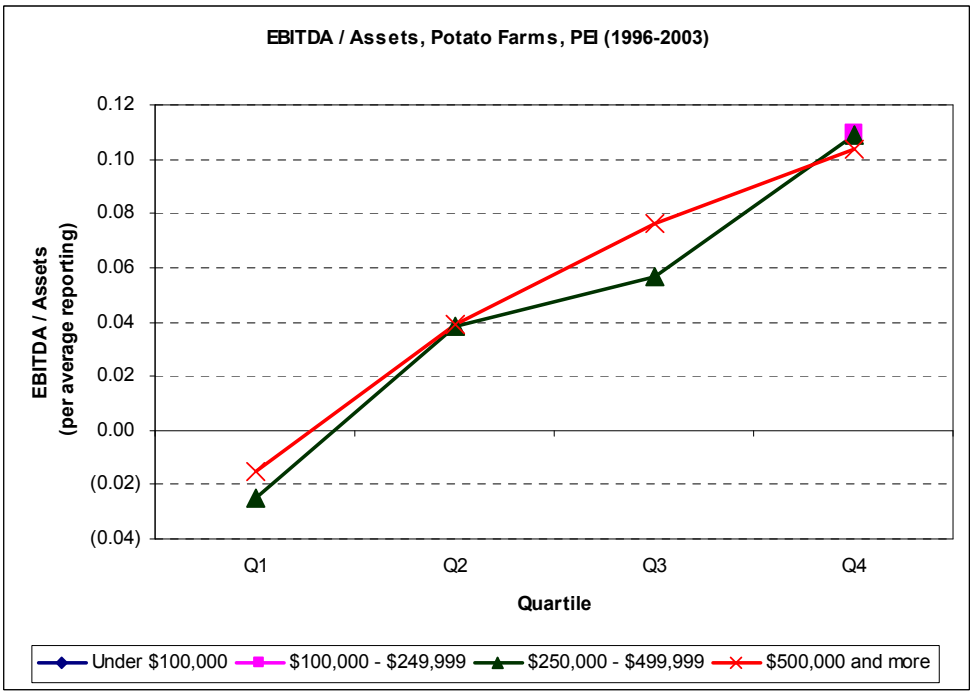


Figure D2

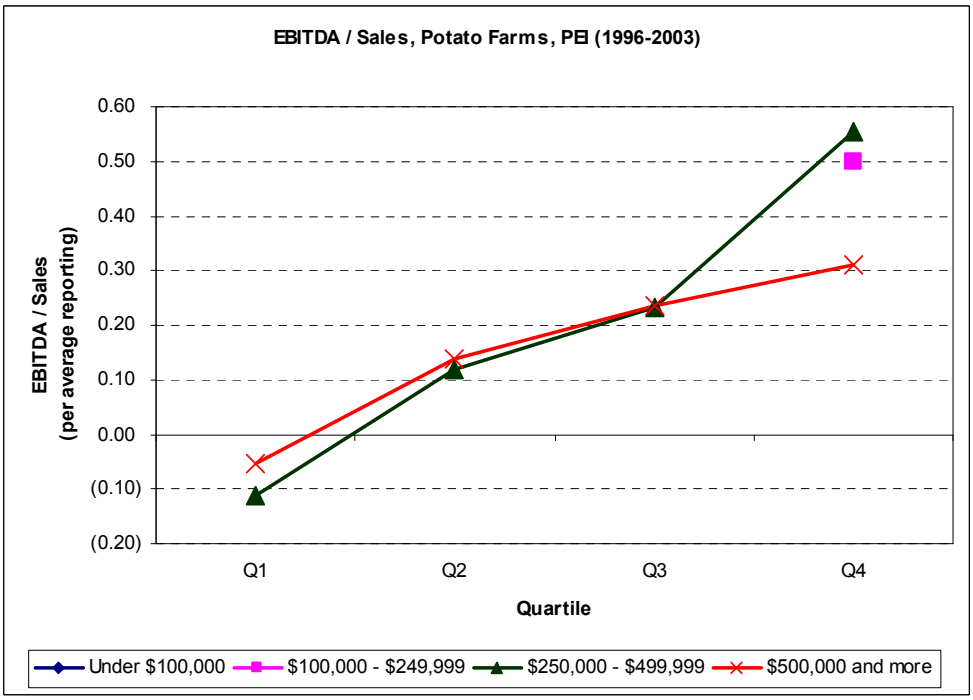


Figure D3

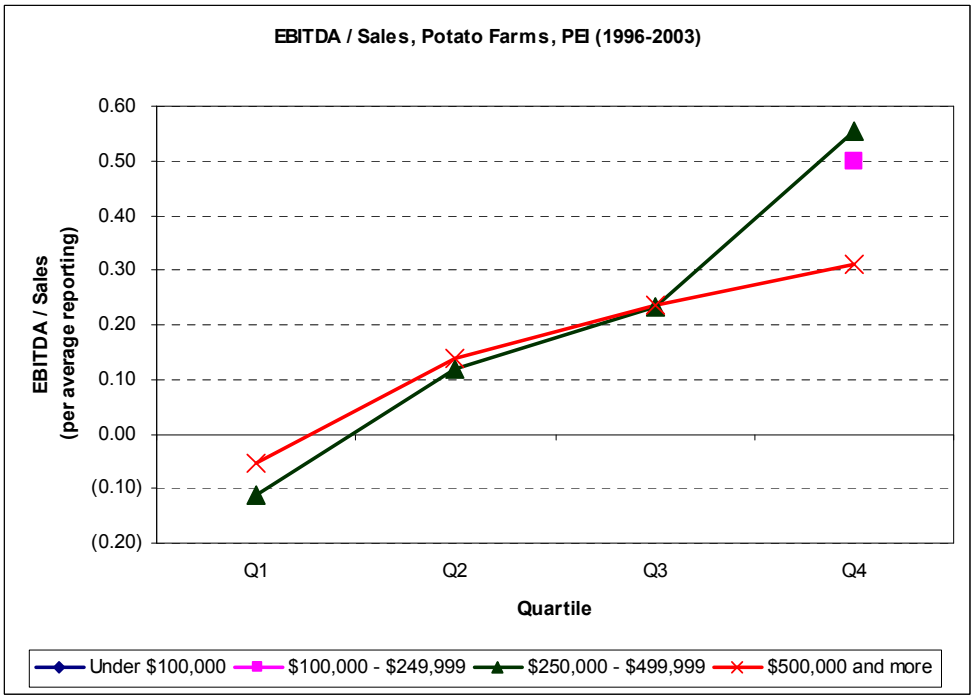


Figure D4

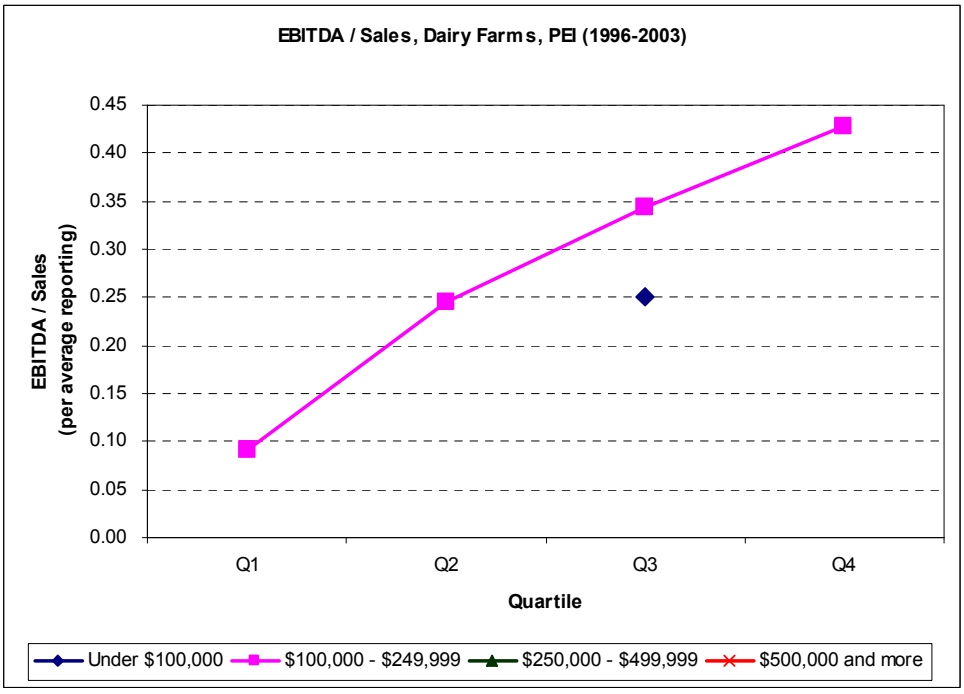


Figure D5

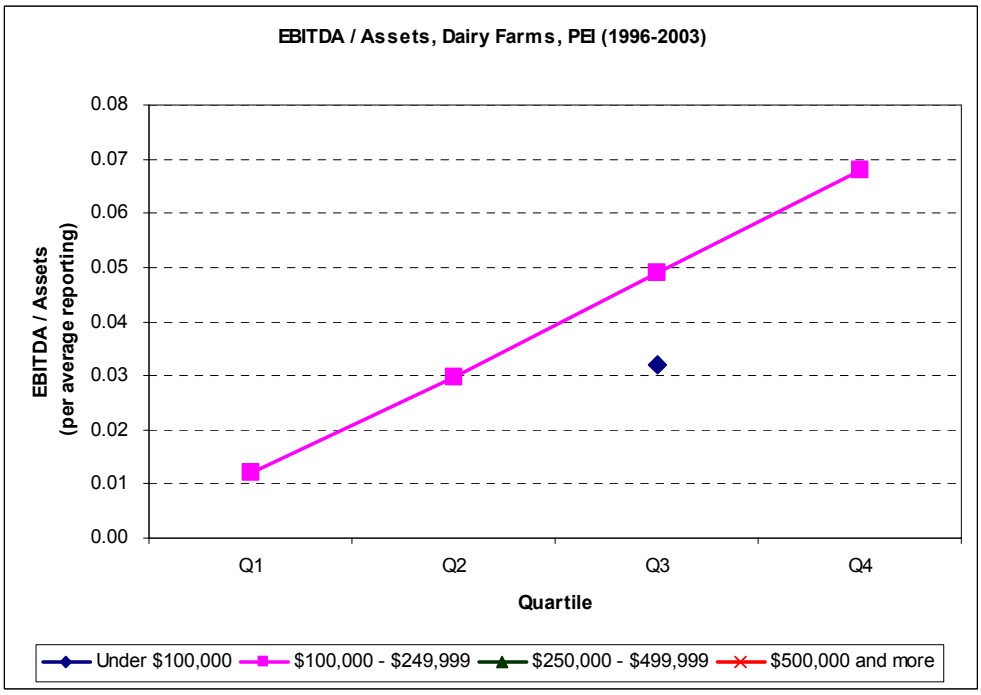


Figure D6

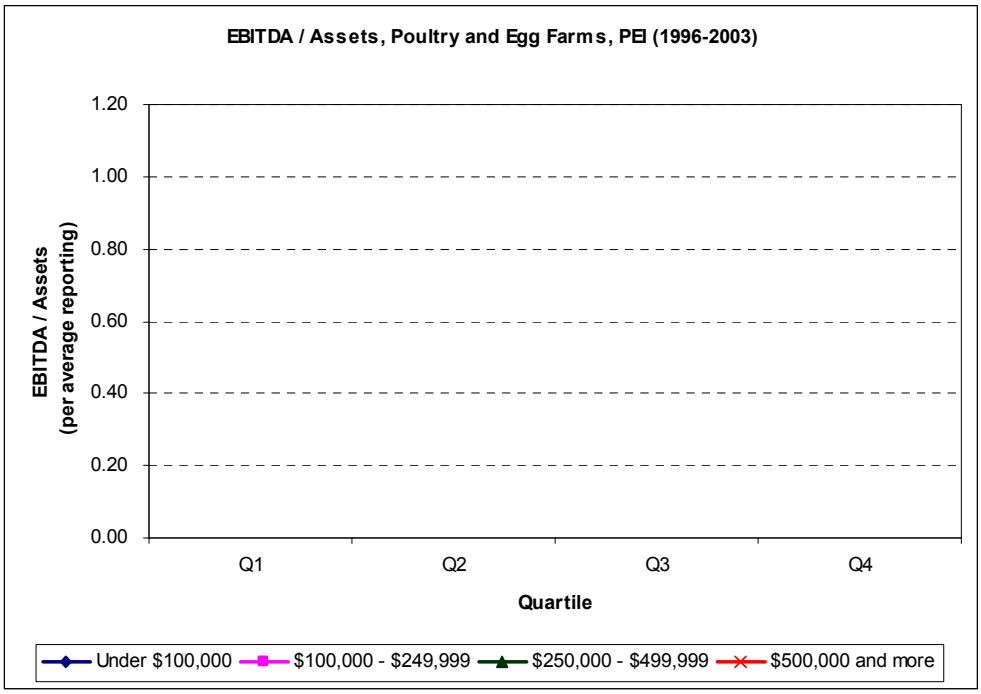


Figure D7

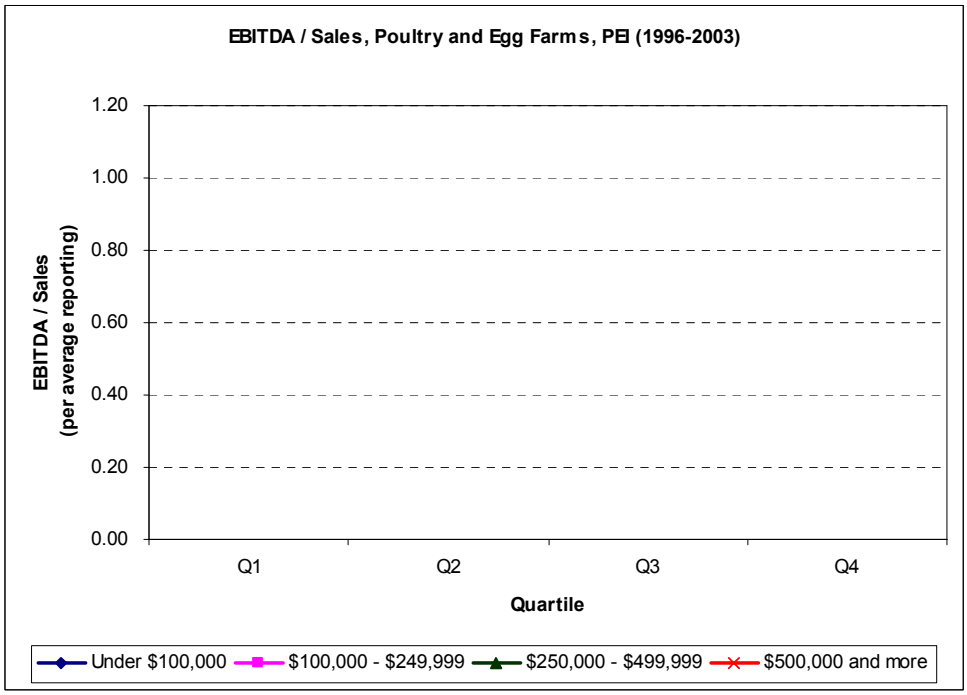


Figure D8

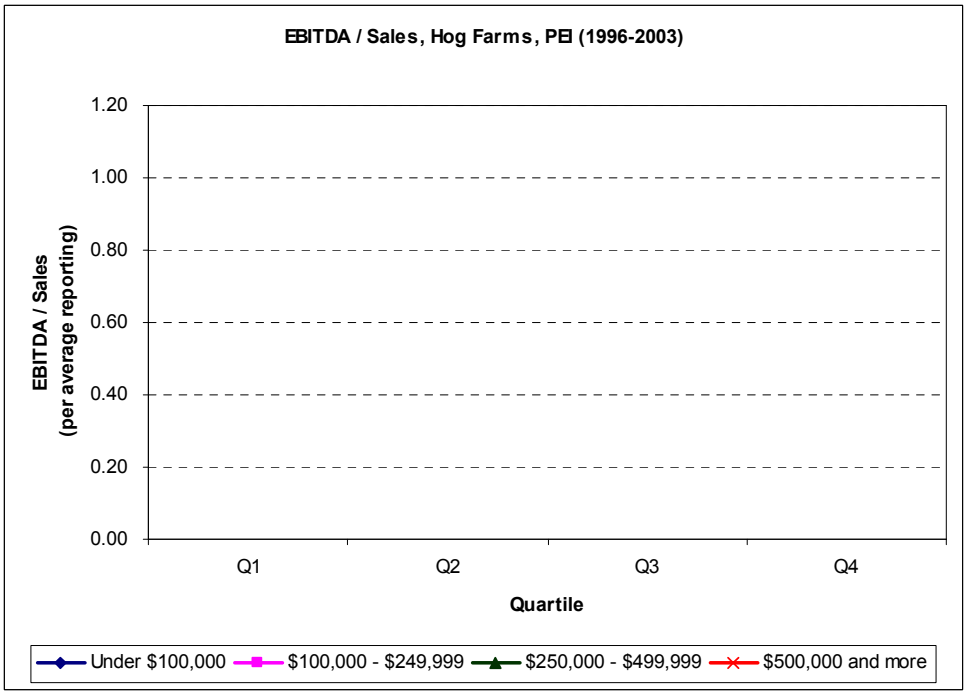


Figure D9

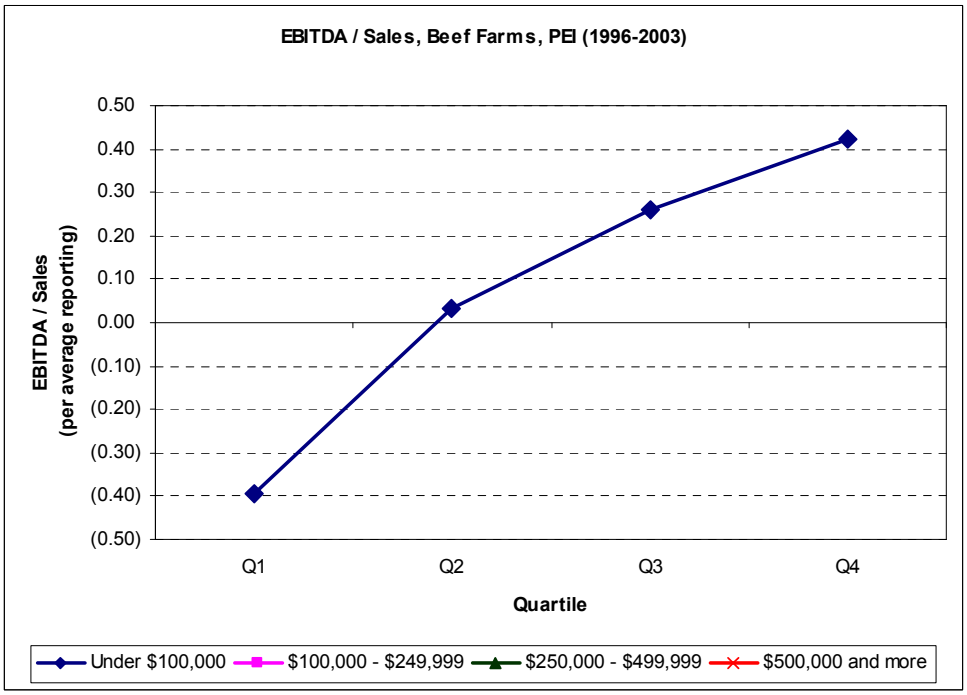


Figure D10

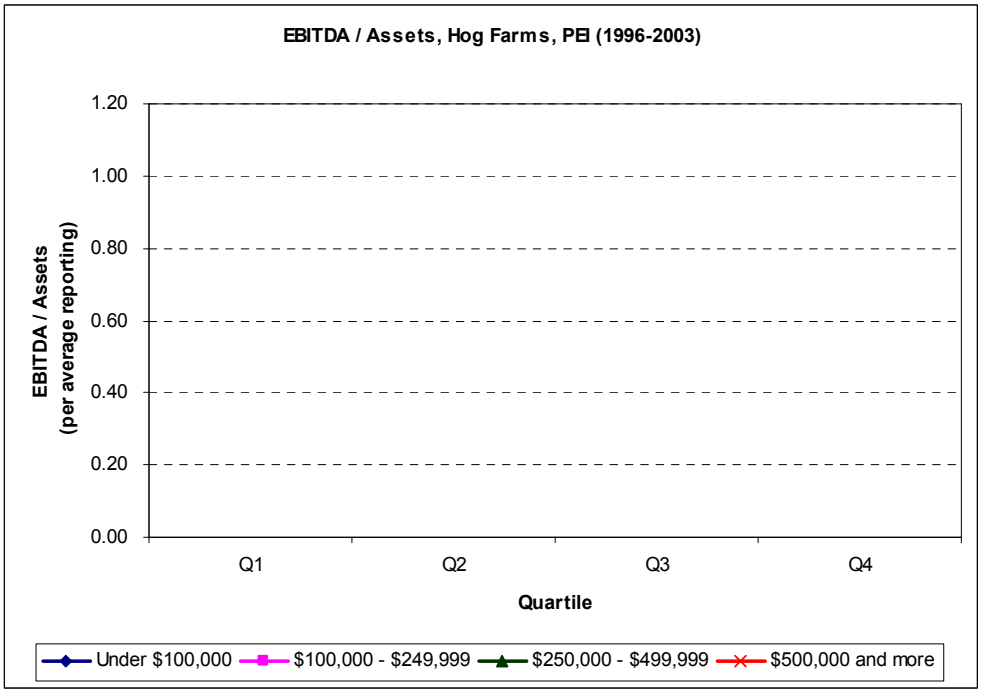


Figure D11

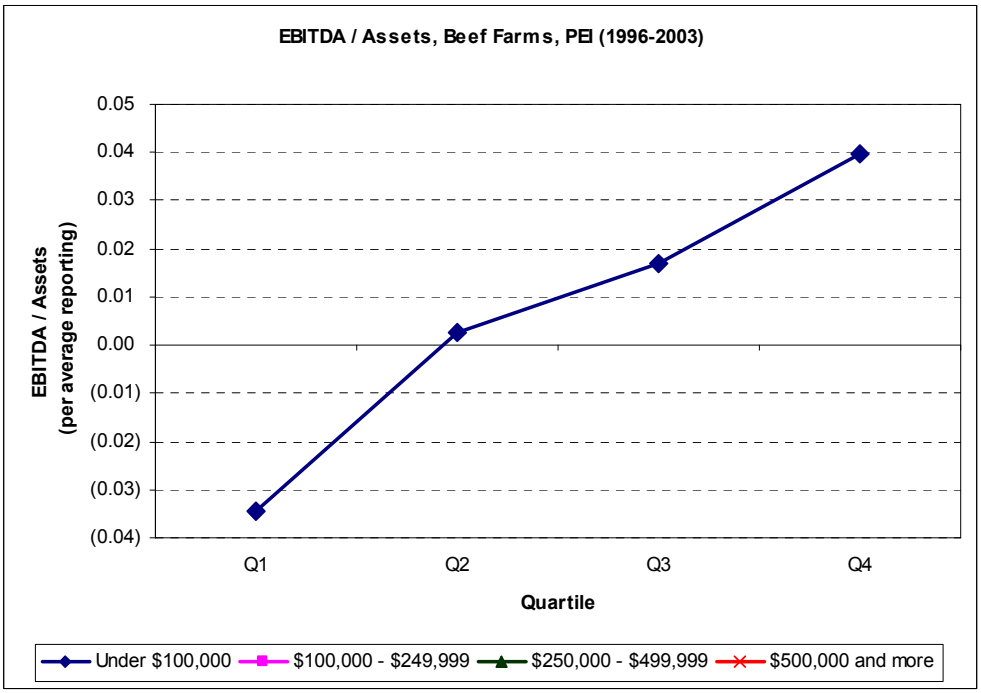


Figure D12

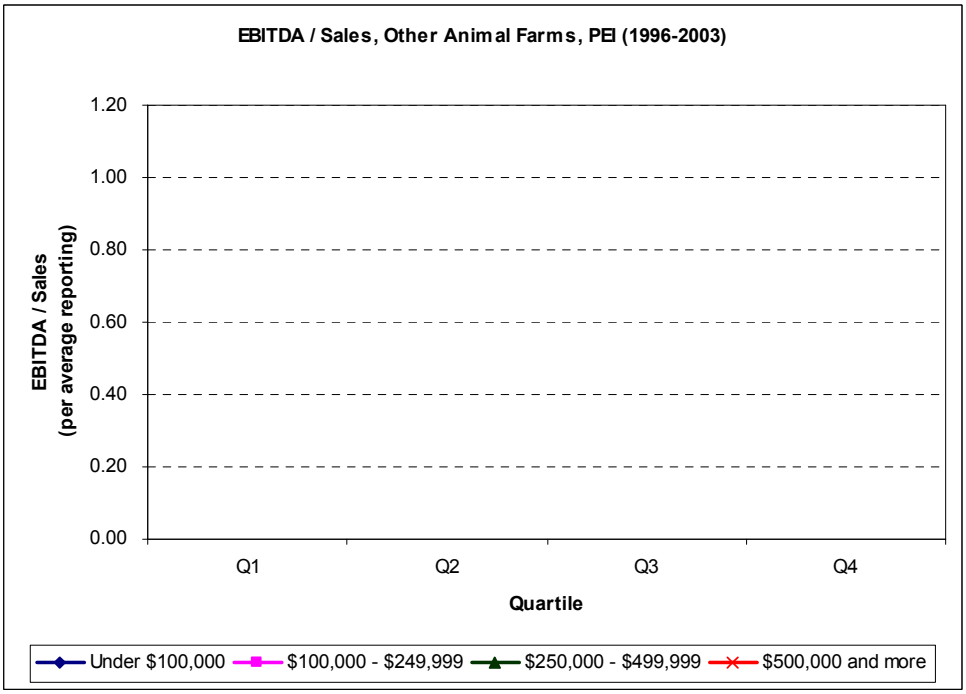


Figure D13

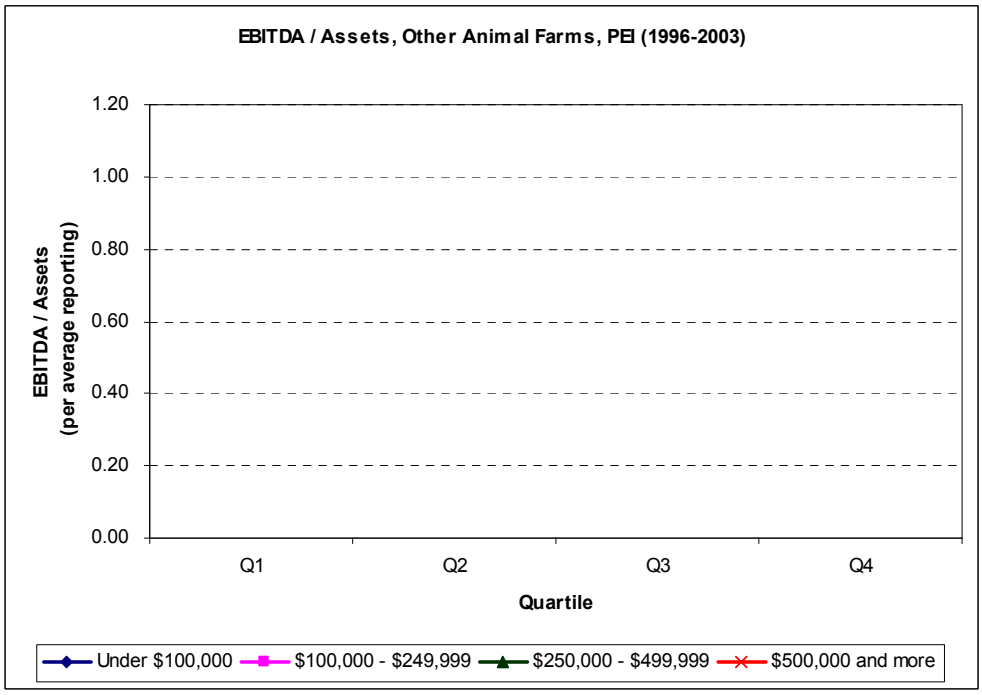


Figure D14

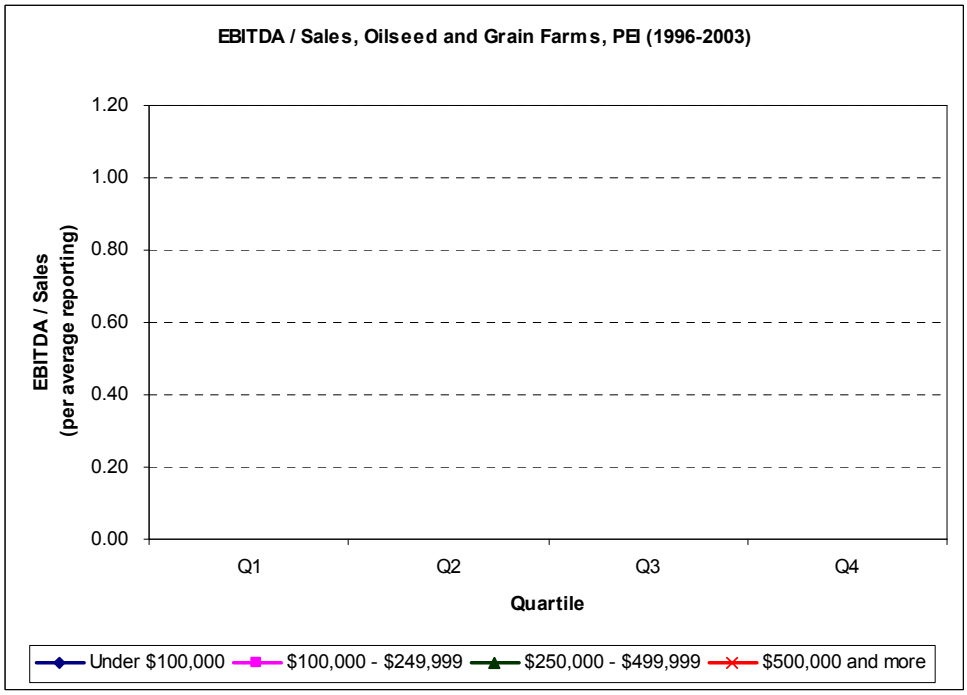


Figure D15

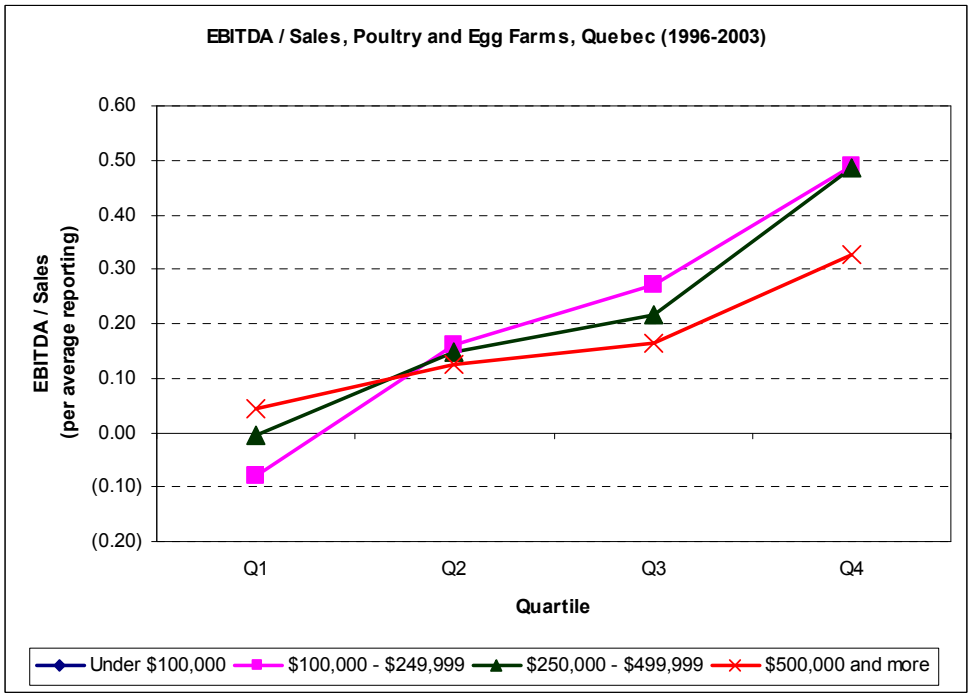


Figure D16

