

MAKING DOLLARS AND SENSE: CREATING A RECIPE FOR FARM MANAGEMENT SUCCESS

Subtheme: Knowledge & information (KPIs, benchmarking, big data, decision - making tools)

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Abstract:

For many years, farm business management enthusiasts have believed the success of any farm is directly related to the business management skills and practices of the farm manager. However, research has largely been based on anecdotal evidence, or small study samples. There has been a lack of convincing evidence regarding the value of adopting farm business management practices, making it difficult to convey the value, and increase the adoption of business management practices by Canada's farmers. Until now.

A new ground-breaking study, Dollars and Sense: Measuring the Tangible Impacts of Beneficial Business Practices on Canadian Farms, goes beyond existing research and is the first to establish a measurable link between beneficial management practices and farm financial success. The Baseline Update: Farm Business Management Planning in Ontario study goes one step further to understand business planning activities, including the drivers, barriers and attitudes affecting implementation on farms.

This paper focuses on three recent initiatives: the Dollars and Sense study, Baseline Update, and the Pledge to Plan: A Business Plan on Every Farm campaign to demonstrate how Canada is creating a recipe for farm management success.

Keywords: *farm business management, skills development, Canada, agriculture*

Introduction

For many years, farm business management enthusiasts have believed the success of any farm is directly related to the business management skills and practices of the farm manager. While previous research concludes that business management is imperative for successful farm businesses, such research has largely been based on anecdotal evidence, or small study samples. Thus, there has been a lack of convincing evidence regarding the value of adopting farm business management practices. This lack of tangible proof has made it difficult to convey the value, and increase the adoption of business management practices by Canadian producers.

Until now.

A new ground-breaking study, *Dollars and Sense: Measuring the Tangible Impacts of Beneficial Business Practices on Canadian Farms*¹ (Dollars and Sense), goes beyond existing research and is the first to establish a measurable link between the adoption of beneficial management practices and farm financial success.

The *Baseline Update: Farm Business Management Planning in Ontario*² (Baseline Update) study provides tracking of key measures captured in 2011 to see if progress has been made in the adoption of business planning activities in the Ontario farming sector. It increases our understanding not only of adoption of individual business planning activities, but also the drivers, barriers and attitudes affecting implementation on farms and ultimately segments farmers into five quintiles. These segments help us as practitioners better understand producer practices and preferences in terms of key messaging and sources of information.

Lastly, the Pledge to Plan: A Business Plan on Every Farm initiative is an example of industry outreach to increase awareness and adoption of business planning practices on Canada's farms, using the insight and data gathered from the Dollars and Sense and Baseline Update studies. The Pledge to Plan campaign aims to turn research into action through targeted messaging and effective knowledge transfer through tailored tools and resources.

¹ Ipsos Agriculture and Animal Health (2015). *Dollars and Sense: Measuring the Tangible Impacts of Beneficial Business Practices on Canadian Farms*. Commissioned by Agri-Food Management Institute (AMI), Farm Management Canada (FMC).

² Ipsos Agriculture and Animal Health (2016). *Baseline Update: Farm Business Management Planning in Ontario*. Commissioned by Agri-Food Management Institute (AMI), Farm Management Canada (FMC).

This paper focuses on three (3) recent initiatives: Dollars and Sense: Measuring the Tangible Benefits of Farm Business Management Practices on Canada's farms which reveals the tangible impacts of implementing business management practices. The Baseline Update: Farm Business Management Planning in Ontario³ that provides insight into a subset of Canadian farmers' attitudes and behaviors towards planning. Lastly, the Pledge to Plan campaign demonstrates how Canada is bringing these research pieces into action and is creating a recipe for farm management success.

Background and Methodology

The purpose of the Dollars and Sense study was to establish the degree to which farm business management practices are direct drivers of farm financial success. The sample size of n=604 has a maximum margin of error of +/- 3.99% at the 95% confidence interval. It is statistically significant across national census data, and the sample frame allows for statistically reliable comparisons to be made across production sectors and regions.

