

Where business meets opportunity | Globalization









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Farm Credit Canada is proud to present Knowledge Insider, a semi-annual publication offering thought-provoking information to producers and other agriculture entrepreneurs. Trends described in this document are supported with facts and figures and examined in the context of what's on the horizon for Canadian agriculture.

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Photo courtesy of Greg Huszar



Welcome to the future

This Knowledge Insider builds on the Winter 2008 edition that explored international trade and asked you to imagine if your market was global. Change came quicker than anticipated and many growth predictions have already been surpassed. More change is coming. Are you ready? By monitoring global trends, you can make more strategic decisions today to prepare for a redefined global landscape.

In this edition, industry experts and business owners share insights about how to prepare for success in a world of change. You'll note that some analysts have revised earlier predictions about how quickly world populations would grow and emerging economies such as Brazil and China would advance. Welcome to the future. It will arrive faster than anticipated. It's time to get ready.

Envisioning a world of change

Recent trends such as increased biofuel production and spikes in input prices have business owners tweeting, texting and blogging to find solutions and manage opportunities and risks. Incidents related to food supply and safety have triggered volatility in commodity prices and led to port and border closures. Bilateral and regional trade agreements are on the rise. Countries are acting like companies and companies are acting like countries. For example, arable land in Africa is being purchased by both countries and companies, and multinational corporations are setting sustainability policies. Innovative products are being commercialized due to advances in genetics and nanotechnology. Investment in agriculture is increasing, as witnessed by growing interest in farm-related securities.1

There are hints about what's coming next.

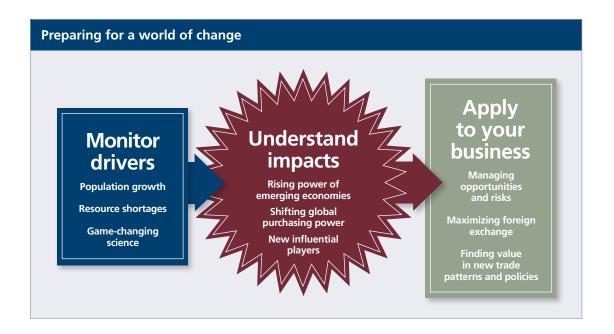
Investment in infrastructure in developing countries may increase their ability to influence world markets. Supply chains may look more like webs or hubs in the future as more complex

In this edition:

- While many trends highlighted in the Winter 2008 Knowledge Insider on globalization continue to shape your operating environment, some noteworthy changes have occurred. Learn how your business can prepare for success in a world of change.
- Find out how Canada's top 10 agriculture exports changed between 2006 and 2009.
 Consider possible reasons for its bulk exports increasing instead of its value-added exports, which analysts projected would increase in the Winter 2008 Knowledge Insider.
- Learn how analysts are revising their forecasts to account for unanticipated, rapid change.
 See how Goldman Sachs has modified its projection of how the world will look in 2050 based on gross domestic product (GDP) growth.
- Understand how Canadian exports to the
 United States have declined in the short term
 and exports to the BRIC countries (Brazil,
 Russia, India and China) have increased.
 Although the United States will likely remain
 Canada's most important trade partner,
 explore what a redefined relationship between
 these countries could mean for your business.
- Get inspired by Canadian agribusiness owners who are making changes to their domestic and international businesses to better prepare for a redefined global marketplace.
- Look at three key macro drivers population growth, resource shortages and gamechanging science – that are redefining the global landscape. Anticipate how these macro drivers may affect the world economy through the rising influence of emerging economies, shifting purchasing power and new influential players.

relationships are formed. Large corporations from emerging economies may disrupt the dominance of Western multinationals. A new currency may emerge on world markets.

First Wave	Retreat	Second Wave	Third Wave	What's next?
		Major drivers		
Telegraph neap transportation	World Wars Great Depression	Post-war boom Digitization of data	Fall of communist regimes Communications revolution Transportation advances	Scientific advanc Resource shortag Population grow
	What did the w	vorld look like?		What could the wor look like?
	-			
Refrigerated rail cars introduced	More protectionist policies	Increased food production	800 million Internet users	Shifting balance of power?
Wrights demonstrated the airplane	Frozen foods became popular	Decreased food prices First single-chip	Flavr Savr tomato introduced	
Refrigeration	Increased use	microprocessor	WTO established	
introduced for food	of commercial fertilizers	Expansion of plastics and fibre products	NAFTA established	Rise of robotics?
3	Rubber-tired tractors widely used	OPEC formed		Cheap food for all?
Louis Pasteur developed pasteurization	Sliced bread	Berlin Wall erected	Increased automation	New world
Chemical fertilizers and pesticides used	invented Scientists split	First container ship sailed		currency? Overcrowding?
Fewer political	the atom	EU formed	China joins WTO	Rise of
trade barriers	Microwave oven invented		More high-speed rail development	Africa? ————————————————————————————————————
		Developing world entered		austerity?
		global economy ————	11 European	Technology goes "nano"?
Land owners held power		Offshore oil and gas production started	countries adopted the euro	
More mobility of labour		Growth of international aid efforts	Rice was first crop to have genome decoded	First solar-powered
	No. of Concession, Name of Street, or other Persons, Name of Street, or ot		Kyoto protocol	flight?



Today's marketplace is shaped by world events. On page 4, Figure 1 shows how trade, communication and supply chains became more integrated as globalization moved through three waves. Each wave resulted from drivers such as disruptive technology and political upheaval. What will propel the marketplace of the future? In an era of uncertainty, there is no shortage of questions. Expanding your knowledge can help you explore possible answers.

From globalization to globality?

Will the economy become more open and accessible, or more closed? An open and accessible economy could be what author Harold L. Sirkin defines as "globality" — the end state of globalization, in which trade barriers have fallen and an open, free-market, global economy prevails. Globality entails everyone competing everywhere for everything. Some signs suggest movement in this direction. Citizens in some parts of the world are risking their lives to break free from dictatorships. New, powerful players

from the developing world are entering the global marketplace. Consumer trends worldwide demonstrate that demands for high-quality, affordable goods and services are becoming mainstream.

On the other hand, as political and economic power shifts between countries, will volatility and pressures from limited resources lead to increased conflict and protectionism? Power is shifting away from traditional centres of influence in the developed world. New rules and standards are being set by multinationals more than governments. A new, global dynamic could have new players, new rules, new challenges and new opportunities.

Monitoring macro drivers such as population growth, resource shortages and game-changing science can help you anticipate future impacts to your business. Using knowledge today can help you make more successful decisions tomorrow in a world of change. Welcome to your future.



A redefined landscape

Monitor drivers

Population growth

The world population is predicted to increase from roughly seven billion people in 2011 to 9.1 billion people by 2050.3 Along with this population increase will come an increase of smaller, more affluent middle-class families in emerging economies, as is already being shown through falling birth rates and increased life expectancies. This demographic will want more protein, energy and consumer goods. 4 An estimated 70 per cent increase in world food production will be needed to meet their demands.5

These new middle-class consumers represent more than just a massive market for westernized goods and services. Their growing influence will shape the future world economy from consumer trends to policies and practices such as traceability, product labelling and food safety regulations.

Globality expert Harold L. Sirkin illustrates the potential influence of the roughly one billion people, which is one-seventh of the world's current population, who have already moved out of poverty. "If these low-income people were a nation, that country would have the world's third-largest population and tenth-biggest gross domestic product."6

As millions of consumers in the developing world enter the middle class, supply chains and natural resources will be challenged to meet their demands. The Institute of Grocery Distribution calculated that it would require an additional one-fifth of the United Kingdom's current annual barley production to produce one extra beer per week for each man in China.7

Did you know?

Swedish statistician Hans Rosling has developed a unique tool that visually depicts the impacts of population growth. Watch the video at www.ted.com for more information.

Resource shortages

Some areas of the world already face shortages of critical resources such as water, oil and food. Massive productivity and efficiency gains must be realized to meet growing demand.

