



OVERVIEW OF THE CANADIAN PULSE INDUSTRY 2009

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Canada

OVERVIEW OF THE CANADIAN PULSE INDUSTRY

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Canada's Pulse Industry

Canada is one of the world's largest exporters of pulses. Since 1991, the value of Canadian pulse exports increased nearly twelve fold to reach \$2.1 billion in 2009. About 75 per cent of Canadian pulse production is exported, accounting for nearly 40 per cent of the global pulse trade. Export markets are well diversified with Canadian pulses currently being sold to over a 150 different markets. Production levels have increased from 752,500 tonnes in 1991 to nearly 5.2 million tonnes in 2009. Canada is considered the world's top producer of dry peas, the second largest producer of lentils, and one of the top ten producers of chickpeas and dry beans.

Pulses are recognized for their role in crop diversification in Canada. Pulse production has contributed to the growth of the pulse processing industry and to the expansion of employment opportunities in rural communities. In addition, pulses are used in crop rotations to control weeds and diseases. Given that pulses, in symbiosis with bacteria, fix atmospheric nitrogen, they provide environmental benefits by helping to improve soil fertility because they reduce the need for nitrogen fertilizer.

Pulses are versatile in that they can be used for human consumption, as livestock feed, and for non-food applications. Pulses are a great source of nutrients including complex carbohydrates, vegetable protein, folate, and vitamins and minerals like potassium and iron. Consuming pulses as part of a healthy diet may reduce the risk of chronic diseases like cardiovascular disease, diabetes and obesity.

Pulses as Food

Lentils are used almost exclusively for human consumption. Whole or split lentils are used as ingredients in salads, soups, stews, casseroles and curries. Lentils can be processed into flour for use in combination with other types of flours in baked goods and baby foods. In addition, they can be used as a meat extender or as a meat substitute in vegetarian dishes.

Dry beans are used almost exclusively for human consumption. They are either canned, packaged dry for retail sale or further processed into products such as refried beans, pork and beans, stews, soups, chili, bean flour, bean paste, fibre biscuits, and snack food.

Chickpeas are also used mainly for human consumption. The desi type seed can be used whole, split, or milled. The kabuli type is used mainly in salads and vegetable mixes, while the desi type may be milled into flour. Chickpeas are also used in snack foods, soups, sweets, and condiments. In India and nearby countries, they are used whole, shelled and split to make dhal or ground to produce a fine flour called besan, which is used to make roti or chapatti, as well as sweets and snacks. Chickpeas are also consumed in the form of a dish known as hummus, which is produced from mashed chick peas mixed with oil and spices.

The food market for dry peas is smaller but dry peas offer a very versatile profile in terms of food uses. They can be cooked and eaten whole as a vegetable or processed for use as an ingredient in other food preparations such as baking mixes, soups, cereals, processed meats, health foods and pastas.

Pulses as Feed

Although cattle and poultry also use feed peas, the hog industry is the most important customer for feed peas in Canada and abroad. While chickpeas and lentils are mainly used for human consumption, low grade chickpeas as well as lentil residues including the stalks and leaves, and low grade lentils, are utilized for livestock feed. Similarly, a minimal amount of weather-damaged, low grade dry beans are used for livestock feed.

Size of the Pulse Industry in Canada

In Canada, 10,444 farms reported dry pea production in the 2006 Census of Agriculture followed by lentils (3,324 farms), dry beans (3,216 farms) and chickpeas (1,065 farms). Despite the decline in farm numbers from the 2001 Census, average hectares per farm increased from 94 hectares in the 2001 Census to 121 hectares in the 2006 Census for dry peas. Over this five-year period, average lentil production area also grew from 119 hectares to 157 hectares per farm, dry beans from 52 hectares to 57 hectares, and chickpeas 117 hectares to 122 hectares. Changes in farm numbers can reflect factors such as amalgamation, new operations in the industry or existing operations exiting the industry.

	Number of Farms			Hectares ¹		
	1996	2001	2006	1996	2001	2006
Dry Peas	8,761	14,324	10,444	536,317	1,340,431	1,264,219
Lentils	3,698	5,891	3,324	303,397	703,800	521,953
Dry Beans	2,962	3,493	3,216	93,880	180,603	184,842
Chickpeas	n.a	4,134	1,065	n.a	482,429	129,611

¹ 1 hectare ≈ 2.47 acres

Source: Statistics Canada, *Census of Agriculture: 1996, 2001 and 2006*.