The Dollars and Sense survey methodology consisted of:

1. Exploratory Research with Stakeholders

In-depth interviews were conducted with a variety of stakeholders (bankers, lenders, accountants, advisors, lawyers, academia, association, government) to determine what measures of financial success should be gathered as well as the feasibility of gathering these metrics through quantitative telephone interviews.

2. Pre-test of Quantitative Survey

Telephone interviews were conducted with farmers to ensure all questions were understood, and accurate farm financial data was readily available.

3. Qualitative Telephone Survey with Farmers

Quantitative telephone surveys were conducted with producers utilizing Ipsos-Reid's in-house Computer-Assisted Telephone Interviewing (CATI) facilities. The survey sample⁴ was derived from Ipsos' producer database of over 120,000 Canadian farms. The respondent

⁴ The Dollars and Sense sample frame for this study was increased for some production sectors and regions to allow for statistically reliable comparisons.

qualifications were as follows: owner/manager making key farm management decisions, must be 18+ years of age, no more than 50 farms to have annual gross farm sales of <\$50,000.

4. Driver Analysis

A proprietary regression-based driver analysis was a critical component of the study output as it established or ‘proved’ there is a relationship between financial performance (dependent variable) and the business management activities tested. In the case of this study, financial performance (dependent variable) is a “Financial Success Score” (FFS) calculated at the farm level.

Calculating the Financial Success Score

For any respondent to be included in the driver analysis, four key financial inputs were required:

- Gross Farms Sales in 2014
- Total production-related expenses in 2014
- Market Value of farm-related assets
- Total long-term farm-related debt

The research team evaluated all of the financial data received from all respondents and the initial intention was to develop a “Financial Success Score” based on five ratios⁵. However, ratios including debt were problematic due to the nature of developing a debt “score”. Farms with no current debt received “perfect” (100/100 available points) scores on debt related metrics. This resulted in an overall lack of variability in the first analysis and no key drivers could be identified. Ultimately, a relationship was identified between activities and financial success through the development of a “Financial Success Score” based on: Return on Assets (ROA), Gross Margin Ratio (GMR) and Asset Turnover (AT).

For each respondent farm, the “Financial Success Score” was calculated and farms were then segmented by farm type. This was done to ensure that driver analysis results were based on overall financial success rather than the success of any commodity type or supply management model.

⁵ Financial Ratios used include Asset Turnover (Gross Farm Sales/Total Assets), Gross Margin Ratio ((Gross Farm Sales – Cost of Goods and Services)/Gross Farm Sales), Return on Assets ((Gross Farm Sales – Cost of Goods and Services)/Total Assets), Debt/Equity Ratio (Total Debt/(Total Assets – Total Debt)), and Gross Return on Equity (Gross Farm Sales/(Total Assets – Total Debt)).

Raw financial measures were then converted to indices. For each of the three ratios, the farm with the most ideal performance (within each farm type) was identified and given a perfect score of 100. The farm with the least ideal performance (within each farm type) was identified and given a score of 0. All other farms in that commodity type were assigned a relative score between 0 and 100. Therefore, farms in every farm type had an equal chance at being in the top or bottom of the “FSS.”

FINANCIAL SUCCESS SCORE =

$$\frac{(\text{INDEX FOR ROA}) + (\text{INDEX FOR GMR}) + (\text{INDEX FOR AT})}{3}$$

This “Financial Success Score” became the dependent variable in the driver analysis⁶ (the extent to which management activities “pay”). The scores for all farm types were then aggregated. The final driver analysis included only the top performing 25% and bottom performing 25% which allowed us to see clearly the defining activities differentiated between top and bottom managers.

The purpose of the Baseline Update was to understand business planning activities on Ontario farms, including the drivers and barriers to implementing planning activities. The Update provided tracking of key measures captured in 2011 to see if progress has been made in capturing a larger ‘planning’ audience in the farming sector. The sample size was 499 targeted respondents.

The Baseline Update survey methodology consisted of:

1. Qualitative Phase

Ipsos conducted 15 in-depth interviews with Ontario farmers to pre-test the survey instrument and ensure that all questions were understood, that no gaps in the survey material existed and that any changes in farm planning activities or resources were captured in the survey instrument.