Shortages of arable land are a growing concern. In the future, marginal lands will be brought into production using different agronomic techniques, including genetically modified crops that adapt to less arable land and technologies that improve productivity. Recent investments in arable land in Africa show how businesses and countries are preparing to feed future populations. These investors face challenges, including access to water and relationships with local governments and communities.



Making it work -**Grant Ranch**

Turning marginal land into a valuable commodity has long been the way of ranchers such as Sherri Grant and her family, who run Grant Ranch in Val Marie, Sask. Their risk management strategy offers learning for other industries facing changing weather patterns and resource shortages. The Grant family's focus on productivity and efficiency successfully converts marginal farmland into a viable, sustainable family business that employs four people year-round and two extra employees during the growing season. Facing unpredictable weather, from droughts one year to floods the next and an average annual precipitation of six to seven inches per growing season, the Grants developed a risk management strategy. They spread market and climate risk across diverse enterprises and geographic locations, pasturing almost 700 beef cows and 100 first-calf heifers

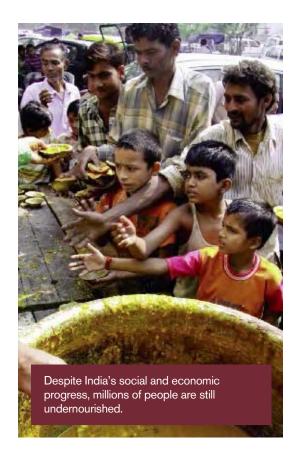
on marginal lands, while also growing crops for human consumption on more productive land at a separate location. They use direct seeding to reduce the soil's exposure to erosion and take advantage of wind and solar energy to bring power and water to remote locations. According to owner Sherri Grant, grazing cattle on marginal lands can efficiently and sustainably convert marginal land with low productivity into a valuable protein source. "Worldwide, animals grazing on non-arable land nearly double the land area that can be used to produce food for people. Approximately 30 per cent of Canada's farmland is not considered to be economically or environmentally suitable for cultivation, but does support ruminant livestock grazing," says Grant. "Cattle are an important element in a balanced and sustainable agriculture system. Raising cattle to convert the grass into high-quality beef makes sense."



Source: Food and Agriculture Organization accessed, June 2011

Resource shortages can cause more disruptions when unexpected events occur. In the future, shortages, both real and perceived, may spur further spikes in oil and commodity prices. Recent trends in food prices suggest continued instability and volatility. Figure 2 shows how the Food and Agriculture Organization of the United Nations (FAO) Food Price Index – which measures the monthly change in the international price of a basket of food commodities - was relatively stable until the early 2000s. It then illustrates increased instability and volatility, prompted by a weakened economy, political instability, weather events such as droughts and flooding and natural disasters such as the 2011 earthquake in Japan.

With global food reserves at an all-time low, unforeseen events such as war and natural disasters may prompt protectionism or increase political tensions. What strategies does your business have in place to mitigate the risks of resource shortages and the unforeseen events of tomorrow's economy?



Crop science is improving global food production by increasing yields and improving disease and drought resistance.



Game-changing science

Advances in science offer many new possibilities. Scientists can insert genes into plants and animals to produce antibodies and ingredients for food and pharmaceutical applications. Advances in technology such as robotics and wireless sensors are changing how businesses operate, sell goods and connect with others. Nutrigenomics is redefining the relationship between food and nutrition, as customized nutrition regimes move from science fiction to reality. Transgenic technologies are enhancing growth rates and disease resistance in aquaculture operations.

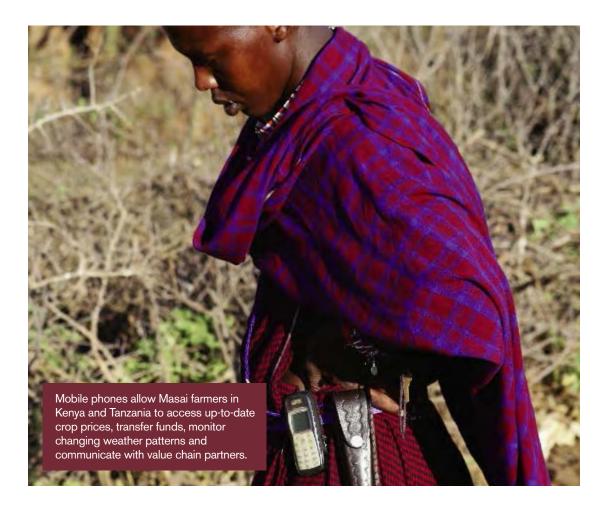
The timeline on page 4 shows that the telegraph was a major driver of the first wave of globalization. What innovative technology could propel the world into a new era of globalization? Consider three-dimensional printing, also known as additive manufacturing. It uses computer blueprints to layer materials such as plastics, resins and metals to make three-dimensional everyday objects. Users can manufacture anything from replacement parts for equipment to specialty tools, household items

Making it work -**Semences Prograin Inc.**

Semences Prograin Inc. in St-Césaire, Que., started as a seed business producing soybean varieties suited specifically to Quebec's climate. It has grown into a global export business focused on research and development, specializing in soybean seed and food-grade soybeans. According to Marc Ham, Director of International Marketing, "Science gives Prograin its competitive edge." It differentiates its soybeans from competitors by continually improving its varieties and food characteristics. Prograin sells an identity-preserved product, generating enhanced profitability by treating it as a food ingredient, not a commodity. This focus on quality has created opportunities with food retailers that require traceability and sustainability and with the Japanese marketplace that has strict criteria on food production.

www.semencesprograin.com

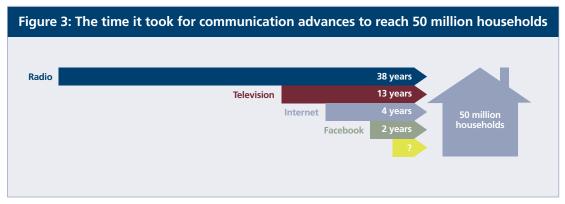




and even food products. In 2011, the French Culinary Institute, Inc. and Cornell University in New York collaborated to "print" edible creations with unique textures and flavours using pureed food in place of ink.9

A February 2011 Economist.com article calls three-dimensional printing a technological change that will "reset the economics of manufacturing" and that "is likely to disrupt every field it touches." $^{\circ}$ With the ability to create prototypes and manufacture parts on demand and on-site, how will this technology affect the mass manufacturing business model that currently prevails? What will it mean for agriculture?

Perhaps a communications innovation, rather than a manufacturing innovation, will drive the world forward. Farmers in some parts of Africa who still use traditional agricultural methods and have high illiteracy rates now use mobile phones to verbally check market prices. The lack of communications infrastructure in sub-Saharan Africa might have allowed wireless technologies to be adopted so quickly. Africans overall are buying mobile phones at a world-record rate, with uptake soaring by $550~\rm per\,cent$ in five years. $^{\rm \tiny 11}$ In South America, inexpensive labour, arable land and established distribution networks may open doors for massive-scale agriculture and energy operations. Where will new technologies take root fastest in the future?



Sources: J. Jonathan Gabay, Successful Cybermarketing in a Week, 2000; www.insidefacebook.com

Did you know?

A number of regional innovation clusters and agri-food industry groups such as Pulse Canada and the Canola Council of Canada are working together to develop new markets for Canadian products, bringing industry representatives, research and primary producers together.

Not all game-changing science is new. Some advances build on existing technologies. Take radio frequency identification (RFID) technology, for example. RFID is already used by the beef industry to track cattle and by retailers to track and price inventory. A new application of RFID uses plant genetics and crop input data along with remote sensing on packages to detect stresses on fresh produce. Using RFID, data from bruised peaches could be transmitted back through the supply chain to improve efficiencies and reduce waste. Check out Syngenta's 2007 Sensors Landscape report for other agriculture-related sensing technologies. ¹² What future scientific advances could enable or disrupt your productivity?