Value of the Pulse Industry to the Canadian Economy

In Canada, farm cash receipts (FCR) for all pulses were valued at nearly \$1.7 billion in 2009, an increase of 124 percent from total pulse FCR in 2006. Pulses now represent 7 percent of total FCR in Canadian crop production and nearly 4 percent of total FCR in the Canadian agriculture sector. In 2009, lentils represented 51 percent of total pulse FCR or \$868 million, up from 48 percent in 2008. Dry peas followed with 38 percent of total pulse FCR, equivalent to nearly \$651 million. The remaining pulses, dry beans and chickpeas, represented approximately 9 percent and 2 percent of total pulse FCR in Canada, respectively.

FCR for pulses as a whole are the highest in Western Canada, where pulse production is concentrated. FCR includes revenues from the sale of agricultural commodities, program payments from government agencies, and payments from private and livestock insurance programs.

	Farm Cash Receipts ('000 \$)			
	2006	2007	2008	2009
Dry Peas	366,519	562,784	631,993	650,800
Lentils	182,347	343,955	587,538	868,174
Dry Beans	153,268	165,097	193,977	154,725
Chickpeas	65,371	48,681	40,817	42,532
Total Pulses¹	767,505	1,120,517	1,454,325	1,716,231
Total All Crops²	14,685,464	18,414,176	22,953,640	22,970,651
Total All Canadian Agriculture	36,954,824	40,745,494	45,887,990	44,173,070

¹: Pulses include dry peas, dry beans, lentils and chickpeas.

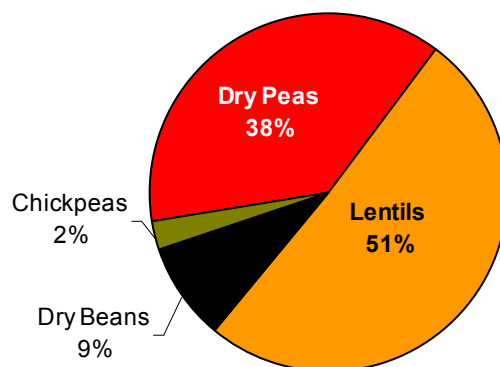
²: All crops also includes grains and oilseeds, fruits, vegetables, floriculture and nursery, maple and forest products.

Source: Statistics Canada, 21-011-X, Farm Cash Receipts, May 2010.

Value of the Pulse Industry to the Canadian Economy

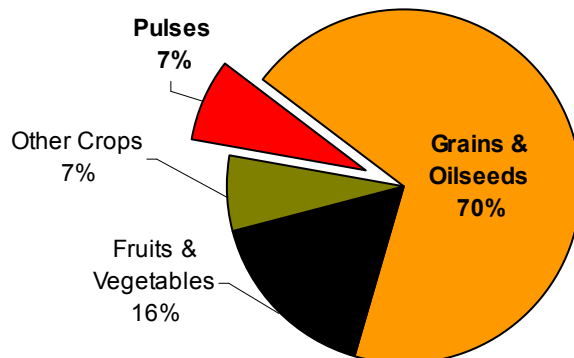
Value of Canadian Pulses - 2009

Total Pulse FCR: \$1,716,231,000

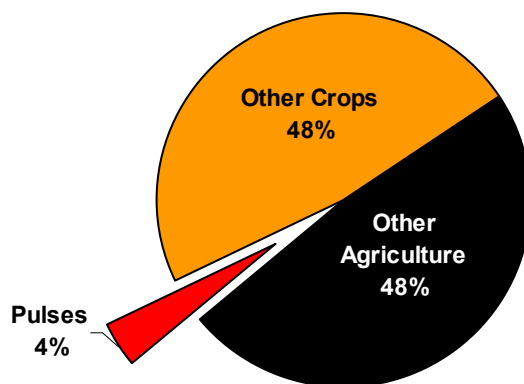


Value of Pulses to Canadian Crop Production - 2009

Total Crop FCR: \$22,970,651,000



Value of Pulses to Canadian Agriculture - 2009
Total Agriculture FCR: \$44,173,070,000



Source: Statistics Canada, 21-011-X, Farm Cash Receipts, May 2010.

Food for Thought...

Pulses are high in dietary fibre and complex carbohydrates, and are low in fat. Consuming pulses as part of a regular diet may reduce the risks of health problems like obesity, cardiovascular disease and diabetes. They are also a good source of vitamins and minerals such as folate, potassium and iron.

Source: Pulse Canada.

