AGRICULTURE AND AGRI-FOOD CANADA'S BENCHMARK FOR SUCCESS 2006

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Abstract

Benchmarking can be a major tool to help improve the performance of individual farm operations. It helps the farm manager identify strengths and weaknesses, make better business decisions and take advantage of future opportunities. Agriculture and Agri-Food Canada has developed an innovative and unique interactive tool that allows producers to compare the financial performance of their farm with that of other Canadian operations similar in size, type and region. The tool guides producers through the completion of simplified income statements and balance sheets. From the information provided by producers, a series of financial ratios are calculated for their farm operation and compared against industry benchmarks for three ranges (i.e. top 25%, mid-point and bottom 25%). This comparison is provided for five categories of financial ratios: efficiency, liquidity, debt management, asset management and profitability.

The tool has the following characteristics:
- ***Ability to input up to five years (1999-2003) of financial information***
- ***Access to up to five years of financial industry benchmark information***
- ***Graphics to display trend, and combined benchmarking and trend analyses***
- ***Industry benchmarks for 14 regions of Canada, 10 commodity groups and 8 income categories***
- ***A financial tutorial that explains how to use the tool and defines financial terms and ratios.***

This applied paper provides specific information about this tool and, through full examples, shows how this financial tool works.

Key words: Agriculture benchmarking, financial ratios, farm business management.

Introduction

In Canada, as in other countries, farm managers operate in a business environment that presents them with significant fluctuations in both input costs and output prices. These and other uncertainties over which farm managers have little control exacerbate the general business challenge of forecasting future earnings and controlling costs and revenues. It is therefore crucial for producers to manage their resources in the most efficient way in order to achieve their goal of profit maximization.

Benchmarking a farm's financial performance against the performance of other farms is a powerful farm business management tool that a farmer can use to identify his or her operation's financial strengths and weaknesses and thus to make sound business decisions. Yet, only 34% of Canadian farmers surveyed in 2003 used such a business tool. Production benchmarking, another business management tool, was used by a much larger percentage of farmers: 52% (Source: Agriculture and Agri-Food Canada, 2004 National Renewal Survey: Business Management Practices of Agricultural Producers).

To empower more Canadian farmers to apply financial benchmarking to their business management practices, Agriculture and Agri-Food Canada (AAFC) provides farmers with an interactive tool: "Benchmarking for Success", both from a web-based and a CD platforms. First released in 2003, the tool was upgraded in 2006 to reflect user-defined improvements.
The purpose of this paper is to describe Benchmarking for Success 2006, provide specific information about the tool and show how the tool can be used by farmers.

The Benchmark for Success 2006 Tool

The Benchmark for Success 2006 tool has been developed by AAFC with the assistance of a private consultant (Instrux Media) to help producers compare the financial performance of their farm with that of other farms of similar size, type and region.

The tool is free, easy to use and available in French and English. It guides producers through the completion of simplified income statements and balance sheets. From the information provided by producers, a series of financial ratios are calculated for their farm operations and compared against industry benchmarks calculated for three ranges (i.e. top 25% of farms, mid-point and bottom 25%). This comparison is provided for five categories of financial ratios: efficiency, liquidity, debt management, asset management and profitability. Information can be entered for multiple years to conduct a trend analysis, which assesses the operation over time.

The tool has the following characteristics:
- Ability to input up to five years (1999 – 2003) of financial information for their farm.
- Access to up to five years of financial industry benchmark information (1999-2003). Data for 2004 will be available in July 2007.
- Industry benchmarks for 14 regions, 10 commodity groups and 8 revenue categories.
- Graphics to display trend, and combined benchmarking and trend analyses.
- A financial tutorial that explains how to use the tool and defined financial terms and ratios.
- Capacity to securely save the financial data entered into a separate profile and create multiple profiles.

Data Sources

The industry benchmark data used in the tool are derived from Statistics Canada's Whole Farm Database which includes The Taxfiler Database and the Farm Financial Survey (FFS).

The Taxfiler Database is made up of annual sampled records from the Taxation Data Program and the Canadian Agricultural Income Stabilization (CAIS) program. The Taxfiler Database includes detailed revenues and expenses data for unincorporated and incorporated farms with reported annual revenues of $10,000 and more. Data are reported on a cash basis.