How quickly will today's technologies be out of date? What will replace them? Figure 3 shows that the speed of adoption of new communications technology has increased exponentially. Already, consumers can scan product labels into their handheld devices for additional product

information. HarvestMark, a division of YottaMark, Inc., recently launched a free iPhone traceability application that provides a unique code for customers to track the origin of its produce. 13 Tweeting and texting are already affecting economics, as they allow businesses to monitor market changes around the world in an instant. How will the rapid speed of technology adoption disrupt current technologies and shape the global landscape in the future?

Rapid and widespread consumer adoption of online banking in Canada suggests that Canadians are ready for more technology changes. Dr. Paul Barran from National Research Council Canada foresees a mix of opportunities and challenges ahead: "Canada is a rich source of ideas and technology. Our challenge is that we're not a sufficiently large enough market to drive commercialization of our own technologies for internal markets so we often have to think globally. To build an international presence for Canada, we need to concentrate on regional clusters, like Vancouver's strong biopharmaceutical cluster, to attract talented people and weather the ups and downs of becoming a more stable global player." Successful Canadian agribusinesses are already involved with research clusters focused on technologies such as plant breeding, nanotechnology and food biotechnology. How can your business get more involved with game-changing science to remain competitive in an era of rapid scientific advances?



A new dynamic



Insights about today can help you envision the world of tomorrow. Already, political and economic influence is shifting between countries. This is changing trade patterns, creating new supply and demand relationships and increasing the purchasing power of new middle-class consumers from emerging economies.

In a redefined world economy, new and powerful players will exert a greater influence on policies and more efficient and productive business models will emerge. How will massive population growth, resource shortages and game-changing science affect the balance of power?

Rising influence of emerging economies

Emerging economies are developing rapidly and challenging the global status quo. Their growing influence was seen recently as they wielded their collective bargaining power through the Doha Round of World Trade Organization negotiations, which aimed to develop a trade agreement that addressed the interests of both developed and developing countries. According to the BBC, "It was the developing countries' ability to maintain

a common bargaining position despite pressure from the rich, and despite differing interests on some issues, that proved decisive." ¹⁴

The World Bank predicts that more than half of all growth by 2025 will be undertaken by six emerging economies – Brazil, China, India, Indonesia, South Korea and Russia. In its Global Development Horizons 2011 report, it states that from 2011 to 2025 emerging economies will grow, on average, at a rate of 4.7 per cent with their collective share of global GDP rising from 36 per cent to 4.5 per cent.¹⁵

Did you know?

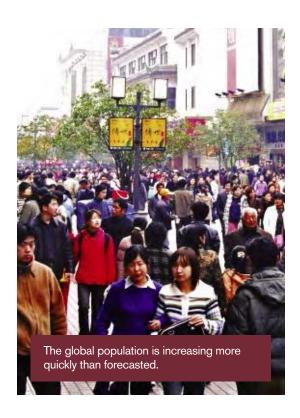
In November 2010, China and Russia announced a deal to abandon long-standing rules that required cross-border transactions to be conducted in a foreign currency, usually the U.S. dollar.¹⁶ The Sanya Declaration was put forward at the April 2011 BRICS summit, calling for a new international system of currency.¹⁷

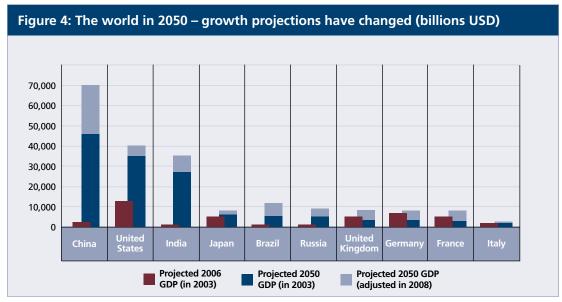
Increased investment in infrastructure is one sign of the rise of emerging economies. Harold L. Sirkin estimates a \$2.25 trillion annual investment into infrastructure over the next three years¹⁸. Analysts at Bloomberg — a provider of international business and financial news — report that, for the first time ever, investment in emerging markets is greater than in developed economies. New investment, mainly to support infrastructure development such as transportation corridors, distribution networks and commercial and residential real estate, will boost global expansion in 2011 and 2012 to around four per cent¹⁹.

The BRIC countries, Brazil, Russia, India and China, have come to symbolize the shift in global economic influence away from the G_7 nations — Canada, France, Germany, Italy, Japan, the United Kingdom and the United States. ²⁰ At the April 2011 BRICS summit, South Africa became the fifth BRICS country.

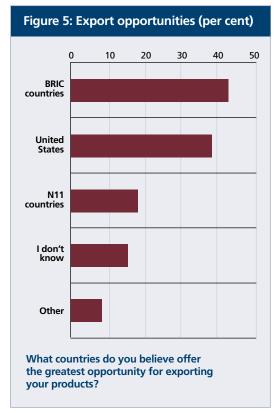
The Boston Consulting Group refers to large corporations in countries such as Argentina, Chile, Egypt, Hungary, Indonesia, Malaysia, Mexico, Poland, Thailand and Turkey, as the "global challengers" that other businesses should watch. ²¹ In 2005, Goldman Sachs identified a group of countries that could potentially rival the G7 in new growth. Known as the Next Eleven (N11), they include Bangladesh, Egypt, Indonesia, Iran, South Korea, Mexico, Nigeria, Pakistan, Philippines, Turkey and Vietnam.

In an uncertain economy in which change is happening at an unprecedented pace, expert forecasts and predictions sometimes change. Goldman Sachs' 2003 prediction of how the





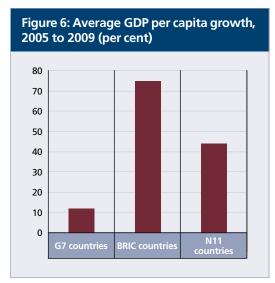
Adapted with permission from Goldman Sachs Global ECS Research, 2009



Source: Effects of Globalization on Canadian Producers survey, FCC Vision Panel results, 2010

world would look in 2050 based on GDP was modified in 2008 with notable increases in China, India and Brazil's expected growth (see Figure 4 on page 16). Goldman Sachs now suggests that the BRIC countries could become as big as the G7 by 2032, about seven years earlier than it originally forecasted.

Although the global financial crisis may have temporarily slowed growth and influence in some emerging economies, results from a 2010 survey of the FCC Vision Panel — a 9,000-member research advisory group — show that Canadian producers think the greatest opportunities for exporting their products are in the BRIC countries, followed by the United States and N11 countries (see Figure 5). Figure 6 shows that rising GDP in emerging economies has far outpaced those in G7 countries. How will the rising political and economic influence



Adapted from The World Bank, 2010

Did you know?

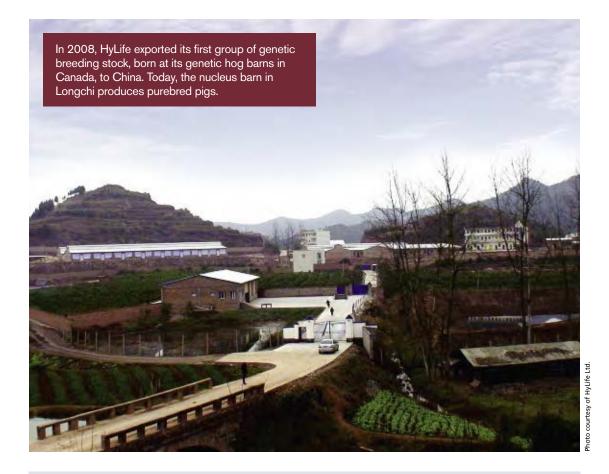
The International Monetary Fund's online Data Mapper tool uses past data to forecast GDP growth in countries. This tool can help businesses examine projected income growth to assess future possibilities for export markets with growing purchasing power.

of emerging economies affect the economy? Will your business benefit from rising exports to new middle-class consumers overseas or face increased competition from new companies in emerging economies, or both?

Shifting purchasing power

Rising income levels in the developing world are likely to disrupt international purchasing patterns in the future. Overall income growth for these consumers will create an unprecedented surge in demand, not just for commodities and energy, but for value-added products such as high-quality protein and luxury goods. This collective purchasing power will drive consumer trends around the world and influence food policies and standards.

