WHAT DO NORTH AMERICAN FARMERS NEED TO DO TO SURVIVE?

by

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ABSTRACT

Over the past 25 years, we have seen the operating margin of North American farms reduce by a quarter, increasing the risk faced by farms as they must invest a larger portion of their revenues in production expenses. This leaves a smaller portion of those revenues to cover the returns to capital and labour.

Drivers for change such as technology, regulation, global market forces, availability of capital and human resources impact on the firm scale and scope. Biotechnology will have a profound influence on the potential of the industry.

Successful strategies for North American farmers will require effective management practices of the past, but more critical in the future. Success will be dependent on being ahead of the forces changing structure of the industry, on effective economic and investment analysis, on human resource issues, and greater relational issues outside the farm.

INTRODUCTION

What do North American farmers need to do to survive? When I received the invitation to prepare this presentation, I thought that it would be an easy topic to work on. It continues to be interesting, but is also challenging because there are many views about what farmers "must" or "should" do to survive.

I propose today to look at the topic from several perspectives. First, some description about the contemporary environment that farmers are living and conducting business in. I'll start with a bit of a look at history to compare today's conditions with 'the good old days' Second, I will remind us of a number of drivers of change that are impacting on the industry. The final section will provide a range of things that farmers in North America must to do to survive. They are based on feedback from industry as well as some research completed by my organization last year. A sneak preview is encapsulated in this quote by Dr. Leonard Bauer.

> *"Probably the (farm management) requirements will be not much different from those considered at least important, if not essential, during the latter decades of the 20th century. The consequences for ignoring these requirements may however be much more severe because of the greater involvement of capital and human resources."* Bradshaw & Gervais (1998)

As a part of my information gathering research, I sought the advice of a group of leaders from across Canada. They have just completed an intensive 18 month leadership development program, Canadian Agricultural Lifetime Leadership (CALL). One of the members put a series of questions on their message system and forwarded the replies to me.

The most cogent reply questioned my question - and the topic I was given for this presentation. Why use the word **survive**? Why not **succeed**? Or **thrive**? Lee Pengilly, an organic farmer in Alberta, questioned what exactly it was that farmers were

surviving. Here's a portion of her e-mail response

> *"Survival to me connotates making it through a catastrophe or some major difficulty and hopefully, picking up the pieces and going on with your life and/or business with the hope of prosperity and success. Like many farms, we have survived our share of crises and when I recall many of them, that same feeling overwhelms me - a fear that rises in your guts and you can taste in the back of your throat. A feeling of being powerless and despair as to what you can do next. . . .*
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> *. . . . I asked my son if he would be interested in a career in which one of the selling points was survival. Or would he more interested in a career which provided opportunities for prosperity or success? He initially requested that I not play silly word games with him . . .*

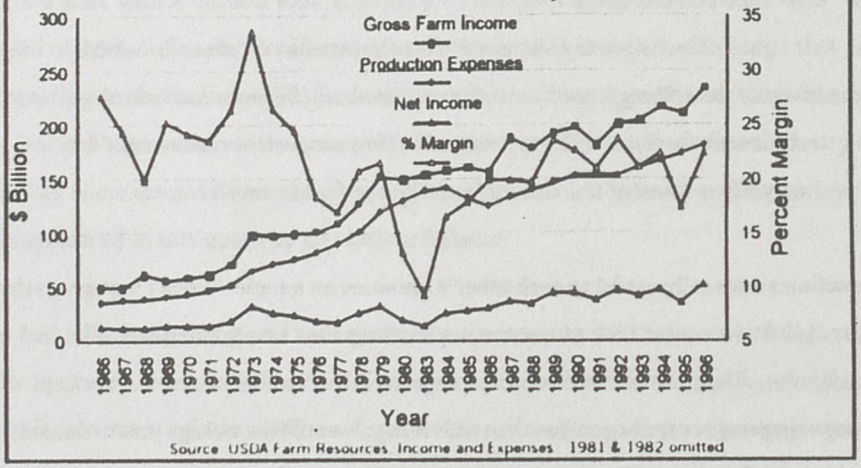
Sometimes it is really useful to seek other's opinions on a topic. When I was given the topic, I didn't stop to think about the implications that Lee pointed out. She had a good point. Thus, for the rest of this presentation, I will think of the concept of **prospering** or **succeeding** rather than **surviving**. I would encourage you to consider the topic in the same terms.