2. Quantitative Phase

A CATI telephone survey using Ipsos’ aforementioned proprietary Canadian Agriculture Producer Panel was conducted.

The Results Reveal a Recipe for Success: The 7 Practices of Canada's Top Farmers

The Dollars and Sense study goes beyond existing research and is the first to establish a measurable link between the adoption of business management practices and farm financial success. Impact scores were derived from calculating which business management activity (independent variable) has the most impact on driving the dependent variable. In this case, the dependent variable was the overall farm financial success score, and was a composite index of farm financial ratios. A regression-based model was used to test the relationship between each independent variable and dependent variable.

The top drivers with an impact score of 0.70 or higher are considered to have a statistical relationship with the dependent variable (Financial Success Score). A score of 1.00 represents the strongest relationship between the dependent and independent variable. While there are myriad factors that impact the financial success of a farm operation in a given year, the research reveals the link between farm financial success and seven (7) farm management practices.

Figure 2

The 7 Farm Business Management Practices Driving Farm Financial Performance

Management Activity	Impact Score
Propensity to Learn and Improve: Actively seek new information and opportunities for learning and skills development	1.00
Business Decisions Made Using Detailed, Up-to-Date Accounting Reports: Financial information is up to date, accessible and used for timely decision making	0.89
Use of Professional Farm Business Advisors: Use a trusted farm business advisor or team of advisors to review the business on a regular basis and ensure activities are meeting strategic objectives	0.89
Use of Formal Business Plan and Process: Use, review, and update written business plan throughout the year in making business decisions	0.76
Use of Cost of Production for Benchmarking, Monitoring and Decision-Making: Calculate, review and monitor cost of production for every production cycle and use for benchmarking and management decisions	0.72
Risk Assessment and Management: Actively looking out for emerging risks and using format risk management programs and tools to manage risk	0.70
Use of Financial Plan with Budget Objectives and Monitoring: Use a budget including revenues and expenses for each product, department or area of the farm business	0.70
Human Resource Planning and Management	0.64
Communicating Plans and Direction with Stakeholders	0.61
Clear Vision and Goals	0.61
Interpretation and Use of Financial Statements	0.58
Use of Formal Succession/Transition Plan and Process	0.54
Risk Management and Contingency Planning	0.53
Market/Price Management	0.52
Financial Management	0.47
Management of Relationships with Supply Chain	0.41
Use of Formal Planning for Production	0.39
Animal Health and Welfare Management	0.12
Environmental Management	0.00

While still important business practices, the lower ranking activities do not differentiate top and bottom farmers because there is average adoption rate of these practices among all farmers. In other words, the lower ranking activities do not ‘drive’ farm financial success.

Farm Business Management and the Bottom Line: Making Dollars and Sense

Producers have much to gain by adopting farm business management practices. Top farmers have an average annual Return on Assets of 10%, 525% higher than the bottom 25% of

farmers who averaged 1.6%. Farmers in the top 25% also had much stronger Asset Turnover scores (20% versus 9.7%, 100% higher) and Gross Margin Ratios (50% versus 19.6 %, 155% higher) than farmers in the bottom 25%.

Figure 4

Financial Gain Differential between Top and Bottom 25% of Farmers

Ratio Measured	Top vs Bottom	Ratio Results	Industry Ranking	Performance Gained
Asset Turnover	Top 25% of Farmers	20.0%	Moderate	↑ 100%
	Bottom 25% of Farmers	9.7%	Vulnerable	
Gross Margin Ratio	Top 25% of Farmers	50.0%	Moderate	↑ 155%
	Bottom 25% of Farmers	19.6%	Vulnerable	
Return on Assets	Top 25% of Farmers	10.0%	Strong	↑ 525%
	Bottom 25% of Farmers	1.6%	Vulnerable	

The results show that the culmination of these business practices help farmers reach higher levels of financial success. As practitioners of farm business management, they signal an immense opportunity for growth for the Canadian agricultural sector, by promoting and providing the information, tools and resources that improve the adoption of farm business management practices.