In 2011, Peter Hall, Vice-President and Chief Economist of Export Development Canada –



Making it work - HyLife Ltd.

HyLife Ltd. in La Broquerie, Man., started as a joint-venture hog operation in 1994, shipping weaned and feeder pigs to the United States. Globalization has provided expanded markets that have helped HyLife grow into a vertically integrated hog operation exporting pork products and genetics to Russia, Mexico, France, China and Japan. Chief Operating Officer Grant Lazaruk says, "Globalization has opened new markets and growth opportunities for countries that either don't produce meat protein or don't produce enough to fill domestic demand." HyLife originally looked at Russia and China to grow exports. It targeted China with its large population shift from rural to urban centres,

forecasted income growth and increasing meat consumption. As the largest pig-producing country in the world, China also provided a market for HyLife's genetics, an example of Canadian expertise being exported to help build self-reliance in markets overseas. HyLife connected with an individual in China who understood the culture and industry before implementing a market strategy. Lazaruk's advice for agribusiness owners who are considering setting up foreign operations: "Follow the demand, know your consumer, provide the products they want, have a good distribution system and the required market access and ensure that your cost structure allows you to be profitable."

www.hylife.com

Canada's export credit agency - highlighted opportunities for Canadian agribusinesses. "Over the next 10 years, the most important growth opportunities for agriculture are in fast-growing emerging markets where millions rising into the middle class are changing overall food consumption patterns. This new, wealthier class is consuming more meat – food that requires food to produce it. Consequently, the resource intensity of food consumption is on the rise, putting pressure on global food stocks, the supply of arable land and, ultimately, food prices." Hall believes that Canada's agri-food sector has been a driving force in seeking out opportunities and linking into supply chains in Asia and Latin America. "We're very optimistic about the future prospects of companies in Canada's agri-food industry."

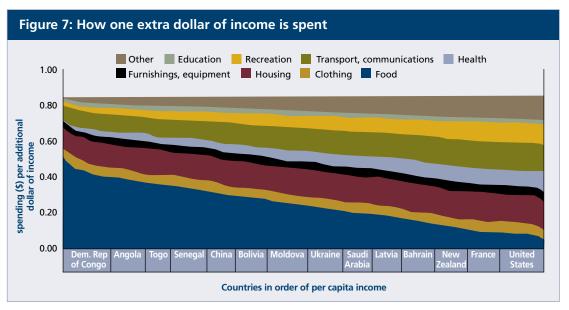
How will new middle-class consumers spend their additional earnings in the future? A 2011 USDA study indicates that you can expect significant increases in food purchases in lower-income countries (see Figure 7). It looked at food purchases in more detail, comparing consumption patterns in food categories between low-, middle- and high-income countries (see Figure 8 on page 20).

What will this unprecedented increase in demand for food products worldwide mean for Canadian exporters and importers?

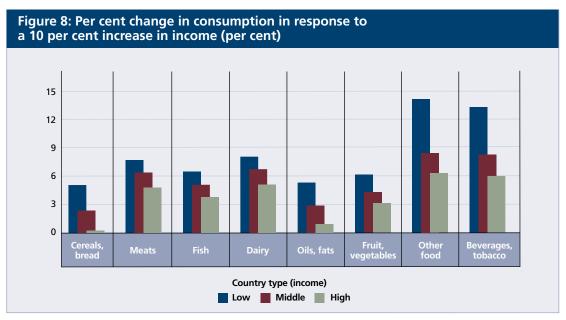
While the growing purchasing power of new middle-class consumers may represent new markets for Canadian goods, it may also spur unexpected events. Growing populations with higher incomes are already pushing their home countries' capacities, challenging supply-chain infrastructure and resource availability and stretching productivity to its limits. Issues such as political conflict, changing immigration patterns, social unrest and environmental impact may also define the future. How will national food policies need to change to feed growing populations? How can your business respond to potential opportunities and risks that may arise as a result of changing purchasing patterns?

New influential players

As a new balance of power takes shape, you can expect to see different countries and companies rise in influence worldwide. As these influential players position themselves in the coming years, they will define a new competitive landscape.



Source: Economic Research Service, U.S. Department of Agriculture, 2011

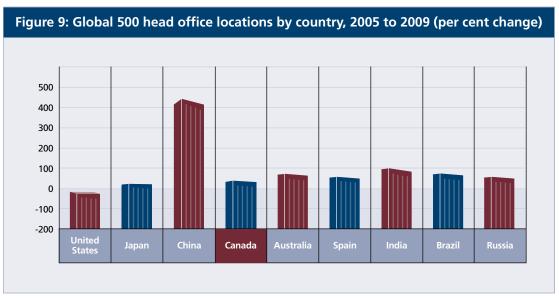


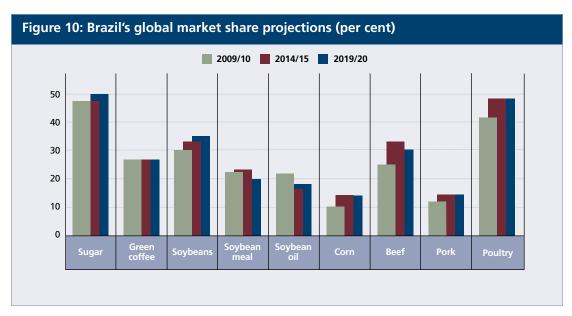
Source: Economic Research Service, U.S. Department of Agriculture, 2011

One of the hallmarks of globalization was the rising influence of multinationals. Today, multinationals continue to lead the way by developing new products, influencing policies and setting new standards throughout supply chains.

Companies from emerging economies already have growing influence in the world marketplace,

competing actively with firms from the developed world. According to the World Bank, the experiences of emerging market companies in navigating challenging policy environments in other developing countries give them an advantage over firms from developed countries. ²²





Adapted from Economist Intelligence Unit, 2010

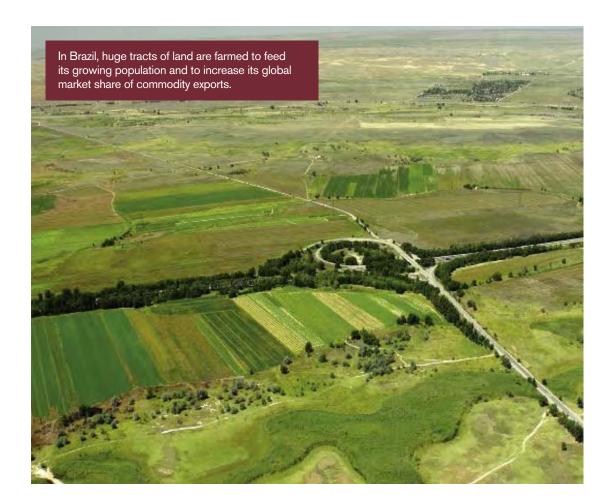
Making it work - Flora Manufacturing & Distributing Ltd.

In 1986, Flora Manufacturing & Distributing Ltd. in Burnaby, B.C., produced the first cold-pressed, unrefined flaxseed oils for medicinal use and food preparation. It expanded into the U.S. marketplace in 1988 and is now one of North America's largest natural health products companies. CEO Thomas Greither says: "The U.S. is our biggest export market. As a country with a fairly open regulatory environment, we've found lots of room for growth." Flora's production efficiency and focus on quality is its competitive edge in domestic and global markets. "Our focus on quality means we can compete against similar products from China," Greither explains. "There's organic flax seed coming from China now, but we feel that Flora's quality-control measures to minimize spoilage provide us with a competitive advantage." Flora exports products throughout the world. Greither says he has always thought globally. Originally from Europe, he's used to selling products into more than one country. As Flora looks to the future, it sees potential in India, but has yet to find the right partner in this country. Greither suggests finding a good partner within your target country and giving the partner a sole distributorship or hiring local people within the country to grow the business.

www.florahealth.com

Global corporate influence is already shifting, as suggested by changes in head office locations. Between 2005 and 2009, the number of Global 500 companies headquartered in the BRIC countries increased, ranging from a 50 per cent increase in Russia to over a 400 per cent increase in China (see Figure 9 on page 20). While the United States still had the most head offices in 2009 with 181, this was a 17 per cent decrease since 2005.