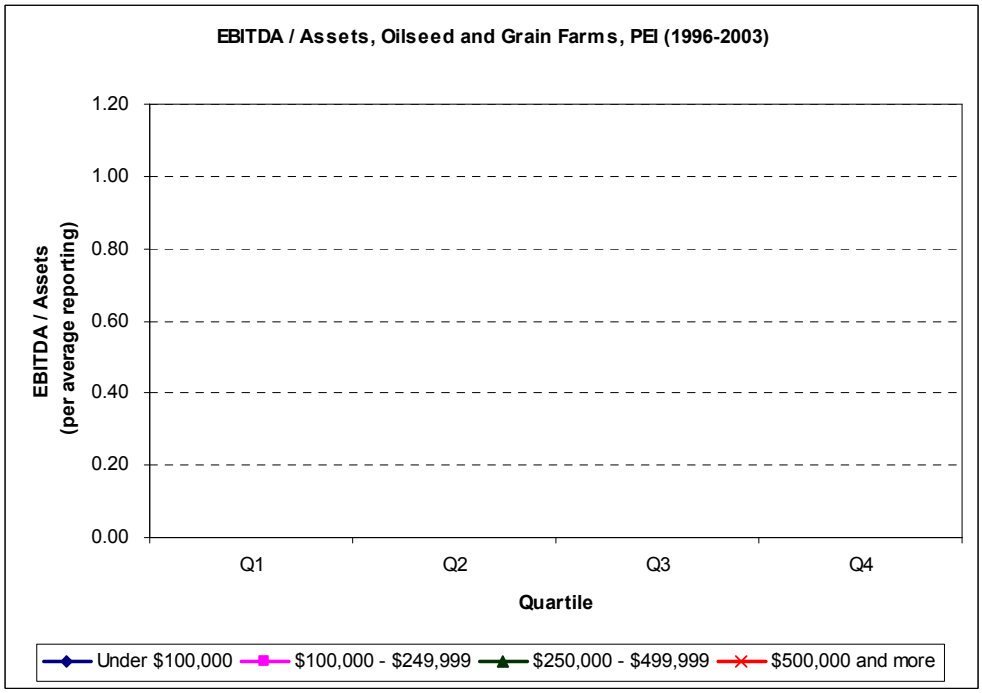


Figure D17

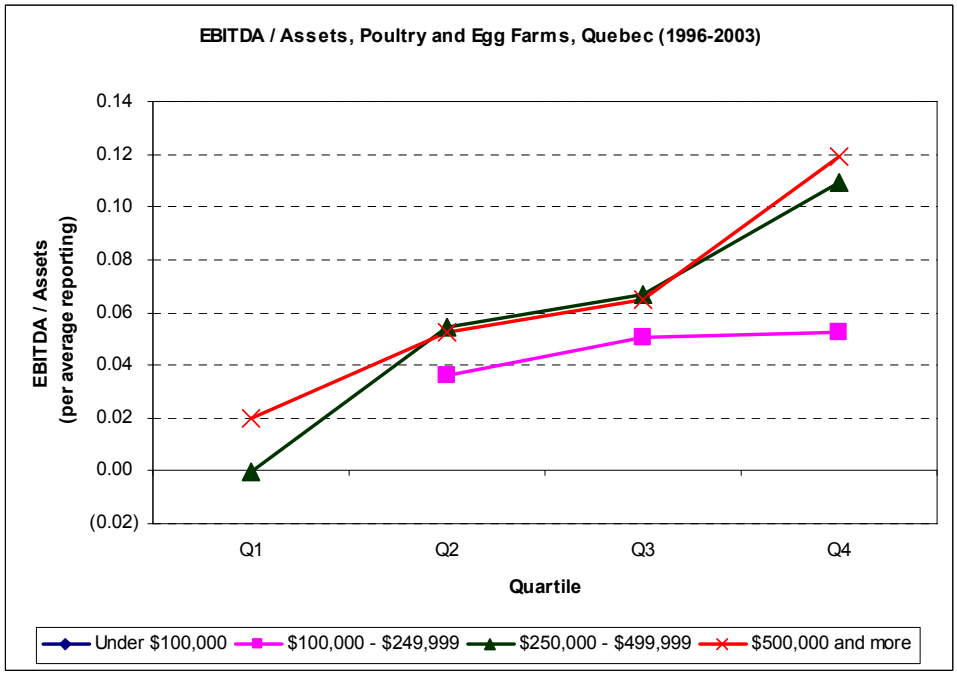


Figure D18

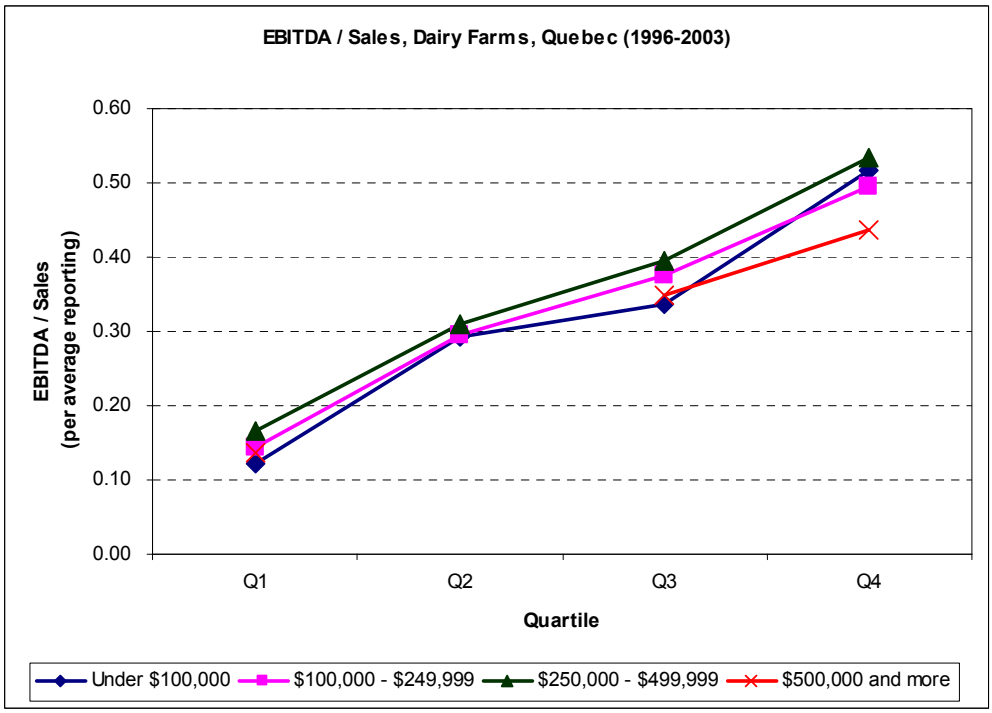


Figure D19

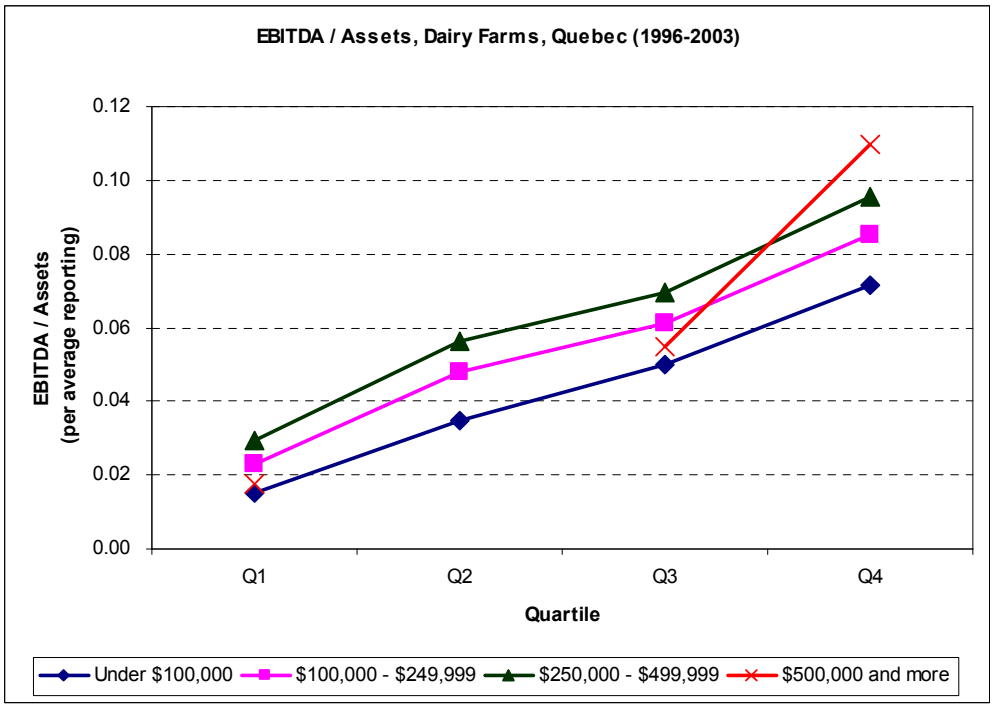


Figure D20

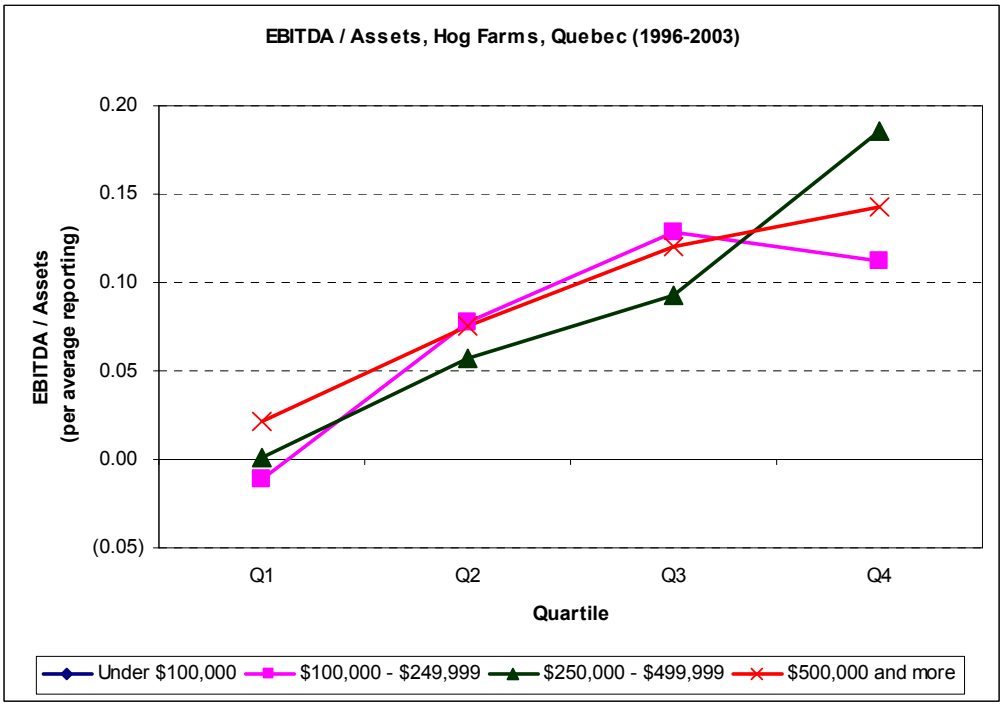


Figure D21

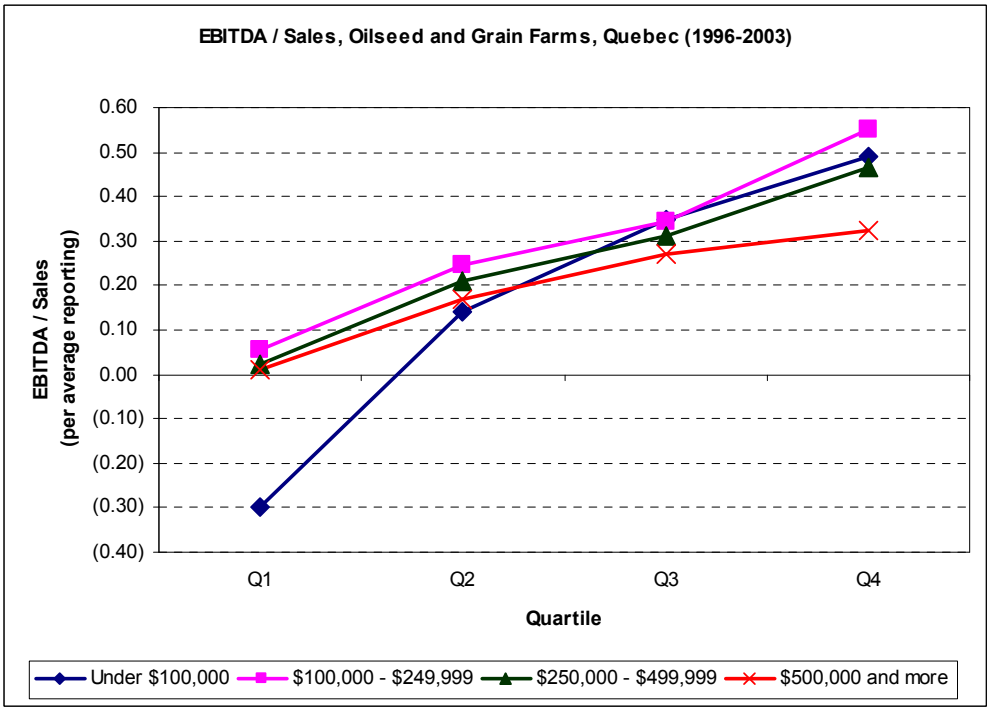


Figure D22

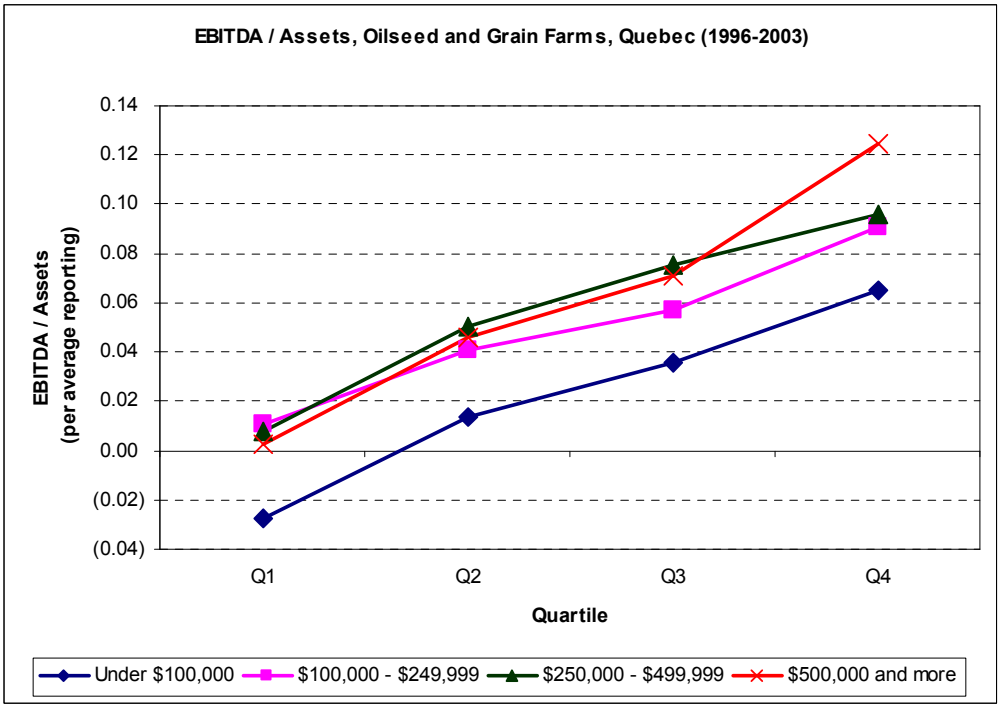


Figure D23

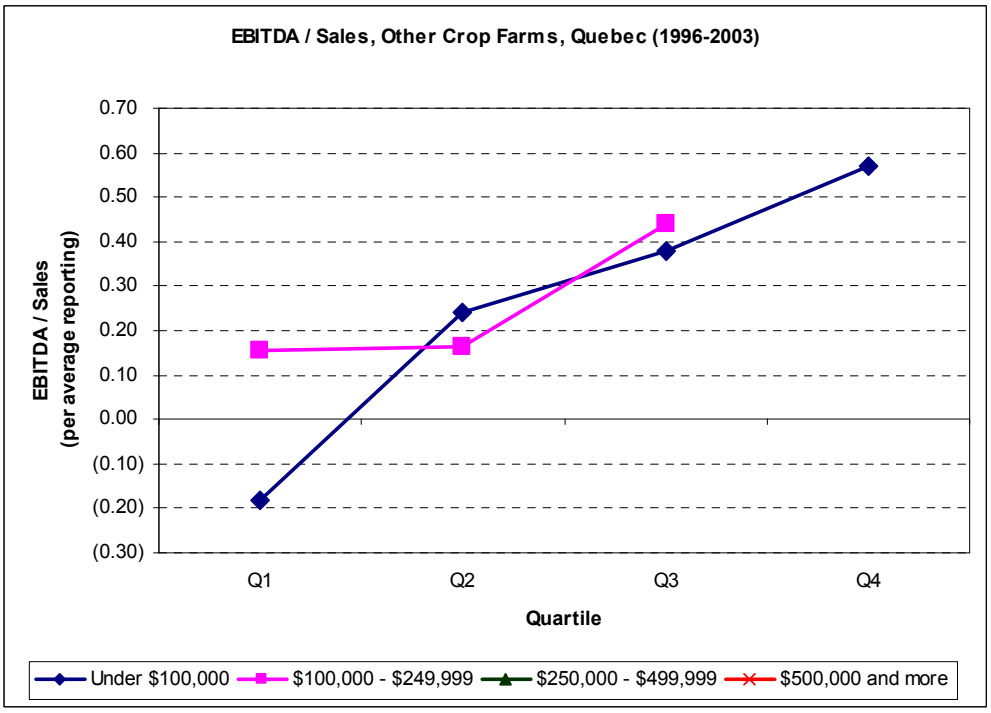


Figure D24

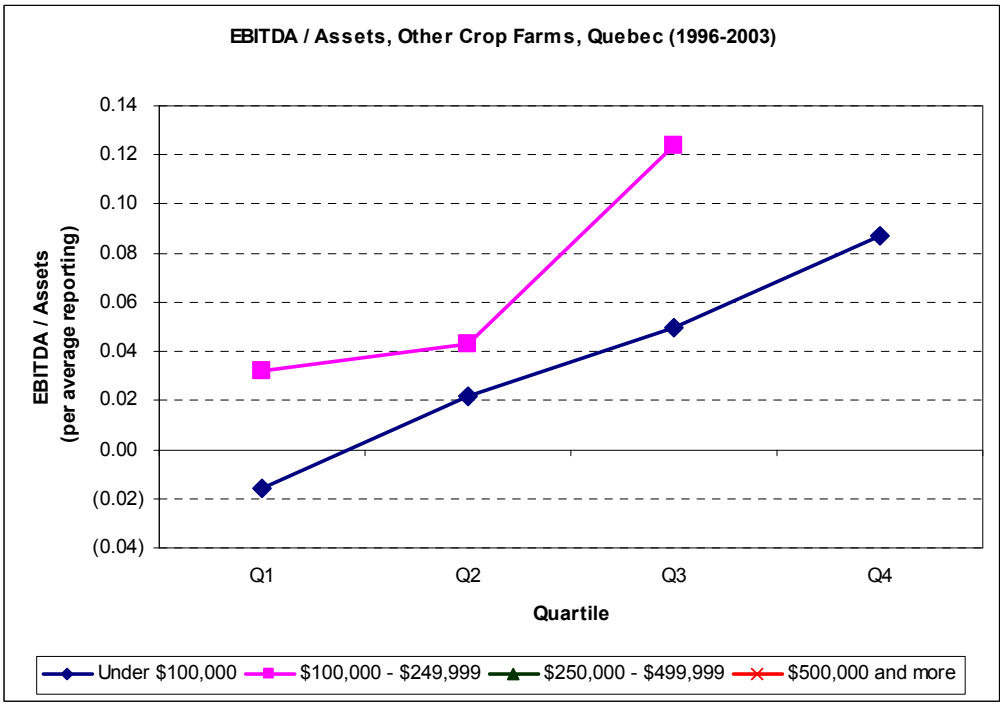


Figure D25

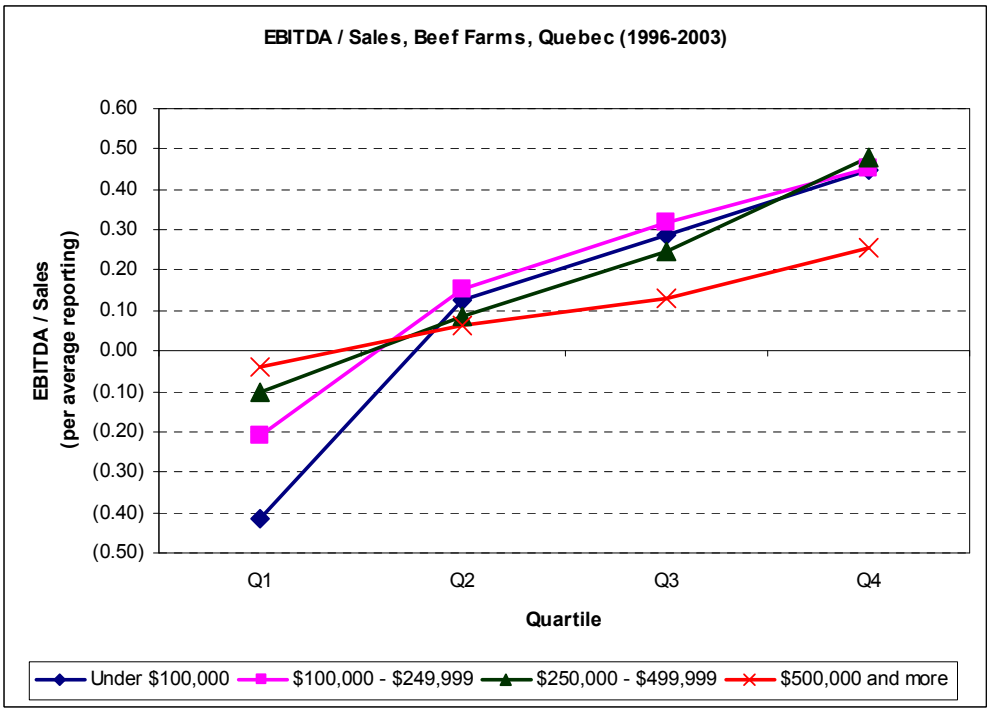


Figure D26

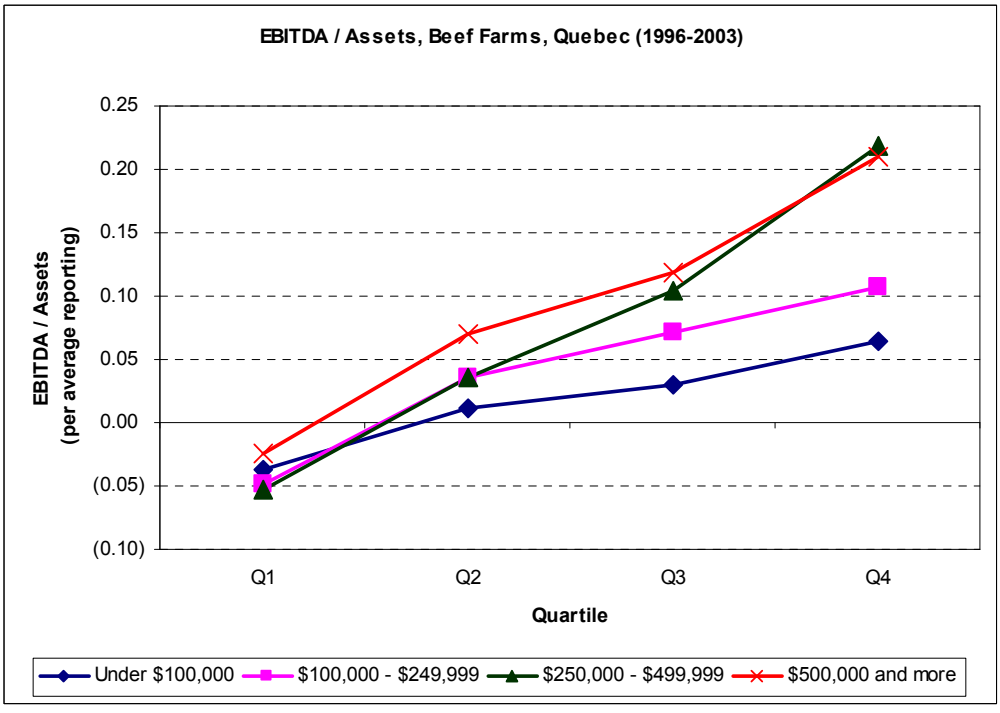


Figure D27

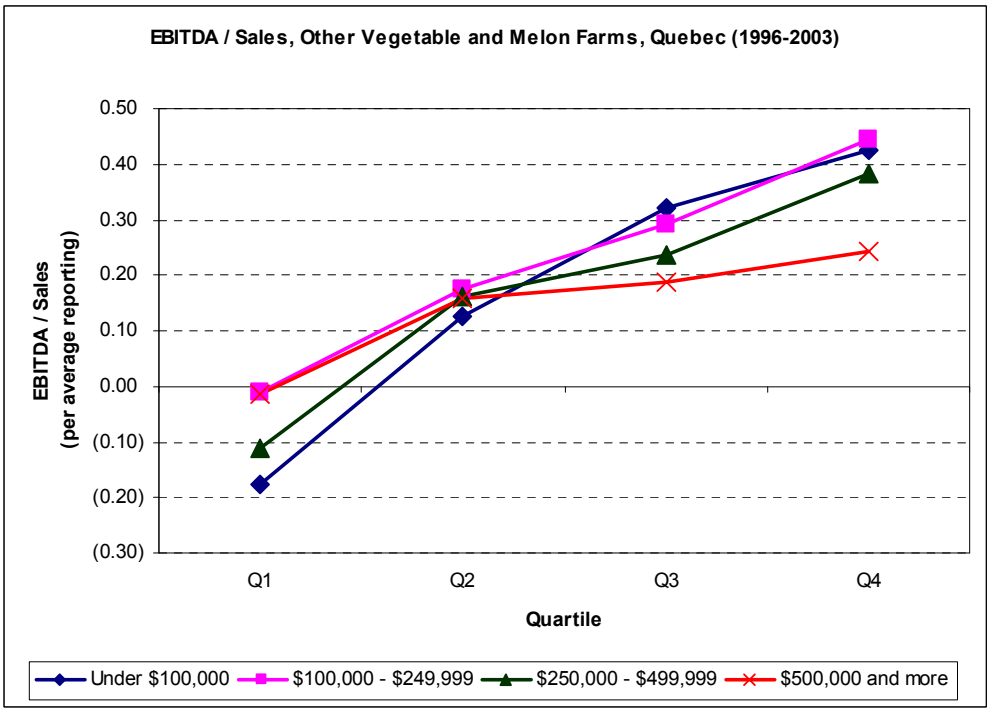


Figure D28

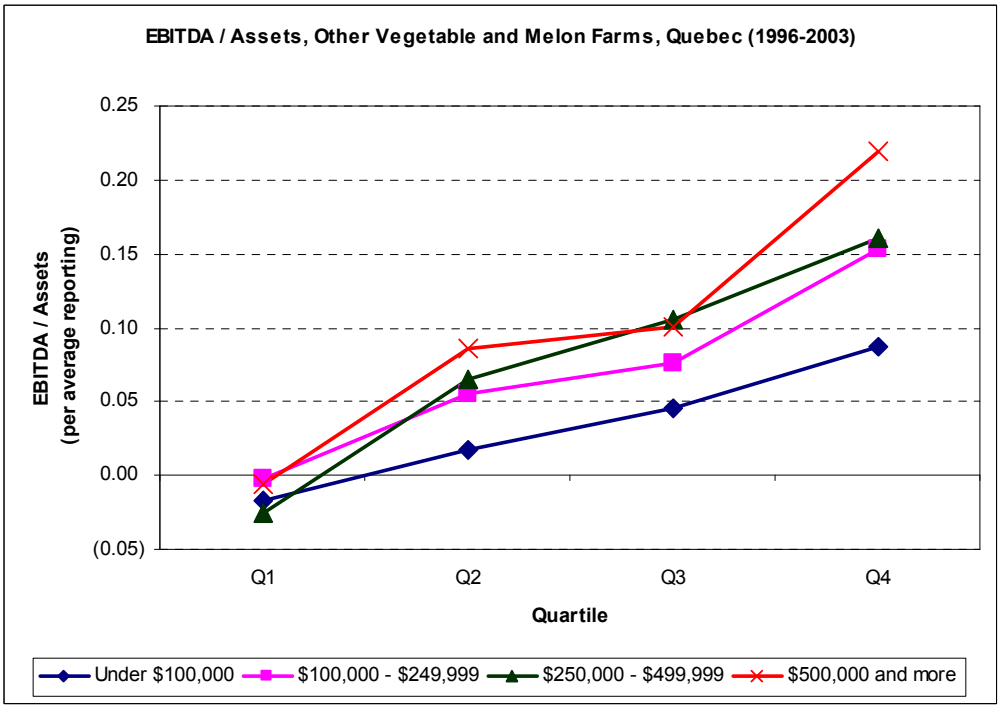


Figure D29

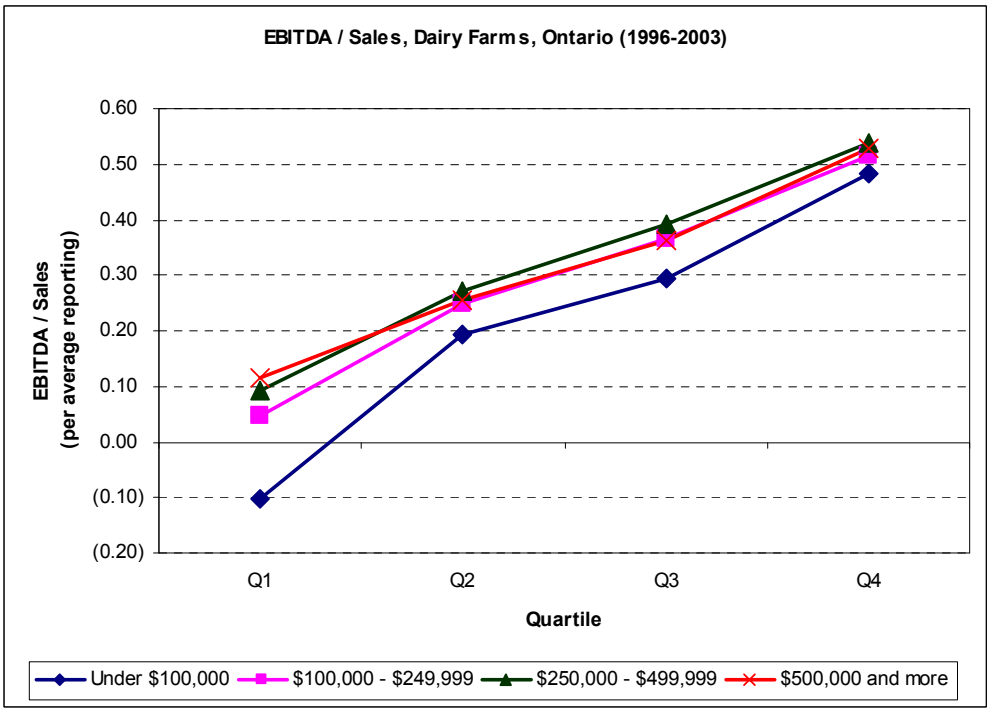


Figure D30

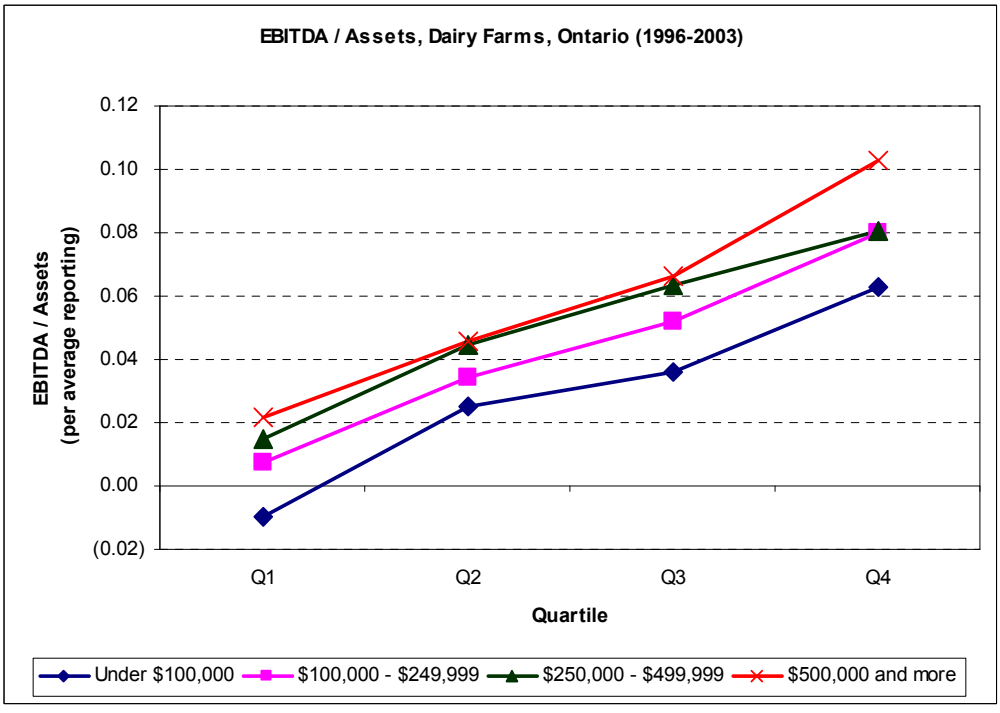


Figure D31

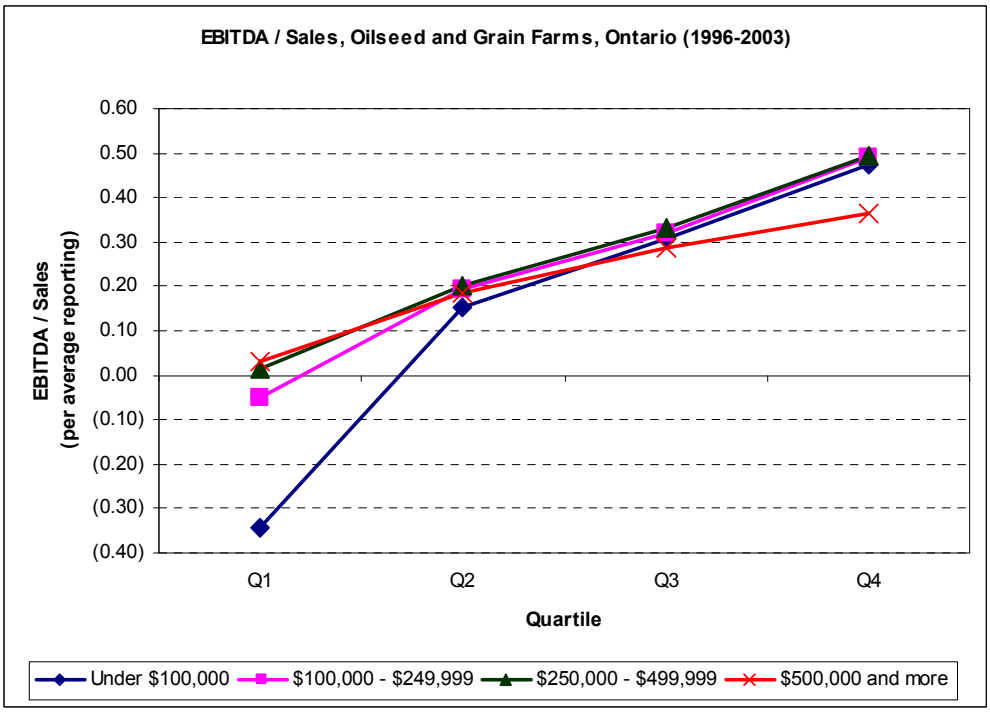