Canadian Production of Pulses

Canadian production of pulses has shown an upward trend from 3.7 million tonnes in 2006 to 5.2 million tonnes in 2009. Dry peas were the most produced type of pulse accounting for 65 percent of total pulse production or nearly 3.4 million tonnes in 2009. Lentils followed with 29 percent or 1.5 million tonnes. Production of dry beans and chickpeas reached approximately 220,000 tonnes (4 percent) and 76,000 tonnes (1 percent), respectively. The majority of dry peas, lentils and chickpeas are grown in the province of Saskatchewan with the balance produced in Alberta and Manitoba. The bulk of dry beans are grown in Manitoba and Ontario. Dry beans are also grown in Quebec and Alberta with additional smaller quantities from Saskatchewan.

(hectares ¹)				
Area Seeded	2006	2007	2008	2009
Dry Peas	1,260,500	1,469,000	1,616,600	1,521,700
Lentils	516,300	540,200	651,600	971,300
Dry Beans	178,400	153,400	128,300	119,100
Chickpeas	129,100	174,000	44,400	42,400
Total Pulses	2,084,300	2,336,600	2,440,900	2,654,500

¹ 1 hectare ≈ 2.47 acres

Source: Statistics Canada, December 2009.

(hectares¹)

Area Harvested	2006	2007	2008	2009
Dry Peas	1,230,500	1,442,700	1,582,200	1,487,200
Lentils	503,800	534,200	631,300	963,200
Dry Beans	176,300	152,600	125,200	112,500
Chickpeas	127,500	174,000	42,400	40,300
Total Pulses	2,038,100	2,303,500	2,381,100	2,603,200

¹ 1 hectare ≈ 2.47 acres

Source: Statistics Canada, December 2009.

(tonnes/hectare)

Yield	2006	2007	2008	2009
Dry Peas	2.00	2.00	2.30	2.30
Lentils	1.25	1.26	1.46	1.61
Dry Beans	2.10	1.80	2.10	1.95
Chickpeas	1.28	1.29	1.58	1.85
Average Pulses	1.66	1.59	1.86	1.93

Source: Statistics Canada, December 2009.

(tonnes)

Production	2006	2007	2008	2009
Dry Peas	2,519,900	2,934,800	3,571,300	3,379,400
Lentils	629,500	673,900	919,500	1,510,200
Dry Beans	372,400	276,700	266,200	220,200
Chickpeas	163,200	224,800	67,000	75,500
Total Pulses	3,685,000	4,110,200	4,824,000	5,185,300

Source: Statistics Canada, December 2009.

Food for Thought...

Quick and easy pulse recipes can be found on Pulse Canada's web site at: www.pulsecanada.com.

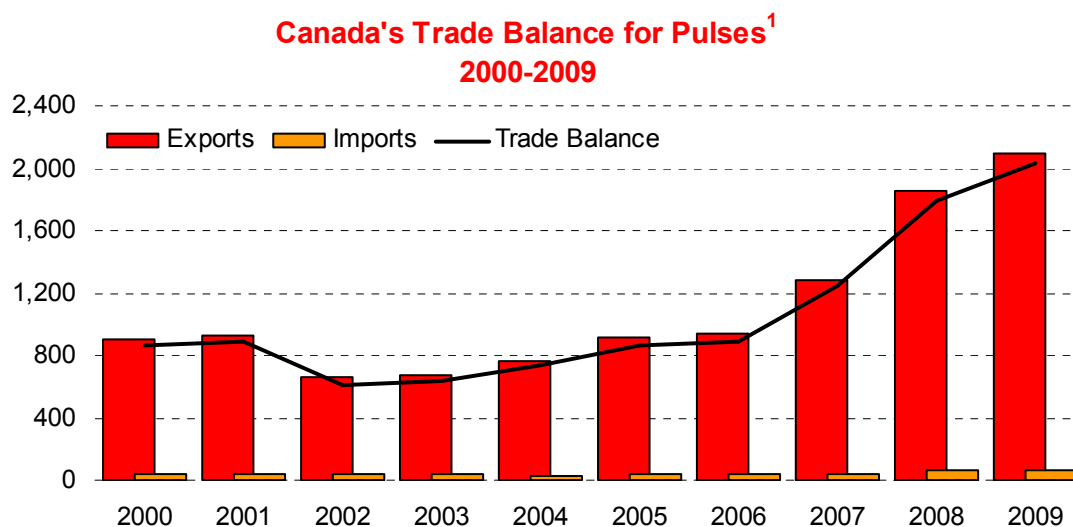
Canada's Trade Balance for Pulses¹

Canada is a net exporter of pulses with approximately 75 percent of production exported annually. Canada accounts for nearly 40 percent of the global pulse trade. The value of Canada's trade balance has grown 136 percent over the past decade from \$863 million in 2000 to \$2 billion in 2009. Dry peas were the most exported pulse type, averaging close to 45 percent of total Canadian pulse exports over the past decade. Lentils were the second largest exported pulse with a 35 percent share followed by dry beans and chickpeas with 15 percent and 5 percent, respectively.