Monitoring the competitive positioning of new players in the changing economy can help you prepare for tomorrow's competitive marketplace. Brazil, for example, is investing heavily in agriculture with a focus on productivity and efficiency. It's already considered a leading competitor on the global stage and the top exporter of several commodities, including beef, soybeans and poultry (see Figure 10). China is currently its



largest market for agribusiness products. Brazil is aggressively positioning itself as the leader of the global agriculture and food sectors.

According to a 2010 report from Economist.com, consolidation in Brazil's farming region by large, corporate farm groups is helping manage tight margins and address high operational costs. The report shows that the 20 largest Mato Grosso producers increased their crop area by 130 per cent from 500,000 hectares five years ago to 1.2 million hectares today. Twenty per cent of Mato Grosso's farmed land is managed by mega farms, compared with nine per cent five years ago. ²³

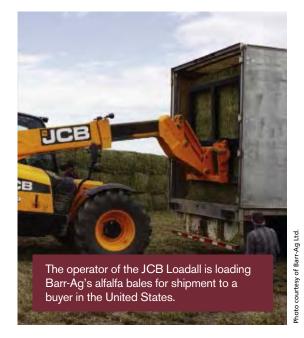
Brazil's competitive advantages include a dual-growing season climate, large plots of inexpensive, arable land and an abundant water supply. The country also has a strong focus on research—the Brazilian Agricultural Research Corporation, Embrapa, increased research and development spending in 2009 by 28 per cent. In 2010, Brazil was third highest in the world, after India and China, for investments in public agricultural research and development.²⁴

In its journey to become a world superpower, Brazil is also working to overcome challenges on the supply side. These include undeveloped transportation networks, insufficient storage capacity, high taxes, unclear labour laws, inability to attract foreign investment and environmental impact concerns. How will Brazil's efforts to

overcome these and other challenges affect its ability to continue to provide agriculture commodities at competitive prices? How will global demands be met in an affordable way by a country whose development keeps surging forward before the required infrastructure has been developed?

As Brazil and other countries compete to become world leaders of international trade, what opportunities and risks can you anticipate to help your business be better prepared for the changes that will happen in the economy? In September 2010, Rabobank Group suggested that in the long term, Australia and New Zealand will gain influence in the agriculture industry due to their focus on Asian markets. ²⁵ What other countries and companies are positioning themselves for greater influence in the future?

In a redefined world, how will countries and companies carve out a competitive edge? It may become more efficient and profitable to organize global production based on geographic region to maximize water resources, arable land and available labour. Perhaps some countries will become global beef producers while others will focus on wheat or canola. Or, will local or regional infrastructures make sense to offset the impact of shipping goods around the world? Watching the rise of new competitors can help you envision how the future marketplace will be shaped.



Making it work – Barr-Ag Ltd.

Barr-Ag Ltd. in Olds, Alta., is a hay and forage processing business that compresses hay products for export to dairy operations and horse owners in Japan, South Korea, Taiwan, the United States and the United Kingdom. Barr-Ag President Barry Schmitt recognizes the need to stay competitive in a global marketplace: "The keys to success in export markets are timing, relationships and tenacity." When Schmitt started compressing hay in the early 1990s with a previous company he co-owned, it took seven employees working an eight-hour shift to fill a 40-foot container. Today, Barr-Ag has a processing machine that allows four employees to fill a container every 45 minutes. This efficiency gives Barr-Ag a competitive edge. Schmitt's advice is to make sure you're really good at your business before you export. According to Schmitt, problems in domestic markets are magnified 10 times when you go to an export market. "We never leave our core business. We're good at it. If you want to compete, you need to be at the top of your game and well-financed."

www.barr-ag.com



Navigating a world of change

Apply to your business

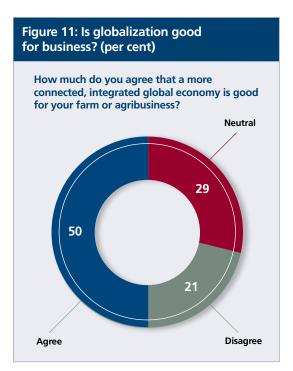
Today's global marketplace is defined by uncertainty, volatility and change. Monitoring today's trends can help you prepare to succeed in the future. While change brings risk, opportunities such as rising commodity prices and increasing investment in agriculture suggest a bright future for agriculture.

In 2010, the FCC Vision Panel was surveyed about whether a more connected, integrated global economy is good for their farms and agribusinesses. Half of respondents agreed (see Figure 11).

Managing opportunities and risks

Doing business during a time of transition brings opportunities and risks, since markets may not respond as they used to. For example, past global recessions were often followed by lower commodity prices. Why was this not the case following the recent global financial crisis? Could widespread perceptions of strong markets in emerging economies and the continued demand for food contribute to strong commodity prices? Will this trend continue in the future?

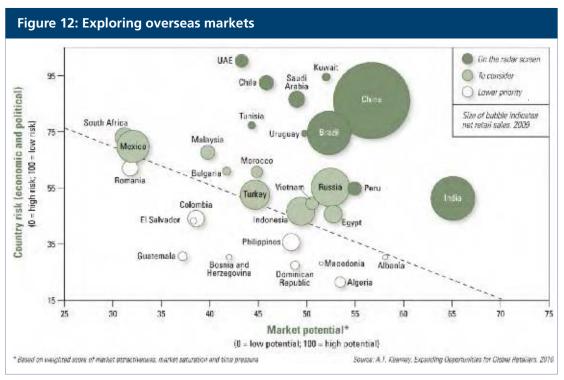
Monitoring risk is even more important in a world marked by volatility. Exporting to or importing from countries with volatile economic and political landscapes can be risky. Figure 12 on page 26 is helpful for retailers seeking new markets as it shows an analysis of the economic and political risk



Source: Effects of Globalization on Canadian Producers survey, FCC Vision Panel results, 2010

of doing business with countries against their market potential.

There are various tools and strategies to assess and mitigate risk. Export Development Canada offers financing, insurance and risk management solutions to help Canadian exporters expand their international businesses. Cross-cultural education, investment and trade missions are organized through Foreign Affairs and International Trade Canada and various other provincial agencies.



Permission to use 2010 Global Retail Development Index country attractiveness visual was provided by A.T. Kearney www.atkearny.com/index.php/Publications/global-retail-development-index.html

Did you know?

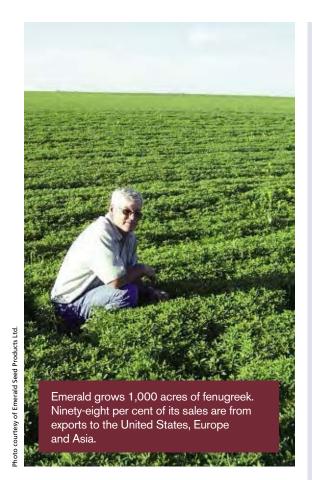
The Virtual Trade Commissioner (VTC) is an Internet gateway that can help match your international business interests and opportunities with 150 countries. You can sign up with VTC through the Foreign Affairs and International Trade Canada website at www.international.gc.ca or by visiting www.tradecommissioner.gc.ca. This network is supported by over 1,000 trade commissioners and a regional network across Canada.

Working with Canadian experts and industry associations can provide you with a greater understanding of foreign opportunities and risks. For example, Gavin Conacher, Agriculture and Agri-Food Canada's Deputy Director, Markets and Trade in Saskatchewan, explains that with Canada and India currently negotiating a comprehensive

economic partnership agreement, Government of Canada employees and trade commissioners are working with Saskatchewan's Regional Trade Network to increase trade and investment with India. Conacher says, "With food security being top of mind in India, Canadian businesses can build opportunities to add value around pulses, dairy and other sectors." Who could you work with to gain industry insight and help you successfully navigate the challenges and opportunities of a redefined global landscape?