The Fundamental Management Tool: Business Planning

The Dollars and Sense study reveals having a formal business plan and planning process is directly related to farm financial success. Despite this, only 1/4 of Canadian farms have a formal business plan while 50% reported being in a stage of transition, whether entering the industry, expanding, reducing operations, transitioning to the next generation or exiting the industry. Business Planning is about being ready to manage change – to anticipate, plan for and seize opportunities, and ensure investment is made into what works to achieve goals. Simply put, farm business planning results in making the right decision, at the right time, for the farm, the farm team, and the family. Rather than being regarded as a separate or

additional component to farming, farm business planning must provide the underlying framework to operating and managing a farm.

The Baseline Update reveals farmers are more familiar with business planning and have completed business plans since 2011, however awareness and implementation of all other plan types has declined significantly since 2011. Less than 20% of farmers have completed any other type of plan.

Figure 5

Percentage of Farmers Who Have Completed Business Plans: 2016 versus 2011



Despite access to training opportunities, information and expert advisors, there is a lack of integration of these practices into farm operations. Meanwhile, management activities such as keeping production records, using an accounting system to generate reports, using cost of production, and benchmarking have remained steady between 2011 and 2016.

It is speculated that the increase in having a business plan and decrease in all other types of planning could be related to government and industry's emphasis on business planning in the past, which has waned in recent years. Also, farmers could be creating a single business plan

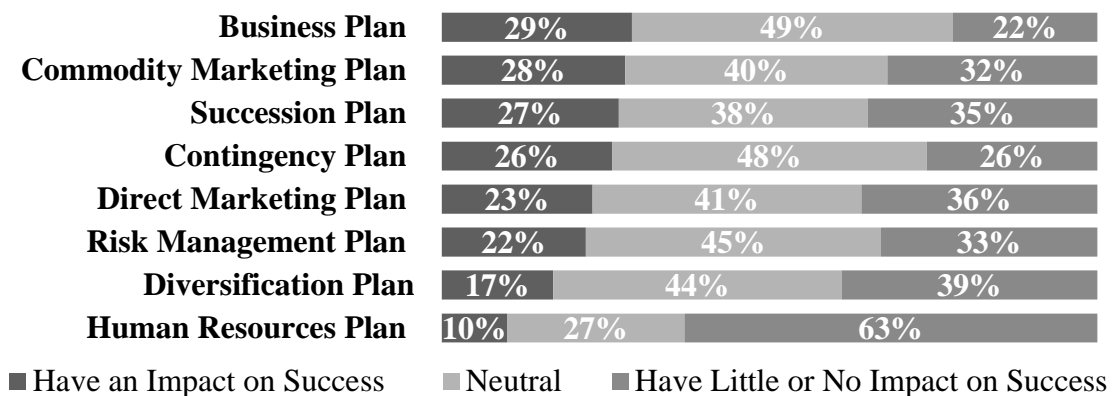
that encompasses elements of the other plans. Or possibly, farms are more financially secure and do not see the need to plan as planning is typically in response to surviving a downturn or significant change to the industry.

The Attitudes of Canada’s Farmers towards Farm Business Planning

The Ontario-based Baseline Update reveals less than 1/3 of farmers feel that any one plan has an impact on the success of their farm business.

Figure 6

Percentage of Farmers Aware of Plans and Degree of Impact on Farm Success



Respondents to this survey were provided with the results of the Dollars and Sense study and asked to indicate whether the 7 practices proven to drive farm financial success were believable. It is interesting to note that activities relating to financial record-keeping and analysis are seen to have a greater impact on the financial performance of farms than skills development and planning activities. The high percentage of respondents who are neutral (~50%) and those who feel these practices have little or no impact on financial performance (~20%) represents a significant opportunity to increase efforts promoting and demonstrating the value of planning and related skills development within the agricultural sector.