RISKS OVER TIME - THE CONDITIONS CHANGE

Looking back over remembered history, for many of us, the last 25 years have seen growing cash incomes, but as most farmers will attest, expenses have grown too! The result is a smaller portion of revenues being left over for net income. Figure 1 illustrates this concept for the United States in total - the 'farm of the US'. USDA (1998) Gross farm incomes started out at $50 Billion in the mid 1960's, and increased gradually to over $233 Billion thirty years later. Production expenses almost kept pace, increasing from under $40 Billion in the 1960's to over $180 Billion by 1996. Net income was in the low teens in the 1960's, jumping to over $33 Billion in 1973. That great level was not reached again until 1987 in current year Dollars. Since 1987, current dollar net

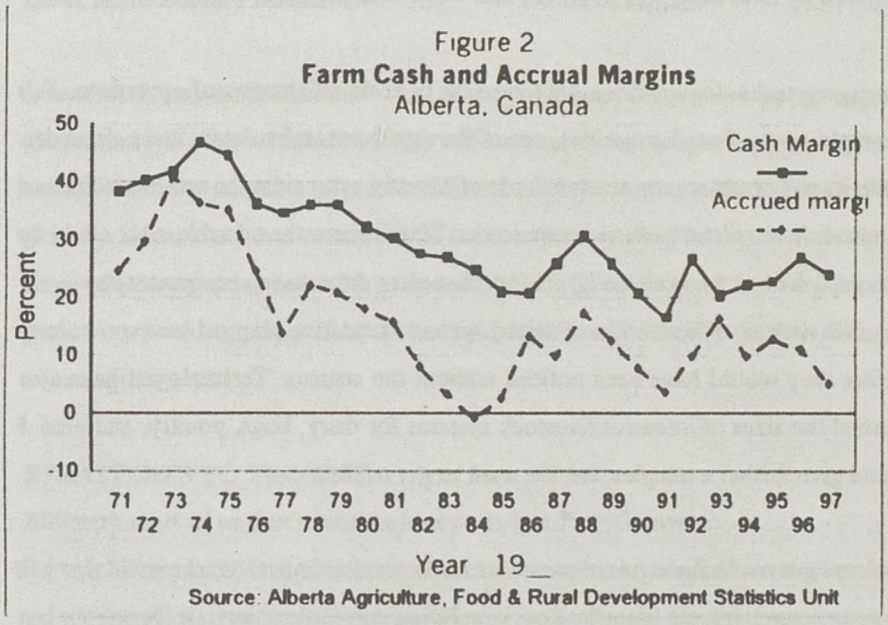
incomes have slowly increased up to the $50 Billion level. The overall margins were in the 25% range from 1966 to 1972. Then it jumped up to up to 34% in 1973 "The great old days", and fell to the depths at 10% in 1883, followed by slowly recovering to the low 20's for the last 10 years. The recent margin levels result in a higher risk position for farm operators as there is now a decreased share of total income that is left over after expenses to recover from a loss or mistake.

Figure 1
U.S. Farm Income and Expenses



Source: USDA Farm Resources, Income and Expenses. 1981 & 1982 omitted

My analysis of the situation for Canadian farm operations shows a similar pattern. It can be illustrated by looking at the Alberta situation. Figure 2 presents the Farm Cash and Accrual Margins for the 'farm of Alberta, Canada' AAFRD (1998) I calculated a ratio of net cash income to gross cash receipts as well as net farm income after depreciation and inventory. It is a crude indicator of risk levels and illustrates the amount of each dollar of sales that is available to cover returns to capital and operator labour. We see that it gets lower over time on both the accrual and cash basis, leaving a smaller portion of revenues for the operator and owner. If there is a significant 'wreck' in any one year, it will take longer to recover from the difficulties than it did in earlier years.



Another side to the survival question is illustrated by the age demographics of farmers. USDA reports that the average age of US farmers has risen from 50.3 years in 1978 to 54.3 in 1997. The agency expects the trend to continue - and it will without an influx of new entrants. The Canadian figures are similar with increasing average age (1991 at 47.5 years, 1996 at 48.4) of farm operators. Lewis (1998) After all as David Foote, a Canadian demographer reminds us "every year, we get another year older".

DRIVERS OF CHANGE

Industries change in structure and situation over time due to any number of causes. We are able to identify some of the drivers for change affecting the agricultural industry. In my opinion, drivers for change include industry size and structure, resident and emerging technology, the regulatory structure, financial infrastructure, access to financial capital, human capital, and the marketplace (local and global). These drivers for change are not independent, but are interrelated with each other. For example, the regulatory environment may impact on the size efficiencies of intensive livestock operations, which in turn impacts on the management capabilities

required by farm managers to attract and work with 'outside' capital.