Maximizing foreign exchange

FCC Senior Agriculture Economist Jean-Philippe Gervais suggests that understanding foreign exchange rate opportunities and risks becomes even more important as competition increases and markets remain volatile. "While issues overseas may seem distant and unrelated to farm income and profitability for agribusinesses, the example of the



European financial crisis underlies the connected nature of today's global economy. At the height of the crisis, the Canadian dollar gained value against a weakened euro." What will be the outlook for the euro once Canada ratifies a free trade agreement with the European Union?

Fluctuating foreign exchange rates provide opportunities and risks. Whether you purchase ingredients from international vendors or sell goods internationally, you may get paid in a foreign currency. A change in exchange rates will result in greater or fewer Canadian dollars than you may have anticipated. The Canadian-U.S. exchange rate has fluctuated widely over the past five years (see Figure 13 on page 28). What measures can your business take to offset exchange rate risk or capitalize on foreign exchange fluctuations?

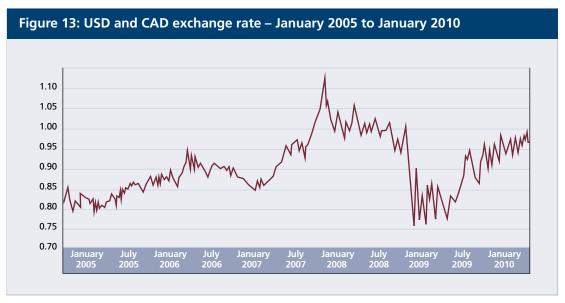
Making it work – Emerald Seed Products Ltd.

When they launched Emerald Seed Products Ltd. in Avonlea, Sask., in 1996, owners Blaine Sudom and Cal Kelly saw a world of opportunity for their fenugreek products, which include food, feed and health supplements, in a more connected global economy. Kelly says, "You can ride the wave or swim against it. It's a lot easier to ride the trend." Emerald exports 98 per cent of its health, food and animal-nutrition products, distributing 66 per cent to the United States, 25 per cent to European markets and the remainder to Asian markets, primarily Taiwan. Kelly says, "Many barriers to trade have fallen so that today, trading to customers and suppliers in faraway parts of the world is really no different than trading with the customer next door." Getting into the export business first required establishing key partnerships in those markets. According to Kelly, Emerald partnered with companies in export markets that have natural health divisions and offered a number of different products to move specialty products such as nutraceuticals into different niches in the United States. "You need good people. That should be at the top of the list." Emerald now sees the same health trends that were apparent 10 years ago in the human health and food markets in the food and companion animal markets. This will be a major part of its business moving forward.

www.emeraldseedproducts.com

Did you know?

Export Development Canada offers information about managing and reducing foreign exchange risk in a volatile economic environment. Tools that can help mitigate foreign exchange exposure include forward contracts and currency options.

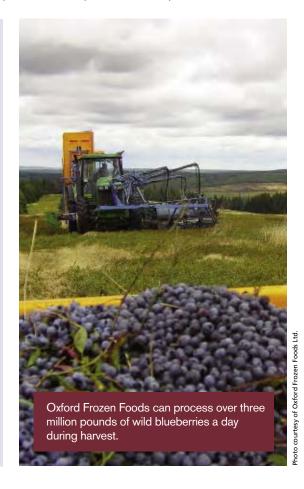


Adapted from Bank of Canada and Export Development Canada Corporate Research Department, 2011

Making it work – Oxford Frozen Foods

Nova Scotia's Oxford Frozen Foods has been shipping wild blueberries around the world since CEO John Bragg first went on a trade mission to Japan in the early 1970s. As the largest fruit farm and wild blueberry supplier in the world, Oxford remained highly competitive as it weathered the ups and downs of a changing global landscape. Geoff Baldwin, Oxford's Treasurer, says, "Foreign exchange is key when operating in a global economy. The company has witnessed the Canadian dollar move from full parity to dizzying heights and back to parity again. In the meantime, Oxford has continued to be cost competitive by focusing on efficiency in order to stay ahead of the game." Oxford maintains its competitive edge by searching for new technologies, such as GPS for nighttime harvesting, computerized sorting equipment and technologies that minimize the use of farm chemicals to meet the needs of today's sophisticated consumers. Baldwin advises, "When it comes to technology, every year there's something new to keep competitive."

www.oxfordfrozenfoods.com



Finding value in new trade patterns and policies

New middle-class consumers in emerging economies may influence trade patterns and policies indirectly through their collective purchasing power or directly through lobbying for specific trade policies. Tariff and non-tariff trade barriers to restrict imports may be prompted by a desire to protect regional economies. New trade policies or standards may be developed to capitalize on advances in science.

An increase in bilateral trade discussions suggests that a new era of trade is coming. For example, negotiations between Canada and the European Union on the Comprehensive Economic and Trade Agreement are expected to reach a final agreement in 2012. Since November 2008, Canada has negotiated several new free trade agreements with

countries such as Colombia, Panama, Jordan and Peru. ²⁶ Monitoring pending trade discussions can help you anticipate future trade opportunities for your business and prompt you to learn more about consumer demands in countries that are opening up trade with Canada.

Trade patterns always change. While some of Canada's top export product categories remain the same as when FCC discussed globalization in the Winter 2008 Knowledge Insider, others have changed in category or quantity (see Figure 14). What insights can you draw from these changes? Does the addition of lentils, peas and soybeans to the list relate to consumer trends and food markets for exports to India? Are increases in soybean exports linked to biofuel production or growing edible oil markets?



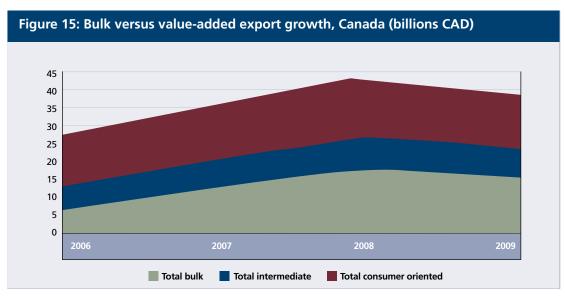


Making it work - Alliance Grain Traders Inc.

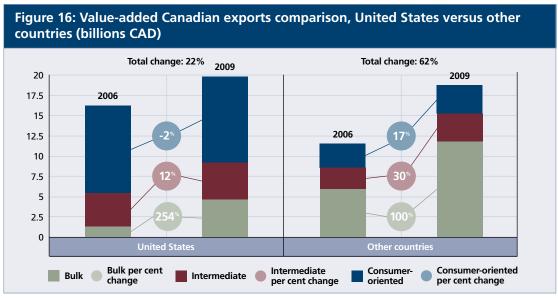
In 10 years, Alliance Grain Traders Inc. (AGT) in Regina, Sask., has grown from a start-up company to one that handles nearly 40 per cent of Canada's lentil exports, shipping to markets around the world, including Bangladesh, Sri Lanka, India and Pakistan. President, CEO and founder Murad Al-Katib says: "We pride ourselves on how we're involved in local markets but we're a global company. This is something that has been a really big part of our success." Using unique processing equipment and processes, AGT has secured markets and differentiated its product, adding value to commodity pulses and improving quality through crop research. New value-added pulse varieties – funded by

Saskatchewan Pulse Growers and the Government of Saskatchewan's Agriculture Development Fund and developed by the University of Saskatchewan – are delivering better yields, drought tolerance and disease resistance. AGT now owns 26 processing facilities throughout Canada, the United States, Australia, Turkey and China. Al-Katib describes how the company has changed its focus and grown to optimize changing trade patterns. "We aren't just exporters anymore. We're a Canadian-based global business, and we need to trade internationally, produce internationally, distribute internationally and be active in the new global economy."

www.alliancegrain.com



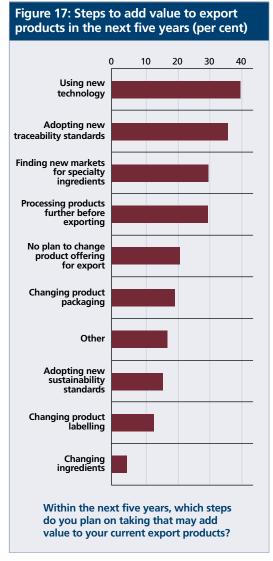
Adapted from Agriculture and Agri-Food Canada, 2009



Adapted from Agriculture and Agri-Food Canada, 2009

Agriculture and Agri-Food Canada's studies show that since 2006, there has been an increase in bulk exports, rather than value-added products, which is contrary to what was anticipated in the Winter 2008 Knowledge Insider (see Figures 15 and 16). While

Canada remains predominantly a bulk exporter today, Canadian industry groups and agribusinesses are actively looking to add value to Canadian bulk commodities for enhanced profitability.



