China – Impact at the Farm Gate and Opportunities for Pulses

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China is a rapidly growing and rapidly changing economy with tremendous potential for the Canadian food and agri-business sector. This paper aims to put China's impact on the Canadian farm gate and opportunities for the Canadian pulse industry into perspective.

The Big Picture

China's population is 1.32 billion (July 2007 estimate). Population growth is 0.606%, which is less in percentage terms than many other countries, but huge in absolute numbers. China's population will grow over the next year by approximately eight million people. That is equivalent to adding the population of Alberta, Saskatchewan, Manitoba, Nova Scotia, New Brunswick, Newfoundland and PEI.

China is one of the world's fastest growing economies with a growth rate of about 10 per cent per year. Personal incomes in China are growing rapidly as well. Per capita disposable income in urban areas increased by 13.2 per cent over the first three quarters of 2007, while incomes in rural areas increased by seven per cent over the same time period. In the previous three years, urban income growth averaged 10 per cent while rural income growth averaged six per cent. The income gap between urban and rural workers in China continues to widen. In 2006, income of urban people was 3.28 times that of rural people, which is up from 3.22 in 2005 and 3.21 in 2004.

China produces (52 million tonnes forecast for 2007) and consumes over half of the world's pork. The next closest is the EU-25, which produces less than half that much. China is also the third largest beef and veal producer in the world, behind the U.S. and Brazil.

China aims to grow its middle class (currently defined as household income between $8,000 and $27,000 US per year) to more than 50 per cent of its population by 2020. In 2006, its middle class made up only four or five per cent of the population. There's no doubt that the country's huge population, increasing urbanization and increasing disposable income create opportunities for those looking to supply goods to Chinese consumers. As incomes rise and as a country's population becomes more urbanized, diet and eating patterns change; meat consumption typically rises. Urbanization makes time more scarce and consumers purchase more processed, ready to eat, higher value food products.

Importance of China to Canadian agriculture

According to Agriculture and Agri-Food Canada, Canada exported $667 million in agriculture products to China in 2006 ($832 million in the first three quarters of 2007). This places China fifth behind the U.S., Japan, EU and Mexico in terms of value of Canadian agri-food exports. The table below shows the top Canadian agri-food exports to China in 2005-2007.

Canadian agri-food exports to China – sorted by 2006 exports - millions

	2005	2006	2007 (Jan – Sept)
Canola	$ 117	$ 169	$ 306
Barley	$ 149	$ 95	$ 60
Bovine hides	$ 89	$ 79	$ 47
Peas	$ 51	$ 59	$ 49
Canola oil	$ 91	$ 49	$ 191
Wheat	$ 227	$ 28	$ 2

Opportunities for the Canadian Pulse Industry in China

Peas for noodle production

China is Canada's second largest market for dry peas, behind India. Canada has grown this market from 25,000-100,000 tonnes in the late 1990s/early 2000s to 200,000-300,000 tonnes per year in 2005, 2006 and 2007. The primary use for Canadian peas is for starch extraction, with the starch being made into vermicelli noodles for domestic consumption and for export from China. Yellow peas have been found to be a good substitute for mung beans, which are more expensive. We are optimistic about the growth potential for this market due to expected vermicelli production growth of 5 to 12 per cent per year (driven mainly by growth in disposable income in China). As long as yellow peas continue to be competitive with other starch sources such as potato and cassava, we expect growth in Canadian yellow pea usage in China to continue.

Aquaculture

Aquaculture is the world's fastest growing source of food. Global production has quadrupled to 48 million tonnes over the past 20 years. At current growth rates (8 per cent annual growth), global aquaculture production will overtake beef and veal production in 2010. Fish oil and fish meal are two important components in an aquafeed ration. The latter is high in protein (60- 72 per cent) and comprises 35 to 40 per cent of the ration in salmon feed. World fishmeal production is approximately six million tonnes and has been declining in recent years. Peru is the world's largest fishmeal producer and China is the largest importer. Fish meal is a high value product and trades at about $1,150 per tonne in southern China. With the forecasted growth in aquaculture production and the declining supplies of an important protein component of aquafeed rations, the aquafeed industry is looking for vegetable-based protein sources. Whole peas and pea protein are well positioned to meet this high value demand in this market. Pulse Canada is working to develop demand for peas and pea protein amongst aquafeed manufacturers in China. This will create opportunities for Canadian whole peas as well as pea protein produced in Canada and China as a by product of the starch extraction/vermicelli production process from Canadian peas.

Human health and environmental benefits of pulses

In North America and around the world, Pulse Canada is looking for new demand drivers for pulses. Two issues of great importance to society – human health and the environment – hold potential to be new demand drivers for pulses.

Pulses have a very positive nutritional profile. Clinical research over 40 years has shown that regular intake of beans or other pulses can contribute to a marked reduction in serum cholesterol and other blood lipids — major risk factors for cardiovascular disease. More recently, research studies have shown that regular pulse consumption may assist with weight management by increasing feelings of fullness and controlling appetite. Pulses also do not contain gluten which means they are suitable for people who are gluten intolerant or have celiac disease. Pulse Canada is coordinating human clinical trials with a focus on linking pulse consumption to the reduction in the incidence of obesity and other risk factors related to two major health issues: diabetes and heart disease.

The nitrogen-fixing ability of pulses and pulses' role in sustainable production systems creates a marketing opportunity for pulses and for products where pulses are a key ingredient (e.g. pork fed with peas). Interest in the environment from the general public has skyrocketed in the last few years. The pulse industry is examining ways in which pulses can help deliver and be recognized for the positive contribution they make to the environment and sustainable production systems. The goal is to create more market demand for pulses because of their positive human health and environmental benefits.