Emerging technology is driving an increase in scale efficiencies of operations. For example, on the Canadian prairies, one of the significant technologies is the air seeder. With it, one operator can sow hundreds of acres in a day riding in an air conditioned 4-wheel drive tractor pulling an air seeder. This is more than double what could be accomplished with conventional press drill seeders. Monitoring equipment can signal troubles with the effectiveness of the equipment - reporting plugged seed spouts long before they would have been noticed without the sensors. Technologies have also pushed the sizes of intensive livestock systems for dairy, hogs, poultry, and beef. I could give further examples, but we want to get to the meat!

Before I get to the strategies, there is one further technological development that will have an impact. It is the biotechnology revolution currently underway. During the last few years, several multi-national companies have invested millions in developing techniques and positioning themselves to be able to gain benefits (read profits) from applying genetic modification to agricultural processes. There has been a flurry of mergers and acquisitions as groups like Monsanto attempt to position themselves with a significant market share of the biotechnological market. I understand that Novaritus has amassed a war chest of $18 to $20 Billion to invest in the agricultural life sciences industry. All this impetus to develop Genetically Modified Organisms (GMO) components in the industry is occurring at a time when at least one of the major markets in the world (Europe) is saying that it isn't interested in the products of the science. At the same time, in 1998, about one-half of the soybeans and corn planted in North America was in some way developed by biotech means. This share of the market has grown from near zero three years earlier. Indications are that in Western Canada that up to 70% of Canola seeded in 1999 were biotechnology varieties. Doesn't this create a potential of increased risk when a significant portion of the customer base apparently doesn't want the products being produced by growers? Will other consumers suddenly switch their positions and no longer want the products? Or is the limitation on GMO imports actually a trade barrier disguised.

under phyto-sanitary standards?

Some observers hold the view that the capability of biotechnology to expand production will push commodity prices still lower and create a greater opportunity to use agricultural production for non food functions An examples might be fast growing grass for biomass production to be used in paper production The theory goes that as the world uses up non-renewable resources, resulting in an increase in real prices for derivative products, renewable agriculturaloutputs will come in behind, filling a consumption gap

STRATEGIES TO SUCCEED

Although most of us don't want to hear it, as Lee Pengilly wrote

> *"There will be no blanket answer(s) to insure survival of all North American farmers, nor should there be. What provides for the future of one, may well spell the destruction of another."*

A professor from the University of Calgary (where the 11th Congress was held in 1997) quipped "*they won't all survive*" when we were discussing this paper recently So if they (or you) won't all succeed or thrive, what do you have to do to be in the prospering group? Here again, there are more answers than there are people providing them - must be some economists in the group - on one hand , but on the other hand . . .

LEADERS, FARMERS, AND ADVISORS SUCCESSFUL STRATEGIES

> *"Profitability! . . . to be efficient (. . . tired of continually trying to get more efficient) . . . market responsive . . . constantly honing their knowledge and skills. . . economics of scale or some form of unique or direct marketing . . . part of or at least tuned to the processing . . . stamina . . . political support network . . . strong farm organizations and . . . lobbyists . . . effectively manage risk through financial management and product selection."* Niels

Holbek in British Columbia by e-mail.

> *". . . understand the dynamics of a changing world BEFORE it hits them. Dycotomies abound . . . GMO's . . . global warming . . . consumers needs vs. multinationals . . . niche markets . . . Mass production of low cost commodities . . . global trade . . . supply management . . . environment . . . consumers' pocketbooks . . . domestic market . . . export"* Mike Leslie in Alberta - an international trader working primarily with Japanese markets by e-mail.

Mike goes on to note that farmers likely consider their greatest risks as weather and markets, while he believes that the major risk is market shifts. The market shifts are more subtle and often delayed by subsidies and protectionism - but the market will win in the long run. To be successful, Mike goes on to describe how he believes that we need to think differently about agriculture - we cannot continue to grow it and "they will come" as in the Field of Dreams movie. We need to *"find out what they want and go out and grow it, process it, and deliver it to the global consumer ready to eat"*

Futurists tell us that the future is here, now - and all we have to do is sort out the trends that are going to be predominant. Thus, by keenly observing around us, we can see the future. To help us see what's already being done by progressive farmers, here's more of Mike Leslie's e-mail where he describes the things he sees farmers already doing

> *"diversifying to special crops to fit niche markets, getting better at growing commodities, separating their farms into GMO and non-GMO sections, adding value, joining value-added chains or supplier chains, forming new age co-ops, developing their own marketing strengths . . . hedging with contracts, dollar hedges, commodity hedges, pre-buying feeds and pre-selling production etc. etc."*

