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CHALLENGES FACING AGRICULTURE TODAY META ANALYSIS OF EXPERT INTERVIEWS

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Abstract

Identification of the major trends that will impact on the agriculture operating environment in the next five to ten years was the first topic addressed in over 20 interviews with recognized experts from the USA, Australia, New Zealand, the United Kingdom, and Canada. They also identified the major challenges and opportunities that those trends created for farm operations, what skills and information could be of assistance to farm managers, and successful methods of delivery. Challenges and opportunities identified are: new crops and products, changing thinking to a market focus, using new technology, using appropriate business models, alliances & networks, succession strategies, benefiting from interdependence, and increased market volatility. Meeting these challenges and opportunities will require development of specific skills and sources of information. Delivery options included electronic means, but the importance of interaction between people was confirmed.

Keywords: challenges, opportunities, trends, interviews, skills, information

Introduction

Identification of the major trends that will impact on the agriculture operating environment in the next five to ten years was the first topic addressed in over 20 interviews with recognized experts from the USA, Australia, New Zealand, the United Kingdom, and Canada. They also identified the major challenges and opportunities that those trends created for farm operations, what skills and information could be of assistance to farm managers, and successful methods of delivery. Challenges and opportunities identified are: new crops and products, changing thinking to a market focus, using new technology, using appropriate business models, alliances & networks, succession strategies, benefiting from interdependence, and increased market volatility. Meeting these challenges and opportunities will require development of specific skills and sources of information. Delivery options included electronic means, but the importance of interaction between people was confirmed.

The interviews, lasting from 15 to 60 minutes, were conducted by telephone and in person with farmers, professors, farm management specialists, commodity organization staff, and consultants. Interviewees were selected for their global representation and expertise based on recommendations from International Farm Management Association (IFMA) Executive and Council Members and from the author's knowledge of people in the industry. The research project was commissioned by the Canadian Farm Business Management Council to provide background information for use in strategic planning.

The discussions were oriented around four basic questions:

- Future circumstances to be faced by farm managers in the next few years,
- Management challenges and opportunities resulting from the new circumstances,
- What skills or information could be used to support meeting the opportunities or challenges,
- Options for delivery of programs and information to Canadian managers.

The first two questions were the most significant and yielded the most ideas. The last two provided fewer ideas, but provided some valid insights into the challenges faced by program developers. As interviewees

made their key points, they often had illustrations or stories that helped to explain the message. Most of the discussions were recorded on computer, resulting in over 15 hours of material and many pages of notes. Key ideas were transferred to 3M sticky notes and grouped and sorted into similar concepts.

Trends and Future Circumstances

The primary conclusion was that farming will change at an increasing pace in the next few years, building on past changes. But, more specifically, how will it change?

- Consolidation of farm size and structural change will continue – as more larger farms produce an even greater proportion of total output. Middle sized operations are under the most pressure to remain viable, while smaller operations that have off-farm sources of family income will continue. There was some suggestion that the time lag of statistics gathering underestimates the rapid shift of production to larger farms. However, one specialist suggested that the total number of farms in the US is now stabilizing rather than continuing the downtrend. Although there may still be expansion in the numbers and sizes of larger farms these gains are offset by shrinking numbers and scale in the mid-sized operations. This consolidation process has farms growing in primary and value added enterprises, while others are downsizing or exiting in response to the long term price decline for non-subsidized primary commodities.
- The growing interest by others in what/how things are done in agriculture will be played out in increased regulation of practices, especially of animal care and environmental performance. These additional controls will require demonstration of compliance with expectations through assurance and traceability mechanisms. The anonymity that allows for shipping of inferior products, or ones produced with environmentally unsound or unsafe methods will not be tolerated.
- More volatility in markets will be faced. Not just for prices, but also for market access limitations, sometimes based on science, or often without science but founded in perception. Other volatility creators are disease issues and the ever present market disruptor of government policy. However, it is useful to remember that in the confusion of volatility, there is often a market to be found. Potential market shifts can be illustrated by the growth of ethanol production in the USA, surging in response to the government policy goal that a portion of fuels that must be ethanol. This surge led to a large jump in corn prices in 2006 as competition for the major feedstock of many new processing plants became apparent – potentially consuming up to 40% of corn production. This price increase for corn has impacted traditional users of this animal feed (beef, hogs, chickens, and dairy) in different ways as they try to adjust to increased costs and look for alternative energy sources. Some will adapt to use a by-product of the ethanol production – distillers dried grains which has different nutritional balances and requires new methods to be effectively used as a feed source. The surge in corn prices is felt beyond US animal feed users, as it also impacts human food users of corn and the price of the commodity on international markets. However, this major disruption of feed systems may not be for long as US government policy directs that the feedstock for ethanol production must shift to cellulosic (cellulose) digestion in five to seven years. If/when this shift to different plant product feedstocks (straw, trees, switchgrass) occurs, there will be a major release of corn back toward animal feeds, reducing the distillers grains sources.
- Population demographics is being played out as the baby boom generation moves through their life cycles. We are now shifting from a period of too many people in productive life stages to one of too few people to maintain the traditional systems we have built. This shortage of, and aging of, people will create challenges for staffing production processes, and governance of farm organizations, as well as challenges in the transfer of businesses between generations.
- Competitiveness of Canadian operations will be challenged by several factors. Emerging economies in the rest of the world with lower input and resource costs will challenge commodity agriculture. Multinational company strategy is based on mobility to migrate business operations to locations where \$/brain economies are achieved. Global trade access to domestic and export