Source: Effects of Globalization on Canadian Producers survey, FCC Vision Panel results, 2010

According to the FCC Vision Panel survey results, 79 per cent of producers who directly export plan to add value to their current export products within the next five years. Some are using new technology to increase their competitive edge in the future and others are seeking strategic alliances (see Figure 17).

Understanding how trade patterns between Canada and the United States are changing today can help you make strategic decisions in a time of uncertainty. Agriculture and Agri-Food Canada compared studies from 2006 and 2009 that

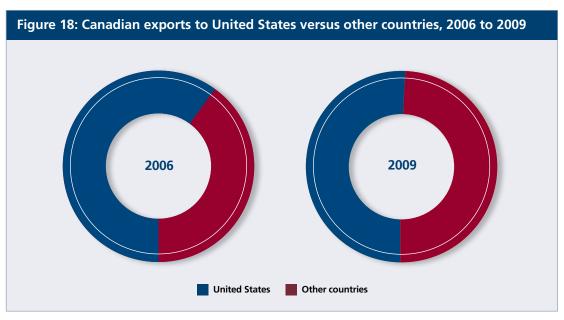
Making it work – One Earth Functional Foods Ltd.

Vancouver B.C.'s One Earth Functional Foods Ltd. targets products for consumers worldwide who are seeking specialized nutritional products that are gluten-free, high in fibre, low in salt and fat, and rate low on the glycemic index. While One Earth sources many ingredients locally, it also globally sources some ingredients and sells products to international buyers. Sherlock T. Lim, Managing Director of One Earth, has worked with customers and suppliers in South Korea, Japan, China, Indonesia, the United Kingdom and Germany and understands how a more connected global economy can affect all businesses, even those that primarily source locally. One Earth takes advantage of the buying power of the Canadian dollar while fostering international trade with its locally made and grown products. "It really boils down to what the trends are on a particular continent and the tastes of the buying demographics within each respective country. We like to think that our products are brand ambassadors for what our Canadian agricultural sector can produce."

www.oneearthfunctionals.com

Making it work - Cronin Farms

The U.S. market offered Bluevale, Ont., pork producers Mike and Amy Cronin an opportunity to diversify in something they already know - pig production. Facing tight profit margins in the Canadian hog market, the Cronins found a market for their weaners in the United States. They monitored economic trends, including costs and revenue streams, market access, government regulations, demand and currency. Building relationships with their financial institution, managers, employees, feed salespeople and processing partners has been a key success factor. "Relationships are actually more important than economics because in tough times you need to depend on them," says Mike Cronin.

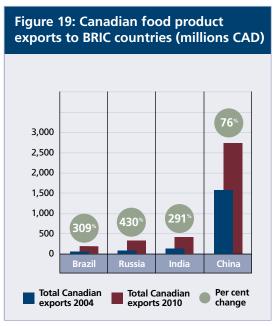


Adapted from Agriculture and Agri-Food Canada, 2010

illustrate that Canadian exports to the United States have declined (see Figure 18). Statistics Canada did a study in 2010 that shows that Canada's food product exports to BRIC countries are on the rise (see Figure 19). However, the United States will likely remain Canada's most important trade partner in the coming decades because of factors such as proximity, economic ties and trade relations. Figure 20 on page 35 shows that Canada remains the United States' largest import source for agriculture products, slightly ahead of the European Union.

Did you know?

Agriculture and Agri-Food Canada (AAFC) conducts market research in key export markets. Canadian exporters can sign up on AAFC's Brand Canada website to receive regular global market reports that highlight aspects of particular countries or markets such as consumer sophistication and perceptions of certain food products. www.marquecanadabrand.agr.gc.ca



Adapted from Statistics Canada, 2010

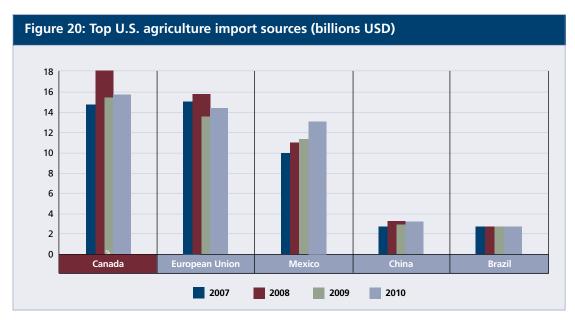


Making it work – Zinda Products Canada Inc.

In 1999, Moroccan entrepreneurs Abdelmajid Jemeleddine and Saïd Cherqui built their couscous plant, Zinda Products Canada Inc., in Candiac, Que., next to the railway and close to the U.S. border. President and CEO Chergui recognized an opportunity to produce Canadian durum wheat to process into couscous for international markets. Chergui explains: "The couscous manufacturing process demands a great deal of energy, and since Quebec has among the lowest hydroelectric costs in Canada, Candiac was the perfect place for our plant. We have a direct line to our raw material, the best wheat in the world." Zinda exports 64 per cent of its couscous products to markets in the United States, Chile, Australia, France, England and Spain. According to Chergui, as the only couscous supplier in North America, Zinda's goal is "nothing less than to become the biggest

producer of couscous in the world, and we are poised to do just that by focusing on our expertise in couscous manufacturing, a solid distribution network, innovation and a vision for the future." To meet this goal, Zinda closely monitors the international trade arena. Tariffs are currently the biggest obstacle for Zinda's export business, representing roughly 40 per cent of its expenses. Chergui is hopeful that tariffs will decrease in the next few years, in particular in Europe where they plan to expand. Couscous is a popular food item in Europe and the Middle East. "As soon as Canada and Europe have established a free trade agreement, we'll be ready to double our production capacity. We're doing the groundwork now by developing ties with European distributors and we plan to add a second couscous processing line. Production will go from 8,000 to 16,000 tonnes a year. If you want to grow, you have to plan ahead."

www.zindaproducts.com



Adapted from Economic Research Service, U.S. Department of Agriculture, 2010

Paying attention to trade policy negotiations can help you anticipate coming changes. In addition to tariffs, exporters need to monitor non-tariff barriers such as import licensing procedures, border regulations and even labelling requirements. Understanding these barriers increases the likelihood of developing successful business relationships with foreign buyers, expanding market access for Canadian products. Standards for food quality, safety, traceability, labelling and sustainability are being set by governments, large retailers and industry groups. Often, large retailers or supply-chain coalitions are setting standards before government policies are finalized, as seen with recent sustainability and traceability initiatives.

Did you know?

New Brunswick-based McCain Foods introduced good agriculture practices (GAP) in 2009. This program incorporates global best practices and steps that ensure McCain's agriculture products are handled safely and sustainably throughout the process. Farmers producing for McCain must follow prescribed practices and document their activities to help the company meet its targets to reduce its carbon footprint. McCain, along with Unilever, General Mills, Coca-Cola and several other global food multinationals, are members of the Sustainable Agriculture Initiative Platform that communicates and actively supports the development of sustainable agriculture.27

Final thoughts

Welcome to the future. The global landscape is being redefined as you read this. Over a decade ago, while speaking to the Atlantic Seedsmen Association, Agribusiness Investment Consultant RB Halaby already cautioned that "change is accelerating at an astonishing pace, leaving those unwilling to adapt in the dust." ²⁸

Monitoring global macro drivers and anticipating how they might affect the future can help your business successfully mitigate risks and seize opportunities.