Figure D32

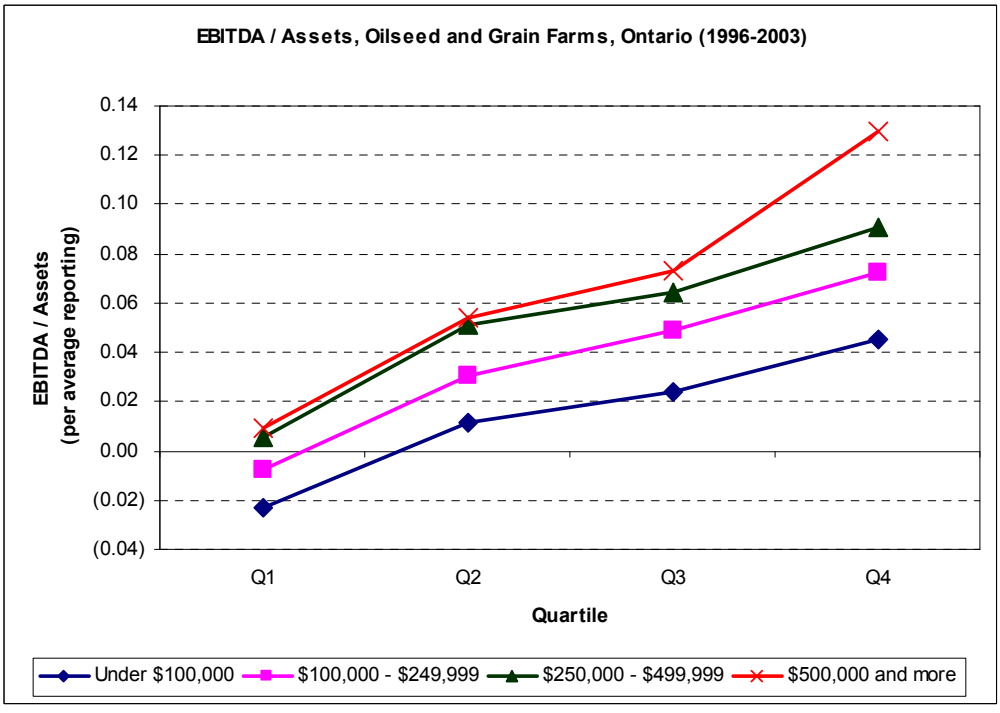


Figure D33

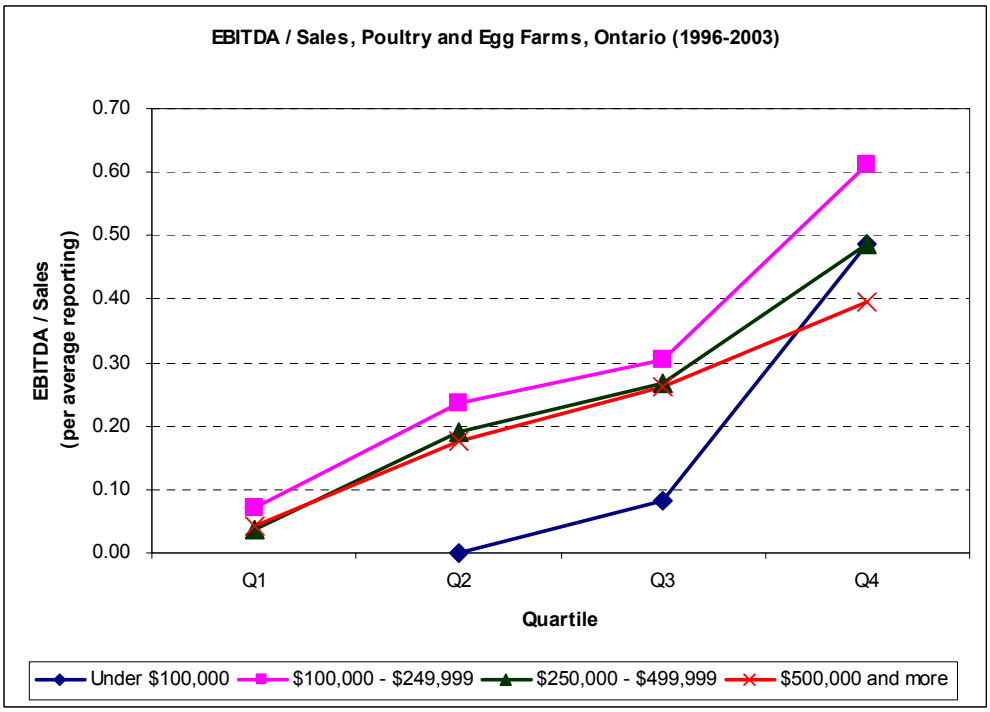


Figure D34

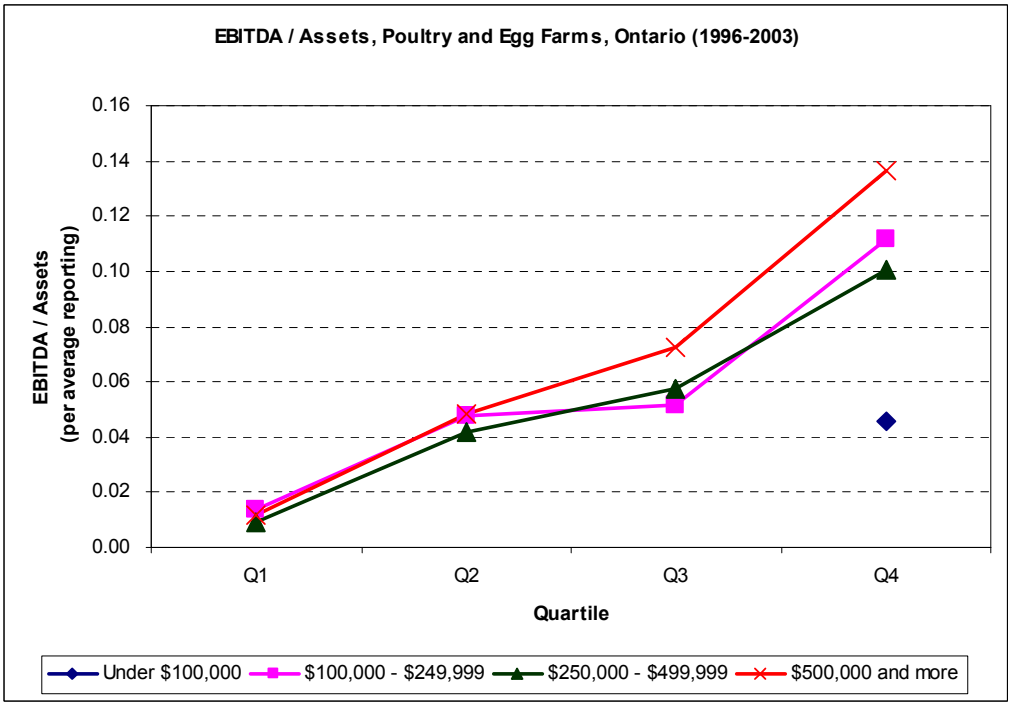


Figure D35

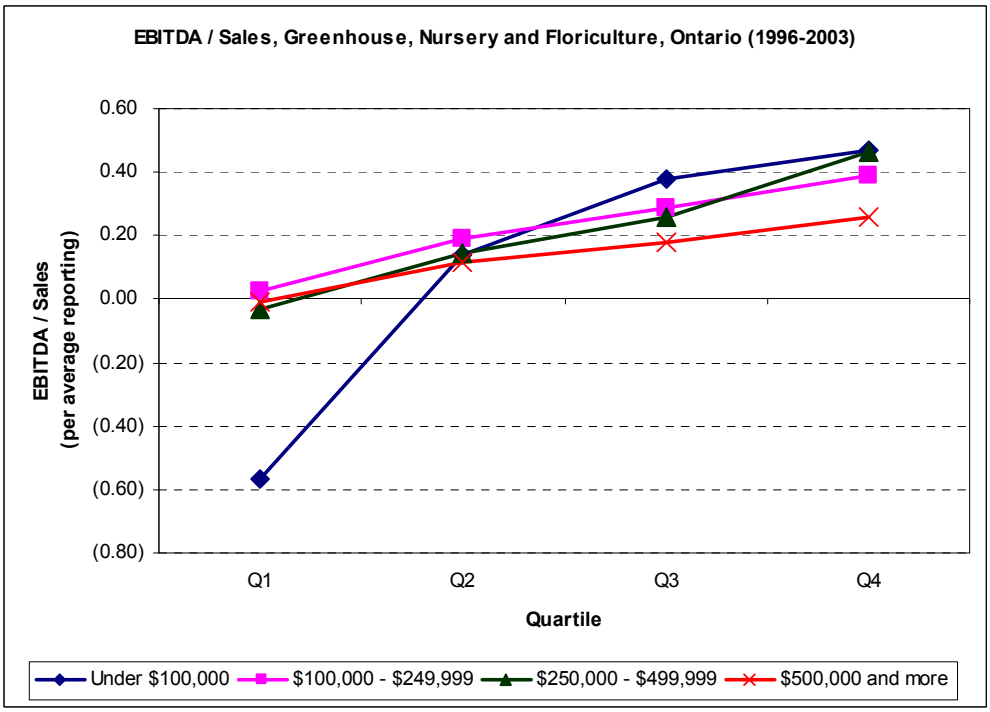
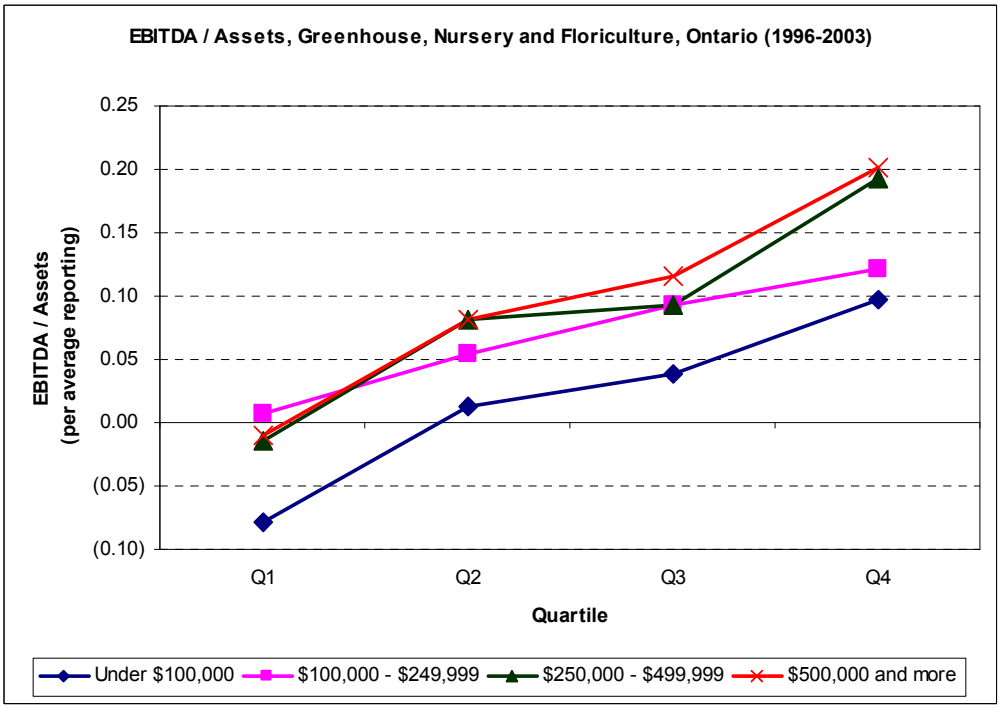


Figure D36



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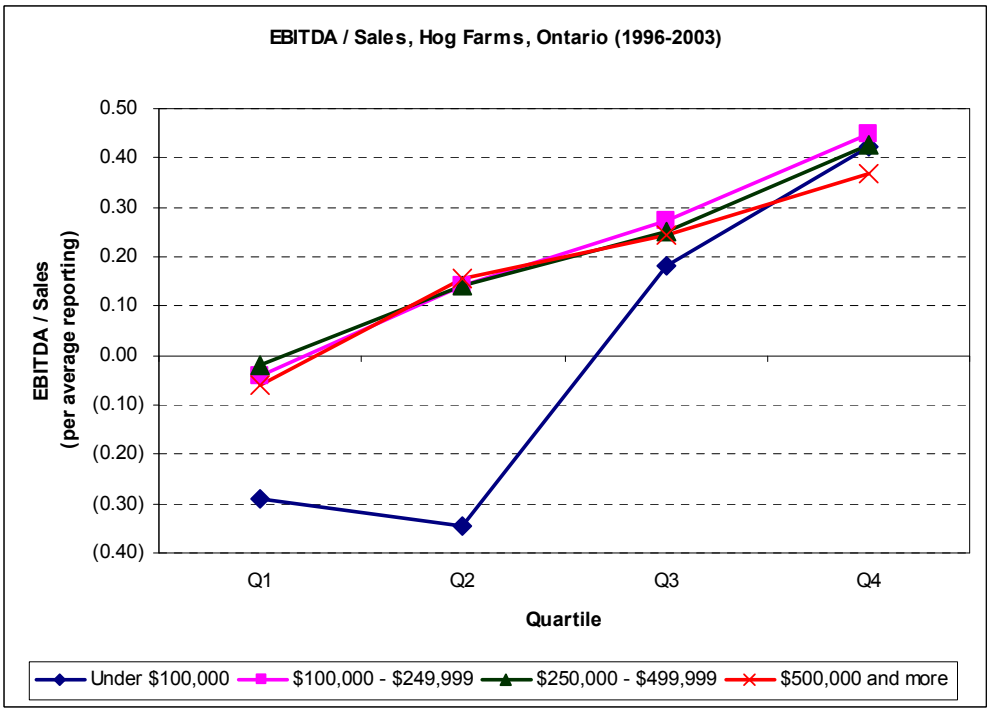


Figure D38

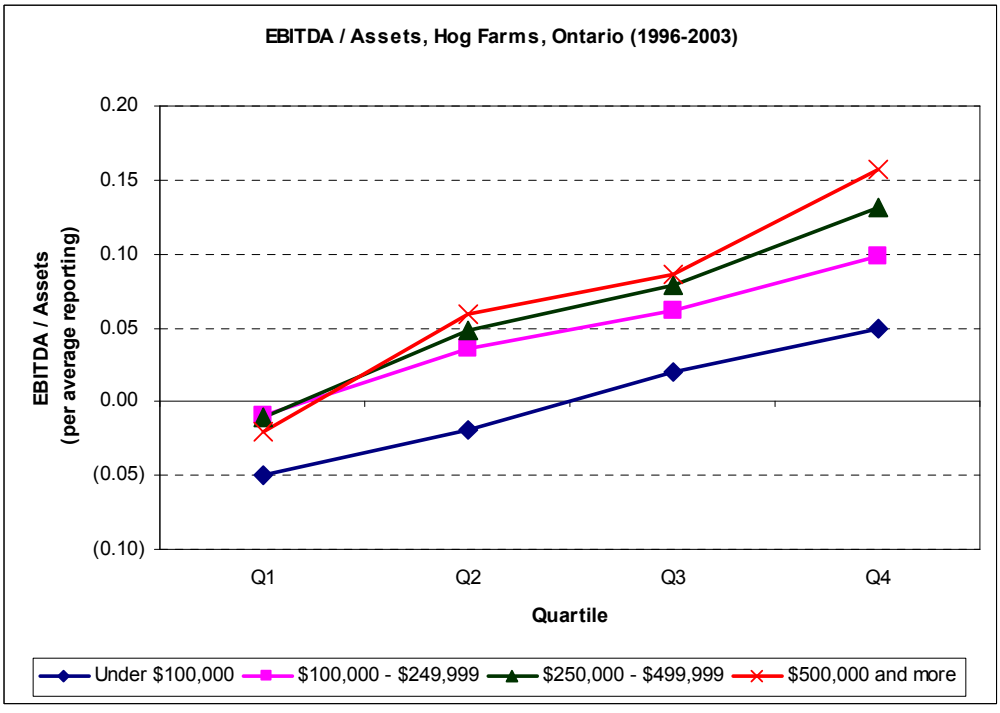
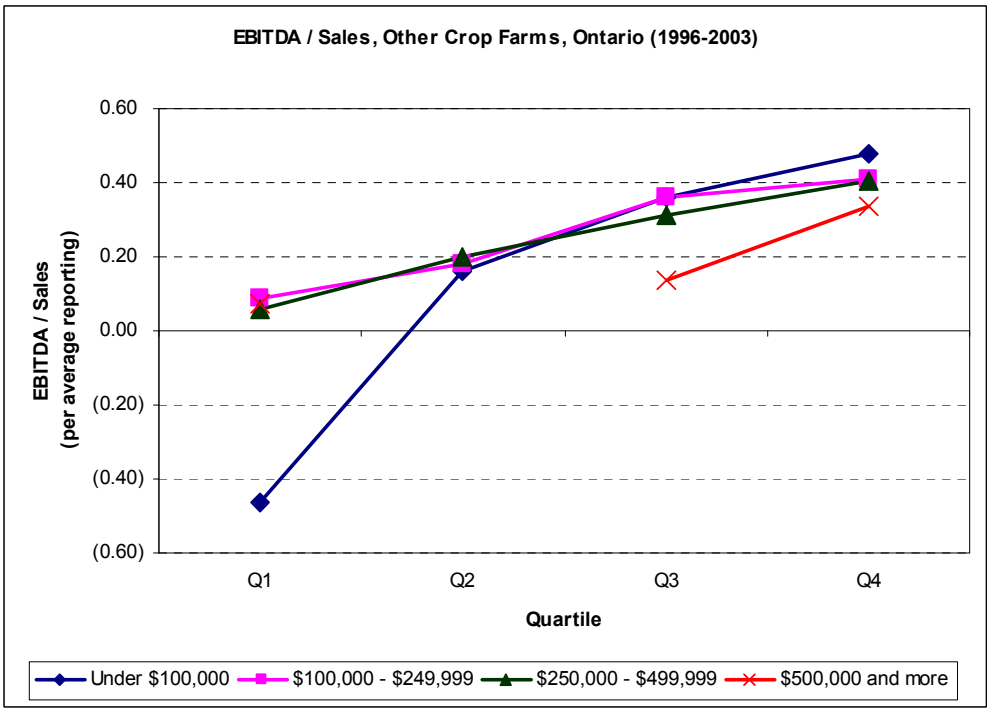


Figure D39



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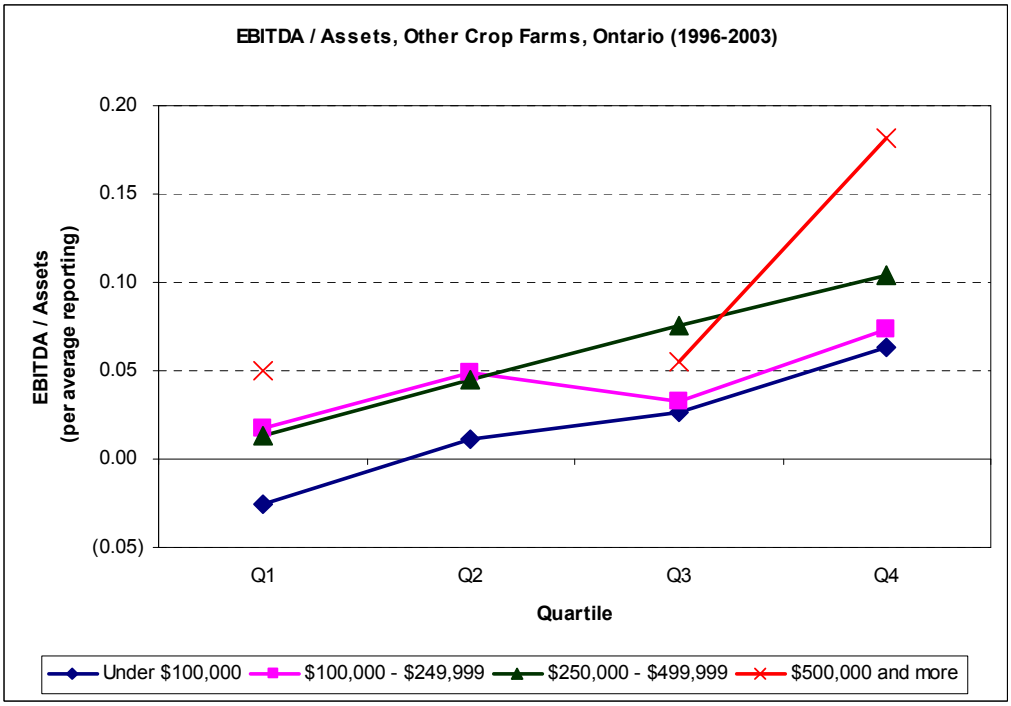

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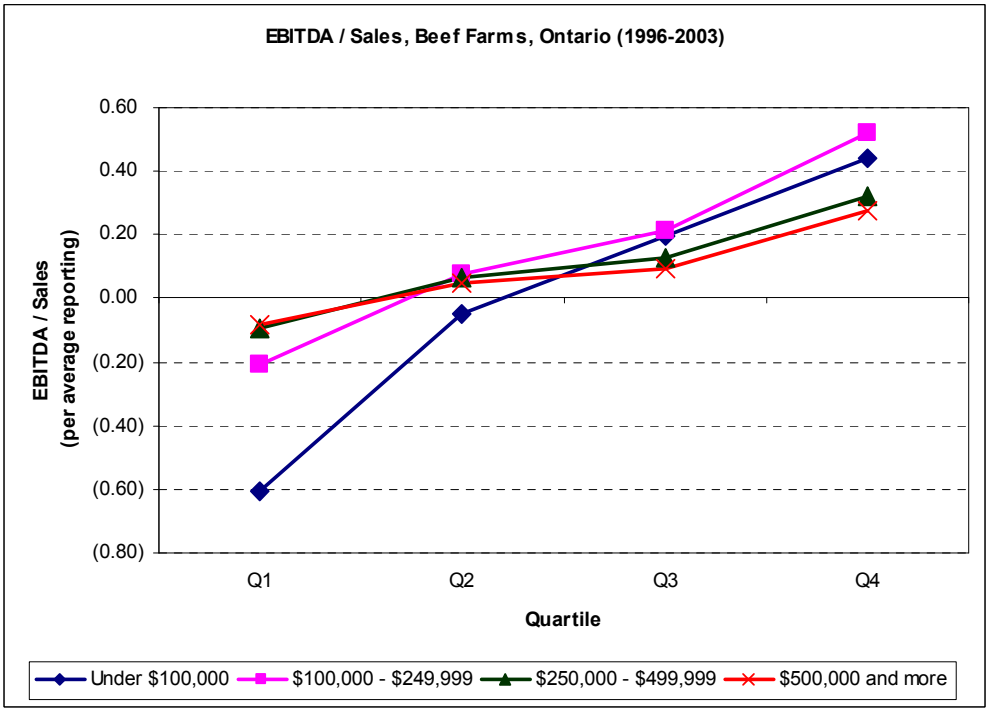
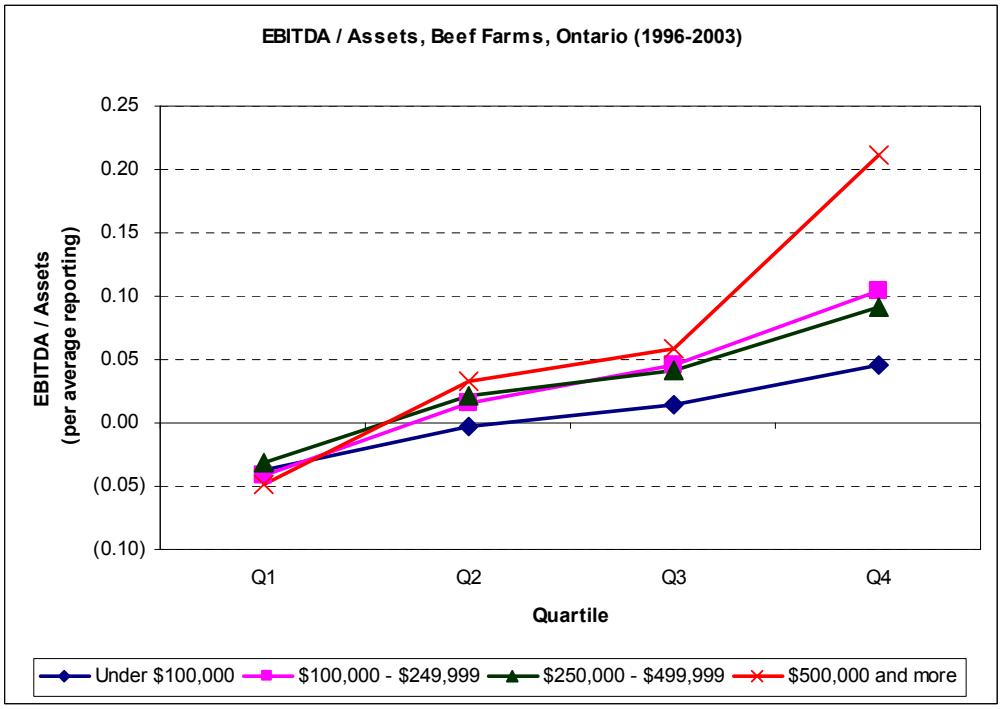


Figure D42



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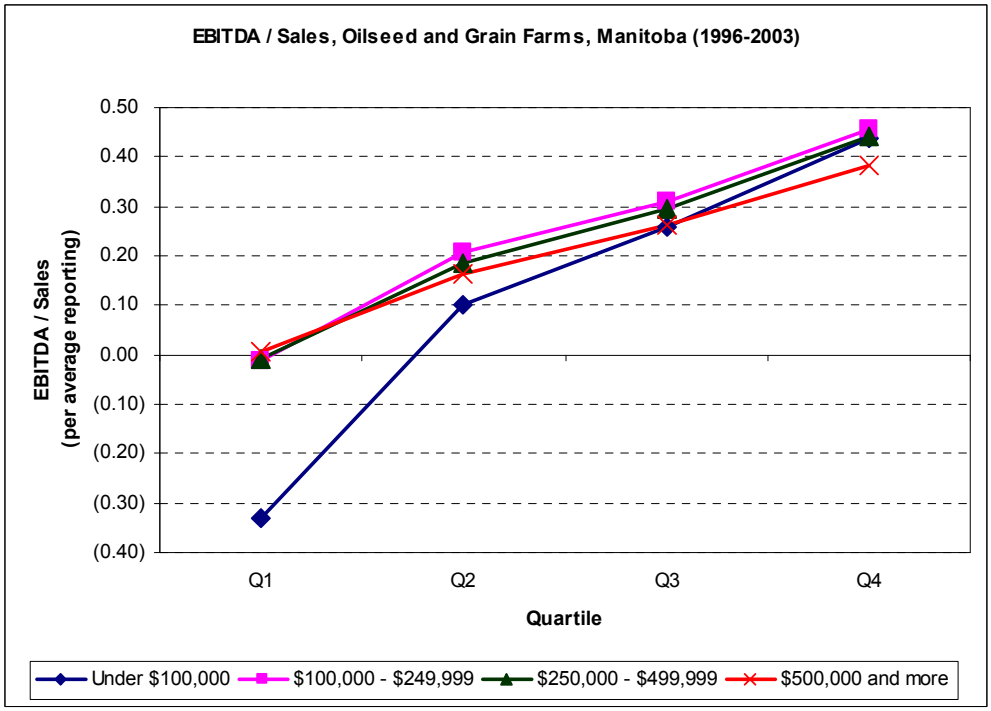