	(million \$)		
	Exports	Imports	Balance
2000	898	35	863
2001	924	32	892
2002	654	44	610
2003	679	38	641
2004	767	25	742
2005	908	39	869
2006	939	44	895
2007	1,288	39	1,249
2008	1,849	64	1,785
2009	2,096	63	2,033

¹: Excluding seeds for sowing.

Source: Statistics Canada, May 2010.



¹Pulses include: dry peas, dry beans, lentils and chick peas.

Source: Statistics Canada, March 2010.

Food for Thought...

Canada's cold winters are ideal for growing pulses because freezing temperatures decrease crop diseases and insects. The cold weather also helps maintain high quality storage conditions on the farm.

Source: Pulse Canada.

Canada's Top Destinations for Pulses¹

Canadian pulse exports increased 123 percent from nearly \$940 million in 2006 to \$2.1 billion in 2009.

India, the world's largest producer and consumer of pulses, was Canada's largest market with exports valued at nearly \$1.5 billion or 24 percent of total Canadian exports from 2006 to 2009.

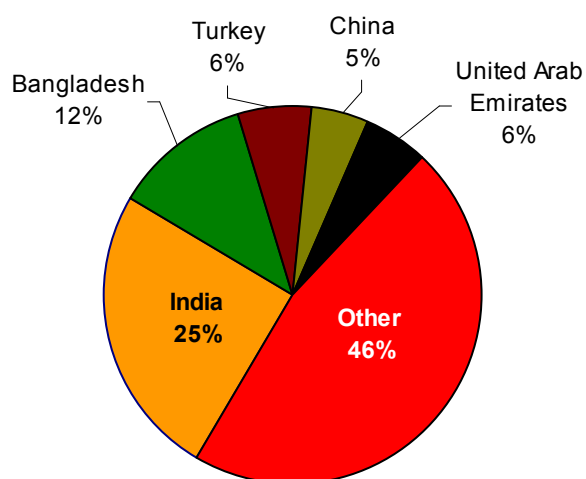
The recent increase was attributed mainly to demand shortfall in India resulting from reduced world supplies. Exports to Bangladesh and Turkey, where pulses are also considered a staple, were valued at nearly \$434 million (7 percent) and \$399 million (6 percent) during this period, respectively. The value of pulse shipments to other major markets like China and the UAE also improved by 80 percent and 223 percent from 2006 to 2009, respectively. Factors that can also impact exports include commodity prices, the Canada-U.S. dollar exchange rate, production levels of major producers such as India, Turkey and Australia, domestic and international agreements, as well as government policies and programs of importing countries.

		(million \$)			
		2006	2007	2008	2009
1	India	148.2	366.8	422.5	530.8
2	Bangladesh	52.0	87.5	53.2	241.4
3	Turkey	26.8	16.3	220.6	135.3
4	China	59.2	77.4	70.0	106.5
5	United Arab Emirates	36.1	43.6	71.3	116.5
6	United Kingdom	50.1	37.6	59.2	70.5
7	Colombia	28.4	49.4	63.2	61.9
8	United States	26.5	39.4	64.9	62.1
9	Spain	96.2	34.6	27.1	28.0
10	Pakistan	49.8	27.0	34.2	71.5
Total Value of Canadian Pulse Exports		939.2	1,287.8	1,848.8	2,096.1

¹: Excludes seeds for sowing. Rankings based on four year totals from 2006 to 2009.

Source: Statistics Canada, May 2010.

Share of Canadian Pulse Exports¹ - 2009



¹: Excludes seeds for sowing.

Source: Statistics Canada, May 2010.

Food for Thought...

Pulse ingredients may increase protein, flavour and potentially fibre in processed meat products. This is based on a three year project undertaken by AAFC's Saskatoon Research Centre and the University of Saskatchewan on the benefits of using flour, starch and protein of dry peas, lentils and chickpeas in meat products.

Source: Saskatchewan Pulse Growers.