markets will be influenced by results of WTO negotiations. Competition with the rest of the economy as non-agriculture uses for land drives land values beyond normal productive values will force consideration of other ways of capitalizing operations.

This competition from emerging economies is illustrated by the financial market acceptance in New Zealand of share offerings to raise capital for investment in developing dairy operations in South America where costs of production are lower.

- The long term expectation of increased demand for food as populations continue to expand and wealth increases in developing markets was put forth by a UK farmer who tells his sons that they will one day be ‘wanted’ as food producers. This long term view is contrasted by the conundrum of the undernourished with no money to buy food and the growing obesity in developed countries.

Challenges and Opportunities

The trends and changes identified will create many new opportunities for farm businesses to benefit from if they adapt and modify their operations in line with the new realities. However, the changes will also create distress for others that choose not to adapt to the changes. The biggest challenge is to let go of some of the traditional views and approaches that are prevalent in the industry.

- New crops and products will create many opportunities for those that shift away from bulk commodities to value based marketing and chain connections. Thinking of productive capacity as a biological manufacturing plant will enable benefits from the bio-energy market.
- “BUT” in order to achieve some of the opportunities, there will have to be a change in mindsets and regulations. As a commodity organization manager put it “We have to figure out ways to encourage and facilitate new products instead of preventing change to protect old markets”. For example, Canadian regulations requiring kernel visual identity is preventing development and availability of more productive crop varieties that could increase yields or meet specific market niches. The kernel identity requirements could be replaced by DNA testing and identity preservation of grains entering the market stream. A consultant in Saskatchewan where wheat is grown for export reports that it is four times faster and system wise cheaper to ship grain from the Canadian Prairies to export markets in containers loaded from the combine than by the traditional storage, accumulation, elevation and bulk railway cars system. It also provides for more effective identity preservation and traceability. But, so far, there is limited uptake of the methodology.
- Changing thinking to a market focus from a production focus was the most mentioned challenge and opportunity. Thinking about and meeting ‘what a market wants’ opens up niches and focussed product opportunities. Gone are the days where the business strategy of growing a commodity and then hoping that some one will want it enough to buy it at a profitable price will assure success.
- New technology and biotechnology developments will create opportunities and challenges. Technology can be your best friend or worst enemy depending on how it is handled and plays out. Being able to determine when is the right time to invest and employ new technology – when early use profits can be captured, but not before early development costs eat profit potential or after it becomes a necessity to remain competitive will be a contributor to success. Applying science to systems can provide benefits – for example, testing can be done on barley to assess its value as a pork feedstock, allowing greater feed efficiencies to be achieved and productive value to be reflected back to the grower.
- Developing appropriate business models was noted as a challenge and opportunity to deal with future circumstances. Some operators are achieving larger scale of their systems by developing a production and management system for an effective size and then replicating it at other locations or sites. Others are co-operating with others to operate larger scale operations that can achieve economies, for example, three people going together to build a larger dairy barn.
- Achieving appropriate farm to off-farm alliances and interfaces is another challenge and opportunity. In some cases, co-operation with local business people can enhance operations. The

depopulation of rural areas will not be reversed by encouraging more farmers, but it might be with more workers involved in value adding activities. Unfortunately, rural development is often at odds with large scale commodity agriculture. Bottom line advice is that people cannot wait for others to develop opportunities – we have to do it for ourselves.

- The succession or transition of business operations between generations is also recognized as a challenge and opportunity depending on how it is approached. A significant question is whether the major wealth transfer about to take place can be achieved in such a way to facilitate continued investment in agriculture.
- Interdependence is a benchmark for future success. Research in Canada identified that all the top managers have alliances. They concentrate on what they do well, and hire the rest. To achieve successful interdependence requires communication, a new skill and attitude for many operators.
- Exit strategy planning can be a challenge or opportunity depending on how it is managed. Many people grow operations without planning on how or when is the time to move on to other opportunities. Successful exit depends on correct reading of leading indicators – when was the right time to get out of the ostrich business, or when will be the right time to scale back dependence on ethanol and distillers grains given stated government policy.
- The business climate in North America has a contracting capacity facilitated by legal systems that may be missing for some competitors. It may provide an opportunity to build more integrated value chains.

Skills and Information Needs

The above noted trends and the associated challenges or opportunities provide an environment where new skills and information processing capacity are crucial components of success for farm managers.