Another farmer who had been out in his 'think tank' (tractor cab) after seeing the other comments by his peers added the need for the right tools to make informed economic decisions. He also noted that "*it seems everyone has an idea on what is BEST for the farmer. It is very hard to separate the wheat from the chaff!!*"

Feedback on a farm management discussion channel on an agricultural community web site (http://www.Agri-ville.com) from Rob Somerville in Alberta was "*learn how to form alliances, joint ventures, co-operatives. . . . to market a specialized product for a higher price than they would receive through traditional markets, or form a co-operative for purchasing or sharing equipment or trucking.*" Rob sees this being done more in the US than in Canada. He goes on to note that many of the farms we see today that are sufficiently large to achieve economies of scale are probably already a group of several family members, working together in an alliance. Building on the family connections, farmers will have to learn to deal with non-family organizations in similar ways.

Ted Darling, a farm management extension specialist in Alberta, (he's attending this congress) talks to his clients about the need and opportunity to shift from producing commodities to products. He and others talk about commodities being the undistinguished standard graded produce. It has very minimal differentiation - your beef is the same as my beef. Thus competition evolves to who can produce it at the lowest price. But if my beef can have some different qualities from yours or most other beef, often consumers are willing to pay a premium to have access to the different "superior" qualities that my beef provides. As I was writing this paper, a major Calgary newspaper carried a story about a strategy to differentiate beef by breeds. The Hereford and Red Angus breeders have been working on this for a while - being able to certify to consumers that the beef they are buying is unique. We've seen this for some time with organic production. Differentiated products will continue to grow in importance to the agricultural market. We've seen it in other industries for some time - think about the auto industry. It's even coming to an industry significant

to South Africa - diamonds! A Northern Canadian mine is laser encoding their diamonds with a polar bear image - trying to extract a little more value from the market

STRATEGIES TO SUCCEED - RESEARCH RESULTS

During early 1998, my Ministry undertook some research to take a look forward to the year 2005 to anticipate some of the management challenges that would face Alberta's farming industry. We started out with a look at industry structure and the drivers impacting this structure. It was almost like developing a census for the future. Would we have pork production by a few very large operations, or a range of pork operations varying in size from the very large to the very small as are common today. This type of analysis was undertaken for the major production sectors of the primary industry in Alberta. The researchers sought input from farm organizations, commodity groups and researchers in assessing how fast the industry could and would adapt to changes. Thus they produced an expected distribution of farms for 2005, ordered into different size cohorts. Given this population, an agricultural economist with many years of University teaching and researching farm management, Dr. Leonard Bauer (who is also attending this Congress) looked at the situation and determined the types of critical management issues that will have to be covered off for businesses to succeed in that environment. Since completing the research, we have been seeking further feedback on the accuracy and relative importance of the key findings. Depending on the major enterprises considered, different management challenges may be judged more important, but overall, the list has gone unchallenged.

The authors of the research summary identified four emerging realities which will have significant impacts on the primary industry, and the roles of governments as well as private service sector businesses. Bradshaw and Gervais (1998) The realities are:

1. *Factors underlying the changes in the structure of agricultural firms,*

2. *Increasingly severe consequences for expanding agricultural businesses which ignore business management principles, particularly, in regard to decisions made without sound economic and investment analysis,*
3. *Human resource issues, and*
4. *Relational issues arising from expansions in the primary agricultural sector.* Bradshaw and Gervais (1998)

The research pointed toward a continued trend for increased numbers of larger farm operations, with a reduction in the output from, and number of, smaller enterprises. This increased concentration of larger scale enterprises creates pressures in the areas of environmental regulation, land use and municipal assessment. As well, rural development issues emerge related to transition, both of people, and of enterprises into and out of agriculture as farm owners reassess their strategic position in the industry.

As the size of commercial agricultural operations increases, the scale of capital needed and degree of specialized human skills required to operate agricultural enterprises also increase - often exponentially. If this capital is invested in the wrong ventures (that don't pass sound investment analysis) many of the investors are likely to face disappointment (read LOSS).

In Alberta, other sectors of the economy operate under mandated health, safety and working condition standards. However the primary agricultural industry is often exempted. Thus, while most operations have been able to find employees, as the other segments of the economy develop, and agriculture shifts to requiring a higher proportion of employed labour, the question arises regarding agriculture's ability to attract, compete with and retain competent skilled employees.

In years past, farmers could generally carry on their business affairs with some degree of anonymity. However as the scale of intensive livestock units increases, it becomes

more and more difficult to not be recognized - when smells and sounds 'pollute' the community. Thus, the requirement to maintain good relations with the rest of the community becomes even more critical to success. The need to control emissions and residuals from agricultural operations, and to be **seen** as doing so will become even more important to this industry.