Figure D44

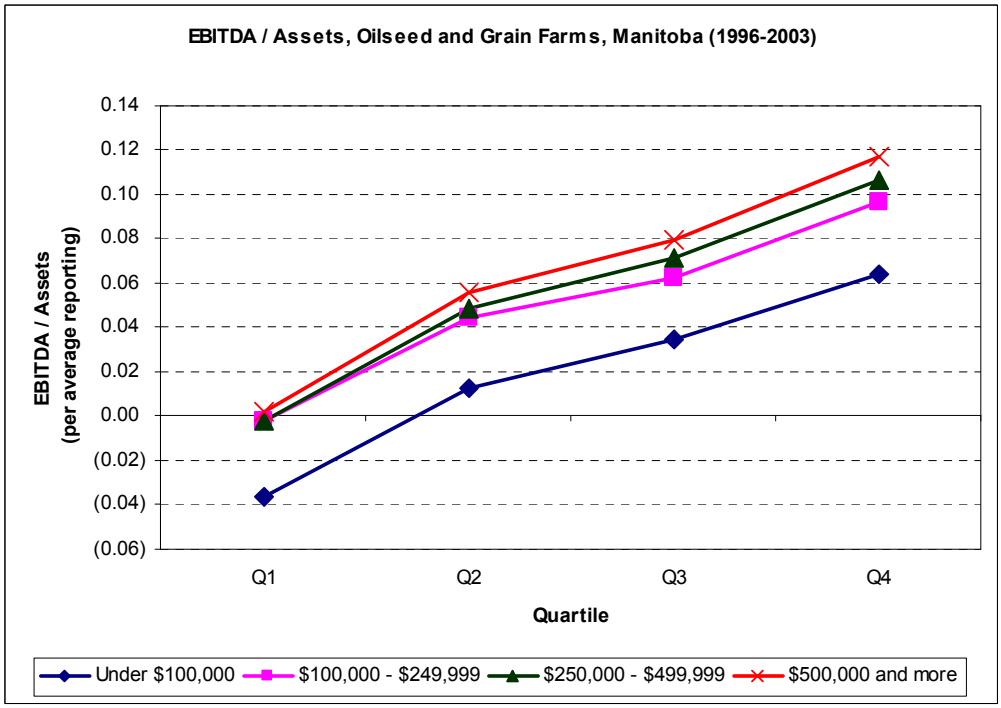


Figure D45

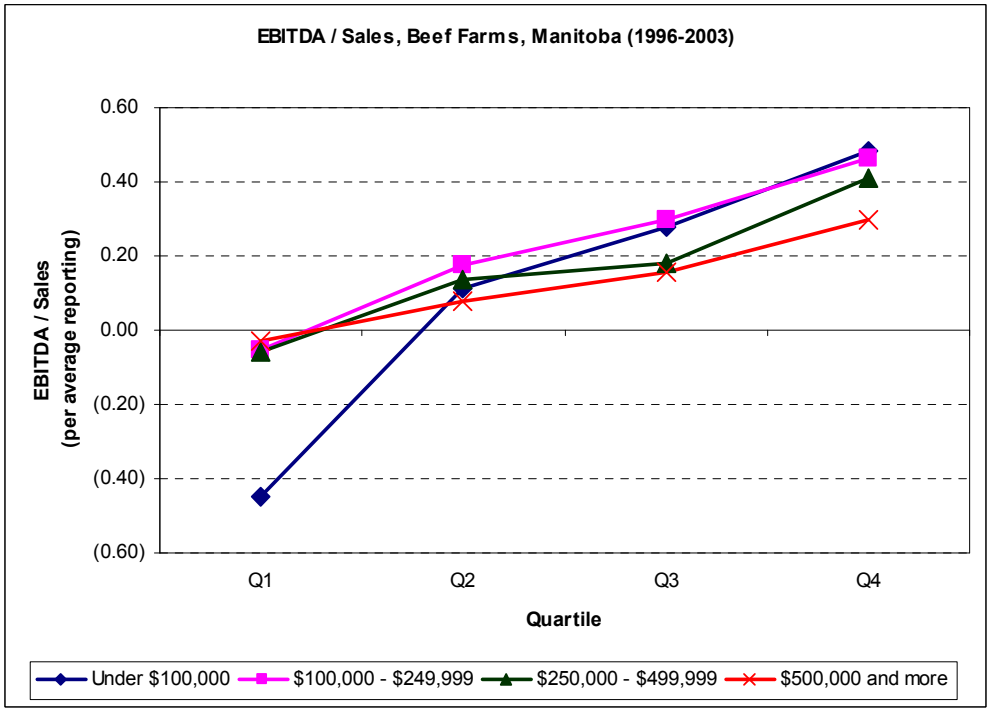


Figure D46

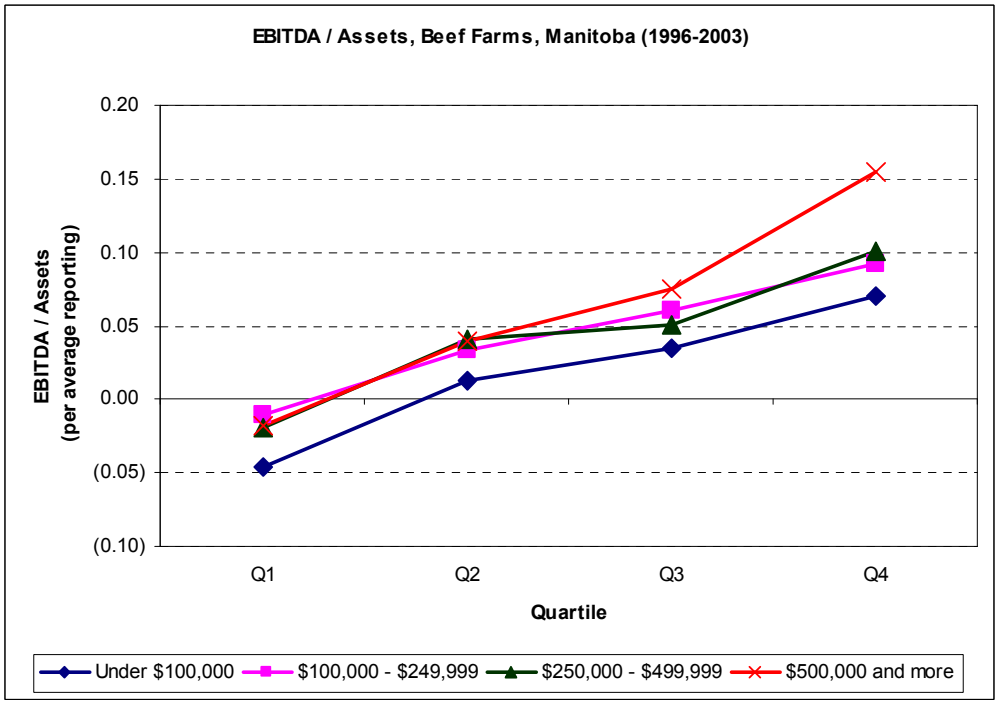


Figure D47

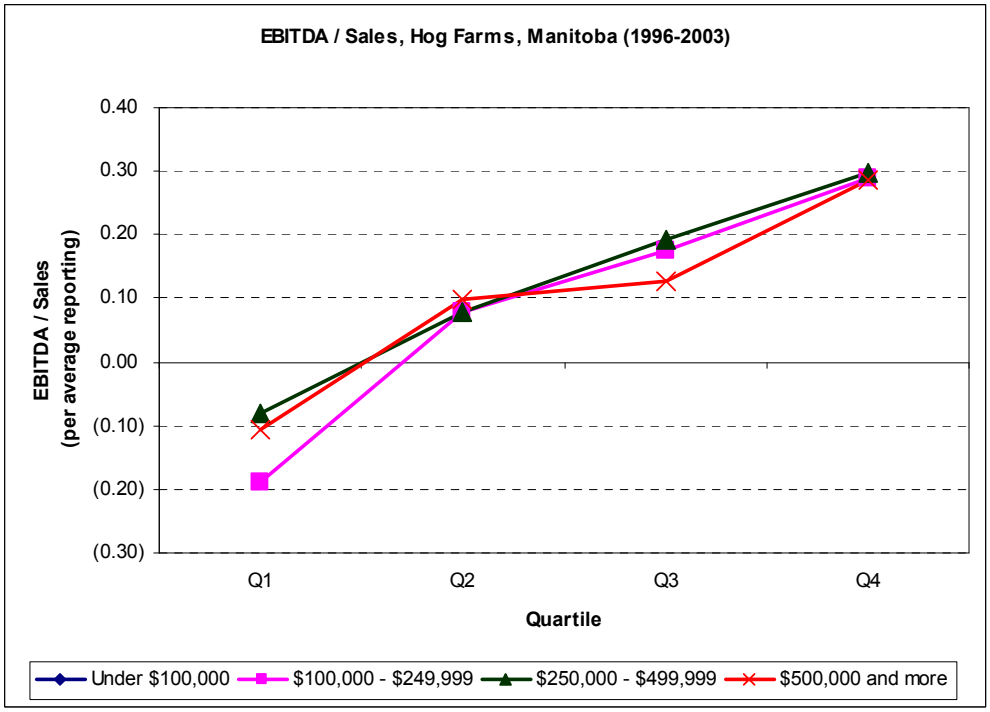


Figure D48

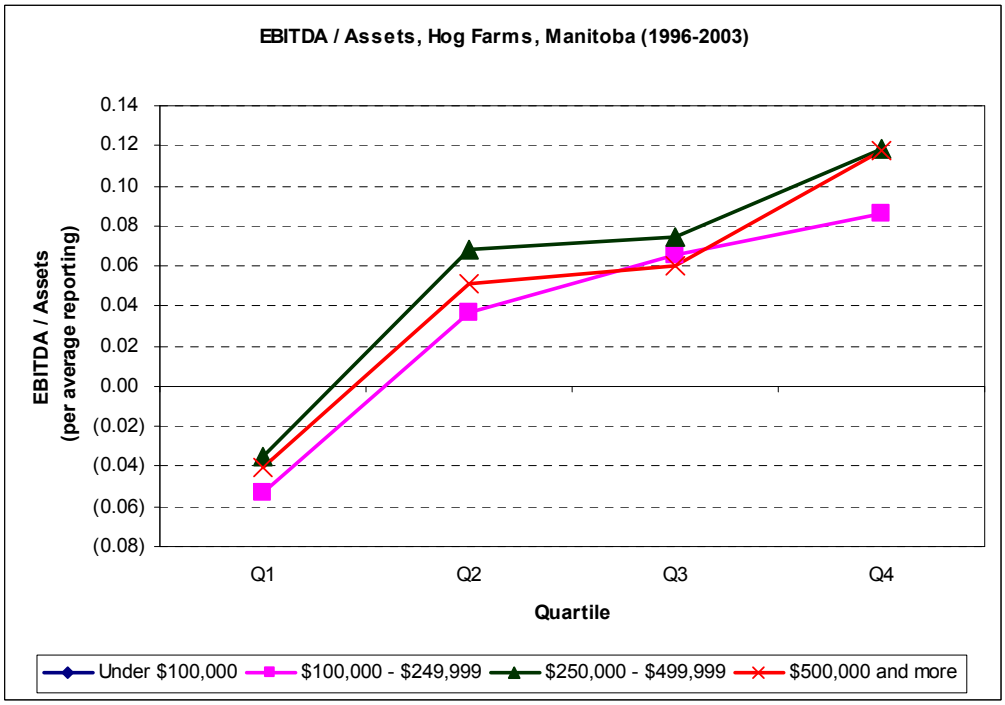


Figure D49

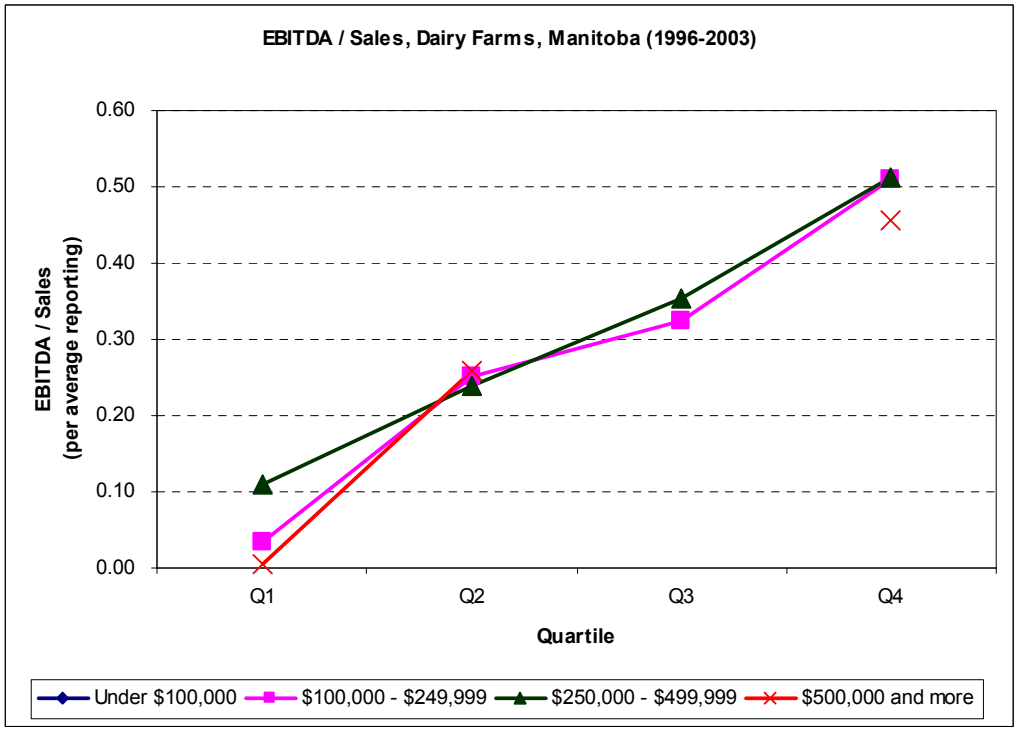


Figure D50

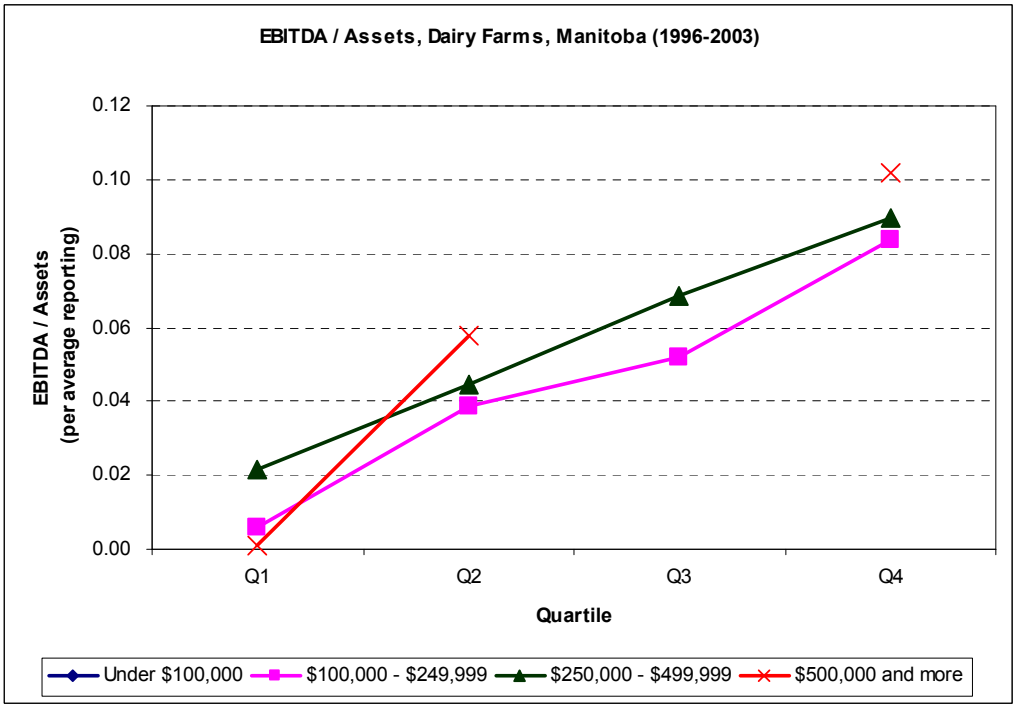


Figure D51

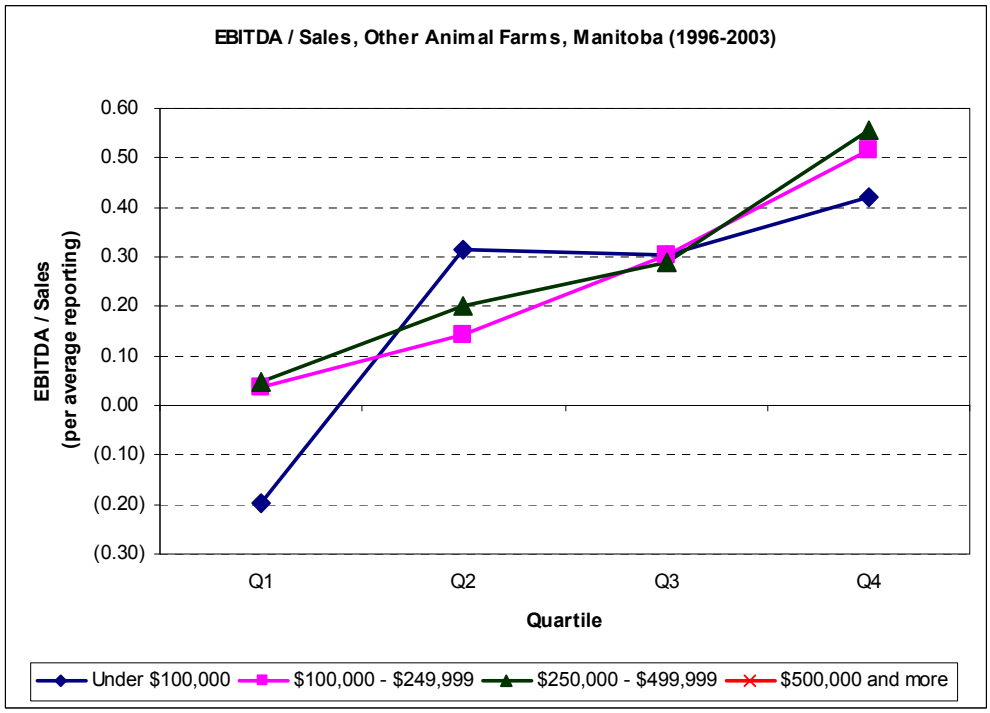


Figure D52

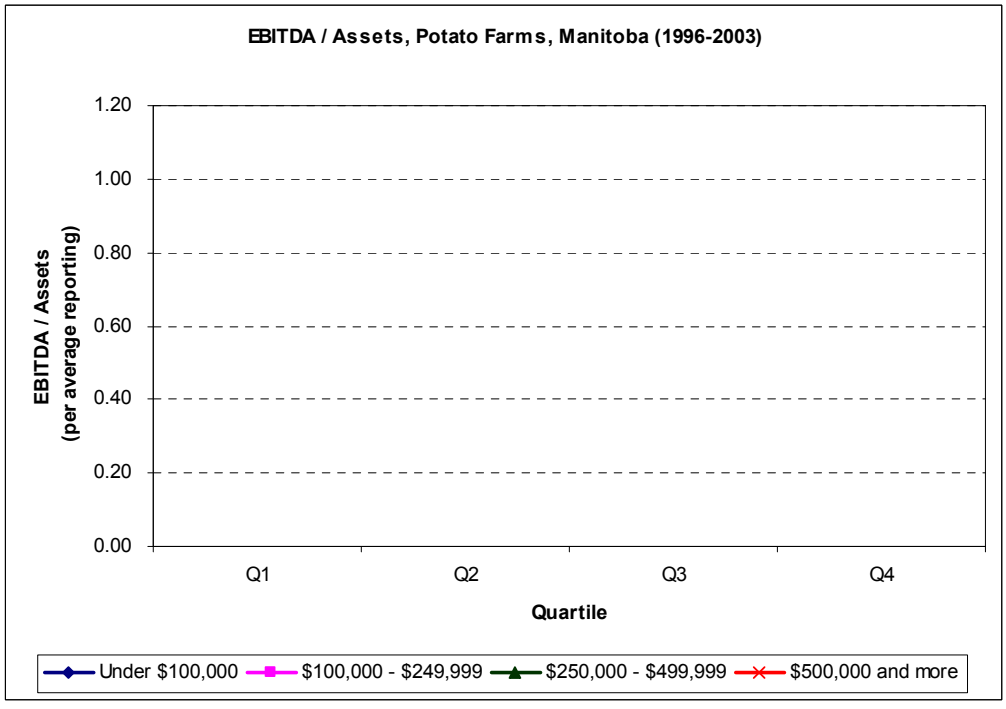


Figure D53

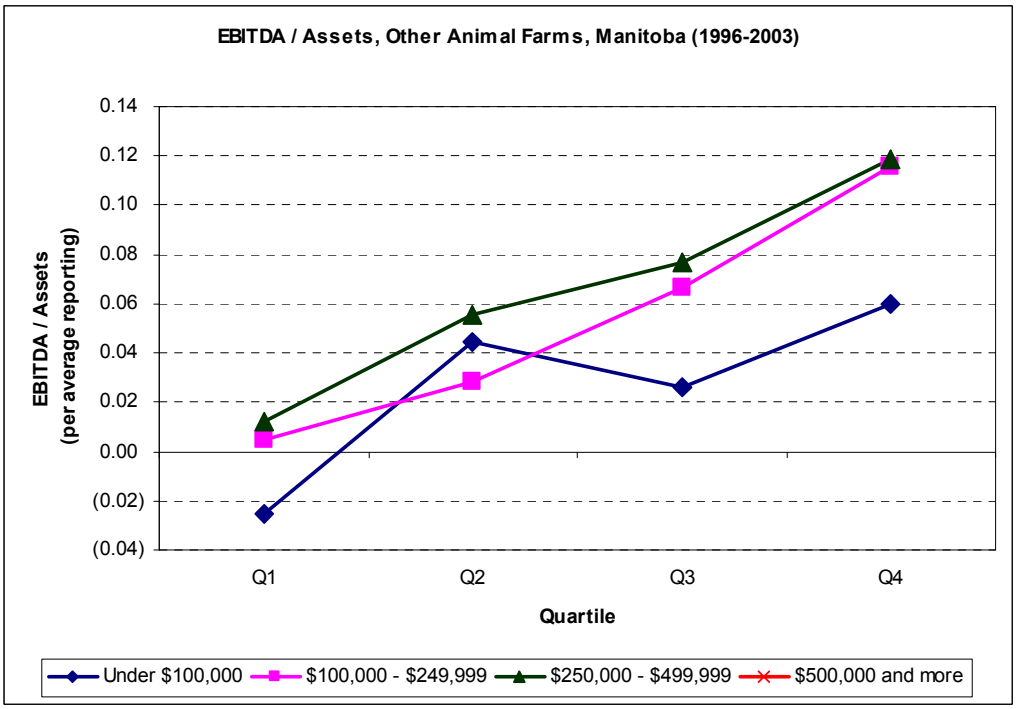


Figure D54

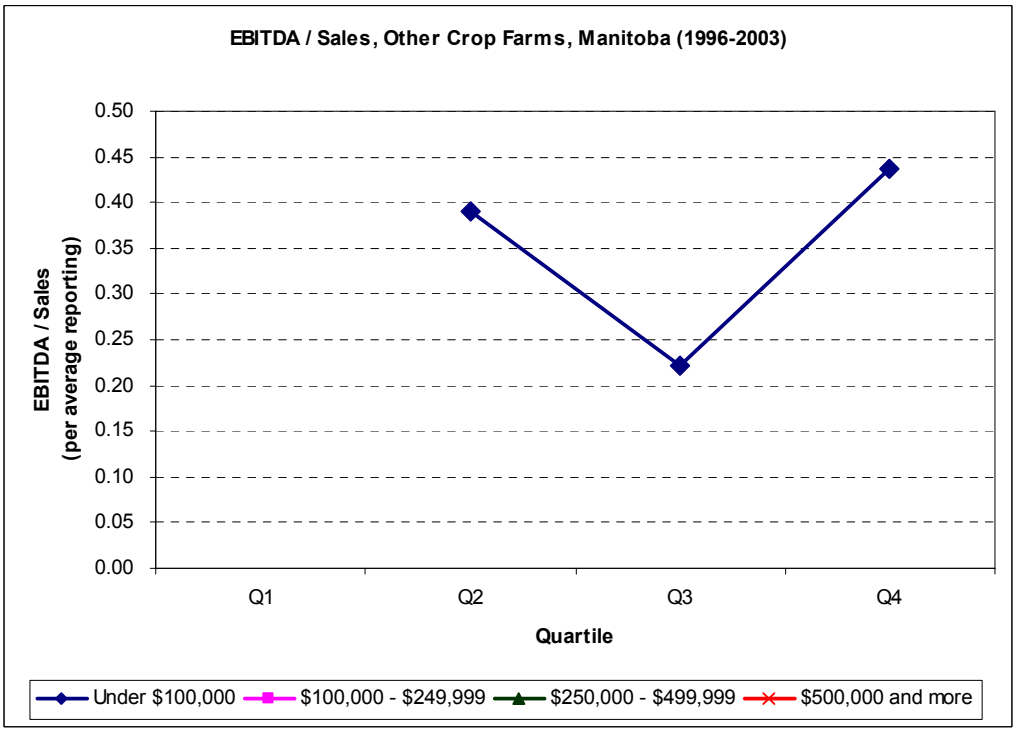


Figure D55

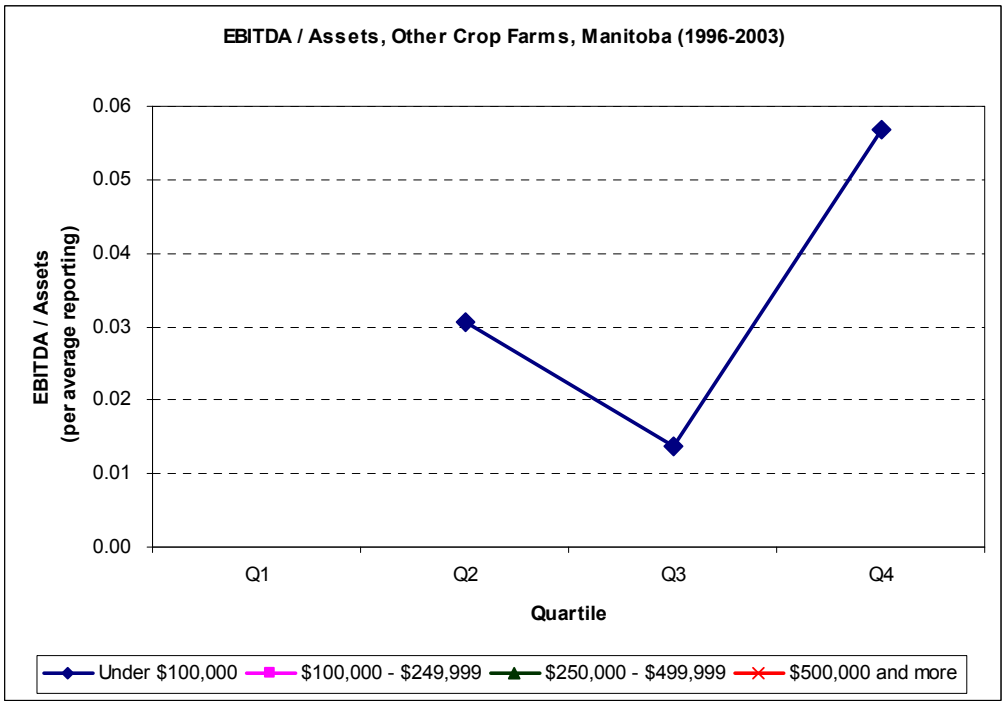


Figure D56

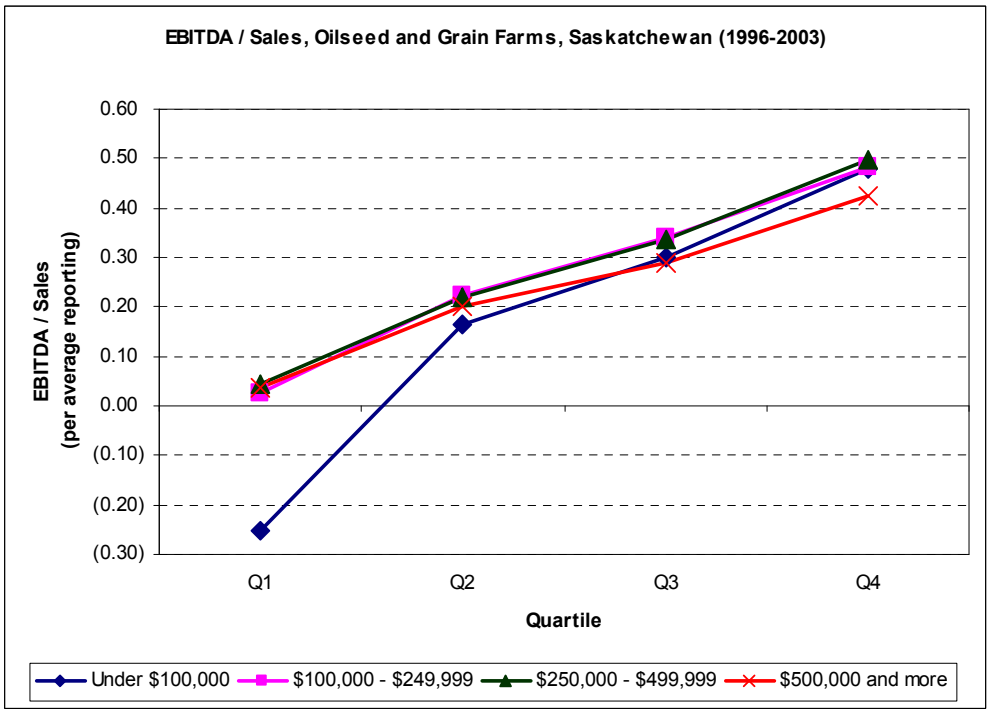


Figure D57

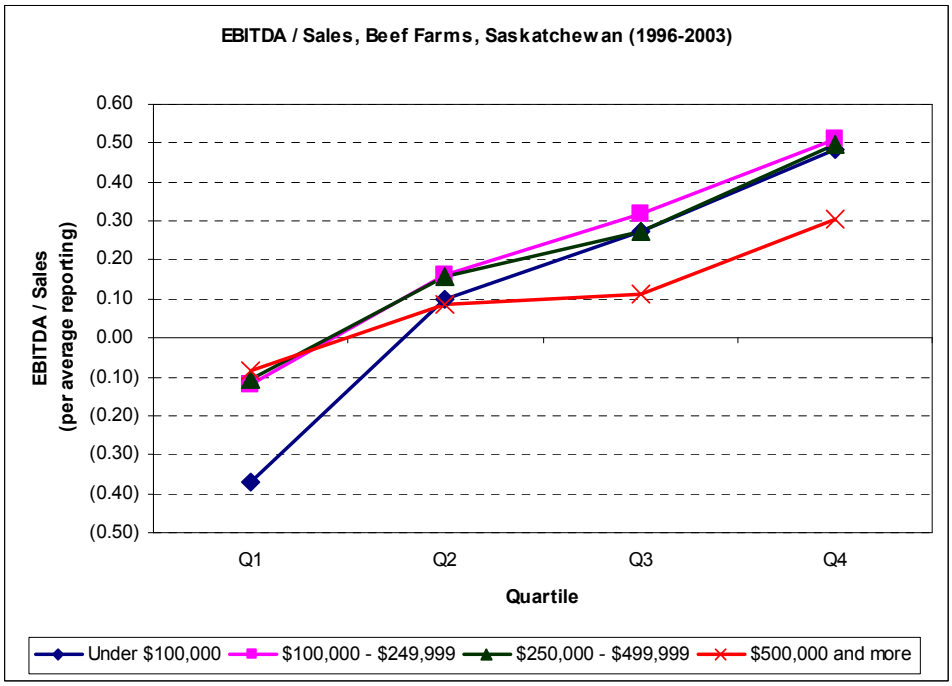


Figure D58

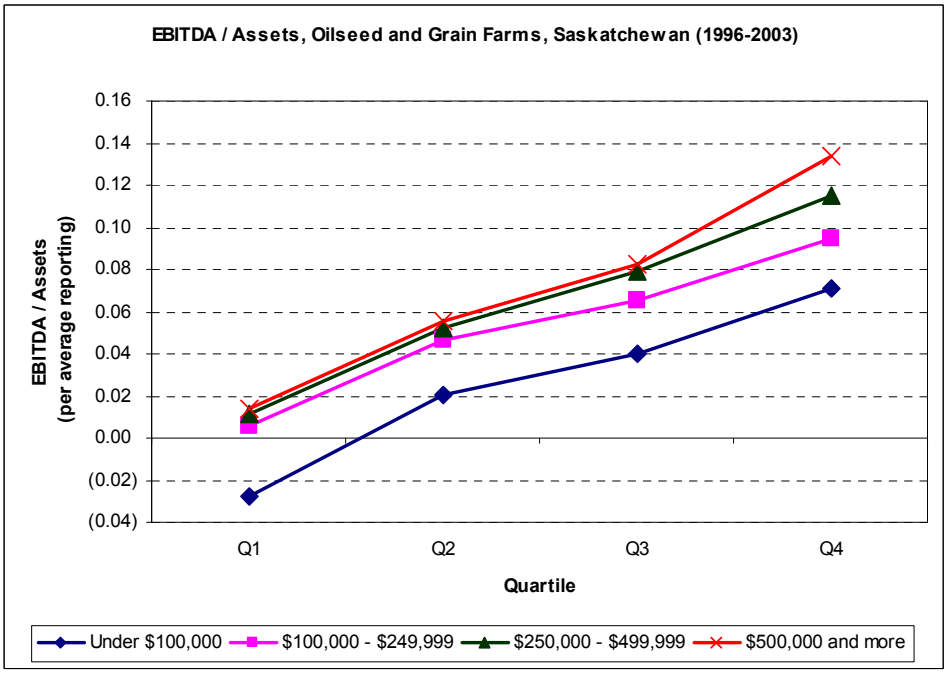


Figure D59

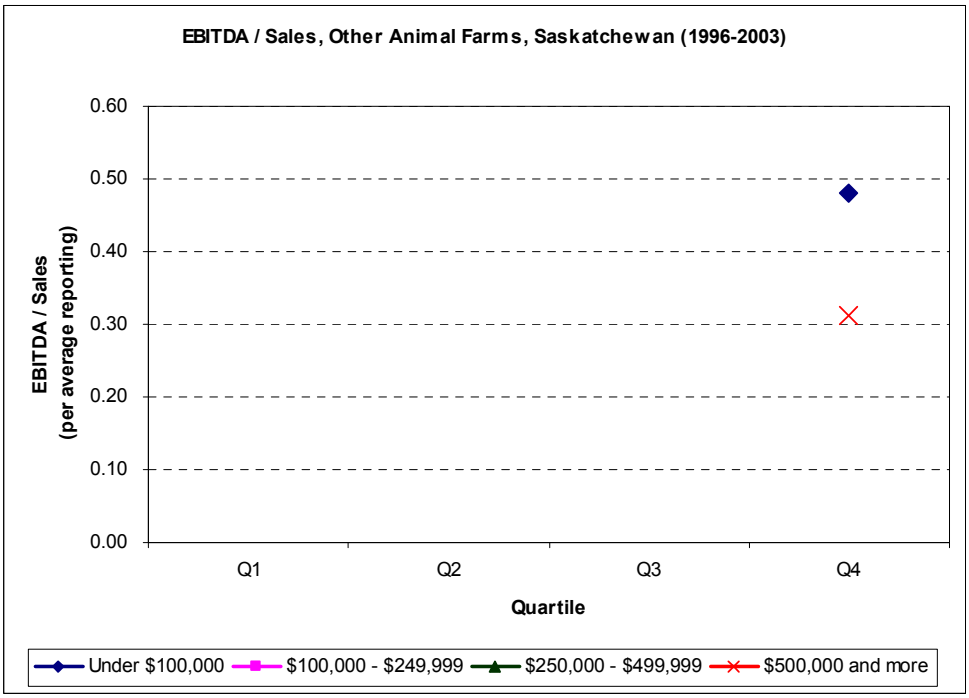


Figure D60

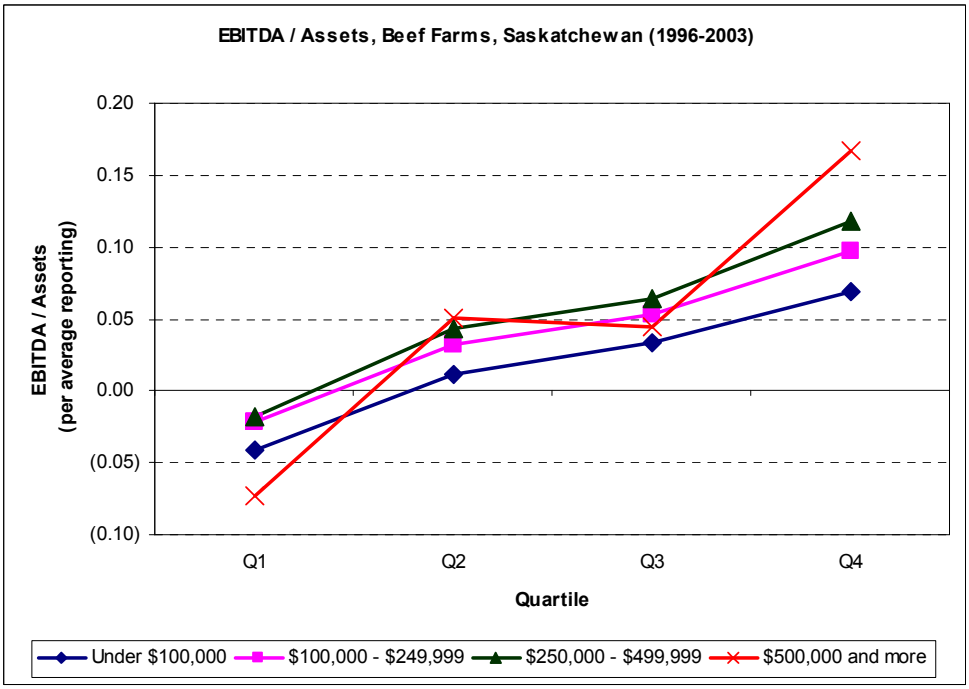