Table 1: Sample Size of the Taxfiler Database, 1999 to 2003 (# of records)

Year	Unincorporated	Incorporated	Total
1999	127,695	10,764	138,459
2000	132,824	9,984	142,808
2001	141,767	11,634	153,401
2002	142,263	12,974	155,242
2003	133,253	13,234	146,487

Source: Statistics Canada, Whole Farm Database Reference Manual, Catalogue no. 21F0005G1E, 2006.

The Farm Financial Survey (FFS) is an annual survey[1] conducted by Statistics Canada. The survey collects data on assets and liabilities of farms with gross revenues of $10,000 and over. Assets are reported at their current market value.

Table 2: Usable Sample Size of the Farm Financial Survey, 1999 to 2003

Year	Unincorporated	Incorporated	Total
1999	9,919	3,539	13,458
2000	N/A	N/A	N/A
2001	9,674	3,557	13,231
2002	9,492	3,724	13,216
2003	10,902	4,521	15,423

Source: Statistics Canada, Farm Financial Survey

To maintain confidentiality and data quality, industry comparative data are suppressed when the population and the sample size is too small (as is the case with Newfoundland and Labrador). Statistics Canada requires that results be suppressed for a benchmark ratio if the estimates are based on a total population of less than 100 farms. There must also be a minimum of 26 farms in the sample set and a minimum of 20 farms in any population subset. In addition, a sample set is suppressed if the coefficient of variation shows that the data is unreliable.

Geographic Coverage

Canada is divided into four geographic regions and 10 provinces**:**

- The Atlantic Region which includes the provinces of Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick
- The Central Region which is made up of the provinces of Quebec and Ontario
- The Prairie Region which includes the western provinces of Manitoba, Saskatchewan and Alberta
- The Pacific Region which is composed of British Columbia.

Industry benchmark data are available for these provinces (except for Newfoundland) and regions. Newfoundland and Labrador data are aggregated with the Atlantic region.

Industry Coverage

Farms are also sorted into categories based on the types of products they sell. In order to be classified as a certain farm type, 50% or more of a farm's agricultural sales must come from the sale of one commodity or commodity group. Definitions are in accordance with the North American Industry Classification System (NAICS) used by Canada, the United States and Mexico.

There are ten farm types available for comparison in the tool: Grain and Oilseed; Fruit and Tree Nut; Potato; Vegetable and Melon; Greenhouse and Nursery; Cattle; Dairy; Poultry and Eggs; Sheep and Goats; and Hogs.

[1]Prior to 2001, the Farm Financial Survey was a biennial survey.

Gross Revenue Coverage

The farm revenue ranges are determined by the amount of revenue generated in an accounting period. The industry benchmark data are available for the following five (5) revenue classes:
- $10,000 to $49,999
- $50,000 to $99,999
- $100,000 to $249,999
- $250,000 to $499,999
- $500,000 and over,

and the following three (3) aggregated classes:
- $10,000 to $99,999
- $100,000 and over
- $10,000 and over (i.e., all farms).

Industry benchmark data are also available for Highly Specialized Farms. Highly Specialized farms are operations which obtain 90 percent or more of their revenue from one commodity or commodity group.

Ratio Coverage

Industry benchmark data are available for the following financial ratios:
Liquidity:
- Current ratio (current assets / current liabilities)
- Debt structure ratio (current liabilities / total liabilities)

Efficiency:
- Expense ratio (expense item / market revenue)
- Total operating expense ratio (total operating expenses / total operating revenue)
- Total operating expense ratio before interest (total operating expenses - interest / total operating revenue)

Debt Management:
- Debt to equity ratio (total liabilities / net worth)
- Net worth ratio (net worth / total assets)

Asset Management:
- Capital turnover ratio (total operating revenue / total assets)

Profitability :
- Return on assets (net operating income + net interest expenses) / total assets))
- Return on owner's equity (net cash operating income / net worth)

Example: Benchmarking

Below is an example of a poultry farm in Quebec with gross revenues of $300,000 in 2003. The farm's balance sheet shows that as of December 31st, 2003, the farm had current assets of $56,250 (the majority in short term investments), long term assets of $2,000,000, current liabilities of $45,000 and long term liabilities of $350,000 while generating a net operating income of $130,000 for 2003.

The farm was compared against an industry benchmark profile similar to itself: highly specialized poultry and egg farms (received 90% or more of its agricultural sales from the sale of "Poultry and Eggs"), in

Central Canada, generating revenues of $250,000 to $499,999. The producer can also use benchmark farms from other regions to compare his profile.