- Understanding the market closely follows the opportunity to shift to a market from a production focus. This key concept of knowing what consumers want and will pay for was noted many times.
- The necessity of interpreting macro trends down to the micro situation is a key skill and information need. Understanding the tipping point concept and being able to interpret signals about when it will kick in depends on information sources reporting implications, not just prices.
- Asset and portfolio management by knowing where, what and when to invest the large volumes of funds required by some production systems will be a significant skill requiring solid information sources.
- Risk, financial and marketing management are key skill areas flowing from the increased market volatility and larger scale operations on the horizon. It is necessary to know costs of production, return on investment, and how to manage risks. Interviewees talked about total enterprise risk management, not just crops and livestock risks. Very often, government support programs have the tendency to not give credit to the total enterprise as they support the status quo in preference to the changes that are more in line with future opportunities. Marketing skills are more important for niche and special valued products. Lots of money is left on the table by many commodity producers not paying enough attention to marketing.
- People skills to deal with greater interdependence will differentiate future success. The interdependence forces more relationships with employees, partners, suppliers, customers, and successors. Achieving preferred customer or supplier status depends on relationships built on people skills. Even the few sole operators who have no employees need skills to deal with suppliers and purchasers.

An example of employee relations is the US mid-west farm manager with three employees. During harvest, they take turns on three shifts each 24 hours, first shift is on the combine, second trucking, and third sleeping. The manager fills in for his employees to enable them to participate in family events like children's sports games.

- The capacity to make fast changes was noted several times as a strategy to deal with opportunities and challenges. The goal is to be able to learn and adapt to change faster than the competition to keep up with the pace of change – recall the bio-fuels example above. Creativity and innovation skills will also be useful.
- Generic business skills at a post secondary level are noted as needed. Many of the business issues in agriculture are not much different from those faced by other businesses.
- Information management is needed to sort through biased information sources and deal with the overload, sorting wheat from the chaff.
- Maintaining a CEO focus with big picture thinking is necessary. Skills in strategic planning, how to grow the business and oneself, as well as goal setting – knowing where you want to be and then positioning to get there will be valued. Systematizing the strategic decision process is necessary to be confident that “I am doing the right thing” amongst the many opportunities that are available.
- Managing under increasing regulations, external control and influence is another skill required to meet quality specifications and environmental rules.

Delivery Opportunities

Identifying methods to reach managers with information and to support skill building to deal with the challenges and opportunities is a real challenge for program managers. No ‘ah ha’ options were identified, but some suggestions about characteristics to be considered were noted.

- Electronic methods using the Internet and/or DVD systems are an option **BUT** they have significant shortcomings as many interviewees note the requirement for personal interaction in developing the higher level management skills required. Electronic methods are being effectively employed for short technical learning – as is illustrated by lunch hour telephone discussions/presentations with Nebraska hog barn employees.
- Some opportunities to develop personal face to face relationships are necessary for trust building prior to benefiting from electronic support was viewed as a necessary requirement in program planning when more complex management skills or understanding are to be developed.
- Group activities hold potential for peer-to-peer networks, analysis of farm records and are demonstrated by the top management groups in the CTEAM program in Canada and TPAP in Texas, USA.
- Challenges to provide contacts and development to younger farmers were noted. Internet communication after face to face trust is developed should be tested. As younger people may be more comfortable with electronic personal relationships, there may be opportunities to achieve connections. Another option is to use events with ‘hooks’ like the current interest in bio-fuels to get younger people involved. A key goal must be to get them off the farm to become more aware of wider issues and opportunities. As the commodity organization manager puts it, he tries to prevent the “stay home – stay stupid” syndrome by getting his younger organization officers the chance to experience learning trips as soon as they are elected.
- Farm families are not homogeneous must be a key principle for program developers. One size fits all approaches are not effective. This leads to the advice to program developers to be clear on the market segments and priorities they are targeting.
- Since the human tendency is to remain where we are comfortable, programs need to overcompensate to push people beyond their comfort zones into position to accommodate challenges they are faced with. If programmers only push weakly, people will go back to where they were comfortable and not gain the benefit of the changes.

Conclusions

Change will continue. Its pace will increase. For some, it will feel like the speed is being turned up on the treadmill they are running on. The new circumstances facing agriculture will provide great opportunities for those that adapt and pain for those that do not adjust.

Dealing with and thriving in/with new conditions, products, regulations, customers, partners, technology, markets, and suppliers creates new opportunities and requires new skills and information sources. However, for those managers able to take the CEO viewpoint, and develop their business to meet customer and market expectations, significant success is available.

Note:

In conjunction with the Canadian Farm Business management Council, the author is investigating the feasibility of converting the audio files of discussions with interviewees to a format for Podcasting from the CFBMC website. If it proves feasible, some of the audio files of discussions in the research project should be able to be found on www.farmcenter.com by the fall of 2007.