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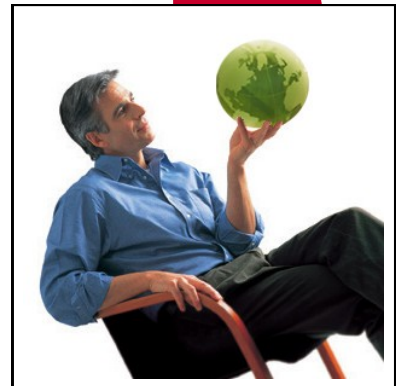
Agriculture et  
Agroalimentaire Canada

**International  
Markets  
Bureau**

**MARKET ANALYSIS REPORT | MARCH 2010**



# Alfalfa Market China





▶ **EXECUTIVE SUMMARY**

China is a market with much potential for Canadian alfalfa exporters. China is currently Canada's third largest export market for alfalfa in Asia, after Japan and Taiwan. It is home to a total livestock population of approximately 802 million and therefore, has a great demand for hay. China's alfalfa imports from the world increased from CAD\$30,000 in 2006 to CAD\$294,000 in 2008. In 2008, China imported CAD\$31,000 in alfalfa from Canada (Global Trade Atlas).

Canada remains a global leader in high-quality alfalfa production, and this reputation allows Canadian exporters to see continued success in the international marketplace. The following points present a snapshot of Canada's alfalfa exports to China, as well as to other top markets:

- ▶ The top four countries for Canadian alfalfa exports—Japan, the United States (U.S.), Taiwan and Mexico—accounted for approximately CAD\$28.8 million or 99% of all Canadian alfalfa exports in 2008.
- ▶ China accounted for less than 1% of Canada's alfalfa export market in 2008 (Global Trade Atlas).

In addition to its exporting success, Canada has the capacity to expand its production of alfalfa destined for export markets. This report highlights opportunities for Canadian exporters in the Chinese market for alfalfa, recognizing that it is currently a small market.

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China's alfalfa imports from the world increased from CAD\$30,000 in 2006 to CAD\$294,000 in 2008.

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## ▶ CHINA'S AGRICULTURE TRADE PROFILE

Although total two-way agricultural trade between Canada and China has fluctuated over the past several years, it has more than doubled from CAD\$806 million in 2006 to approximately CAD\$2 billion in 2008, or 4% of total trade. Canadian agri-food exports to China have also steadily increased over the past several years with intermediate and bulk goods consistently representing the majority of exports.

Canada's agricultural exports to China increased by 134% between 2006 and 2008, mainly due to large increases in grains and oilseeds exports. Such goods comprised the largest proportion of all Canadian agri-food exports to China, at 58%, in 2008. Canada currently accounts for 2.9% of China's total agri-food imports and is China's seventh largest import source (Global Trade Atlas).

### Canada's Top 5 Agricultural Exports to China (2008, CAD\$)

Oilseeds, Oleaginous fruits	896 million
Animal or Vegetable Fats and Oils	277 million
Fish and Seafood	257 million
Raw Furskins	74 million
Edible Vegetables	71 million

Source: Global Trade Atlas

Canada's agri-food imports from China have steadily increased over the past two years from CAD\$437 million in 2006 to CAD\$589 million in 2008. Mandarins and pears have remained Canada's top import commodities from China over the past decade, valued at CAD\$91 million and CAD\$24 million and typically account for approximately 15% and 4% of total agri-food imports from China respectively (Global Trade Atlas).

## ▶ OVERVIEW OF THE CHINESE MARKET FOR ALFALFA

According to trade statistics found on Global Trade Atlas, China purchased approximately 137,000 kg of alfalfa from Canada, valued at approximately CAD\$31,000 in 2008. Also in 2008, China purchased approximately 60,000 kg of alfalfa from the U.S., valued at approximately CAD\$263,000. In terms of quantity, Canada has 70% of the import market, with the rest coming mainly from the U.S.