Figure D61

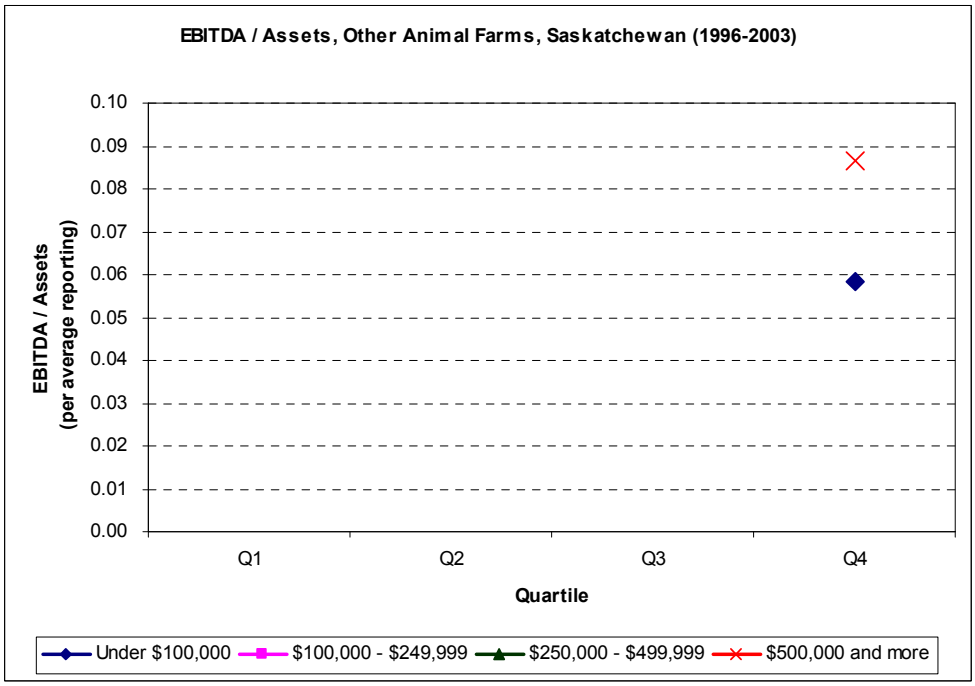


Figure D62

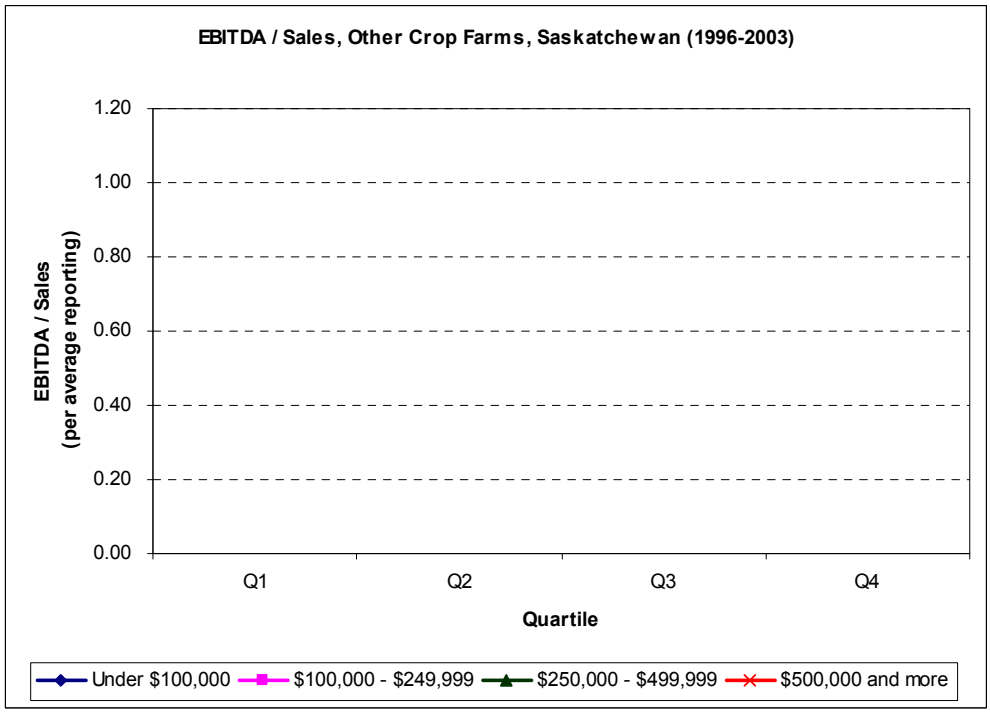


Figure D63

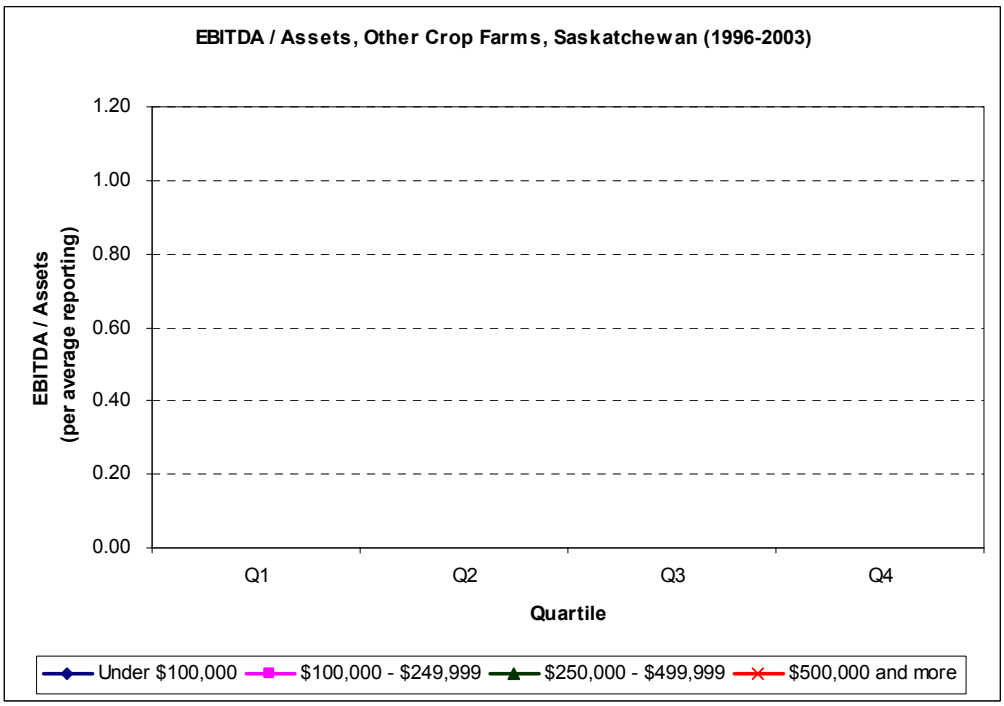


Figure D64

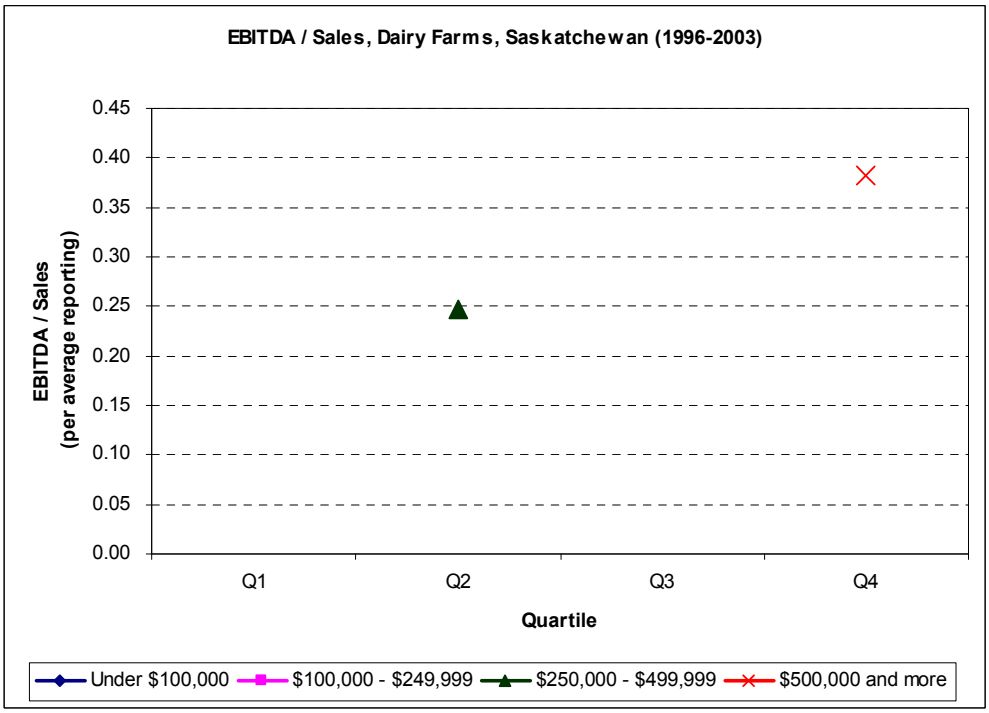


Figure D65

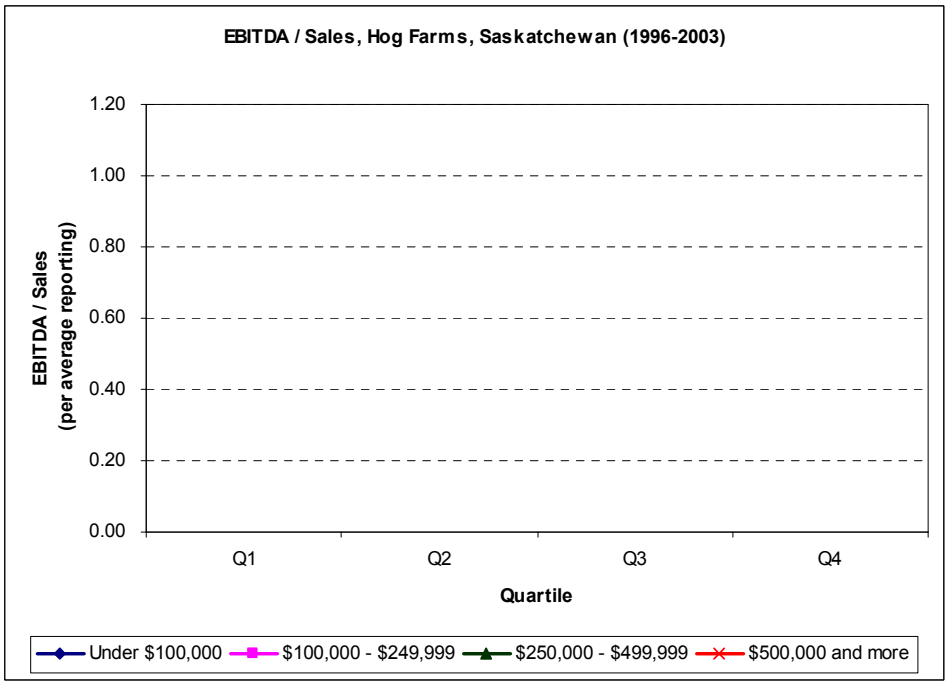


Figure D66

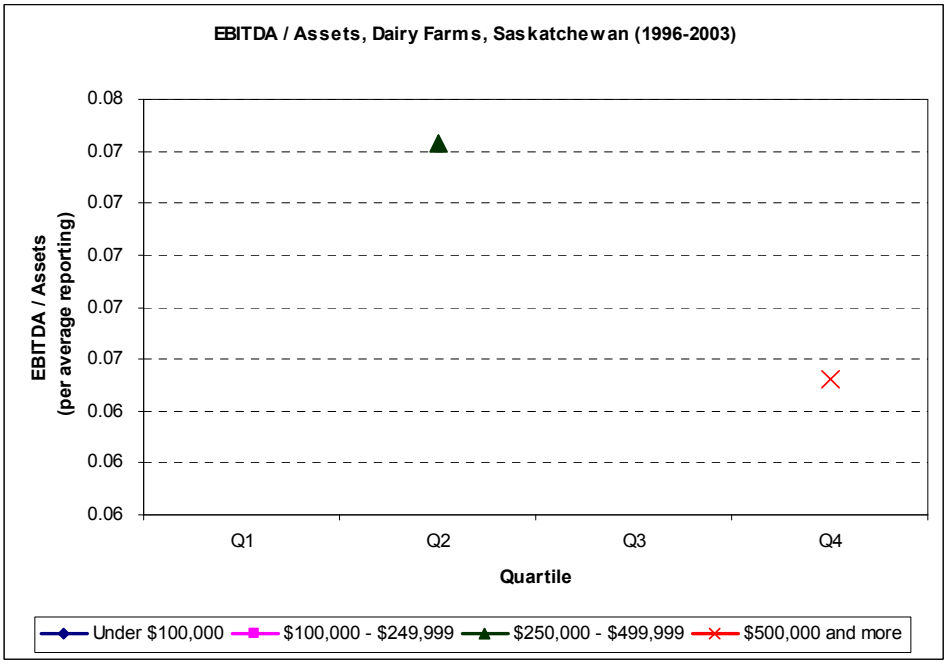


Figure D67

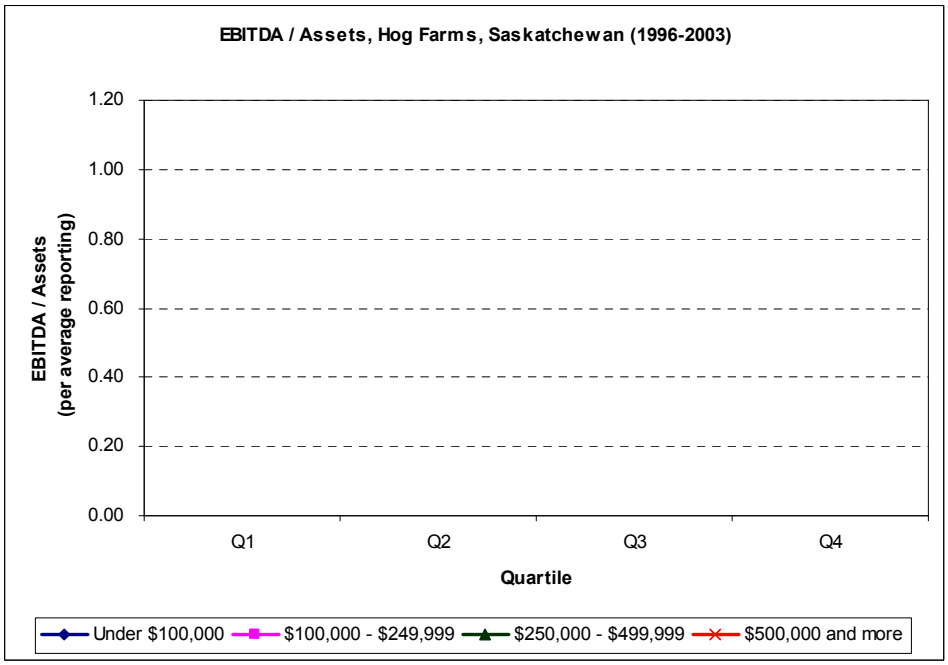


Figure D68

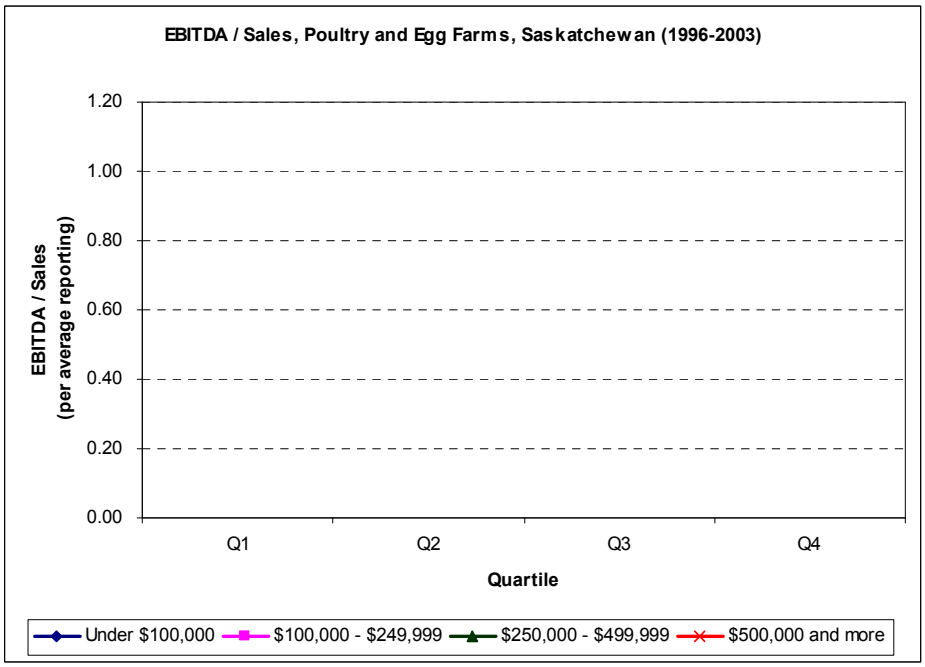


Figure D69

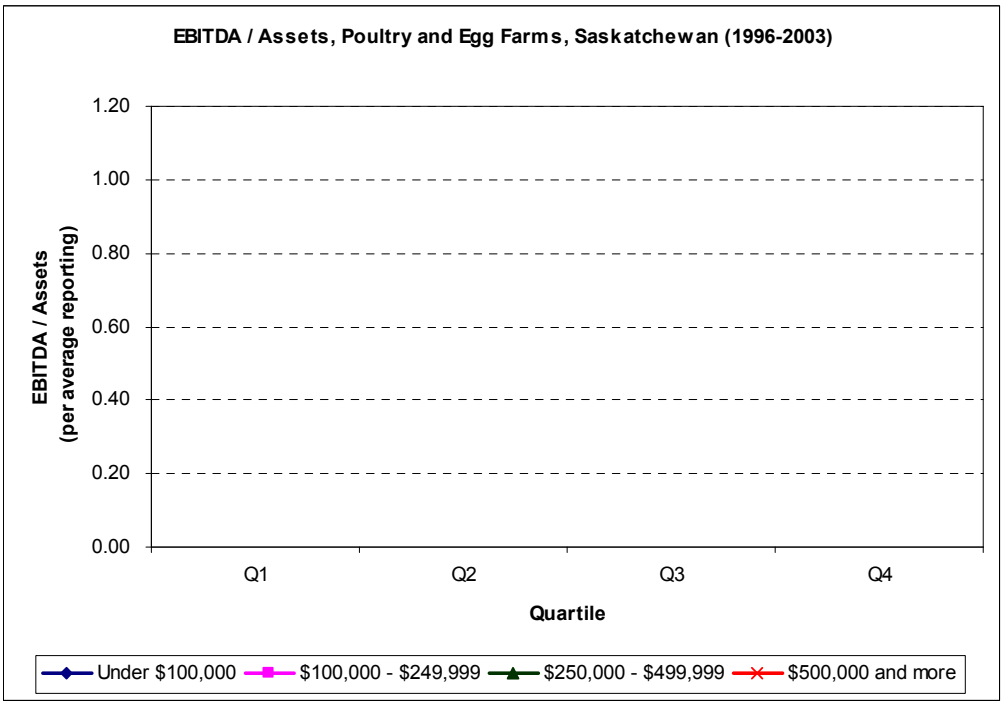


Figure D70

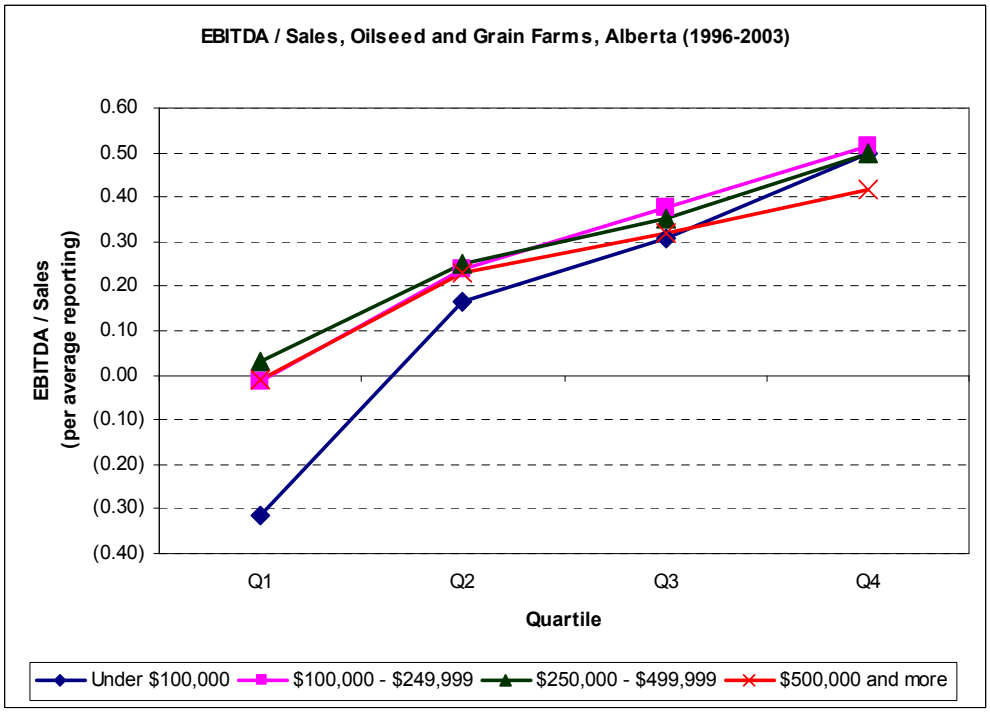


Figure D71

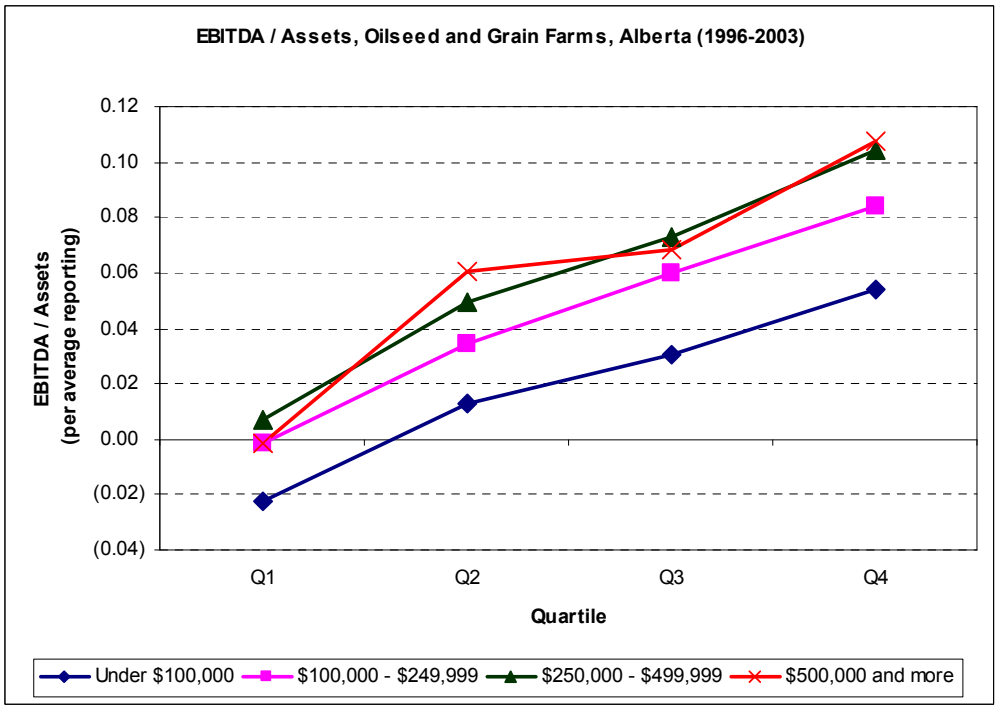


Figure D72

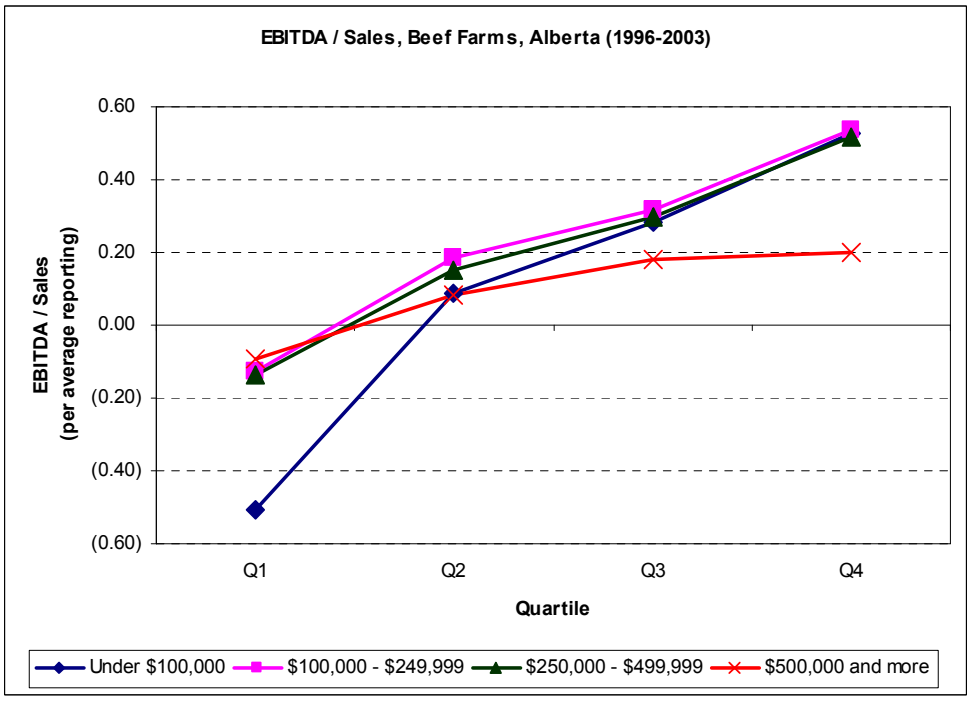


Figure D73

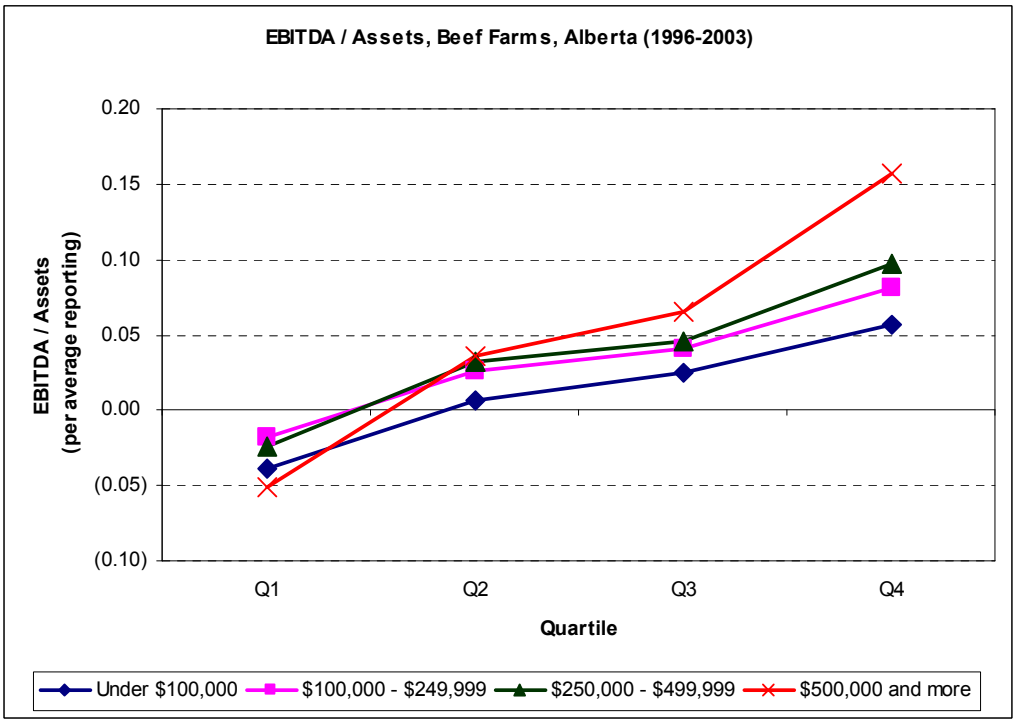


Figure D74

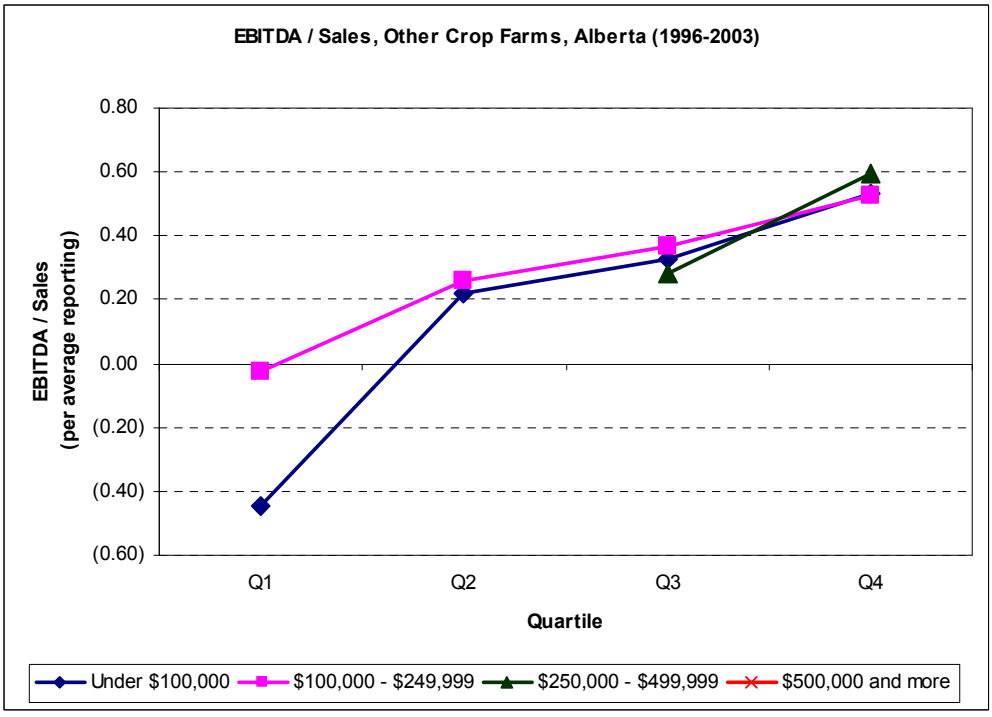
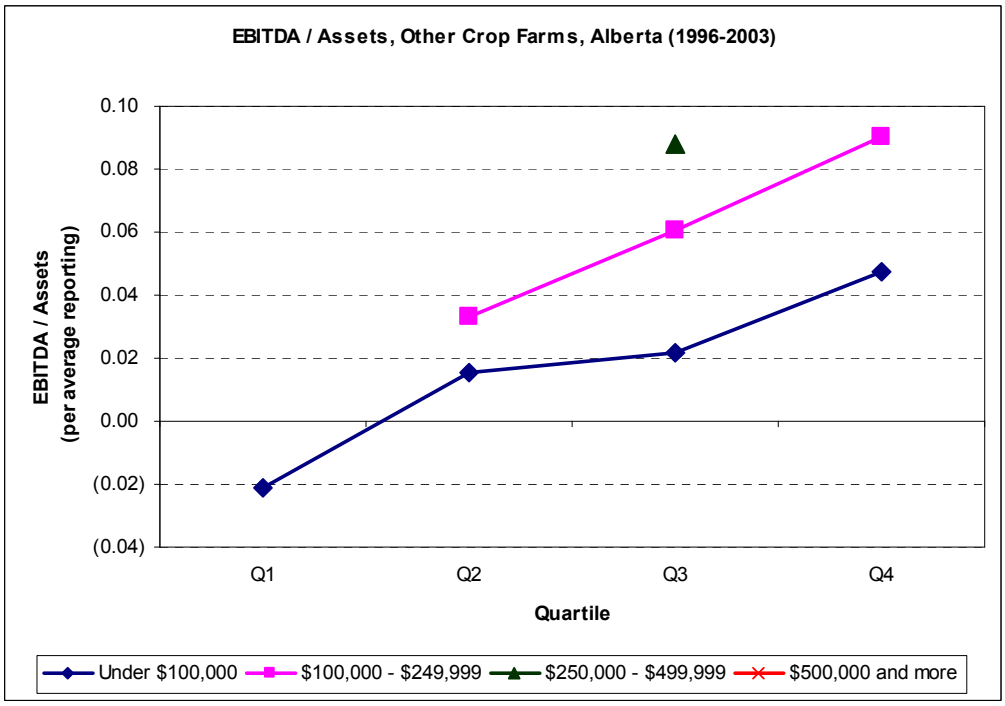


Figure D74



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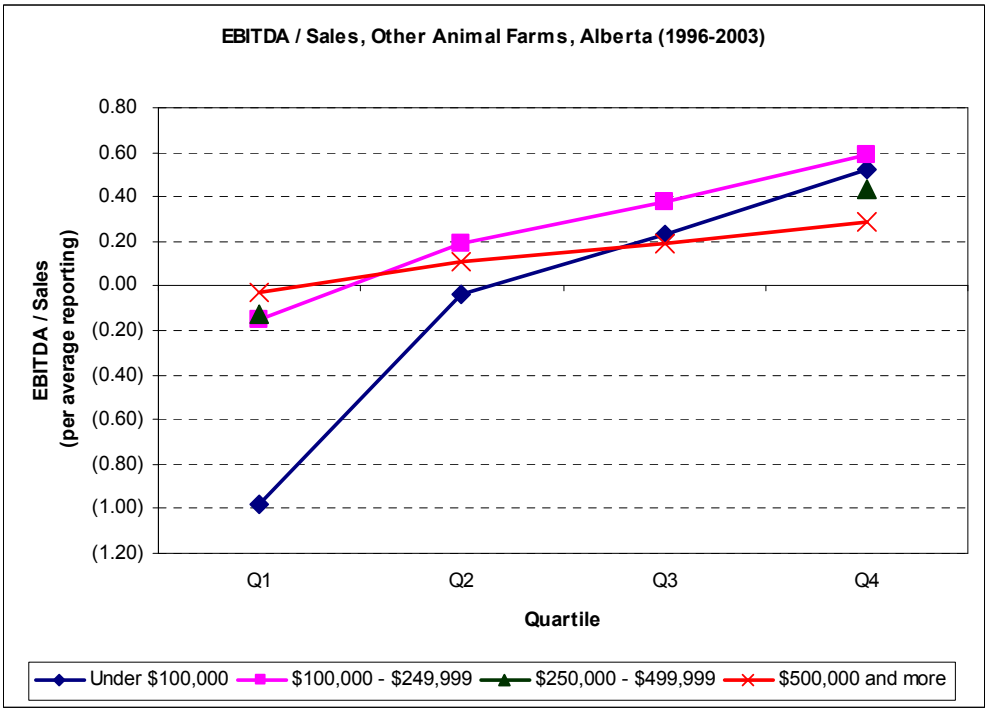