Figure 7

Percentage of Farmers who believe the 7 Practices of Top Farmers Impact Financial Performance



Segmenting the Farming Population According to Attitude towards Planning

Results of the Baseline Update reveal respondents fall into 1 of 5 different quintiles based on their attitude towards planning and rate of adoption for a business plan. Segmentation is an analytical process where a population is analyzed based on attributes or criteria that create clusters of subpopulations or “segments”. In the case of the baseline study, specific attributes related to awareness, familiarity and adoption of business management practices were used. Demographic or farm profile attributes were not used to segment so that any differences relating to these attributes would be outcomes of the segmentation, not drivers of the segmentation. Ultimately, the objective of any segmentation study is to provide a segmentation solution that balances the need for differentiation between segments without providing so many segments that the solution becomes difficult to understand and use.

A closer look at the farmer segmentation reveals that despite the difference in behaviours towards planning, all farmer types overwhelmingly do not see the need for a formal written business plan.

Figure 8

Farmer Segments: Detailed Comparison

	Skeptics 18%	Strugglers 20%	Developers 19%	Planners 18%	Sunsetters 24%
Farm Characteristics	<ul style="list-style-type: none"> • Average farm size • Business in decline • Average debt 	<ul style="list-style-type: none"> • Smallest farm size • Business is struggling • High debt 	<ul style="list-style-type: none"> • Largest farm size • Business is expanding • Highest debt 	<ul style="list-style-type: none"> • Below average farm size • Business growing • Average debt 	<ul style="list-style-type: none"> • Below average farm size • Business is steady • Lowest debt
% with a Formal Written Business Plan	7%	9%	15%	58%	6%
Primary Barriers to Planning	<ul style="list-style-type: none"> - No Need - Lack of Information 	<ul style="list-style-type: none"> - No Need - Small Operation - Lack of Information 	<ul style="list-style-type: none"> - No Need - Lack of Time 	<ul style="list-style-type: none"> - No Need - Age/Health - Succession plan comes first 	<ul style="list-style-type: none"> - No Need - Age/Health - Small Operation
Attitude Towards Planning	<ul style="list-style-type: none"> • Less likely to have good impression of success, goal achievement and work/life balance • <u>More</u> likely to feel it is impossible to succeed due to external factors • Low confidence planning will make a difference 	<ul style="list-style-type: none"> • Less likely to have good impression of success, goal achievement and work/life balance • <u>Most</u> likely to feel it is impossible to succeed due to external factors • Average confidence planning will make a difference 	<ul style="list-style-type: none"> • Feels successful, achieving goals, <u>good</u> work/life balance • Actively pursuing technology/new methods • Low confidence planning will make a difference 	<ul style="list-style-type: none"> • Feels successful, achieving goals, <u>good</u> work/life balance • Actively pursuing technology/new methods • Confident that planning will make a difference 	<ul style="list-style-type: none"> • Feels successful, achieving goals, <u>excellent</u> work/life balance • Active in farm organizations • Low confidence planning will make a difference

Meeting the Business Management Needs of Canada's Farmers

The information and insight gathered from the Dollars and Sense study and Baseline Update are being used to develop custom communications, programming and services that respond to the unique needs of Canada's farmers and farmer segments.

The Baseline Update also revealed the top drivers for having various plan types such as changes in markets, decreased profitability, consumer perceptions, changes to ownership, government incentives, lenders and creditors and so forth, and that farmers are seeking planning advice from accountants, lawyers, lenders and government. This insight can also be leveraged to increase the adoption of planning practices.

Pledge to Plan – A Business Plan on Every Farm

Baseline Study results reveal that individual management activities such as keeping production records, using an accounting system to generate reports, using cost of production, and benchmarking have remained steady and are preferable to planning activities.

These results suggest that respondents understand the need and mechanism for management activities more so than developing plans. They are also more likely to conduct activities that are useful to their day-to-day, whereas they do not see the connection to everyday results with plans. Therefore, management activities more closely linked with day to day activities on the farm have a better chance of adoption and integration into the management process. And, as indicated by the Baseline Update, business and succession planning are the most valued and therefore have the greatest chance for success for increasing adoption of planning on farms.