### Chinese Alfalfa Imports from Canada, World\*

Commodity: 121410, Lucerne (Alfalfa) Meal And Pellets						
Partner Country	CAD\$					
	2003	2004	2005	2006	2007	2008
World	52,141	1	66,324	29,207	17,986	294,184
United States	0	0	0	10,494	4,090	263,242
Canada	52,141	0	60,509	17,780	13,896	30,688
Taiwan	0	0	0	0	0	254
China	0	0	5,815	0	0	0
Japan	0	1	0	0	0	0
Malaysia	0	0	0	933	0	0

Source: Global Trade Atlas



The following data illustrates export growth to China starting in 2007 and stronger sales in 2008. In 2008, approximately 225 tonnes of alfalfa were exported to China, an increase of 147% from the same period in the previous year, worth approximately CAD\$49,500. With continued growth, the Chinese market could become a more lucrative market for Canadian alfalfa, similar to Taiwan, which imported approximately 4,888 tonnes, valued at approximately CAD\$1.16 million in 2008.

### Canadian Alfalfa Exports to World, China

Commodity: 121410, Lucerne (Alfalfa) Meal And Pellets						
Partner Country	CAD\$					
	2003	2004	2005	2006	2007	2008
World	28,381,905	41,829,917	37,181,407	33,296,632	35,744,514	29,068,776
1. Japan	21,186,793	33,067,606	30,558,933	25,719,362	24,150,918	23,190,540
2. United States	4,339,885	1,682,504	3,553,201	4,516,735	7,322,763	4,113,775
3. Taiwan	2,282,565	3,172,415	2,753,933	2,870,811	3,656,061	1,168,244
6. China	0	3,568,948	0	0	19,320	49,494

Source: Global Trade Atlas

### ▶ CHINA DOMESTIC ALFALFA PRODUCTION CAPACITY

China's domestic alfalfa supply has been declining due to insufficient processing capacity, export demand, declining planting areas in top production provinces, rising grain prices and lack of favourable governmental policies.

According to a survey report issued by China's Ministry of Agriculture (MOA) Grasslands Division, China has 2.8 million hectares of arable grassland that can yield 21 to 25 million tonnes of dried hay annually. The country has over 190 hay processing plants with a production capacity of 4.6 million tonnes annually. Eighty per cent of the processed products are hay bales, 20% are meal and pallet. Local livestock use the bulk of domestic processed hay; 700,000 tonnes are sold to other provinces or cities such as Guangdong and Shanghai while some are exported, mainly to South Korea, Kuwait, Japan and Malaysia.

### China Alfalfa Exports

China Export Statistics*						
Commodity: 121410, Lucerne (Alfalfa) Meal And Pellets						
Partner Country	CAD\$					
	2003	2004	2005	2006	2007	2008
World	2,849,769	4,082,216	3,974,132	4,172,252	4,319,043	4,096,238
Korea South	2,426,659	3,305,322	2,805,230	3,345,505	3,859,520	3,559,496
Kuwait	-	228,626	654,906	480,703	186,720	459,975
Malaysia	342,775	513,492	425,777	85,739	58,887	37,669
Japan	343	513	426	198,429	178,469	34,417

Source: Global Trade Atlas

\*Import and Export figures are often inconsistent as a result of different statistical practices, methodologies and border requirements.



### **China's Major Alfalfa Production Areas in Descending Order**

Province/Municipal		City/Area
1	Gansu	Jiuquan, Zhangye, Yumen
2	Shandong	Dongying, Binzhou
3	Hebei	Cangzhou, Wuqiao
4	Shaanxi	Northern area, Guanzhong area
5	Beijing	Shunyi, changping
6	Inner Mongolia	Hetao, Northern area
7	Liaoning	Fuxin, Dalian, Shenyang

United States Department of Agriculture (USDA) analysis shows that the alfalfa industry in China is highly price-sensitive. Due to China's low-yielding, saline-alkali soil, production of alfalfa is limited. USDA estimates indicate that when seed, fertilizer, pesticide, irrigation and harvest/baling (machinery) are taken into account, Chinese farmers can generate approximately RMB320 to RMB520 (US\$47 to 76) profit per tonne by growing alfalfa. If corn or other crops are grown on the same piece of land, Chinese farmers could earn at least RMB800 (US\$117) per tonne. This explains why alfalfa processing plants don't always produce at full capacity.