Figure D77

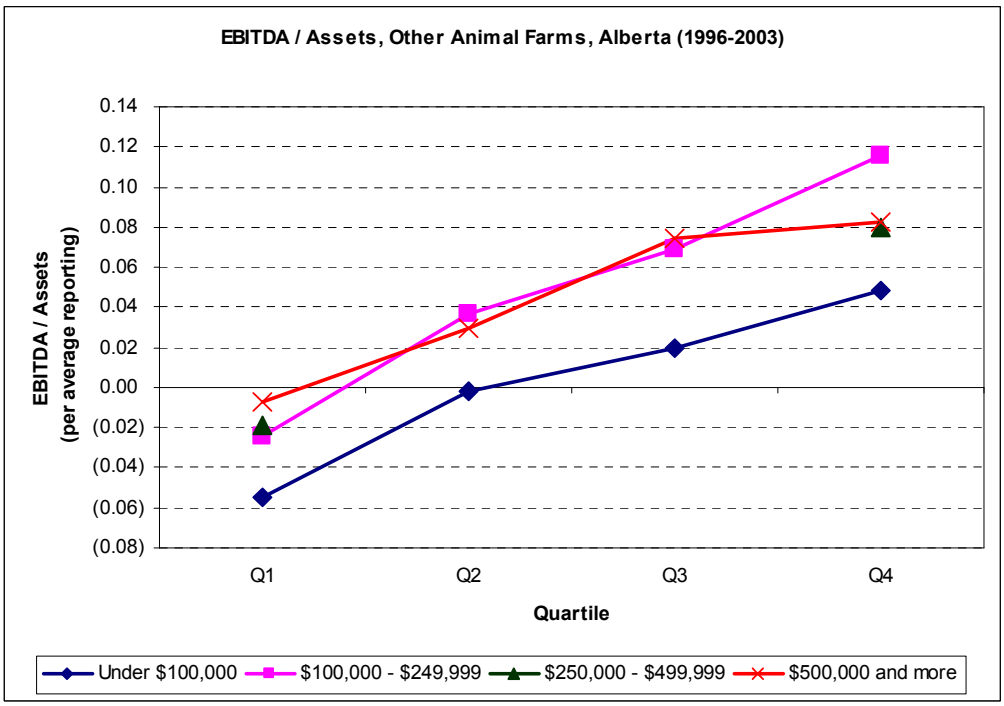
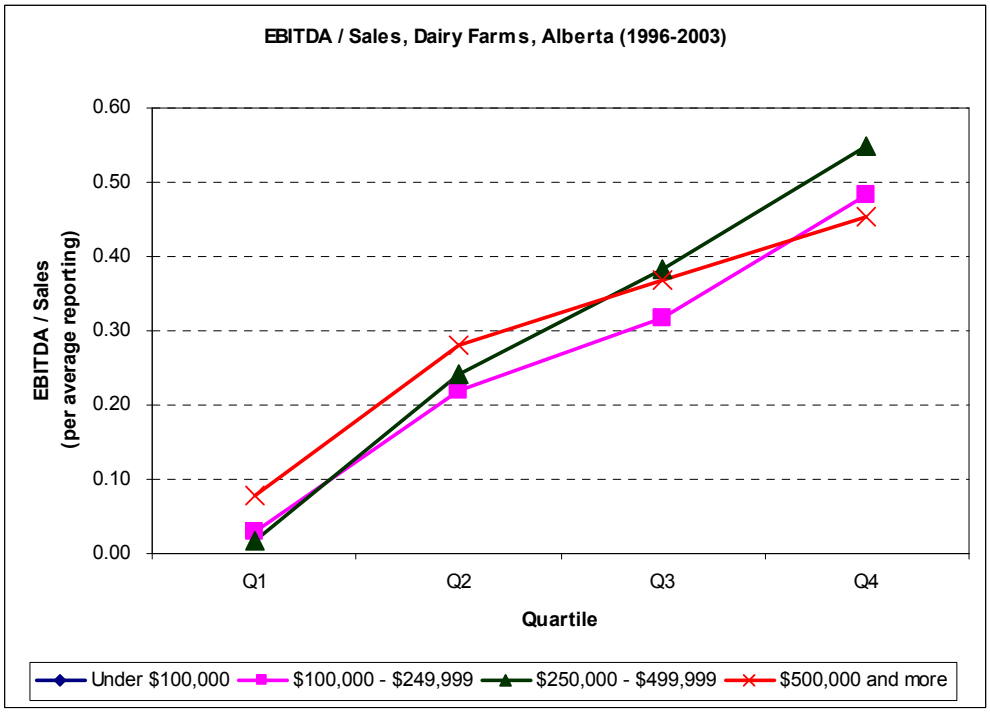


Figure D78



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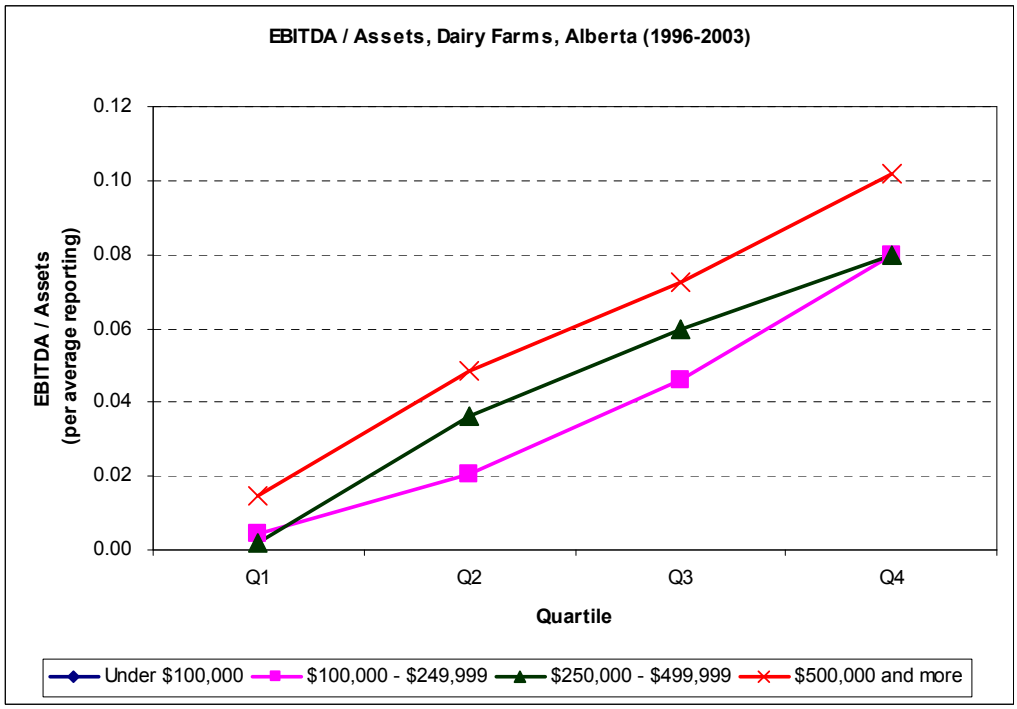


Figure D80

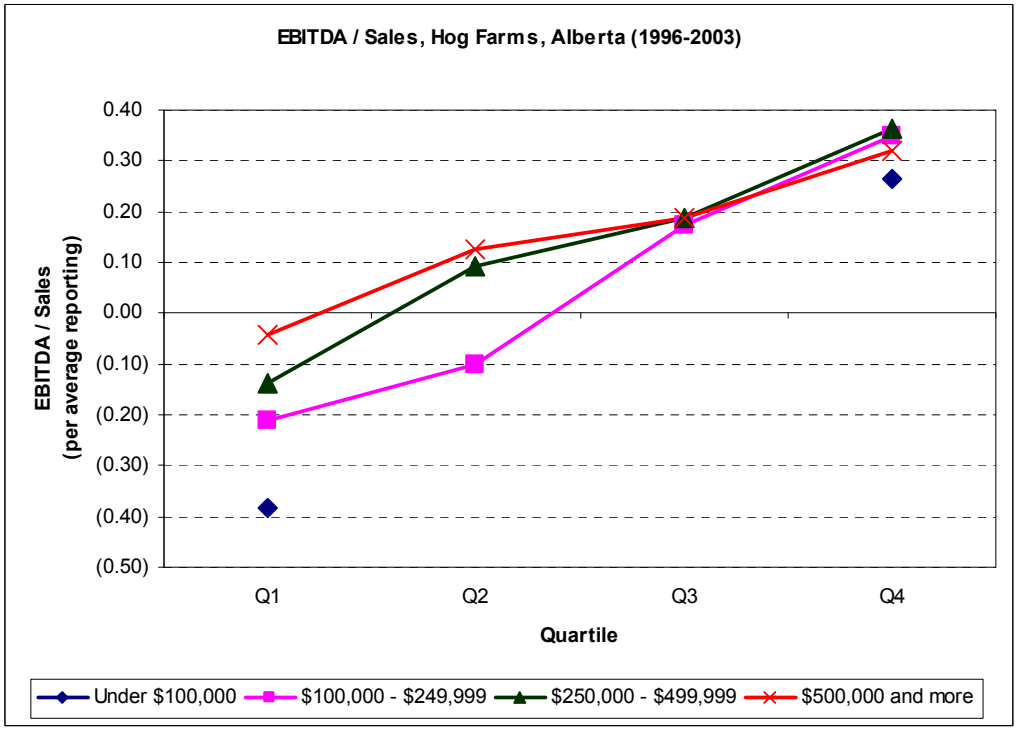


Figure D81

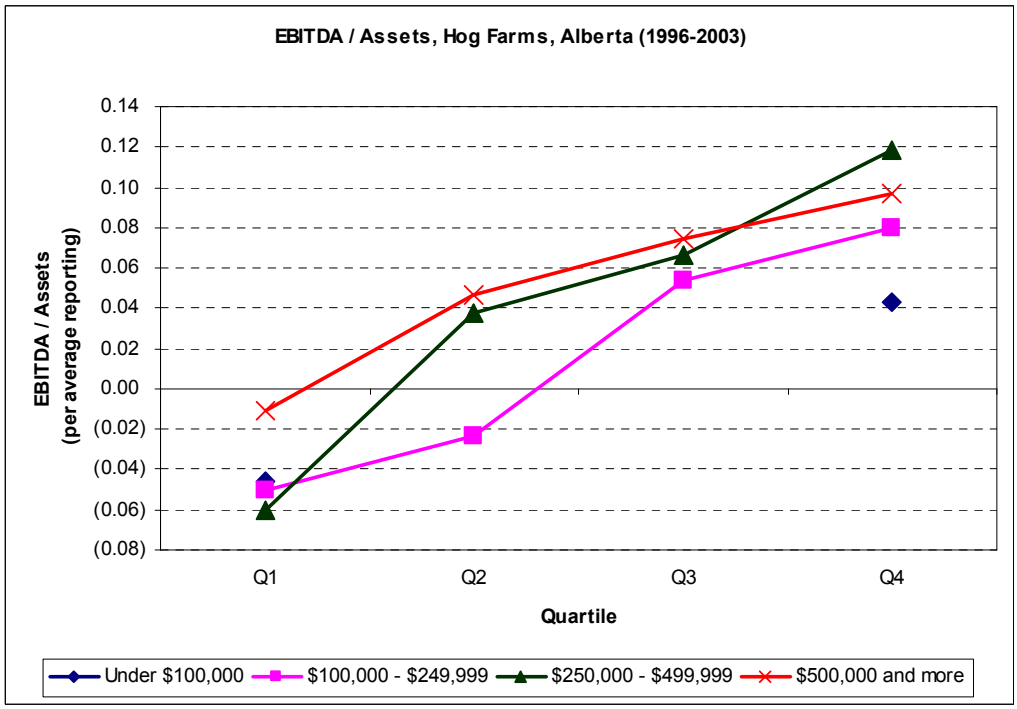


Figure D82

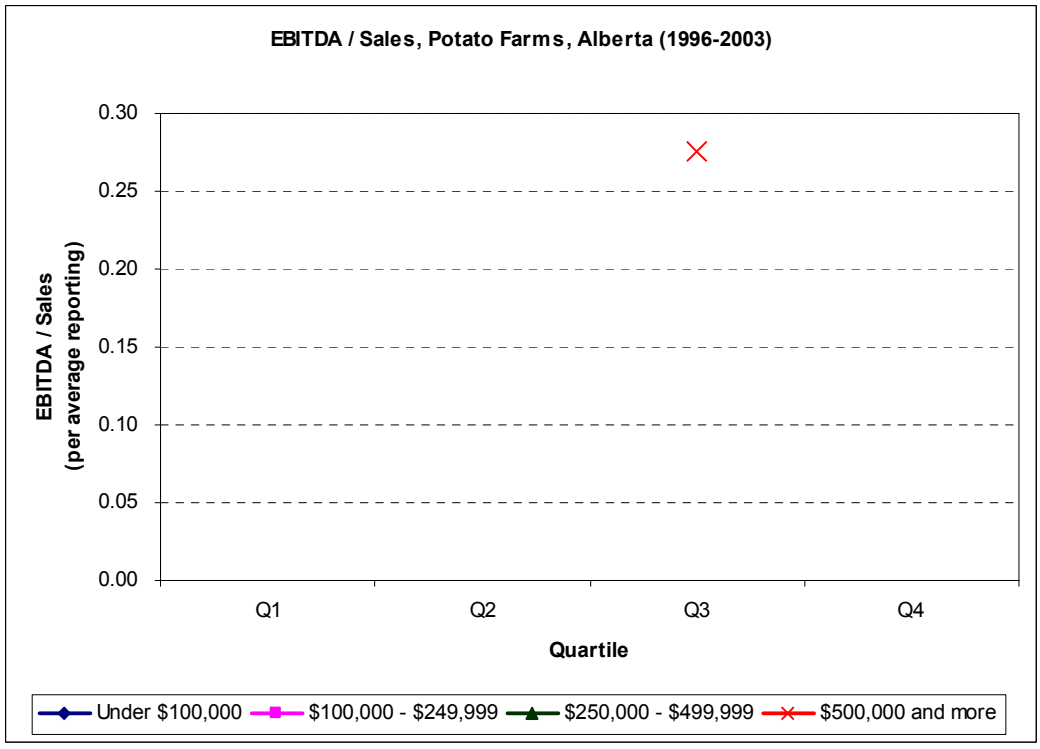
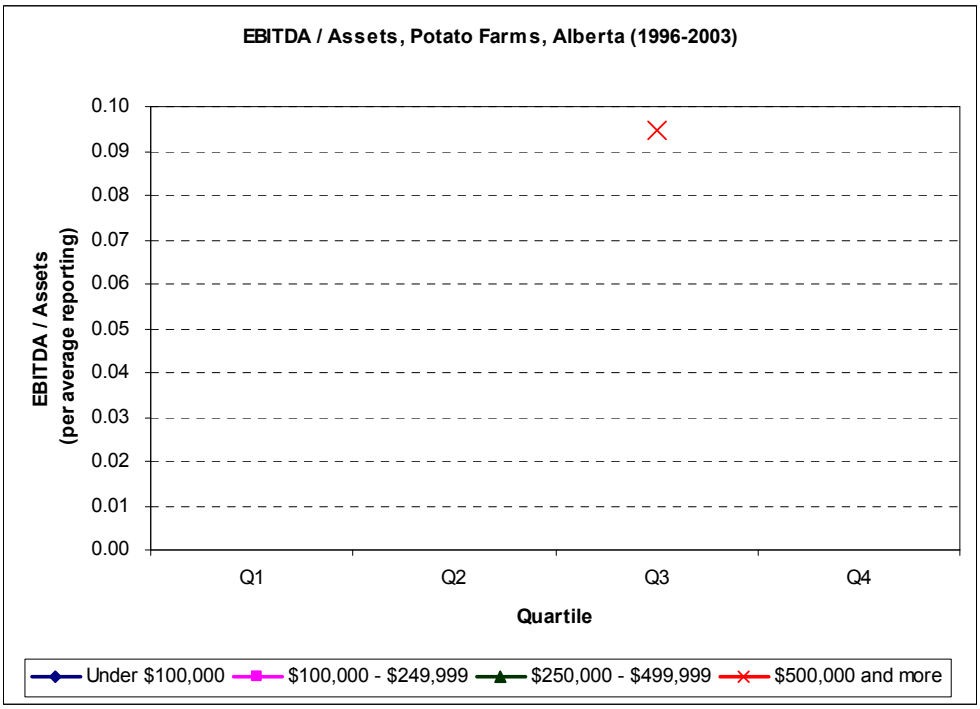


Figure D83


EBITDA / Assets, Potato Farms, Alberta (1996-2003)
EBITDA / Assets (per average reporting)
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Q1
Q2
Q3
Q4
Quartile
Under $100,000
$100,000 - $249,999
$250,000 - $499,999
$500,000 and more

Appendix E

Tables Displaying EBITDA/Sales and EBITDA/Assets by Farm Type and Province Using The Farm Financial Survey Data

EBITDA Data Extracted from the Farm Financial Survey

Table 1. Profitability Ratios by Revenue Class, Potato Farms, PEI (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989						0.36		0.59		0.26		0.33				
	1991	(0.10)	0.26	0.31	0.43	(0.56)	0.30	0.41	0.55								
	1992																
	1993						0.17		0.44								
	1995								0.50					0.07	0.24	0.30	0.43
	1997										0.11			(0.07)	0.13	0.16	0.33
	1999									(0.11)		0.23	0.55	(0.00)	0.14	0.27	0.26
	2001													(0.16)	0.13	0.24	0.34
	2002										0.13			(0.10)	0.05	0.21	0.20
	2003													(0.10)	0.20	0.19	0.27
EBITDA/Assets	1989						0.08				0.07		0.11				
	1991	(0.01)			0.06	(0.09)	0.05	0.07									
	1992																
	1993						0.03		0.07								
	1995								0.11					0.02	0.06	0.11	0.16
	1997										0.03			(0.03)	0.04	0.05	0.10
	1999									(0.03)		0.06	0.11	(0.00)	0.04	0.09	0.10
	2001													(0.05)	0.04	0.06	0.10
	2002										0.05			(0.02)	0.02	0.06	0.06
	2003													(0.03)	0.05	0.08	0.11

Table 2. Profitability Ratios by Revenue Class, Dairy Farms, PEI (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989						0.27		0.57								
	1991		0.24	0.29	0.51	0.17	0.29	0.40	0.48								
	1992																
	1993							0.28	0.49								
	1995							0.33	0.32								
	1997			0.25		0.06	0.22	0.34	0.41								
	1999					0.13	0.25	0.37	0.50								
	2001					0.07	0.28	0.30	0.48								
	2002					0.11	0.24	0.38	0.42								
	2003						0.32	0.37									
EBITDA/Assets	1989						0.07		0.14								
	1991		0.03	0.05	0.07	0.03	0.06	0.08	0.11								
	1992																
	1993							0.05	0.13								
	1995							0.05	0.09								
	1997			0.03		0.01	0.03	0.06	0.08								
	1999					0.02	0.03	0.05	0.06								
	2001					0.01	0.03	0.05	0.06								
	2002						0.03	0.04	0.05								
	2003						0.03	0.04									

Table 3. Profitability Ratios by Revenue Class, Beef Farms, PEI (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.22)	0.19		0.45												
	1991	(0.15)	0.10	0.37	0.43												
	1992																
	1993	(0.28)		0.35	0.37												
	1995	(0.63)		0.31	0.43												
	1997	(0.25)	0.08	0.31	0.44												
	1999	(0.36)	0.11	0.27	0.40												
	2001	(0.33)	0.08	0.27	0.41												
	2002	(0.40)	(0.14)	0.13	0.43												
	2003	(0.45)	(0.10)	0.17	0.43												
EBITDA/Assets	1989	(0.02)			0.04												
	1991	(0.01)	0.01	0.02	0.04												
	1992																
	1993	(0.02)		0.03	0.05												
	1995	(0.07)		0.01	0.03												
	1997	(0.02)	0.01	0.02	0.05												
	1999	(0.03)	0.01	0.02	0.04												
	2001	(0.02)	0.01	0.02	0.04												
	2002	(0.02)	(0.01)	0.01	0.05												
	2003	(0.03)	(0.01)	0.01	0.04												

Table 4. Profitability Ratios by Revenue Class, Dairy Farms, Quebec (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	0.21	0.38	0.36	0.52	0.23	0.34	0.40	0.46	0.14	0.26	0.33	0.52				0.49
	1991	0.27	0.37	0.37	0.49	0.20	0.36	0.40	0.46	0.18	0.27	0.35	0.47		0.25	0.30	
	1992																
	1993	0.20	0.27	0.41	0.52	0.18	0.29	0.38	0.49	0.09	0.28	0.43	0.60				
	1995	0.10	0.29	0.36	0.54	0.17	0.33	0.41	0.52	0.16	0.29	0.35	0.53				
	1997	0.14		0.31	0.52	0.15	0.29	0.37	0.48	0.21	0.30	0.40	0.56				
	1999		0.30		0.49	0.16	0.27	0.38	0.50	0.21	0.34	0.42	0.54				
	2001					0.15	0.32	0.37	0.53	0.14	0.33	0.39	0.57			0.35	0.44
	2002					0.08	0.27	0.36	0.45	0.11	0.29	0.40	0.47	0.14		0.35	
	2003					0.17	0.28	0.38	0.58	0.15	0.31	0.38	0.50	0.13		0.33	0.43
EBITDA/Assets	1989	0.04	0.07	0.08	0.12	0.06	0.09	0.09	0.13	0.05	0.09	0.09	0.18				0.21
	1991	0.04	0.07	0.08	0.10	0.05	0.09	0.11	0.12	0.05	0.08	0.10	0.17		0.10	0.11	
	1992																
	1993	0.02	0.05	0.07	0.10	0.04	0.06	0.08	0.10	0.02	0.07	0.10	0.13				
	1995	0.01	0.04	0.06	0.08	0.03	0.06	0.08	0.10	0.03	0.06	0.08	0.12				
	1997	0.02		0.04	0.08	0.03	0.06	0.06	0.09	0.04	0.07	0.08	0.11				
	1999		0.03		0.06	0.02	0.04	0.06	0.09	0.04	0.05	0.07	0.09				
	2001					0.02	0.05	0.06	0.10	0.02	0.05	0.06	0.09			0.06	0.11
	2002					0.01	0.04	0.05	0.05	0.02	0.05	0.06	0.08	0.02		0.05	
	2003					0.02	0.04	0.05	0.07	0.02	0.04	0.07	0.07	0.02		0.05	0.09

Table 5. Profitability Ratios by Revenue Class, Poultry and Egg Farms, Quebec (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989													0.08			0.18
	1991																0.21
	1992																
	1993																
	1995														0.08		
	1997								0.40	(0.08)	0.11	0.20	0.45	0.03	0.09	0.16	0.33
	1999						0.21	0.30	0.62	0.10	0.19	0.29	0.75	0.06	0.14	0.15	0.33
	2001						0.12	0.24	0.45	(0.09)		0.18	0.40	0.05	0.17	0.18	0.40
	2002					(0.08)	0.15		0.49	0.05		0.19	0.34	0.04	0.14	0.17	0.25
	2003											0.13	0.28	0.03	0.14	0.15	0.23
EBITDA/Assets	1989													0.05			0.17
	1991																0.20
	1992																
	1993																
	1995														0.06		
	1997									(0.03)	0.05	0.08	0.12	0.02	0.05	0.09	0.15
	1999						0.04	0.05	0.07	0.03	0.06	0.07	0.15	0.03	0.06	0.06	0.11
	2001						0.02	0.05	0.04	(0.02)		0.06	0.08	0.02	0.06	0.06	0.14
	2002						0.05		0.05	0.01		0.06	0.09	0.01	0.04	0.05	0.08
	2003											0.03	0.07	0.01	0.04	0.05	0.06

Table 6. Profitability Ratios by Revenue Class, Hog Farms, Quebec (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989							0.31	0.36					0.04			0.19
	1991					0.04	0.16	0.25	0.40						0.17	0.20	0.26
	1992																
	1993								0.47		0.18	0.22	0.50				0.50
	1995												0.26	0.09	0.15	0.42	
	1997					(0.02)	0.16	0.28	0.45	0.06	0.14	0.22	0.39	0.01	0.09	0.18	0.30
	1999					(0.13)		0.23	0.45	(0.02)	0.09	0.20	0.46	0.04	0.12	0.18	0.36
	2001						0.34	0.40	0.55	0.06	0.16	0.28	0.46	0.04	0.18	0.24	0.29
	2002					0.05	0.21	0.43	0.54	(0.09)	0.14	0.25	0.40	(0.00)	0.09	0.13	0.22
	2003	(0.85)	0.12	0.29	0.51	(0.07)	0.23	0.39	0.53	(0.01)	0.11	0.18	0.30	(0.02)	0.11	0.16	0.24
EBITDA/Assets	1989							0.12	0.14					0.04			0.11
	1991					0.02	0.08	0.14	0.19						0.11	0.16	0.22
	1992																
	1993								0.16		0.08	0.10	0.24				0.25
	1995												0.11	0.05	0.10	0.26	
	1997					(0.01)	0.06	0.12	0.12	0.02	0.07	0.09	0.21	0.01	0.06	0.09	0.17
	1999					(0.04)		0.13	0.12	(0.01)	0.04	0.07	0.21	0.02	0.07	0.08	0.16
	2001						0.11	0.16	0.09	0.03	0.06	0.11	0.23	0.03	0.10	0.10	0.16
	2002					0.01	0.06	0.11	0.11	(0.04)	0.05	0.10	0.16	(0.00)	0.05	0.07	0.09
	2003	(0.10)	0.02	0.02	0.08	(0.02)	0.06	0.08	0.12	(0.00)	0.06	0.06	0.09	(0.01)	0.06	0.08	0.09

Table 7. Profitability Ratios by Revenue Class, Oilseed and Grain Farms, Quebec (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.02)	0.27	0.39	0.72		0.27	0.41									
	1991	(0.27)	0.25	0.30	0.39	0.13	0.31	0.36	0.54	0.21		0.46					
	1992																
	1993	(0.51)	0.22	0.34	0.47	(0.03)	0.21	0.33	0.44	0.11	0.23		0.48				
	1995	(0.51)	0.17	0.42	0.48	0.10	0.25		0.56		0.28	0.38	0.50				0.16
	1997	(0.34)	0.12	0.36	0.46	0.02	0.27	0.36	0.51	0.08	0.14	0.25	0.43	0.01	0.13	0.25	0.37
	1999	(0.00)	0.25	0.41	0.52	0.14	0.29	0.39	0.56	0.12	0.29	0.38	0.53	0.03	0.18	0.33	0.40
	2001	(0.43)	0.07	0.26	0.54	0.04	0.27		0.58	(0.06)	0.16	0.31	0.47	0.01	0.19	0.22	0.35
	2002	(0.20)	0.11	0.29	0.46	(0.03)	0.15	0.30	0.55	(0.04)	0.18	0.24	0.39	(0.01)	0.18		0.34
	2003	(0.32)	(0.02)	0.21	0.38	(0.21)	0.21	0.37	0.43	0.02	0.19	0.37	0.49	(0.02)	0.26	0.24	0.39
EBITDA/Assets	1989	(0.00)	0.03	0.06	0.16		0.07	0.10									
	1991	(0.03)		0.06	0.07	0.05	0.10	0.09	0.15	0.07		0.15					
	1992																
	1993	(0.04)	0.02	0.04	0.06	(0.01)	0.07	0.09	0.10	0.02	0.06		0.15				
	1995	(0.04)	0.02	0.04	0.06	0.02	0.05		0.10		0.09	0.13	0.15				0.30
	1997	(0.04)	0.01	0.04	0.08	0.00	0.04	0.07	0.11	0.02	0.04	0.06	0.09	0.00	0.05	0.06	0.10
	1999	(0.00)	0.02	0.05	0.07	0.02	0.04	0.06	0.09	0.03	0.06	0.07	0.10	0.01	0.04	0.09	0.09
	2001	(0.04)	0.01	0.03	0.07	0.01	0.04		0.08	(0.01)	0.03	0.06	0.09	0.00	0.05	0.06	0.06
	2002	(0.01)	0.01	0.03	0.05	(0.00)	0.03	0.05	0.07	(0.01)	0.03	0.05	0.05	(0.00)	0.04		0.08
	2003	(0.02)	(0.00)	0.03	0.04	(0.03)	0.03	0.05	0.07	0.00	0.04	0.07	0.07	(0.00)	0.05	0.06	0.08

Table 8. Profitability Ratios by Revenue Class, Other Crop Farms, Quebec (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989		0.37		0.49												
	1991	0.30	0.27	0.50													
	1992																
	1993	(0.48)	0.15	0.41	0.46												
	1995	(0.08)	0.21	0.31	0.56												
	1997	(0.30)	0.32	0.56	0.55		0.16	0.44									
	1999	(0.29)	0.29	0.43	0.58	0.16											
	2001	(0.18)	0.13	0.25	0.56												
	2002	(0.08)	0.26	0.33	0.60												
	2003	(0.25)	0.39	0.48	0.58	(0.03)	0.20	0.35	0.51								
EBITDA/Assets	1989		0.03		0.09												
	1991	0.02	0.05	0.07													
	1992																
	1993	(0.03)	0.01	0.05	0.08												
	1995	(0.01)	0.02	0.04	0.09												
	1997	(0.02)	0.03	0.07	0.09		0.04	0.12									
	1999	(0.03)	0.03	0.07	0.07	0.03											
	2001		0.01	0.04	0.10												
	2002	(0.01)	0.02	0.03	0.08												
	2003	(0.02)	0.02	0.05	0.08	(0.01)	0.06	0.13	0.12								

Table 9. Profitability Ratios by Revenue Class, Beef Farms, Quebec (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.10)	0.20	0.26	0.49												
	1991	(0.20)	0.23	0.39	0.58												
	1992																
	1993	(0.61)	0.11	0.31	0.40				0.41								
	1995	(0.39)	0.12	0.26	0.45												
	1997	(0.60)	0.15	0.33	0.40	(0.36)	0.13	0.31	0.38		0.10	0.23	0.59				
	1999	(0.31)	0.13	0.28	0.47	(0.11)	0.12	0.23	0.49			0.25		(0.04)		0.16	0.32
	2001	(0.39)	0.15	0.28	0.48	(0.03)	0.14	0.36	0.51			0.29					0.24
	2002	(0.39)	0.07	0.26	0.44	(0.33)	0.23	0.38	0.42	(0.10)	0.08	0.21	0.37	(0.04)	0.06	0.10	0.21
	2003	(0.46)	0.10	0.27	0.40	(0.39)	0.12	0.29	0.53		(0.03)	0.10	0.24	(0.17)	0.02	0.10	0.19
EBITDA/Assets	1989	(0.01)	0.01	0.03	0.09												
	1991	(0.01)	0.02	0.05	0.11												
	1992																
	1993	(0.05)	0.01	0.03	0.06				0.07								
	1995	(0.04)	0.01	0.03	0.06												
	1997	(0.05)	0.02	0.04	0.07	(0.10)	0.03	0.07	0.08		0.05	0.11	0.32				
	1999	(0.03)	0.01	0.03	0.07	(0.04)	0.03	0.06	0.11			0.10		(0.03)		0.16	0.28
	2001	(0.04)	0.01	0.03	0.06	(0.01)	0.03	0.07	0.11			0.11					0.23
	2002	(0.03)	0.01	0.03	0.06	(0.05)	0.05	0.08	0.13	(0.05)	0.03	0.10	0.12	(0.02)	0.07	0.08	0.12
	2003	(0.04)	0.01	0.03	0.06	(0.06)	0.02	0.06	0.12		(0.02)	0.04	0.11	(0.11)	0.02	0.06	0.15

Table 10. Profitability Ratios by Revenue Class, Other Vegetable and Melon Farms, Quebec (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989																
	1991																
	1992																
	1993	(0.00)		0.38	0.46												
	1995			0.27	0.52												
	1997	(0.12)	0.17	0.35	0.42		0.11	0.20	0.42		0.20	0.30	0.33		0.13	0.17	0.24
	1999	(0.12)	0.21	0.36	0.39	(0.02)	0.15	0.33	0.54			0.23	0.48		0.11		
	2001		(0.09)	0.29	0.35	(0.00)	0.27	0.34	0.50		0.13	0.23	0.43				
	2002	(0.29)	0.22	0.34	0.43				0.32	(0.11)		0.18	0.30	(0.01)	0.24	0.21	0.24
	2003	(0.41)	0.25	0.29	0.50				0.44	(0.05)	0.14	0.30	0.42	(0.01)	0.10		0.22
EBITDA/Assets	1989																
	1991																
	1992																
	1993	(0.00)		0.02	0.09												
	1995			0.05	0.08												
	1997	(0.02)	0.03	0.05	0.09		0.04	0.08	0.20		0.07	0.12	0.14		0.09	0.11	0.17
	1999	(0.02)	0.02	0.06	0.09	(0.00)	0.05	0.09	0.21			0.12	0.18		0.07		
	2001		(0.01)	0.02	0.07	(0.00)	0.07	0.05	0.15		0.06	0.10	0.22				
	2002	(0.01)	0.03	0.04	0.10				0.06	(0.03)		0.08	0.10	(0.01)	0.10	0.09	0.27
	2003		0.02		0.07				0.10	(0.02)	0.06	0.10	0.16	(0.01)	0.06		0.13