The results of the benchmark comparison reveal that the current ratio - the ratio often used to measure whether a business's ability to meet its debt obligations on time - is 1.25 ($56,250 / $45,000) is falling between the midpoint (1.74) and the cut-off for the lower 25% of farms (0.69). This indicates that this farm may be experiencing difficulties meeting its debt obligations on time, or in other words, it is having problems with liquidity.

Table 3: Results of the benchmark comparison: current ratio

		Industry Benchmarks		
Liquidity	Your Farm	Lower 25%	Midpoint	Top 25%
Current Ratio (current assets/ current liabilities)	1.25	0.69	1.74	4.23

For each ratio, the tool provides a short explanation of the result. The farmer may want to consider strategies to increase current assets, reduce current liabilities or both options. It should be noted that off-farm income has not been factored in and will improve the overall repayment ability.

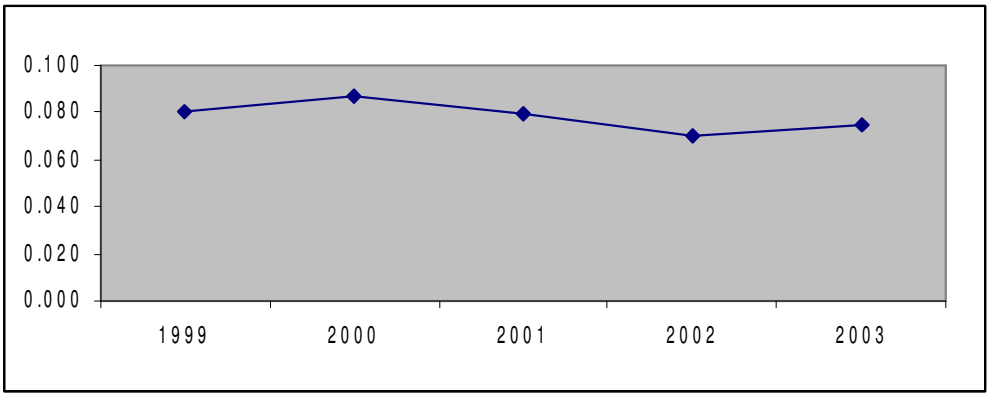
Example: Trend Analysis

Trend analysis compares a producer's business performance ratios over a period of time to show whether there has been an improvement or deterioration in the farm business's financial situation. The trends give clues as to whether the financial situation of the farm business is likely to improve and it helps to identify areas where performance has improved or deteriorated over time.

The example provided here is for a Prince Edward Island potato farm generating revenue of between $200,000 and $240,000 over the period 1999 to 2003. Suppose the owner made some changes to the farm operation in 2000 but was unsure whether the changes had much of an impact on the farm's overall profitability.

One ratio used to analyze profitability is the return on assets ratio. Plotting this ratio over time shows whether profitability has increased, decreased or remained unchanged; the higher the ratio, the more profitable the farm operation.

Table 4. Results of the Trend Analysis : Return on Assets Ratio
My Farm, 1999 to 2003



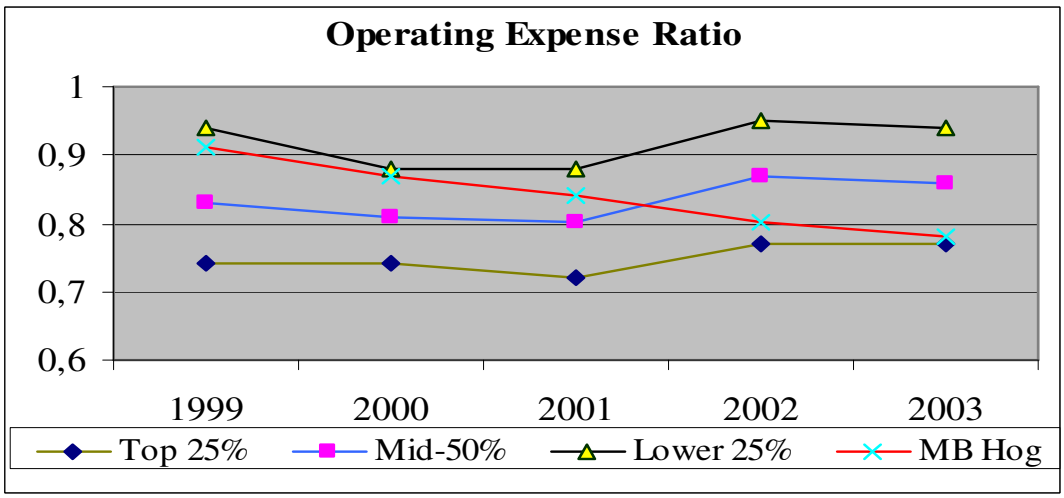
The results of the trend analysis reveal that return on assets has declined between 2000 and 2003. This indicates that the changes made to the operation in 2000 may have had a negative impact on profitability. The farm may want to look more closely at the changes made to the operation in 2000 to determine if the loss in profitability was due to those changes or if the decline in profitability was due to other factors such as a decline in market prices.