Ocean freight has also had a significant impact, having recently lowered prices on imported alfalfa. Current freight charges are between US\$50-60 per tonne, much lower than 2008 rates of US\$100 to 120 per tonne, which had a significant impact on 2008 sales (USDA).

A look at Guangdong's two major hay suppliers, Gansu and Shandong provinces, provides a snapshot of China's declining alfalfa supply.

#### **GANSU**

Gansu is China's largest alfalfa producer in terms of planted area and production. However, the USDA reported in October 2008 that hay production in Gansu is falling.

The USDA reported in 2005 that Gansu had 1.1 million hectares of grassland, of which 526,000 were for alfalfa, producing 365,600 tonnes of hay products. According to the USDA, in 2006, grasslands shrank to 688,000 hectares, of which 40,000 were hectares of alfalfa, a drop of 23%. Production suffered accordingly.

In Jiuquan, Gansu's largest alfalfa production area, similar declines (from 20,000 hectares in 2007 to 13,000 in 2008) were reported, as local farmers did not grow alfalfa due to low profit margins.

#### **SHANDONG**

The USDA reports that Shandong has 390,000 hectares of grasslands that produce enough hay to meet domestic livestock demand in the region. A large local hay producer that used to operate in the province grew alfalfa on 13,000 hectares in the Yellow River Delta and contracted 7,300 farmers who grew 20,000 hectares of alfalfa in Henan, Hebei and Shaanxi annually.

According to the USDA, the company ceased operations in early 2008. It used to sell 150,000 tonnes of hay products valued RMB170 million (US\$25 million) to over 150 dairy farms in Guangdong, Shanghai and 11 other provinces as well as for export. A lack of government support, such as subsidies for farming, and a lack of favourable policies, including low-interest bank loan endorsements and preferential taxation, have been blamed for the business slowdown.



▶ CHINA DOMESTIC DEMAND FOR ALFALFA, DAIRY

The USDA estimates that with over 12 million dairy cattle, including 7 to 8 million lactating, China's dairy herd requires approximately 15 million tonnes of processed alfalfa products a year. Given that alfalfa can also be fed to lambs, goats, beef cattle, horses, swine and poultry, China's demand for alfalfa could exceed 20 million tonnes annually. As the MOA's survey suggests, the Chinese hay industry is currently capable of processing 4.6 million tonnes of hay annually. In addition, when land fertility is improved or alfalfa is unavailable or too expensive, Chinese hay farmers will increasingly switch from alfalfa to more profitable crops such as corn, soybean and wheat, as grain prices escalate.

Information is scarce on future demand for alfalfa in China, however dairy industry statistics indicate there will likely be an increase in future demand for alfalfa from commercial dairy operators due to a probable increase in investment in large-scale dairy operations over the next three to five years. As a result, new sales opportunities are expected to be generated for Canadian alfalfa products that were previously considered too expensive or not economically viable. Large-scale dairies are typically located in Southern China, and the Shanghai and Beijing areas, where most processed hay products are consumed.

USDA analysis shows that China is seeking to rebuild its dairy industry and dairy cow herd following the nationwide melamine crisis of 2008. This rebuilding is in response to the slaughter of a significant number of Chinese dairy cows for beef in early 2009, the introduction of a government subsidy for loan interest on dairy cow procurement, and higher prices for milk from dairy processing plants.



The Melamine-tainted milk scandal could advance market demand for imported alfalfa. Dairy consumption has recovered to approximately 75% of pre-melamine consumption levels, and domestic dairy production is expected to continue growing to meet consumer demand.