Table 11. Profitability Ratios by Revenue Class, Dairy Farms, Ontario (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	0.10	0.30	0.41	0.49	0.20	0.38	0.49	0.53	0.17	0.24	0.37	0.46				
	1991	0.18	0.32	0.41	0.48	0.20	0.36	0.40	0.53	0.15	0.29	0.35	0.50		0.18	0.24	0.41
	1992																
	1993	(0.66)	0.16	0.31	0.52	0.07	0.29	0.40	0.54	(0.05)	0.20	0.37	0.61				
	1995	(0.05)	0.24	0.33	0.44	0.11	0.29	0.41	0.51	0.15	0.28	0.37	0.55		0.14		0.47
	1997	(0.16)	0.15	0.27	0.44	0.03	0.25	0.35	0.48	0.04	0.24	0.33	0.48	0.14	0.30	0.36	0.61
	1999				0.56	0.05	0.25	0.34	0.52	0.10	0.28	0.40	0.55	0.09	0.22	0.23	0.56
	2001					0.01	0.23	0.37	0.53	0.13	0.31	0.45	0.63	0.14	0.29	0.41	0.56
	2002					0.05	0.23	0.36	0.52	0.04	0.25	0.40	0.49	0.11	0.32	0.45	0.44
	2003					(0.02)	0.21	0.30	0.46	0.10	0.21	0.39	0.44	0.06	0.30	0.34	0.49
EBITDA/Assets	1989	0.01	0.03	0.06	0.10	0.04	0.08	0.09	0.10	0.04	0.06	0.07	0.09				
	1991		0.04	0.07	0.08	0.03	0.08	0.08	0.11	0.04	0.06	0.07	0.13		0.05		0.10
	1992																
	1993	(0.09)	0.02	0.04	0.09	0.01	0.05	0.07	0.10	(0.01)	0.04	0.08	0.12				
	1995	(0.01)	0.03	0.04	0.06	0.02	0.05	0.07	0.09	0.03	0.06	0.07	0.09		0.03		0.10
	1997	(0.01)	0.02	0.03	0.05	0.00	0.04	0.05	0.08	0.01	0.04	0.06	0.07	0.03	0.06	0.07	0.14
	1999				0.08	0.01	0.03	0.04	0.07	0.02	0.04	0.06	0.09	0.01	0.04	0.05	0.11
	2001					0.00	0.03	0.05	0.08	0.02	0.04	0.07	0.09	0.03	0.05	0.07	0.09
	2002					0.01	0.03	0.04	0.07	0.01	0.04	0.06	0.06	0.02	0.05	0.07	0.07
	2003					(0.00)	0.02	0.04	0.05	0.01	0.03	0.05	0.06	0.01	0.06	0.06	0.07

Table 12. Profitability Ratios by Revenue Class, Oilseed and Grain Farms, Ontario (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.16)	0.26	0.39	0.46	0.14	0.38	0.35	0.56		0.14	0.23	0.39		0.14	0.33	0.52
	1991	(0.18)	0.16	0.31	0.41	0.09	0.32	0.39	0.46		0.11	0.29	0.52			0.25	0.55
	1992																
	1993	(0.29)	0.19	0.33	0.45	0.06	0.26	0.35	0.48	0.07	0.19	0.33	0.62				0.36
	1995	(0.22)	0.22	0.31	0.44	0.00	0.18	0.32	0.48	0.13	0.24	0.34	0.52	0.07	0.17	0.34	0.48
	1997	(0.32)	0.16	0.34	0.49	(0.10)	0.15	0.30	0.55	0.01	0.22	0.33	0.48	0.04	0.20	0.31	0.34
	1999	(0.30)	0.14	0.34	0.51	0.02	0.24	0.32	0.43	(0.04)	0.16	0.34	0.49	0.03	0.17	0.29	0.37
	2001	(0.38)	0.14	0.27	0.45	(0.01)	0.19	0.34	0.51	0.06	0.20	0.30	0.48	(0.04)	0.15	0.24	0.31
	2002	(0.49)	0.11	0.27	0.47	(0.16)	0.20	0.31	0.48	(0.11)	0.17	0.34	0.51	0.04	0.24	0.26	0.33
	2003	(0.43)	0.09	0.30	0.41	(0.04)	0.24	0.30	0.48	(0.24)	0.13	0.26	0.47	(0.06)	0.21	0.23	0.31
EBITDA/Assets	1989	(0.01)	0.01	0.03	0.05	0.03	0.04	0.10	0.11		0.04	0.05	0.07		0.09	0.13	0.17
	1991	(0.01)	0.01	0.03	0.05	0.02	0.06	0.09	0.11		0.03	0.08	0.13			0.12	0.50
	1992																
	1993	(0.02)	0.01	0.03	0.05	0.01	0.05	0.06	0.09	0.02	0.06	0.09	0.19				0.17
	1995	(0.02)	0.02	0.03	0.06	0.00	0.03	0.06	0.08	0.03	0.09	0.08	0.10	0.03	0.04	0.09	0.18
	1997	(0.02)	0.01	0.03	0.05	(0.02)	0.03	0.06	0.08	0.00	0.05	0.06	0.11	0.01	0.07	0.08	0.13
	1999	(0.03)	0.01	0.02	0.05	0.00	0.03	0.04	0.06	(0.01)	0.04	0.07	0.09	0.01	0.04	0.07	0.12
	2001	(0.02)	0.01	0.02	0.04	(0.00)	0.03	0.04	0.08	0.01	0.04	0.05	0.08	(0.01)	0.03	0.07	0.09
	2002	(0.03)	0.01	0.02	0.03	(0.02)	0.03	0.05	0.06	(0.02)	0.04	0.06	0.07	0.01	0.08	0.05	0.12
	2003	(0.02)	0.01	0.02	0.03	(0.01)	0.03	0.04	0.05	(0.04)	0.03	0.06	0.11	(0.02)	0.04	0.07	0.09

Table 13. Profitability Ratios by Revenue Class, Poultry and Egg Farms, Ontario (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989																0.28
	1991															0.19	0.45
	1992																
	1993														0.17		0.17
	1995														0.08	0.20	0.47
	1997			0.08	0.54	0.09	0.27	0.39	0.77	0.05	0.16	0.23	0.45	0.01	0.18	0.28	0.49
	1999					0.03	0.25	0.30	0.70	0.07	0.20	0.25	0.56	0.08	0.23	0.31	0.40
	2001				0.43	0.09	0.19	0.35	0.61	0.07	0.24	0.30	0.56	0.09	0.24	0.27	0.33
	2002							0.17	0.36	(0.03)	0.16	0.28	0.38	(0.02)	0.16	0.23	0.29
	2003					(0.35)	0.22	0.31		(0.02)	0.11	0.24	0.34	(0.00)	0.14	0.22	0.25
EBITDA/Assets	1989																0.15
	1991															0.06	0.27
	1992																
	1993														0.05		0.09
	1995														0.03	0.07	0.15
	1997				0.06	0.03	0.06	0.07	0.18	0.01	0.05	0.06	0.11	0.00	0.06	0.09	0.21
	1999					0.00	0.06	0.06	0.12	0.02	0.04	0.06	0.12	0.02	0.06	0.09	0.14
	2001				0.03	0.01	0.03	0.06	0.09	0.02	0.04	0.06	0.10	0.02	0.06	0.06	0.09
	2002							0.02	0.05	(0.01)	0.03	0.05	0.08	(0.00)	0.04	0.05	0.09
	2003					(0.03)	0.02	0.04		(0.00)	0.02	0.04	0.06	(0.00)	0.03	0.05	0.07

Table 14. Profitability Ratios by Revenue Class, Greenhouse, Nursery and Floriculture Production, Ontario (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989																
	1991																
	1992																
	1993																0.18
	1995																
	1997	(0.33)	0.18	0.30	0.52	(0.03)	0.15	0.25	0.32	0.02	0.14	0.25	0.44	0.03	0.12	0.18	0.25
	1999		0.16		0.42	(0.02)	0.21	0.27	0.32	(0.08)	0.15	0.30	0.55	0.04	0.12	0.18	0.29
	2001	(0.62)	0.16	0.47	0.43	0.07	0.19	0.26	0.45	(0.09)	0.15	0.29	0.52	(0.10)	0.11	0.22	0.23
	2002	(0.75)	0.05	0.36	0.50	0.07	0.23	0.37	0.46	0.01		0.21	0.35	(0.01)	0.10	0.15	0.26
	2003	(0.89)	0.08	0.35	0.44		0.15	0.22		(0.12)		0.18	0.44	(0.04)	0.08	0.17	0.25
EBITDA/Assets	1989																
	1991																
	1992																
	1993																0.17
	1995																
	1997	(0.04)	0.02	0.04	0.11	(0.01)	0.05	0.08	0.11	0.01	0.06	0.08	0.21	0.02	0.07	0.11	0.19
	1999		0.01		0.06	(0.01)	0.06	0.12	0.08	(0.05)	0.09	0.10	0.24	0.03	0.09	0.10	0.22
	2001	(0.08)		0.04	0.11	0.02	0.05	0.08	0.15	(0.03)	0.09	0.09	0.19	(0.08)	0.08	0.15	0.18
	2002	(0.11)			0.11	0.03	0.05	0.08	0.14	0.00		0.11	0.13	(0.01)	0.07	0.11	0.22
	2003	(0.08)	0.00	0.05	0.08		0.04	0.10		(0.06)		0.06	0.23	(0.03)	0.05	0.11	0.22

Table 15. Profitability Ratios by Revenue Class, Hog Farms, Ontario (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.17)		0.18	0.36		0.14	0.28	0.38				0.31				
	1991	(0.01)						0.27	0.43			0.26	0.31				0.16
	1992																
	1993		(0.09)		0.33	(0.13)	0.12	0.23	0.47								
	1995	(0.39)		0.14	0.35	0.02	0.15	0.23	0.37	0.10		0.25					
	1997		(0.11)	0.15	0.37	(0.07)	0.17	0.29	0.43	(0.10)	0.10	0.17	0.41	(0.03)	0.16	0.29	0.42
	1999		(0.58)	0.05	0.34	(0.07)	0.08	0.25	0.41	(0.09)	0.15	0.24	0.45	(0.18)	0.14	0.20	0.36
	2001	(0.19)			0.49	(0.06)	0.15	0.33	0.58	0.02	0.18	0.32	0.40	0.13	0.21	0.27	0.41
	2002			0.39	0.57	(0.04)	0.15	0.28	0.45	(0.03)	0.14	0.27	0.45	(0.16)	0.12	0.21	0.28
	2003						0.06	0.17	0.49	(0.05)	0.07	0.16	0.32	(0.04)	0.11	0.17	0.27
EBITDA/Assets	1989	(0.03)		0.03	0.04		0.06	0.07	0.12				0.10				
	1991	(0.00)						0.10	0.13			0.10	0.11				0.11
	1992																
	1993		(0.01)			(0.04)	0.04	0.07	0.11								
	1995	(0.05)		0.02	0.06	0.01	0.04	0.06	0.12	0.04		0.09					
	1997		(0.01)	0.02	0.05	(0.02)	0.05	0.08	0.10	(0.06)	0.04	0.06	0.13	(0.01)	0.07	0.11	0.21
	1999		(0.03)	0.00	0.04	(0.02)	0.02	0.06	0.08	(0.03)	0.07	0.08	0.12	(0.05)	0.04	0.07	0.16
	2001				0.04	(0.01)	0.04	0.05	0.12	0.00	0.06	0.09	0.16	0.05	0.08	0.11	0.17
	2002			0.03	0.06	(0.01)	0.03	0.06	0.08	(0.01)	0.04	0.08	0.11	(0.07)	0.04	0.06	0.09
	2003						0.01	0.02	0.10	(0.01)	0.02	0.05	0.06	(0.03)	0.04	0.06	0.09

Table 16. Profitability Ratios by Revenue Class, Other Crop Farms, Ontario (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989									0.08							
	1991																
	1992																
	1993	(0.37)	0.23	0.35	0.63	(0.46)	0.13	0.22	0.41								0.26
	1995	(0.68)	0.19	0.40	0.65	0.11	0.27						0.38				
	1997	(0.36)	0.20	0.48	0.54	0.06			0.30			0.36		0.07			0.39
	1999	(0.18)	0.22	0.35	0.49		0.10	0.34	0.45	0.05		0.29				0.13	0.43
	2001	(0.42)		0.26	0.30			0.39				0.32	0.43				0.33
	2002	(0.69)	0.04	0.31	0.41				0.48	0.06	0.20	0.27				0.15	0.20
	2003	(0.77)	(0.21)	0.47	0.48	(0.07)	0.17		0.59	(0.11)			0.41			0.19	0.32
EBITDA/Assets	1989									0.02							
	1991																
	1992																
	1993	(0.02)	0.01	0.03	0.07	(0.05)	0.03	0.04	0.08								0.17
	1995	(0.02)		0.02	0.11	0.02	0.08						0.08				
	1997	(0.03)	0.02	0.04	0.06	0.01			0.06			0.09		0.05			0.25
	1999	(0.01)	0.02	0.03	0.08		0.02	0.06	0.09	0.02		0.07				0.07	0.17
	2001	(0.03)		0.02	0.03			0.01				0.07	0.13				0.23
	2002	(0.03)	0.00		0.04				0.07	0.01	0.05	0.07				0.04	0.08
	2003	(0.07)	(0.01)	0.03	0.04	(0.01)	0.02		0.14	(0.03)			0.10			0.05	0.17

Table 17. Profitability Ratios by Revenue Class, Beef Farms, Ontario (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.22)	0.04	0.21	0.40				0.55				0.22		0.05	0.14	0.31
	1991	(0.44)	0.01	0.19	0.40	(0.05)			0.28		0.11						0.20
	1992																
	1993	(0.62)	(0.05)	0.17	0.38	(0.19)	0.03	0.18	0.48				0.56	0.01	0.04	0.12	0.50
	1995	(0.67)	(0.06)	0.19	0.40	(0.21)	0.06	0.25	0.62				0.30		0.09	0.09	0.13
	1997	(0.75)	(0.09)	0.20	0.48	(0.29)	0.07	0.20	0.54	(0.14)	0.05	0.12	0.30	(0.06)	0.06	0.15	0.42
	1999	(0.50)	0.04	0.22	0.50	(0.10)	0.10	0.22	0.53	(0.10)	0.02	0.09	0.33	(0.10)	0.05	0.08	0.49
	2001	(0.49)	0.02	0.22	0.44	(0.24)	0.10	0.22	0.53	(0.11)	0.07	0.14	0.46	(0.06)	0.03	0.09	0.17
	2002	(0.64)	(0.15)	0.15	0.38	(0.22)	0.06	0.19	0.39	(0.05)	0.12	0.17	0.23	(0.11)	0.02	0.06	0.18
	2003	(0.79)	(0.28)	0.05	0.35	(0.47)	0.03	0.16	0.43	(0.13)	0.04	0.18	0.40	(0.15)	(0.00)	0.13	0.44
EBITDA/Assets	1989	(0.02)	0.00	0.02	0.05				0.15				0.07		0.04	0.04	0.13
	1991	(0.02)	0.00	0.01	0.04	(0.02)			0.08		0.03						0.14
	1992																
	1993	(0.04)	(0.00)	0.01	0.04	(0.04)	0.01	0.05	0.13				0.25	0.00	0.02	0.06	0.19
	1995	(0.04)	(0.00)	0.02	0.04	(0.05)	0.02	0.07	0.15				0.09		0.07	0.09	0.13
	1997	(0.05)	(0.01)	0.01	0.05	(0.05)	0.02	0.05	0.10	(0.05)	0.02	0.03	0.11	(0.04)	0.05	0.07	0.42
	1999	(0.03)	0.00	0.02	0.05	(0.02)	0.02	0.04	0.10	(0.03)	0.00	0.03	0.08	(0.06)	0.02	0.05	0.33
	2001	(0.03)	0.00	0.02	0.05	(0.04)	0.02	0.04	0.09	(0.03)	0.03	0.05	0.12	(0.03)	0.02	0.06	0.10
	2002	(0.04)	(0.01)	0.01	0.04	(0.04)	0.01	0.03	0.08	(0.01)	0.04	0.05	0.06	(0.07)	0.01	0.03	0.08
	2003	(0.05)	(0.01)	0.00	0.03	(0.07)	0.01	0.03	0.07	(0.05)	0.01	0.05	0.09	(0.14)	(0.00)	0.05	0.29

Table 18. Profitability Ratios by Revenue Class, Oilseed and Grain Farms, Manitoba (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.02)	0.25	0.34	0.47	0.15	0.30	0.42	0.50	0.05	0.33	0.37	0.48				
	1991	(0.08)	0.28	0.37	0.50	0.12	0.34	0.41	0.49	0.07	0.23	0.37	0.48	0.08	0.34	0.35	0.31
	1992	(0.27)	0.12	0.28	0.46	0.07	0.26	0.33	0.48	0.06	0.27	0.37	0.57	0.07			0.40
	1993	(0.11)	0.24	0.36	0.48	0.03	0.30	0.37	0.54	0.09	0.26	0.39	0.52	0.16	0.24	0.39	
	1995	(0.25)	0.18	0.30	0.48	0.04	0.23	0.31	0.48	0.07	0.21	0.32	0.43	0.02	0.19	0.30	0.39
	1997	(0.18)	0.14	0.27	0.42	0.07	0.23	0.33	0.45	(0.01)	0.22	0.32	0.47	(0.02)	0.15	0.25	0.45
	1999	(0.33)	0.10	0.22	0.43	(0.07)	0.18	0.29	0.43	(0.09)	0.16	0.26	0.39	0.01	0.18	0.25	0.34
	2001	(0.30)	0.11	0.33	0.49	(0.12)	0.17	0.31	0.45	(0.02)	0.17	0.32	0.50	0.02	0.15	0.24	0.35
	2002	(0.60)	(0.04)	0.17	0.39	0.03	0.22	0.31	0.48	(0.00)	0.16	0.26	0.42	0.01	0.15	0.26	0.39
	2003	(0.64)	0.03	0.22	0.36	(0.17)	0.12	0.24	0.44	(0.00)	0.19	0.30	0.43	(0.04)	0.12	0.24	0.36
EBITDA/Assets	1989	(0.00)	0.03	0.05	0.07	0.03	0.06	0.10	0.10	0.01	0.07	0.09	0.11				
	1991	(0.01)	0.04	0.06	0.11	0.03	0.07	0.09	0.11	0.02	0.07	0.11	0.14	0.03	0.10	0.11	0.13
	1992	(0.03)	0.02	0.04	0.08	0.02	0.06	0.07	0.11	0.02	0.06	0.09	0.14	0.02			0.11
	1993	(0.01)	0.03	0.06	0.09	0.01	0.07	0.08	0.13	0.03	0.08	0.10	0.13	0.05	0.08	0.12	
	1995	(0.02)	0.02	0.04	0.07	0.01	0.05	0.06	0.10	0.02	0.06	0.09	0.10	0.00	0.07	0.10	0.11
	1997	(0.02)	0.02	0.04	0.07	0.02	0.05	0.07	0.10	(0.00)	0.06	0.08	0.12	(0.01)	0.05	0.07	0.15
	1999	(0.03)	0.01	0.03	0.05	(0.01)	0.04	0.06	0.09	(0.02)	0.04	0.06	0.09	0.00	0.06	0.07	0.09
	2001	(0.03)	0.01	0.04	0.07	(0.02)	0.04	0.06	0.09	(0.00)	0.05	0.07	0.11	0.01	0.06	0.07	0.12
	2002	(0.07)	(0.00)	0.02	0.06	0.00	0.04	0.06	0.10	(0.00)	0.04	0.07	0.11	0.00	0.05	0.08	0.12
	2003	(0.06)	0.00	0.03	0.06	(0.03)	0.02	0.04	0.08	(0.00)	0.04	0.07	0.10	(0.01)	0.03	0.07	0.12

Table 19. Profitability Ratios by Revenue Class, Beef Farms, Manitoba (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	**1989**	(0.06)	0.30	0.36	0.42	0.17	0.31	0.38	0.68								
	1991	(0.77)	0.19	0.33	0.54	0.10	0.34	0.40	0.58				0.55				
	1992	(0.33)	0.21	0.37	0.45	0.06	0.19	0.32	0.38								
	1993	(0.14)	0.14	0.26	0.49		0.27	0.38	0.46								
	1995	(0.42)	0.06	0.29	0.51	(0.06)	0.19	0.31	0.45								
	1997	(0.32)	0.11	0.27	0.43	(0.18)	0.15	0.29	0.45	(0.08)		0.13	0.29				
	1999	(0.43)	0.17	0.26	0.47	(0.04)	0.17	0.26	0.43	(0.12)	0.10	0.13	0.56	0.01	0.07	0.21	0.44
	2001	(0.49)	0.19	0.33	0.55	0.01	0.21	0.33	0.54	(0.03)	0.18	0.31	0.49		0.09	0.15	0.25
	2002	(0.59)	0.04	0.24	0.45	(0.01)	0.18	0.29	0.47	(0.00)	0.12	0.14	0.31	(0.06)	0.07	0.12	0.20
	2003	(0.85)	(0.09)	0.18	0.39	(0.32)	0.13	0.31	0.42	(0.38)	0.13	0.30	0.45	(0.04)	0.09	0.14	0.24
EBITDA/Assets	**1989**	(0.01)	0.03	0.06	0.06	0.04	0.09	0.10	0.18								
	1991	(0.09)	0.02	0.04	0.08	0.02	0.08	0.08	0.17				0.17				
	1992	(0.04)	0.03	0.06	0.09	0.02	0.04	0.07	0.08								
	1993	(0.02)	0.02	0.04	0.08		0.05	0.06	0.10								
	1995	(0.04)	0.01	0.03	0.07	(0.01)	0.03	0.06	0.08								
	1997	(0.04)	0.01	0.03	0.07	(0.03)	0.03	0.08	0.09	(0.03)		0.04	0.07				
	1999	(0.05)	0.02	0.04	0.07	(0.01)	0.04	0.06	0.08	(0.04)	0.03	0.03	0.12	0.01	0.04	0.08	0.20
	2001	(0.05)	0.02	0.04	0.08	0.00	0.04	0.05	0.12	(0.01)	0.05	0.08	0.16		0.05	0.07	0.13
	2002	(0.06)	0.00	0.03	0.06	(0.00)	0.03	0.05	0.09	(0.00)	0.04	0.05	0.05	(0.04)	0.03	0.07	0.13
	2003	(0.07)	(0.01)	0.02	0.05	(0.06)	0.02	0.06	0.08	(0.07)	0.03	0.08	0.10	(0.07)	0.04	0.05	0.14

Table 20. Profitability Ratios by Revenue Class, Hog Farms, Manitoba (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989															0.17	0.29
	1991						0.15		0.40								
	1992					0.04	0.17	0.28	0.55					(0.02)	0.13	0.15	0.47
	1993							0.22	0.35					(0.09)	0.04	0.25	0.47
	1995						0.08	0.17						(0.10)		0.13	0.25
	1997							0.19	0.34	(0.11)	0.08	0.17	0.38	(0.12)	0.11	0.13	0.37
	1999					(0.19)		0.17	0.31	(0.06)			0.20	(0.09)	0.07	0.10	0.26
	2001												0.24	(0.03)	0.16	0.15	0.28
	2002								0.23			0.21	0.38	(0.18)	0.06	0.12	0.27
	2003								0.38			0.14	0.44	(0.12)	0.01	0.11	0.23
EBITDA/Assets	1989															0.09	0.10
	1991						0.07		0.15								
	1992					0.02	0.06	0.09	0.13					(0.01)	0.04	0.05	0.14
	1993							0.09	0.11					(0.03)	0.02	0.10	0.26
	1995						0.04	0.06						(0.03)		0.06	0.09
	1997							0.07	0.07	(0.05)	0.07	0.08	0.16	(0.05)	0.06	0.07	0.15
	1999					(0.05)		0.07	0.13	(0.02)			0.08	(0.04)	0.03	0.04	0.11
	2001												0.11	(0.01)	0.08	0.08	0.14
	2002								0.06			0.07	0.12	(0.08)	0.03	0.06	0.10
	2003								0.13			0.05	0.14	(0.06)	0.00	0.05	0.09

Table 21. Profitability Ratios by Revenue Class, Dairy Farms, Manitoba (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989					0.23	0.30	0.42	0.47				0.53				
	1991					0.18	0.32	0.43	0.62	0.07		0.37	0.47				
	1992					(0.12)	0.30	0.36	0.53								
	1993							0.31	0.46								
	1995						0.30		0.49								
	1997					0.10	0.30	0.35	0.49	0.07	0.18	0.30	0.53				
	1999					0.05	0.16	0.34	0.55	0.12	0.28	0.39	0.46				
	2001							0.35	0.54	0.06	0.20	0.34	0.50				
	2002					(0.05)		0.26	0.48	0.20	0.29	0.39	0.56	0.00	0.26		0.46
	2003					(0.04)	0.27	0.33	0.46	0.05	0.23	0.37	0.47	0.07	0.15	0.33	0.38
EBITDA/Assets	1989					0.06	0.06	0.10	0.10				0.12				
	1991					0.05	0.07	0.10	0.16	0.02		0.10	0.12				
	1992					(0.03)	0.08	0.09	0.11								
	1993							0.07	0.10								
	1995						0.04		0.07								
	1997					0.02	0.05	0.06	0.09	0.02	0.05	0.08	0.10				
	1999					0.01	0.02	0.05	0.09	0.02	0.05	0.07	0.08				
	2001							0.05	0.10	0.01	0.03	0.06	0.09				
	2002					(0.01)		0.05	0.06	0.03	0.05	0.07	0.09	0.00	0.06		0.10
	2003					(0.00)	0.04	0.05	0.07	0.01	0.04	0.06	0.07	0.01	0.04	0.06	0.07

Table 22. Profitability Ratios by Revenue Class, Other Animal Farms, Manitoba (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989																
	1991																
	1992																
	1993	(0.16)	0.09	0.22	0.50	0.02	0.16	0.26	0.36								
	1995					0.17			0.58								
	1997			0.30					0.41		0.30						
	1999				0.42	(0.10)	0.16	0.32	0.58				0.53				
	2001		0.32					0.26	0.49		0.15	0.24					
	2002	(0.40)					0.12	0.34	0.52	0.05	0.16	0.33	0.59				
	2003	(0.74)			0.35			0.26	0.38	0.08	0.29		0.46				
EBITDA/Assets	1989																
	1991																
	1992																
	1993	(0.02)		0.04	0.08	0.00	0.03	0.06	0.10								
	1995					0.03			0.15								
	1997			0.03					0.10		0.07						
	1999				0.06	(0.02)	0.04	0.05	0.19				0.10				
	2001		0.04					0.07	0.08		0.05	0.08					
	2002	(0.05)					0.02	0.07	0.06	0.01	0.05	0.07	0.13				
	2003	(0.05)			0.07			0.05	0.09	0.02	0.07		0.18				

Table 23. Profitability Ratios by Revenue Class, Oilseed and Grain Farms, Saskatchewan (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	0.10	0.33	0.42	0.57	0.25	0.41	0.51	0.56	0.14	0.37		0.56				0.42
	1991	0.05	0.37	0.41	0.56	(0.07)	0.41	0.49	0.60	(0.13)	0.28	0.42	0.52	0.13			0.45
	1992	(0.16)	0.20	0.34	0.51	0.07	0.28	0.39	0.53	0.11	0.31	0.38	0.59				0.50
	1993	(0.24)	0.21	0.36	0.53	0.13	0.31	0.40	0.56	0.09	0.30	0.40	0.62		0.31		0.67
	1995	(0.11)	0.26	0.38	0.55	0.14	0.33	0.41	0.52	0.14	0.28	0.39	0.52	0.11	0.28	0.35	0.67
	1997	(0.25)	0.15	0.28	0.44	0.04	0.22	0.33	0.48	0.11	0.23	0.33	0.54	0.10	0.25	0.29	0.45
	1999	(0.30)	0.14	0.26	0.44	(0.01)	0.19	0.31	0.49	(0.02)	0.21	0.35	0.48	(0.03)	0.11	0.27	0.29
	2001	(0.19)	0.13	0.27	0.47	0.04	0.21	0.34	0.46	(0.04)	0.19	0.32	0.48	0.02	0.15	0.21	0.35
	2002	(0.42)	0.13	0.31	0.49	(0.07)	0.16	0.31	0.46	0.03	0.19	0.30	0.45	(0.01)	0.21	0.34	0.37
	2003	(0.53)	(0.01)	0.20	0.40	(0.07)	0.15	0.27	0.42	0.05	0.19	0.32	0.41	(0.00)	0.23	0.31	0.34
EBITDA/Assets	1989	0.01	0.05	0.06	0.09	0.04	0.07	0.09	0.11	0.03	0.11		0.11				0.10
	1991	0.01	0.05	0.06	0.09	(0.02)	0.08	0.10	0.13	(0.04)	0.10	0.09	0.11	0.04			0.14
	1992	(0.02)	0.03	0.05	0.08	0.01	0.06	0.08	0.10	0.03	0.07	0.10	0.13				0.11
	1993	(0.02)	0.03	0.05	0.08	0.03	0.06	0.07	0.11	0.02	0.06	0.09	0.17		0.11		0.30
	1995	(0.01)	0.03	0.05	0.08	0.03	0.07	0.08	0.09	0.03	0.07	0.11	0.12	0.04	0.09	0.09	0.26
	1997	(0.03)	0.02	0.04	0.07	0.01	0.05	0.06	0.10	0.02	0.05	0.06	0.13	0.03	0.07	0.08	0.12
	1999	(0.03)	0.02	0.03	0.06	(0.00)	0.04	0.06	0.10	(0.00)	0.06	0.07	0.11	(0.01)	0.03	0.07	0.09
	2001	(0.02)	0.02	0.03	0.08	0.01	0.05	0.07	0.09	(0.01)	0.05	0.08	0.12	0.01	0.04	0.07	0.10
	2002	(0.04)	0.02	0.05	0.06	(0.01)	0.03	0.06	0.09	0.01	0.04	0.08	0.09	(0.00)	0.05	0.11	0.10
	2003	(0.05)	(0.00)	0.02	0.05	(0.01)	0.03	0.05	0.08	0.01	0.04	0.07	0.09	(0.00)	0.06	0.09	0.10

Table 24. Profitability Ratios by Revenue Class, Beef Farms, Saskatchewan (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	0.01	0.26	0.39	0.52	0.04	0.29	0.32	0.45		0.29						
	1991	(0.07)	0.23	0.41	0.47	0.10	0.34	0.43	0.62				0.54				
	1992	(0.26)	0.17	0.30	0.42	(0.02)	0.21	0.37	0.63								
	1993	(0.22)	0.18	0.33	0.47	0.14	0.30	0.41	0.53				0.51				
	1995	(0.28)	0.17	0.29	0.45	0.09	0.26	0.43	0.48								
	1997	(0.37)	0.15	0.31	0.47	(0.13)	0.14	0.26	0.45	0.07	0.19	0.29	0.57		0.09		0.31
	1999	(0.20)	0.12	0.29	0.50	(0.19)	0.16	0.28	0.58	(0.02)	0.14		0.41				
	2001	(0.39)	0.08	0.24	0.50	(0.20)	0.13	0.27	0.51	(0.11)	0.16	0.26	0.50			0.12	0.41
	2002	(0.62)	(0.02)	0.24	0.48	(0.15)	0.13	0.35	0.52	(0.36)	0.12	0.28	0.50	(0.09)		0.10	0.20
	2003	(0.87)	(0.14)	0.14	0.40	(0.46)	0.10	0.21	0.38	(0.23)	(0.01)	0.16	0.33	(0.27)	(0.04)	0.08	0.14
EBITDA/Assets	1989	0.00	0.04	0.06	0.09	0.01	0.06	0.07	0.10		0.06						
	1991	(0.01)	0.03	0.06	0.10	0.02	0.06	0.07	0.14				0.12				
	1992	(0.04)	0.02	0.05	0.07	(0.00)	0.03	0.08	0.13								
	1993	(0.02)	0.02	0.05	0.07	0.02	0.07	0.07	0.10				0.11				
	1995	(0.03)	0.02	0.03	0.07	0.01	0.05	0.07	0.11								
	1997	(0.04)	0.02	0.04	0.07	(0.03)	0.03	0.05	0.09	0.03	0.05	0.06	0.18		0.05		0.22
	1999	(0.03)	0.02	0.04	0.07	(0.03)	0.03	0.04	0.09	(0.00)	0.05		0.08				
	2001	(0.04)	0.01	0.03	0.07	(0.04)	0.03	0.04	0.10	(0.02)	0.05	0.06	0.09			0.05	0.21
	2002	(0.06)	(0.00)	0.03	0.06	(0.02)	0.02	0.05	0.10	(0.08)	0.03	0.06	0.12	(0.07)		0.04	0.07
	2003	(0.06)	(0.01)	0.01	0.06	(0.06)	0.01	0.04	0.07	(0.05)	(0.00)	0.03	0.07	(0.16)	(0.02)	0.03	0.12

Table 25. Profitability Ratios by Revenue Class, Other Animal Farms, Saskatchewan (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989																
	1991																
	1992																
	1993	0.01		0.38	0.51												
	1995																
	1997				0.44												
	1999				0.46												
	2001				0.54												
	2002																0.31
	2003	(0.90)	(0.66)	0.12	0.33				0.34								0.33
EBITDA/Assets	1989																
	1991																
	1992																
	1993	0.00		0.06	0.05												
	1995																
	1997				0.07												
	1999				0.05												
	2001				0.05												
	2002																0.09
	2003	(0.10)	(0.04)	0.00	0.05				0.07								0.09