FCC Senior Agriculture Economist Jean-Philippe Gervais sees opportunities for Canada to continue to position itself competitively. "Canadian entrepreneurs and leaders can stay ahead of the curve by ensuring that while we're successfully selling Canadian knowledge and genetics to assist other countries in becoming more competitive, we keep developing further our own technology and productivity."

How will your business position itself for success in a world of change?

Knowledge Insider

Tips, tools and strategies | 0

Globalization

Managing your business in a time of global change

Think about your plans for your business in the next five to 10 years. What will the changing global landscape mean for your core business? How can you use your knowledge today to effectively enter the new landscape?





Population grow	th	Rising influence	ce of emerging economies			
Risks	Opportunities	Risks	Opportunities			
Resource shortage		Shifting purch	asing power			
		Risks				
Risks	Opportunities		Opportunities			
Game-changing	science	New influential players				
Risks	Opportunities	Risks	Opportunities			

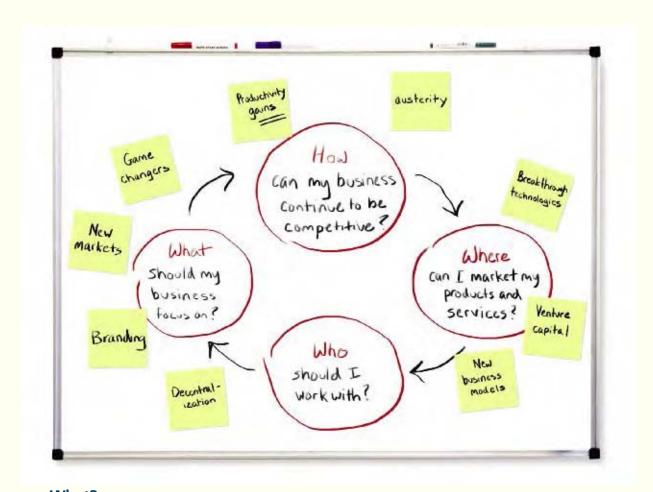
Factors to consider

- foreign exchange
- supply-chain dynamics
- new regulations and policies
- mergers and alliances
- new trade policies and trade barriers
- competitors
- Canadian advantage
- what else?

Tips from industry experts and business owners

Read through the following advice from industry experts and business owners interviewed for this publication. Consider what steps your business can take today to be ready for change.

Consider questions in four key areas:



What?

TO KEEP UP, YOU BETTER BE GOOD AT WHAT YOU DO.

What should your business focus on?

Whether entering an export market, competing with international imports in domestic markets or globally sourcing ingredients, it's critical to identify your strengths and determine what products or services you can produce efficiently, consistently and with high quality. In a competitive global marketplace, lean business models using smart business platforms are leading the way.

DECIDE TODAY WINT YOU SHOULD BE SELLING TOMORROW.

What opportunities are there for your products and services?

You know your products and services best. Do you know what consumers in domestic and international markets will want tomorrow? What are your competitors planning? What technologies might displace your current products or processes?

DETERMINE WHAT RISKS YOU NEED TO MANAGE.

What risks should you consider?

A changing, volatile world economy brings opportunities and risks. The Winter 2011 edition of Knowledge Insider discussed how to grow ideas from concept to commercialization and stated that more than 80 per cent of new products never get to market or fail within the first year. You may consider risk mitigation strategies such as vertical integration, forward pricing your production, hedging the futures market or buying insurance.

Things to think about

How?

DO WHAT YOU HAVE TO DO TO BE COST COMPETITIVE.

How can your business carve out a competitive edge?

In an increasingly connected world, competition is growing. The need to innovate and continually improve productivity is growing. You can expect leaner business models and more streamlined processes that maximize efficiencies in the next era of globalization. Innovation and productivity are already on the strategic agendas of many businesses.

POSITION FOR THE LONG TERM.

How can you be ready for an unknown future?

Setting up your business today to serve future needs is key to success. Emerging economies offer export opportunities for the future. Specialty markets at home and abroad could be lucrative. What could you learn about the culture and consumer behaviours at home or in potential export markets to position your products for success in the future? Monitoring trends for health and wellness, value-added products and traceable and sustainable supply chains offer opportunities for those who are thinking ahead.

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Where?



Where should you do business?

While much will change in a newly defined global landscape, success in domestic and international markets will still depend on demand. By monitoring impacts of globalization on food consumption patterns and following demand, agribusinesses can position for future growth.



Where should you look for new markets?

You may want to monitor world trade more closely. Trade patterns are changing and new trade barriers may result from resource shortages or political unrest. Wherever you trade, as an importer or exporter, it's important to monitor the political and economic landscape of your trade partners.

Things to think about

Who?



Who can you trust?

Relationships are essential to your future success and well-developed relationships of trust are valued by successful agribusinesses. Many new alliances are being formed within and across industries to maximize efficiencies and productivity.

FIND PARTNERS WHO KNOW THE MARKETAND THE CULTURE.

Who should I partner with in overseas markets?

Many of the exporters interviewed for this publication said that one key to their success was finding partners who understand the systems and culture of their export markets. Some relationships ranged from strategic alliances to distribution and sales representative agreements. Others involved acquiring businesses in the target market so that they had a presence and local people running the business.

Things to think about

Knowledge Insider tools

What you'll find	Web address
Monitor drivers	
Statistics Canada information and data	www.statcan.gc.ca
Statistics and data from the Organization for Economic Co-operation and Development	www.oecd.org
World Trade Organization data on trade topics, including maps, statistics, photo galleries and an interactive community forum	www.wto.org
Food and Agriculture Organization of the United Nations	www.fao.org
The Harvard Business Review offers insights on global topics for managers including blogs from contributors, articles on government policy and organizational culture and economy	www.hbr.org (English only)
Global consulting firm McKinsey Consulting's website links to its magazine and another website called What Matters that highlights topics such as biotechnology, energy and politics	www.mckinsey.com
The International Monetary Fund's Data Mapper Tool allows users to monitor changing trends and forecasts in GDP growth	www.imf.org/external/datamapper/index.php
Understand impacts	
Agriculture and Agri-Food Canada provides the Agri-Food Trade Service website to take you from your initial inquiry through to your target market and includes market information, trade counselling and export support activities	www.ats.agr.gc.ca/exp/prog-eng.htm
The Quebec-Canada Agri-Food Export Group website provides information on labelling and food regulations, export market validation, export training and shipping assistance	www.groupexport.ca/en/index.php
The Saskatchewan Trade and Export Partnership website offers services ranging from market intelligence to international finance and logistics	www.sasktrade.com/liberty-46493fe348c03.htm
Euromonitor International provides strategy research for global consumer markets	www.euromonitor.com
Datamonitor provides global business information for the consumer-packaged goods, energy and sustainability, pharmaceutical and health-care and retail industries	www.datamonitor.com

What you'll find	Web address
Apply to your business	
The Canadian Trade Commissioner Service website can help businesses looking for export expertise	www.infoexport.gc.ca
The Alberta government's website for Agriculture and Food Exports is an example of many provincial websites that help evaluate your potential markets	www1.agric.gov.ab.ca/\$department/deptdocs. nsf/all/trade11186
Export Development Canada's website includes links to the world's largest foreign companies it maintains relationships with to encourage them to purchase Canadian goods and services	www18.edc.ca/countryinfo/en/Pages/home.aspx? HP=HP-BL1-E
Export Development Canada has centralized hundreds of links of interest to exporters	www.edc.ca/english/exporting101_18839.htm? HP=HP-BL2-E
Export Development Canada offers a wide range of tools for exporters from e-learning courses to online currency converters	www.edc.ca/english/tools.htm

Notes	

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