**China Sales of Drinking Milk Products by Subsector**

Volume (million litres)	2008	2009	2010	2011	2012	2013
Raw Milk	47.47	48.46	49.74	51.28	53.00	54.93
Fresh/pasteurised milk	31.72	32.50	33.47	34.60	35.84	37.21
Long-life/UHT milk	15.74	15.95	16.27	16.68	17.16	17.71
Flavoured milk drinks	5.73	5.79	5.88	6.00	6.14	6.31
Dairy only flavoured milk drinks	5.73	5.79	5.88	6.00	6.14	6.31

Source: Official statistics, trade associations, trade press, company research, trade interviews, Euromonitor International estimates—2009–2013.



The USDA has reported that a lack of high-quality forage, which causes low protein levels in cows, is partly to blame for the crisis. This drove producers to add melamine to milk from under-nourished cows to make the milk appear to have high levels of protein for dairy-processor quality checks.

Melamine was originally discovered in raw milk from small-scale dairies in Northern China, and no melamine was found in raw milk from Guandong (southern China) dairies. Guandong dairies are seen to be in a better position than their counterparts in the north, as a result of several factors including:

- ▶ Large scale farming — there are 62 dairies in Guandong, with over 200 cows, compared with individual household farming that is common in the north. These large-scale farms account for 71% of the cattle livestock in Guandong.
- ▶ International Standards — dairy companies from Guandong have been following international or European standards for years. Guandong has been the dairy supply source for the Hong Kong market for over 20 years. Guandong dairies receive the highest prices in China for their raw milk, at approximately US\$880 per tonne compared to raw milk from Northern China at approximately US\$293 per tonne.
- ▶ Secure Supply Chain — fresh milk in Guandong is mostly delivered from farms to processors who do not have procurement stations in the middle of the supply chain, thereby avoiding the most vulnerable part of the quality control process for adulterating with melamine, as reflected in the crisis in Northern China. As well, the long history of professional cooperation between farms and companies in southern China helps to effectively ensure milk quality.
- ▶ The use of high quality forage — Guandong dairy farmers often use high quality forage to feed dairy cows. The farm that supplies Kowloon Dairy, which supplies milk to McDonalds and Starbucks in China, imports US alfalfa to feed its lactating cows. In addition, China's top two dairy companies, Mengniu and Yili, have bought dairy processing plants and were looking into building dairy farms in Guandong. This is expected to drive demand for imported hay to Guandong in the short term. These companies are currently importing hay from the U.S.

## ▶ IMPORTED ALFALFA PRICING AND COMPETITORS

Despite declines in Chinese alfalfa production, domestic alfalfa producers are still the largest competitor for Canadian exporters. In fall 2008, China's central government announced a policy allowing the trading of land-use rights in rural areas. This policy will allow for a consolidation of farming plots, which is designed to increase productivity. This policy, combined with government subsidies and incentives for rural areas, is meant to encourage a transition from small, localized operations to larger commercial-scale operations in both the horticulture and livestock sectors, and result in increased crop and livestock production.

In addition, the Association of South East Asian Nations (ASEAN), plus Australia and New Zealand, established a free-trade area in July 2009. This agreement will see the phasing-in of lower tariffs on Australian and New Zealand products that are exported to ASEAN member states, with all tariff barriers to be eliminated by 2013. This will result in an immediate market-entry price disadvantage for a small range of Canadian products, including alfalfa. This could be a very important factor determining sales in a market where ingredient buyers are generally price-sensitive.

While this is the case, users generally have a high level of loyalty to existing suppliers. US exporters and products tend to benefit from this because they provide value-for-money in terms of price, product quality (characteristics and functionality) and service, which also includes training and technical support.

Trust in the supplier is also very important to Chinese feed manufacturers. Key purchasing criteria for most alfalfa importers, most of which are larger-sized businesses, are as follows:

- ▶ Dealing with a trusted and service-oriented supplier. The supplier should be flexible in meeting the demands of importers.
- ▶ Price, especially on a market-entry level basis. This is very important as a cost-benefit analysis is done in comparison with alternative suppliers and materials.
- ▶ Product quality, which includes consistency, functionality, performance, and compliance with internal specifications and, as necessary, regulatory requirements.