These issues underlie the ten key management challenges facing farm managers in the coming years. To be successful, managers of the future will have to have a strategy to be effective in these areas:

1. **Information technology and information management** is often neglected as farms fail to use a sound and relevant management system that provides the right information at the right time and in the right format. Mechanisms must be put in place that allow for and contribute to being able to effectively compile, sort, analyze, and apply relevant information to making decisions.

2. **Negotiating skills and legal awareness** will increase in importance as marketing relationships with other business entities outside the farm become a larger part of the business operations. When many farm outputs are a part of feedstock for a value chain, developing the appropriate legal and price relationships will have significant impacts on the risk and returns of a production process.

3. **Economic and investment analysis** will be required to support the significant capital investments required to transform the industry and accommodate asset transfers from the aging 'baby boomers'. No longer will 'back of the envelope' analysis be sufficient to satisfy investors, or quantify the risks of entering or expanding a venture. As most farmers' skills and abilities in advanced economic and investment analysis are likely limited, they will use financial and economic consultants to assist in assessing investment plans.

Here also is where the results of an effective information system can be used to form the basis for sound analysis.

4. **Family and group dynamics** are an often overlooked foundation for building long term growth plans for a business. If the personal and family goals of individuals involved in the business are not congruent with the growth strategy, we can expect to have 'bumps' in the road of the future of the business. As scale increases, involving financing from non-operating family members or non-family investors brings dynamics that must be managed skillfully to be effective.

4. **People transition management** includes a broader topic than what we've often thought of as succession or estate planning. Here, the assessment of resources and family capabilities that are a part of considering such issues as exiting, continuing, or growing the business are being looked at. Skills for sound SWOT (strengths, weaknesses, opportunities, and threats) will provide a base to make appropriate management decisions.

6. **Environmental management** is an increasingly significant area of management focus. No longer can individuals operate on their property without consideration and compliance with environmental regulations and practices. Sound environmental management practices will reduce risk and can become a method to differentiate a business from others to extract added value out of the chain.

7. **Food safety management** is fast becoming another significant factor in operating a farm business. It can be looked at from two directions. Complying with food safety regulations and consumer expectations is a minimum requirement to remain in business. During the transition or introduction phase, being able to achieve safety compliance standards such as under the International Standards Organization (ISO) can be a competitive advantage

with some customers. The paperwork and documentation involved will be easier to achieve for those managers who have developed a solid information management system as a part of their operation.

8. **Employee relations** will be of increased importance as farm sizes to achieve economies of scale continue to increase and there is increased competition with other sectors of the economy for skilled workers. The 'hired man' must no longer be seen as a necessary evil to be soon replaced by a machine, but must become a key resource to leverage into profits. Getting there will require sound recognition and reward systems along with competitive salaries and benefit packages.

8. **Communications and leadership** skills become key to achieving successful operations as managers must communicate and lead employees. While good leadership and communication doesn't guarantee success, deficiencies in these skills can often be found in troubled businesses.

10. **Agricultural technology management** maintains its place as a foundation to success, given that agriculture remains primarily a production process. Key skills in assessment, selection and operation of new technologies will be critical to success. Jumping in to the wrong technology before it has been developed enough can have significant loss potential. However, major profits are usually accrued by the early adopters of technology. The skill to know when **enough** is known about a technology's application and implement it, will make some operations more successful than others who wait another year or two to be sure it's developed enough, only to be forced to adopt it just to stay in the game.

SUMMARY

Future success of North American farms will require similar farm management skills and practices as in past decades However, far more serious consequences will befall a business who ignores them.

Over the past 25 years, we have seen the operating margin of North American farms reduce significantly, thereby increasing the risk faced by farms as they must invest a larger portion of their revenues in production expenses. This leaves a smaller portion of those revenues to cover the returns to capital and labour.

Drivers for change such as technology, regulation, global market forces, availability of capital and human resources impact on the firm scale and scope. Biotechnology will have a profound influence on the potential of the industry.

Success will be dependent on being ahead of the forces changing the structure of the industry, on effective economic and investment analysis, on human resource issues, and greater relational issues outside the farm. More specifically, ten key management challenges will have to be successfully accommodated:

9. Information technology and information management;
2. Negotiating skills and legal awareness;
3. Economic and investment analysis,
4. Family and group dynamics;
5. People transition management;
6. Environmental management;
7. Food safety management;
8. Employee relations;
9. Communications and leadership;
10. Agricultural technology management.

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CHAPTER 2

FARMING FOR PROFITS