Example: Combining Benchmarking and Trend Analysis

Much can be learned when benchmark and trend analysis are combined. The example below is of a hog operation in Manitoba with gross farm revenues of approximately $300,000. The farm operation is highly specialized in the production of hogs, receiving over 90% of its agriculture revenue from the sale of hogs.

Suppose the owner would like to find out how well he or she is controlling costs. One ratio useful for analyzing costs is the expense ratio, which measures the ability of a business to control overall costs. This ratio is plotted over a number of years to determine whether the financial efficiency of this farm business has improved or deteriorated over time; the lower the ratio the more efficient the farm operation.

Table 5: Results of the Combined Benchmarking and Trend Analysis: Comparison of operating expense ratio of highly specialized hog farms in Canada, with revenues of $250,000 and $499,999, for the period 1999 to 2003



The results of the benchmark trend analysis show a downward trend line for this hog operation, indicating that the ability of the farm business to control costs has improved over this period. The comparison against the industry benchmarks for this farm type shows that the farm is doing fairly well at controlling costs and is now within the top 25% of farm operation, in that respect.

Tutorial

The benchmark for success 2006 tool also includes a tutorial that explains how to use the tool with step-by-step instructions. The tutorial explains the financial ratios, financial terms, financial statements and the various methods of calculating depreciation. In addition, the tutorial exposes the producers to three advanced financial analyses: break-even analysis, contribution margin analysis and cost of goods sold analysis. The first two approaches focus on the relationship between revenues and expenses. The cost of goods sold approach estimates the actual cost incurred in producing the product or service.

Uses and Limitations Of Benchmarking

Benchmarking is a useful starting point for analyzing the financial position of a farm. It can be used to tell whether the farm:

- is profitable
- is controlling expenses
- has enough money to pay its bills
- has a relatively large amount of debt
- is using its assets efficiently.

While it is important to understand and interpret financial statements, sound financial analysis involves more than calculating and interpreting numbers. As well, general cautions should be kept in mind when interpreting the value of a ratio:

- The context of the economy or the industry is important. For example, some of the variability in the values of farm ratios could be explained by a larger industry-wide trend. A drop in return on assets is usually undesirable. However, if the industry as a whole has experienced a reduction, then the drop for the farm's financial position must be considered in this context.
- The value of a ratio will depend upon the circumstances of the operation and the overall strategy of the farm. For example, a high current ratio may indicate a strong liquidity position, which is good or it may indicate the business has excessive cash on hand, which may be an inefficient use of resources. A value should be viewed within the context of the other ratio values.
- Using historical data independent of fundamental changes in a farm's situation or prospects would predict very little about future trends. For example, the historical ratios of a farm that has undergone a large change in its production or marketing would not likely tell very much about the future prospects for this farm.

Conclusion

Benchmark for Success 2006 provides farmers with an easy to use financial management tool. Its graphics and tutorial functions and other new features bring financial benchmarking techniques required for sound business management within the reach of all farmers in Canada. As such, Benchmark for Success 2006 represents a cost effective method for producers to make more informed decisions regarding management of their farms to help them remain competitive.

However, the financial benchmarking tool provided by Benchmark for Success 2006 is not a sufficient solution to all financial decision-making problems. The financial benchmarks against which the user compares his or her farm's financial performance are not magic numbers that all farm businesses should strive to achieve. Some very well managed operations will be above average while other good businesses will be below it. Deviations from the industry benchmarks should be a signal to explore the reasons for the differences. Future versions of Benchmarking for Success could include additional diagnostic tools, thereby further assisting Canadian farmers to make sound business management decisions.