Despite low uptake on conducting business plans, the Dollars and Sense study proves financial returns on planning. Thus the idea behind the Pledge to Plan: A Business Plan on Every Farm campaign (Pledge to Plan) is to merge producer's willingness to conduct management activities with the notion that Business Planning as the key planning process for farm businesses and offers tangible financial returns. This shift in behaviour is influenced by bringing farm business planning into the everyday, by aligning the process (assess, plan, implement, review) with the seasons to break it down into manageable pieces for the farmer.

Figure 12

Business Planning aligned with the Seasons



- 1 **Assess your business.** Take stock of your business within the context of changes in the broader industry.
- 2 **Plan your future.** What is your vision? Mission? What are our priorities in getting there?
- 3 **Implement and Monitor your plan.** Use your plan to guide your decision-making by operationalising achieving your goals.
- 4 **Assess your performance.** Measure your progress towards achieving your business goals, celebrate your successes and determine areas of improvement to work into next year's business plan.

A Planning for Success booklet was created to capture the concepts of business planning as continuity planning, and planning as a cycle, aligned with the seasons. The Booklet uses the Dollars and Sense data to promote the tangible benefits of farm business management practices, addresses barriers to planning and contains the seasonal steps in Business Planning, case studies, and resources available.

Figure 12

Planning for Success Booklet Cover



Figure 13

A website, www.pledgetoplan.ca was created to complement to Booklet.



The website also includes an opportunity for visitors to literally make the “Pledge to Plan” by signing up with their name and contact information. In doing so, they receive a business planning toolkit including promotional materials and a publication by infamous farm family coach Elaine Froese on how to start having meaningful conversations related to farm business and continuity planning.

A series of promotional advertisements were created as a promotional campaign for business planning. These advertisements were featured in public media outlets, at industry events and incorporated into industry presentations. They appeal to both the softer side of planning, and industry humour.

Figure 14

Promotional Ads Encouraging Business Planning



Articles were published in popular farm publications to promote farm business management and planning, using the study results to provide commodity-specific data to appeal to specific production sectors.

These resources are available at no cost to industry stakeholders to use to help promote the value and importance of planning, and provide a resource for their members and clients to increase the adoption of planning activities.

The Dollars and Sense study and Baseline Update are being presented at industry events, presenting the data to the general farming public and also providing commodity-specific information. The study results are getting picked up by industry and used on presentations by advisor groups, producer groups and government.

Concluding Remarks

The success of any farm operation is directly related to the farm business management skills and practices of the farm manager – however as demonstrated by the Dollars and Sense study, there is room for improvement, and much to gain from investing in farm business management.

An immense opportunity for growth for the Canadian agricultural sector will come from shifting farmers' attitudes towards planning practices to increase adoption rates. This in turn will help producers realise the financial gain from management practices. This shift can be achieved by promoting and providing the information, tools and resources for farmers to improve their adoption of beneficial farm business management practices.

A large proportion of farmers that have not completed plans state that they are unnecessary to succeed, however cite their goal is to become more profitable. Leveraging the Dollars and Sense study will show value of planning and other management activities and provides evidence that management and planning practices drive farm financial health. Further, using the farmer segments identified by the Baseline Update to create specific messaging and educational programming to farmers' business practices and attitudes towards planning practices will also help increase adoption of planning practices.

Most farmers are going to accountants and lawyers for help with planning activities, while banks and government are requiring plans. Working with these service providers can help promote the value and encourage planning and other management activities, promoting tangible financial benefits.

While the data gathered pertains to Canada's farmers, we know that farmers worldwide struggle to adopt beneficial business management practices. It is our sincere hope that the information and insight outlined in this paper can be used by international counterparts to help increase the awareness and adoption of farm business management practices to continue to position farmers for sustainable growth and success.

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References

Ipsos Agriculture and Animal Health (2016). Baseline Update: Farm Business Management Planning in Ontario. Commissioned by Agri-Food Management Institute (AMI), Farm Management Canada (FMC).

Ipsos Agriculture and Animal Health (2015). Dollars and Sense: Measuring the Tangible Impacts of Beneficial Business Practices on Canadian Farms. Commissioned by Agri-Food Management Institute (AMI), Farm Management Canada (FMC).