Table 26. Profitability Ratios by Revenue Class, Oilseed and Grain Farms, Alberta (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.18)	0.25	0.36	0.49	0.10	0.32	0.41	0.54	0.10	0.26	0.40	0.50	(0.01)	0.27	0.32	0.49
	1991	(0.19)	0.24	0.37	0.54	0.14	0.36	0.49	0.56	0.03	0.30	0.41	0.62	0.08	0.28	0.33	0.36
	1992	(0.43)	0.15	0.32	0.46	(0.43)	0.24	0.40	0.60	0.06	0.22	0.34	0.59	0.11	0.39		
	1993	(0.28)	0.21	0.34	0.54	(0.01)	0.25	0.33	0.55	0.10	0.24	0.31	0.62	0.18		0.39	0.61
	1995	(0.25)	0.23	0.32	0.50	0.05	0.30	0.41	0.55	0.15	0.29	0.40	0.61	(0.16)			0.42
	1997	(0.37)	0.17	0.31	0.49	0.02	0.23	0.39	0.52	0.02	0.25	0.36	0.50	0.03	0.21	0.25	0.40
	1999	(0.24)	0.13	0.27	0.45	(0.08)	0.22	0.35	0.47	(0.00)	0.18	0.30	0.42	0.00	0.17	0.25	0.39
	2001	(0.37)	0.16	0.34	0.58	(0.02)	0.24	0.38	0.53	0.03	0.24	0.35	0.48	0.05	0.27	0.41	0.41
	2002	(0.35)	0.13	0.29	0.47	(0.04)	0.20	0.35	0.51	(0.04)	0.27	0.35	0.48	0.03	0.27	0.37	0.46
	2003	(0.86)	(0.11)	0.19	0.35	(0.09)	0.18	0.31	0.45	(0.04)	0.20	0.29	0.44	(0.05)	0.20	0.29	0.32
EBITDA/Assets	1989	(0.01)	0.02	0.05	0.06	0.02	0.05	0.07	0.10	0.02	0.05	0.07	0.10	(0.01)	0.09	0.11	0.18
	1991	(0.02)	0.03	0.04	0.07	0.02	0.06	0.10	0.10	0.01	0.08	0.08	0.16	0.02	0.07	0.10	0.12
	1992	(0.03)	0.01	0.03	0.06	(0.07)	0.05	0.08	0.11	0.01	0.07	0.05	0.15	0.03	0.10		
	1993	(0.02)	0.02	0.04	0.06	(0.00)	0.04	0.06	0.09	0.02	0.06	0.06	0.13	0.04		0.08	0.19
	1995	(0.02)	0.02	0.03	0.06	0.01	0.04	0.07	0.10	0.03	0.06	0.10	0.15	(0.04)			0.10
	1997	(0.03)	0.01	0.03	0.06	0.00	0.04	0.06	0.09	0.00	0.05	0.09	0.11	0.01	0.05	0.06	0.12
	1999	(0.02)	0.01	0.03	0.04	(0.01)	0.03	0.05	0.07	(0.00)	0.04	0.04	0.09	0.00	0.04	0.07	0.10
	2001	(0.02)	0.01	0.03	0.06	(0.00)	0.03	0.06	0.08	0.00	0.05	0.07	0.09	0.01	0.09	0.08	0.11
	2002	(0.02)	0.01	0.03	0.05	(0.01)	0.02	0.06	0.09	(0.01)	0.05	0.07	0.09	0.01	0.06	0.08	0.12
	2003	(0.05)	(0.01)	0.01	0.03	(0.01)	0.03	0.05	0.06	(0.01)	0.03	0.05	0.07	(0.01)	0.04	0.06	0.07

Table 27. Profitability Ratios by Revenue Class, Beef Farms, Alberta (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989	(0.27)	0.26	0.33	0.65	0.11	0.24	0.37	0.54	0.11	0.26						0.15
	1991	(0.37)	0.17	0.38	0.51	0.18	0.35	0.50	0.64	0.07	0.26	0.39		0.01	0.11	0.17	0.15
	1992	(0.47)	0.11	0.34	0.54	(0.01)	0.24	0.39	0.57	(0.01)	0.21	0.37	0.63	(0.00)	0.15	0.18	0.42
	1993	(0.43)	0.15	0.33	0.57	(0.19)	0.21	0.35	0.54	(0.02)	0.19	0.34	0.66	(0.11)	0.18	0.17	0.32
	1995	(0.63)	0.06	0.28	0.50	(0.02)	0.28	0.37	0.50	0.03		0.25	0.39	(0.15)	0.16	0.25	0.33
	1997	(0.62)	0.12	0.29	0.51	(0.20)	0.15	0.26	0.54	(0.56)	0.11	0.26	0.51	(0.08)	0.06	0.11	0.14
	1999	(0.33)	0.17	0.31	0.57	(0.08)	0.19	0.32	0.61	(0.01)	0.21	0.42	0.71	(0.06)	0.06	0.16	0.14
	2001	(0.30)	0.15	0.31	0.55	(0.09)	0.20	0.36	0.56	0.02	0.15	0.28	0.49	(0.03)	0.09	0.20	0.26
	2002	(0.66)	(0.05)	0.24	0.51	(0.25)	0.11	0.27	0.48	(0.17)	0.14	0.29	0.47	(0.16)	0.06	0.17	0.14
	2003	(1.14)	(0.20)	0.11	0.38	(0.38)	0.07	0.24	0.49	(0.41)	0.08	0.23	0.43	(0.15)	0.03	0.13	0.11
EBITDA/Assets	1989	(0.02)	0.02	0.04	0.08	0.02	0.04	0.07	0.08	0.03	0.03						0.11
	1991	(0.04)	0.02	0.04	0.07	0.03	0.05	0.09	0.11	0.02	0.05	0.09		0.01	0.06	0.08	0.12
	1992	(0.05)	0.01	0.04	0.07	(0.00)	0.04	0.06	0.11	(0.00)	0.06	0.07	0.19	(0.00)	0.04	0.07	0.47
	1993	(0.03)	0.01	0.04	0.06	(0.04)	0.03	0.06	0.09	(0.01)	0.03	0.05	0.17	(0.04)	0.06	0.09	0.20
	1995	(0.04)	0.00	0.02	0.05	(0.00)	0.04	0.04	0.06	0.01		0.03	0.09	(0.09)	0.07	0.10	0.29
	1997	(0.05)	0.01	0.03	0.05	(0.03)	0.02	0.04	0.09	(0.10)	0.03	0.05	0.10	(0.04)	0.02	0.05	0.13
	1999	(0.03)	0.01	0.03	0.06	(0.01)	0.03	0.04	0.10	(0.00)	0.05	0.06	0.14	(0.03)	0.03	0.06	0.11
	2001	(0.02)	0.01	0.03	0.06	(0.01)	0.03	0.04	0.08	0.00	0.03	0.05	0.08	(0.02)	0.04	0.06	0.15
	2002	(0.05)	(0.00)	0.02	0.06	(0.03)	0.01	0.03	0.08	(0.03)	0.03	0.05	0.08	(0.07)	0.03	0.05	0.11
	2003	(0.06)	(0.01)	0.01	0.03	(0.04)	0.01	0.03	0.07	(0.07)	0.02	0.04	0.06	(0.08)	0.01	0.04	0.09

Table 28. Profitability Ratios by Revenue Class, Other Crop Farms, Alberta (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989																
	1991																
	1992				0.63												
	1993	(0.30)	0.08	0.32	0.36												
	1995	(0.39)		0.31	0.47												
	1997		0.35	0.41	0.52												
	1999	(0.38)		0.19													
	2001	(0.39)	0.19	0.34	0.62	(0.12)		0.40	0.63								
	2002	(0.63)	0.13	0.39	0.53	0.06	0.26	0.33	0.43			0.28	0.60				
	2003	(0.84)	0.00	0.29	0.44	(0.09)		0.36	0.47				0.30				
EBITDA/Assets	1989																
	1991																
	1992				0.06												
	1993	(0.01)			0.05												
	1995	(0.02)		0.02	0.06												
	1997		0.03	0.04	0.04												
	1999	(0.01)		0.01													
	2001	(0.02)	0.01	0.02	0.04			0.06	0.12								
	2002	(0.03)	0.00	0.02	0.04		0.03	0.06	0.06			0.09					
	2003	(0.05)	0.00	0.01	0.03	(0.01)		0.05	0.07				0.05				

Table 29. Profitability Ratios by Revenue Class, Other Animal Farms, Alberta (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989																
	1991																
	1992																
	1993	(0.67)	(0.31)	0.04	0.48				0.48							0.17	0.34
	1995	(0.57)	0.07	0.24	0.47		0.19	0.40	0.58						0.09		0.31
	1997	(0.76)	(0.02)	0.29	0.60			0.39						(0.07)	0.03	0.11	0.45
	1999	(0.80)	0.03	0.19	0.49												0.21
	2001	(1.80)	(0.13)	0.26	0.62	0.03		0.35	0.76	(0.22)				0.10			0.21
	2002	(0.98)	(0.14)	0.16	0.44	(0.33)			0.44	(0.04)			0.44	(0.11)	0.21	0.27	0.26
	2003	(1.63)	(0.49)	0.03	0.39	(0.28)	0.09	0.20	0.33		0.22			(0.20)	0.21		0.27
EBITDA/Assets	1989																
	1991																
	1992																
	1993	(0.09)	(0.04)	0.00	0.05				0.11							0.05	0.09
	1995	(0.05)	0.01	0.03	0.05		0.04	0.06	0.11						0.02		0.06
	1997	(0.06)	(0.00)	0.03	0.06			0.10						(0.02)	0.02	0.08	0.14
	1999	(0.04)	0.00		0.04												0.08
	2001	(0.07)	(0.01)	0.02	0.05	0.00		0.05	0.14	(0.03)				0.03			0.05
	2002	(0.06)	(0.01)	0.01	0.04	(0.05)			0.09	(0.01)			0.08	(0.03)	0.04	0.07	0.08
	2003	(0.06)	(0.02)	0.00	0.04	(0.03)	0.01	0.03	0.07		0.04			(0.04)	0.05		0.06

Table 30. Profitability Ratios by Revenue Class, Dairy Farms, Alberta (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989							0.45		0.24		0.42	0.46				
	1991						0.39		0.59		0.28		0.50				
	1992					0.18											
	1993																
	1995																
	1997					(0.03)			0.48	(0.07)	0.25	0.40	0.56	0.09	0.30	0.53	0.60
	1999						0.22	0.33		0.08	0.26	0.42	0.65	0.11	0.33	0.20	0.49
	2001										0.23	0.39	0.56	0.09	0.32	0.41	0.33
	2002					0.09		0.31		0.04	0.22	0.32	0.44	0.03	0.18	0.33	0.39
	2003					(0.11)				0.12	0.24	0.32	0.40	0.07	0.25	0.32	0.39
EBITDA/Assets	1989							0.06		0.05		0.11	0.10				
	1991						0.10		0.08		0.06		0.13				
	1992					0.04											
	1993																
	1995																
	1997					(0.00)			0.08	(0.01)	0.04	0.07	0.09	0.02	0.06	0.12	0.19
	1999						0.02	0.05		0.01	0.04	0.06	0.10	0.02	0.05	0.05	0.08
	2001										0.03	0.06	0.06	0.01	0.05	0.07	0.06
	2002					0.01		0.04		0.00	0.03	0.05	0.07	0.01	0.03	0.05	0.08
	2003									0.02	0.04	0.04	0.06	0.01	0.04	0.05	0.08

Table 31. Profitability Ratios by Revenue Class, Hog Farms, Alberta (1989-2003).

		$10,000-$100,000 Sales				$100,000-$249,999 Sales				$250,000-$499,999 Sales				$500,000 and Over Sales			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EBITDA/Sales	1989					0.11		0.26	0.47								
	1991					0.06	0.29		0.49					0.08			0.37
	1992			0.23													
	1993																
	1995																
	1997	(0.38)			0.27	(0.21)		0.26	0.36	(0.06)	0.14	0.24	0.43	0.07	0.17	0.21	0.39
	1999						(0.27)	0.12	0.36			0.19		(0.14)	0.07	0.16	0.36
	2001						0.16	0.26	0.37		0.14	0.24	0.39	(0.00)	0.21	0.20	0.26
	2002						(0.19)	0.06	0.30	(0.22)	(0.00)	0.09	0.27	(0.10)	0.06	0.19	0.27
	2003									(0.24)	0.07	0.14	0.29	(0.08)	0.10	0.11	0.22
EBITDA/Assets	1989					0.03		0.08	0.10								
	1991					0.02	0.06		0.15					0.03			0.13
	1992			0.03													
	1993																
	1995																
	1997	(0.05)			0.04	(0.05)		0.07	0.07	(0.02)	0.06	0.08	0.17	0.03	0.07	0.10	0.13
	1999						(0.07)	0.04	0.09			0.06		(0.03)	0.02	0.04	0.09
	2001						0.04	0.09	0.12		0.05	0.10	0.11	(0.00)	0.08	0.10	0.09
	2002						(0.04)	0.02	0.04	(0.10)	(0.00)	0.03	0.07	(0.04)	0.01	0.06	0.08
	2003									(0.07)	0.03	0.05	0.10	(0.02)	0.03	0.04	0.05

Appendix F

Statistics Canada Coding Used to Identify Farm Types

Listed below are the 11 new standard farm types that serve as a basis in the Statistics Canada Whole Farm Database.

WFDB NAICS Farm Types
Codes
1111 Oilseed and grain farming
111211 Potato farming
111219 Other vegetable (except potato) and melon farming
1113 Fruit and tree nut farming
1114 Greenhouse, nursery and floriculture production
1119 Other crop farming
112110 Beef cattle ranching and farming, including feedlots
112120 Dairy cattle and milk production
112210 Hog and pig farming
1123 Poultry and egg production
112888 Other animal production
NAICS divides establishments in the agriculture sector in two subsectors: crop production and animal
production.
Crop production (NAICS code 111)
This subsector comprises establishments, such as farms, orchards, groves, greenhouses and nurseries, primarily engaged in growing crops, plants, vines, trees and their seeds (excluding those engaged in forestry operations). Industries have been created taking into account input factors, such as suitable land, climatic conditions, type of equipment, and the amount and type of labour required. The production process is typically completed when the raw product or commodity grown reaches the "farm gate" for market, that is, at the point of first sale or price determination. An establishment is classified to a NAICS industry or a national level industry within this subsector provided that fifty percent or more of the establishment's agricultural production consists of the crops of the industry.

Establishments with fifty percent or more crop production and with no one product or family of products of an industry accounting for fifty percent of the production are treated as combination crop farms and classified to 11199, All other crop farming, except for establishments with fifty percent or more in the production of oilseeds and grain, which are classified to 11119, Other grain farming.

*The WFDB standard farm types under the **Crop production** subsector are:*
Oilseed and grain farming (NAICS code 1111)
This industry group comprises establishments primarily engaged in growing oilseeds and grains. Establishments primarily engaged in producing seeds are classified in the appropriate crop industry.
Potato farming (NAICS code 111211)
This Canadian industry comprises establishments primarily engaged in growing potatoes and seed potatoes, except sweet potatoes.

Other vegetable (except potato) and melon farming (NAICS code 111219)
This Canadian industry comprises establishments, not classified to any other Canadian industry, primarily engaged in growing vegetables and melons. Establishments primarily engaged in producing vegetable and melon seeds, except seed potatoes, and vegetable and melon bedding plants are also included in this industry.
Fruit and tree nut farming (NAICS code 1113)
This industry group comprises establishments primarily engaged in growing fruit and nuts.
Greenhouse, nursery and floriculture production (NAICS code 1114)
This industry group comprises establishments primarily engaged in growing crops of any kind under cover, growing nursery crops and growing flowers. "Under cover" includes in greenhouses, cold frames, cloth houses, and lath houses. The crops grown are removed at various stages of maturity.
Other crop farming (NAICS code 1119)
This industry group comprises establishments, not classified to any other industry group, primarily engaged in growing crops, such as tobacco, peanuts, sugarbeets, cotton, sugar cane, hay, agave, herbs and spices, mint, hops, and hay and grass seeds. Combination crop farming and the gathering of maple sap are included in this industry group.
Animal production (NAICS code 112)
This subsector comprises establishments, such as ranches, farms and feedlots, primarily engaged in raising animals, producing animal products and fattening animals. Industries have been created taking into account input factors such as suitable grazing or pasture land, specialized buildings, type of equipment, and the amount and type of labour required. An establishment is classified to a NAICS industry or a national level industry within this subsector provided that fifty percent or more of the establishment's agricultural production consists of the products of that industry. Establishments with fifty percent or more animal production and with no one product or family of products of an industry accounting for fifty percent of the production are treated as combination animal farms and classified to 11299, All other animal production.
*The WFDB standard farm types under the **Animal production** subsector are:*
Beef cattle ranching and farming, including feedlots (NAICS code 112110)
This Canadian industry comprises establishments primarily engaged in raising and fattening cattle. The raising of cattle for dairy herd replacements is also included in this industry. Exclusion(s): Establishments primarily engaged in milking dairy cattle (Dairy cattle and milk production).

Dairy cattle and milk production (NAICS code 112120)
This Canadian industry comprises establishments primarily engaged in milking dairy cattle.
Exclusion(s): Establishments primarily engaged in: raising, feeding or fattening cattle (Beef cattle ranching and farming, including feedlots); raising dairy herd replacements (Beef cattle ranching and mfarming, including feedlots); milking goats (Goat farming).
For farms involved in dairy cattle and milk production, the rule of fifty percent or more is altered

slightly—only 40% or more of agricultural sales are derived from the sale of dairy products and 10%
or more from raising and selling dairy cattle.

Hog and pig farming (NAICS code 112210)

This Canadian industry group comprises establishments primarily engaged in raising hogs and pigs.

Poultry and egg production (NAICS code 1123)

This industry group comprises establishments primarily engaged in breeding, hatching and raising poultry for meat or egg production.

Other animal production (NAICS code 112888)

NAICS code 112888, which has been created by the Agriculture Division of Statistics Canada, is a combination of the two following industry groups: Sheep and goat farming (NAICS code 1124), and Other animal production (NAICS code 1129). The first industry group comprises establishments primarily engaged in raising sheep and goats, and feeding or fattening lambs. The second industry group comprises establishments, not classified to any other industry group, primarily engaged in raising animals, such as bees, horses and other equines, rabbits and other fur-bearing animals, llamas, deer, worms, crickets, laboratory animals and companion animals, for example dogs, cats, pet birds and other pets. The production of animal products, such as honey and other bee products, are also included. Establishments primarily engaged in raising a combination of animals, classified in other industries with no one predominating, are also included in this industry group

Appendix G

Description of NISA/TDP Variables Used in Analysis

DESCRIPTION OF NISA/TDP VARIABLES

DESCRIPTION OF TDP VARIABLES

ESAS offers a wide range of physical and financial variables from several different survey sources. The NISA/TDP suggested variables are listed and described below and on the subsequent pages. All of the 4 digit codes signify aggregations and their contents are listed and described wherever necessary.

Revenues

R2040 Total Operating Revenues – includes:

R2020 Total Crop Revenues – includes:

R2005 Total Grain and Oilseed Revenues – includes:

R400 All Wheat – winter wheat, spring wheat, durum wheat, red spring wheat and utility wheat1

R401 Oats1

R402 Barley1

R405 Canola (Rapeseed)1

R406 Soybeans1

R407 Corn – grain corn and seed corn1

R423 Other and Non-Specified Small Grains – used when an aggregate amount or an amount for other small grains is reported1

R2002 Other and Non-Specified Grains and Oilseeds – rye, flaxseed, dry peas and beans (white beans, kidney beans, dry peas, dry lentils and dry pulses) and other and non-specified oilseeds1

R2000 Total Other Crop Revenues – includes:

R410 Potatoes – table potatoes, seed and processing potatoes

R421 fruits

R411 vegetables (non-greenhouse) – artichokes, asparagus, wax and green beans, table beets, broccoli, Brussels sprouts, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, garlic, horseradish, leeks, lettuce, onions, peas, peppers, pumpkins, radishes, rhubarb, edible rutabagas (turnips), spinach, squash, tomatoes, and vegetable seeds

R412 Tobacco – flue-cured, leaf and dark tobacco

1 Data for this variable are imputed to a greater extent for data years 1996 and beyond since the unincorporated source of electronically filed taxation data (EFILE) has no breakdown of grains and oilseeds available.

R2011 Greenhouse, Nursery and Floriculture Products – includes:
• mushrooms
• Greenhouse and Nursery Products – nursery, greenhouse or floriculture operations (Also included: ornamental plants, shrubs and trees; cut and field grown flowers; rooted cuttings; seeds and bulbs; and sod and turf farms)
• christmast trees
R435 Forage Crops (including forage seed) – hay, alfalfa, clover and clover seed, alsike clover, timothy and fescue, as well as grass seed farming
R437 Unspecified Crops (Quebec only) – used when an aggregate amount for crop revenues is reported (applicable before 1993)
R2012 Other Crops – includes:
• ginseng
• other field crops – sugar beets, hops, mangels and turnips (for livestock feed)
• Maple products – maple syrups, maple sugar or maple taffy
R2025 Total Livestock and Product Revenues – includes:
R2016 Cattle – includes:
• livestock sold – cattle – steers (feeder and stocker), heifers, cows (dairy and beef), calves and bulls
• embryo transplants2
R441 Swine – also referred to as hogs, weaner pigs, gilts, feeders, sows, stags, boars, and pigs
R2017 Poultry and Eggs – includes:
• livestock sold – poultry – chicks, pullets, hens, cockerels, capons, commercial broilers and roasters, turkeys, ducks, geese and other fowl
• eggs
• chicks from hatcheries and hatching eggs3
R443 Sheep and Goats – sheep, goats, lambs, wool, and goat's milk
R2018 Dairy Products and Subsidies – includes:
• milk and cream – for both fluid and industrial purposes
• dairy subsidies
R2019 Other Livestock and Products – includes:
• livestock sold - other – other livestock such as horses, ponies, dogs, etc.
• bees, honey – bees, honey (natural and processed), and beeswax
• furs – fur-bearing animals raised in captivity and/or fur pelts, includes fox ranching, chinchilla ranching, mink ranching, and rabbit farming
• PMU (pregnant mare's urine)
• aquaculture3
• artificial insemination, semen, stud service3 and embryo transplants4

2 Prior to 1996, included also artificial insemination, semen and stud service. This variable is no longer available since 1997.
3 Only available since 1996 in the NISA/TDP.
4 Embryo transplants are included since 1997.

R2030 Total Other Revenues – includes:
R3011 Program Payments and Insurance Proceeds – includes income from provincial stabilization programs, the now-terminated Gross Revenue Insurance Plan (GRIP), payments and other subsidies (such as hog incentive programs, acreage payments, assistance for clearing land and government grants), plus aggregate amounts reported for subsidies, patronage dividends and reimbursements. Program payments also include insurance proceeds from programs (private and government) for crops and livestock due to adverse weather conditions, disease or other reasons. Disaster assistance payments from federal and provincial programs are also included. Dairy subsidies are not included in program payments nor are Net Income Stabilization Account (NISA) withdrawals of unincorporated farms.
R475 Custom Work and Machine Rental – custom work, contract work, machinery leasing or rental, hauling, custom trucking, harvesting, combining, crop dusting or spraying, seeding, drying, packing, cleaning and treating of seeds
R2027 Rental Income – includes:
• quota rental income – (milk quota, tobacco quota, etc.)
• rental income: land and buildings
• other rental income – surface rental of oil or natural gas properties, rightof-way or road rent
R2021 Other Forest Products – includes:
• wood (incl. stumpage fees) – logs, trees, wooden fence posts or any related forest products such as chips or slab wood
less logging expenses
R2004 Cash Advances (Net) – cash advances less cash advances repayment
Note: this includes any Wheat Board Payments reported on statement.
R2029 Miscellaneous Revenues – includes:
• quota refund or levy refunds
• sand or gravel – sand, gravel, soil or top soil
• GST
• patronage dividends – (grain pools, payments from cooperatives, co-op proceeds, etc.)
• other farm income excluding rental income – miscellaneous, other or sundry income
• profit share income (or share)
• inputs bought for resale – sold – agricultural commodities sold which were bought, but no agricultural process applied to them (fertilizers sold for resale, chemicals sold for resale, wood sold for resale, etc.)
• outputs bought for resale – sold – agricultural commodities bought in addition to what was grown or produced (grain, fruits, produce, vegetables or berries, etc.)
• horse racing income (<100%) – relates to horse racing expenses on next page (used when any horse racing expenses reported)
less inputs bought for resale (see inputs bought for resale above)

less outputs bought for resale (see outputs bought for resale above)
less horse racing expense (<100%) (see horse racing income above)

R2045 Total Income Adjustments – includes:
R458 Quota Sale Income
R469 Capital Cost Allowance (CCA) Recaptured – capital cost allowance recovered, recaptured from last year, etc.
R2041 Inventory Adjustments – includes:
• mandatory inventory adjustment[5]
• optional inventory adjustment[5]
R2042 Non-Applicable Income – income not earned from the sale of farm products
R2050 Gross Farm Income for Tax Purposes (R2040 + R2045)
Expenses
R2140 Total Operating Expenses – includes:
R2105 Total Crop Expenses – includes:
R230 Fertilizer and Lime
R235 Pesticides – pesticides, herbicides, insecticides and fungicides or any other type of chemical such as sprays or dusts applied to crops or animals
R240 Seed and Plants – also ornamental plants, rooted cuttings and bulbs
R264 Non-Specified Greenhouse and Nursery Expenses – used when an aggregate amount is reported for greenhouse and nursery (prior to 1990)
R265 Containers, Twine and Baling Wire – bags, containers, twine, all types of materials used to package, contain or ship farm produce or products
R2102 Other Crop Expenses – includes:
• irrigation – any expense directly associated with irrigation on the farm including water rights
• crop supplies – used when an aggregate or a single amount is reported for "crop supplies"
R2110 Total Livestock Expenses – includes:
R245 Cattle Purchases – cattle, feeders, stockers, dairy or beef cows, bulls, and calves[6]
B4

*5 For definitions, please refer to **Farming Income Tax Guide** available from Canada Customs and Revenue Agency.*
6 Data for this variable are imputed to a greater extent for data years 1996 and beyond since most of the data sources
(traditional printed forms and electronic forms for unincorporated farms; General Index of Financial Information - GIFI - for
corporations) have no breakdown of livestock purchased available.

R246 Swine Purchases – hogs such as service boars, gilts, sows, and weaner pigs[6]
R247 Poultry and Egg Purchases – chicks, pullets, broilers, layer hens, ducks, geese, turkeys, and other fowl[6]
R248 Sheep and Lamb Purchases – sheep, lambs, and goats[6]
R249 Other Livestock Purchases – horses, ponies, minks, foxes, rabbits, ostriches, and bees (or colonies)[6]
R250 Feed, Supplements, Straw and Bedding – hay, straw, feed grains such as oats, barley, and corn; supplements such as salt, minerals, vitamins, concentrates and milk replacer; and beddings items such as shavings, chips, and sawdust
R255 Veterinary Fees, Medicine and Breeding Fees – veterinary fees and medicine as well as breeding fees, stud service and semen, embryo transplants, disease testing, neutering or spaying
R2107 Other Livestock Expenses – includes:
• D.H.I.A. and animal grading – Dairy Herd Improvement Association expenses and animal grading
• dairy or livestock supplies
R2120 Total Machinery Expenses – includes:
R270 Small Tools
R2111 Net Fuel Expenses, Machinery, Truck, Auto – includes:
• machinery and truck expenses – gasoline, diesel and oil
• automobile expenses (Farm share) – gasoline and oil
less gasoline tax rebates
R2112 Repairs, Licenses and Insurance – includes:
• machinery and truck expenses – repairs, licenses and insurance
• automobile expenses (Farm share) – repairs, insurance and licenses/ permits
R2135 Total General Expenses – includes:
R2121 Salaries (including CPP, QPP, EI) – includes:
• salaries (including CPP, QPP, or EI) – wages and salaries paid to hire help together with the cost of their board. Also includes wages and salaries paid to children and spouses and all employee benefits
less salaries or wages paid to self
R2122 Rent – includes:
• rent (land, buildings and pasture)
• quota rental
B5

6 Data for this variable are imputed to a greater extent for data years 1996 and beyond since most of the data sources (traditional printed forms and electronic forms for unincorporated farms; General Index of Financial Information - GIFI - for corporations) have no breakdown of livestock purchased available.

R275 Insurance
R285 Telephone (Farm share)
R2123 Net Electricity (Farm share) – includes:
• electricity (Farm share)
less electricity rebates
R295 Heating Fuel (Farm share) – natural gas, coal or oil to heat farm buildings, as well as curing fuel for tobacco and fuel for crop-drying or greenhouses
R300 Custom Work and Machine Rental – harvesting, combining, baling, threshing, crop dusting and spraying, soil preparation, planting and cultivating, grain drying, seed cleaning and treating, sheep dipping and shearing, livestock spraying, soil testing, blacksmithing, animal boarding and grooming, slaughtering, butchering, cutting and wrapping; and rental or leasing of machinery used for purpose of generating farm income
R2126 Net Interest Expenses – includes interest paid on real estate mortgages, machinery loans, etc.
less interest rebates
R2127 Net Property Tax – includes:
• property taxes on agricultural land and buildings as well as farm share of principal dwelling, also school and municipal taxes
less property tax or land rebates
R2128 Building and Fence Repairs
R2129 Marketing Expenses – includes:
• freight and trucking – transportation of agricultural products to market
• selling costs – commissions, auctioneering charges, or road side stands
• marketing board fees – e.g., Milk Marketing Board, Egg Marketing Board, also dairy levies, milk quota or quota penalties
R2131 Miscellaneous Farm Expenses – includes:
• accounting, legal, office, advertising, memberships, subscriptions
• insurance program overpayment recapture
• share expenses
• sand, soil and gravel
• other farm expenses – miscellaneous or sundry
• farm supplies – e.g., oxygen and acetylene
• stabilization levies or fees (government levies)
• maple product expenses – when aggregate reported
• wood expenses – when aggregate reported
• raising expenses – when aggregate reported
• expense for bad debts (incorporated farms only)
• business use of home expense
less cost for saleable products consumed
less personal or non-business expenses

R2500 Net Operating Income – R2040 total operating revenues less R2140 total operatingexpenses
R2145 Total Expense Adjustments – includes:
R310 Clearing and Improving Land – drilling or digging wells, removing stumps or rocks, etc.
R316 Tile Drainage
R2141 Inventory Adjustments – includes:
• mandatory inventory adjustment[7]
• optional inventory adjustment[7]
R330 Capital Cost Allowance – applies to amount deducted for depreciable property
R331 Allowance on Eligible Capital Property – all eligible capital expenditures to purchase intangible capital property for use in the farm business, e.g., milk quotas, tobacco quotas or other government rights for an unlimited period
R350 Non-Applicable Expenses – expenses not incurred in order to produce farm income
R2142 Other Expense Adjustments – includes:
• quota purchased
• capital tax
R2150 Total Expenses for Tax Purposes (R2140 + R2145)
Additions and Disposals of Assets - 1991 to 1999 taxation years[8]
You will find below the more common depreciable properties a farming business may use. For a more complete list of these properties or to obtain the capital cost allowance rates for each classes, refer to the **Farming Income Tax Guide**.
Equipment (S140 and S240)
• boats and component parts
• bee equipment
• grain or seed cleaners
• storage buildings
• drawn hay bailers and stookers
• tools over $200
• silo and silo fillers, etc.
• aircraft acquired after May 25, 1976
• electric-generating equipment acquired before May 26, 1976 (not exceeding 15 Kw)
• automobiles (including passenger vehicles – Class 10.1)
• tractors, trailers, trucks, wagons, and sleighs, etc.

*7 For definitions, please refer to **Farming Income Tax Guide** available from Canada Customs and Revenue Agency.*
8 All sectors covered to 1995. From 1996-1999, data series only covers incorporated sector and communal farming organizations. Series discontinued after 1999 data.

• computer hardware and systems software
• tools under $200
• aircrafts acquired before May 26, 1976
• roads and other surface areas (paved or concrete)
• wind-energy conversion equipment

Before the 1996 taxation year, equipment includes classes 7 to 10, 12, 16, 17 and 34.

Building (S141 and S241)
• buildings acquired after 1987
• dams
• permanent piping
• buildings acquired between 1978 and 1988
• cement, steel, or stone docks
• cement or stone breakwaters
• wood breakwaters
• greenhouses
• fences – all types
• wood, galvanized or portable buildings and component parts

Before the 1996 taxation year, building includes classes 1 to 6.

Land (S142 and S242)

Before the 1996 taxation year, land includes class 55.

Quota9 (S150 and S250)

Before the 1996 taxation year, quota includes class 50.

Other9 (S160 and S260)

Before the 1996 taxation year, other includes class 60.

Total (S198 and S298)

Off-Farm Income10

Total Off-Farm Income – includes:

T601011 Wages and Salaries – includes:
• employment income before deductions
• other employment income including tips and gratuities

T6020 Net Business Income
T6030 Net Professional Income
T6040 Net Commission Income

9 Agriculture Division of Statistics Canada created these classes.

10 The items that follow (except TCHIL, FAQUE, FABC, FABEN and some of the 4-digit codes) are all from the ***Canada Customs and Revenue Agency Taxation T1 General Taxation Form****, which are defined in* ***Your Guide: Federal and Provincial Tax Guide and Returns****.*

11 Starting with the 1999 data, the total of wages and salaries in the statistical series on off-farm family income includes taxexempt employment income earned on an Indian reserve. Starting in 2000, this change is also reflected in the off-farm operator income series.

T6050 Net Fishing Income
T6060 Net Off-Farm Self-Employment Income
T6070 Investment Income – includes:
• taxable amount of dividends
• net rental income
• interest and other investment income
• net limited partnership income
T6080 Pension Income – includes:
• Old Age Security pension
• CPP and QPP benefits
• other pensions or superannuation
• net federal supplements**12**
T6090 Other Off-Farm Income – includes:
• family allowance payments (applicable before 1993)
• Employment Insurance benefits13
• Taxable amount of support payments received
• other income
• Worker's compensation benefits**12**
• social assistance payments**12**
• TCHIL – Canada Child Tax Benefit**14**
• FAQUE – Quebec family allowance**15**
• FABC – British Columbia family allowance16
• FABEN – family allowance17
T6092 RRSP (registered retirement savings plan income)18
T6095 Total Other Off-Farm Income
T6105 Total Off-Farm Income (excluding Taxable Capital Gains)
T6091 Taxable Capital Gains
T6100 Total Off-Farm Income (including Taxable Capital Gains)

12 Applicable after 1991.
13 On July 1, 1996, the Unemployment Insurance program officially became known as the Employment Insurance program.
14 The Canada Child Tax Benefit (CCTB) program, which started in July 1998 in support of the National Child Benefit initiative,
replaces the previous Child Tax Benefit (CTB) program. The CTB was introduced in January 1993, replacing a system of
universal family allowances and child tax credits. These benefits were not included in the 1993 off-farm income estimates.
15 Applicable for the 1994 to 1996 reference years. These benefits were only included in the off-farm family income estimates.
16 Applicable for the 1996 reference year. These benefits were only included in the off-farm family income estimates.
17 Family allowances for Alberta, British Columbia, New Brunswick and Quebec are included under FABEN since 1997;

provincial family allowances for Nova Scotia, Ontario and Saskatchewan, since 1998; and those for Newfoundland and
Labrador, since 1999. Provincial family allowances are only included in the statistical series on off-farm family income.
18 Starting in 1999, only RRSP income of people aged 65 or older is included in the statistical series on off-farm family income.
Starting in 2000, this change is also reflected in the off-farm operator income series.

Appendix H

References

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