## ▶ OPPORTUNITIES

The data portrays an optimistic picture, and other factors also show that the Chinese alfalfa market may be lucrative for Canadian exporters.

China's demand for Canadian alfalfa is likely to grow as China faces a shortage of meal for its livestock industry, having become increasingly reliant on imported alfalfa to meet domestic demand. Unfavourable government policies for alfalfa, rising grain prices, and insufficient processing capacity for large-scale commercial farms have been constraints on China's processed alfalfa production capacity and provide opportunities for Canadian alfalfa exporters to explore.

Some Canadian companies have been successful selling through state-sponsored programs to improve rural processing or farming techniques at the local, provincial or even central government level. Farmers who purchase inputs that are subsidized by local governments are not always free to choose imported products. Therefore, positive relations with local officials are important and a detailed knowledge of local plans and objectives is required. Good, long-term cooperation with local officials is sometimes required to introduce Canadian goods as viable alternatives and to allow Canadian suppliers to take advantage of these opportunities.

## ▶ CONTACTS

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## ▶ BIBLIOGRAPHY

Agri-food Trade Service. (October 2007). "A Guide to Exporting Forages to the United States." Retrieved from: [\[http://www.sea.agr.gc.ca/amr/4373-eng.htm\]](http://www.sea.agr.gc.ca/amr/4373-eng.htm)

Euromonitor International. (March 2009). "Other Dairy Products – China."

Global Trade Atlas.

United States. United States Department of Agriculture (USDA) Foreign Agriculture Service. "China Country Page." Retrieved from: [\[http://www.fas.usda.gov/country/China/China.asp\]](http://www.fas.usda.gov/country/China/China.asp).

United States. USDA Foreign Agriculture Service. (September 2009). "Livestock and Products Annual." Retrieved from: [\[http://gain.fas.usda.gov/Recent%20GAIN%20Publications/LIVESTOCK%20AND%20PRODUCTS%20ANNUAL\\_Beijing\\_China%20-%20Peoples%20Republic%20of\\_9-14-2009.pdf\]](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/LIVESTOCK%20AND%20PRODUCTS%20ANNUAL_Beijing_China%20-%20Peoples%20Republic%20of_9-14-2009.pdf).

United States. USDA Foreign Agriculture Service. (September 2009). "Why sales of U.S. alfalfa to South China are poised to grow." Retrieved from: [\[http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Why%20sales%20of%20U.S.%20alfalfa%20to%20South%20China%20are%20poised%20to%20grow\\_Guangzhou\\_China%20-%20Peoples%20Republic%20of\\_9-9-2009.pdf\]](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Why%20sales%20of%20U.S.%20alfalfa%20to%20South%20China%20are%20poised%20to%20grow_Guangzhou_China%20-%20Peoples%20Republic%20of_9-9-2009.pdf)

## ▶ OTHER RESOURCES

China Feed On Line. Company (Feed info): <http://www.chinafeedonline.com/>

Food and Agriculture Organization of The United Nations Statistics: <http://faostat.fao.org/site/569/default.aspx#ancor>

Hygienic Standard for Grains (GB2715-2005) Only in English: [www.fas.usda.gov/gainfiles/200510/146131382.pdf](http://www.fas.usda.gov/gainfiles/200510/146131382.pdf)

Ministry of Agriculture Feed Industry Center: <http://www.mafic.ac.cn/>

Official website for China Ministry of Agriculture (agriculture, livestock and feed info): <http://www.agri.gov.cn/>

Official website for State General administration for Quality supervision and Inspection and Quarantine: <http://www.aqsiq.gov.cn/>

Small Farmers Adapting to Global Markets Project: <http://www.ccag.com.cn/>

The Government of Canada has prepared this report based on primary and secondary sources of information. Although every effort has been made to ensure that the information is accurate, Agriculture and Agri-Food Canada assumes no liability for any actions taken based on the information contained herein.

Alfalfa Market—China  
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ISSN 1920-6593 Market Analysis Report  
AAFC No. 11180E

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