Canada's Top Destinations for Dry Peas¹

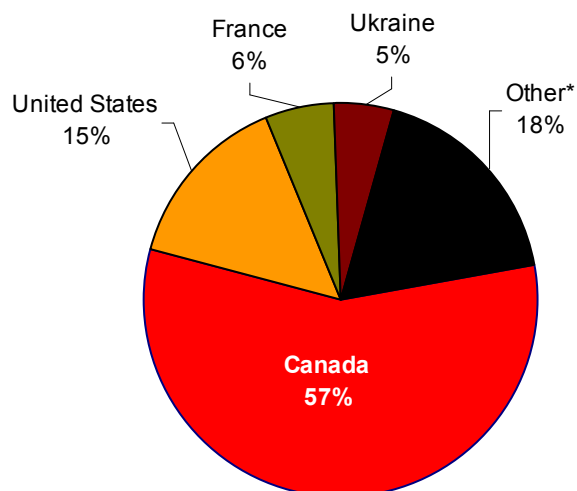
Canadian dry pea exports increased by 75 percent from approximately \$461 million in 2006 to \$806 million in 2009. The growth in value was due mainly to the significant jump in dry pea exports to India, currently Canada's largest market. Over this four-year period, export sales to this market reached nearly \$1.1 billion or 43 percent of Canada's total dry pea exports. Yellow peas were the top exported Canadian dry pea product to India, representing about 84 percent of annual dry pea export sales to India. They are widely consumed throughout India, for example, as a source of protein in vegetarian diets. Dry peas can also act as a substitute for other pulses. China and Bangladesh are also major markets for Canadian dry peas, valued at approximately \$311 million (12 percent) and \$248 million (9 percent) over the period 2006 to 2009, respectively. Yellow peas are mainly used in China as an ingredient in the production of glass noodles called vermicelli. In Bangladesh, yellow peas are mainly consumed whole or for use in pea flour.

		Canadian Exports (million \$) ²				Canadian % Share of Import Market (Value) ³			
		2006	2007	2008	2009	2006	2007	2008	2009
1	India	134.4	284.6	384.5	342.8	58%	72%	73%	77%
2	China	59.1	76.4	69.7	106.0	89%	93%	94%	95%
3	Bangladesh	41.8	46.0	28.2	132.4	79%	80%	85%	97%
4	Cuba	9.5	21.8	62.0	9.8	47%	99%	99%	99%
5	Spain	73.9	14.8	3.6	7.8	79%	73%	60%	21%
6	United Arab Emirates	12.2	17.5	16.2	24.3	87%	85%	62%	84%
7	Pakistan	26.7	5.8	13.2	14.7	58%	30%	54%	37%
8	Colombia	7.3	14.8	14.3	14.1	91%	81%	85%	90%
9	South Africa	6.0	7.0	11.4	8.5	72%	64%	72%	72%
10	United States	5.3	7.6	10.1	9.2	40%	50%	46%	46%
Total Value of Dry Pea Exports		460.5	621.1	769.4	806.3				

¹: Excludes seeds for sowing. Rankings based on four year totals from 2006 to 2009.

Source: ²Statistics Canada, May 2010 and ³Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Canada's Share of World Dry Pea Exports¹ - 2009



¹: Figures may include seeds for sowing. Shares are based on export values.

*: Based on most recent information available.

Source: *Global Trade Atlas*, May 2010.

Food for Thought...

Yellow and green peas are the main varieties produced in Canada although other varieties are also grown for use in specialty markets. For example, marrowfat peas are used in the Asian roasted and salted snack food market for products like wasabi peas.

Source: *Saskatchewan Agriculture and Food and Saskatchewan Pulse Growers*.

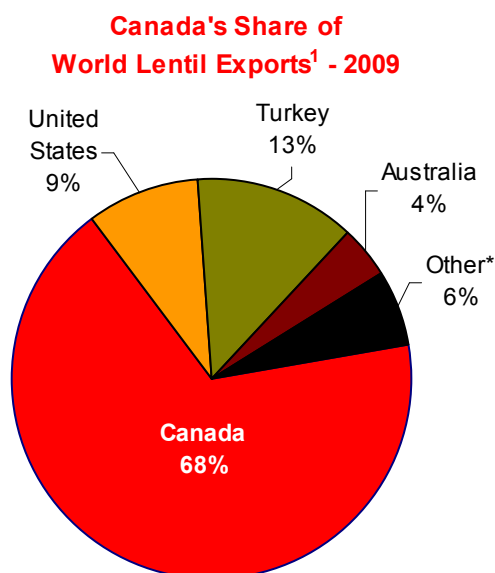
Canada's Top Destinations for Lentils¹

Lentil exports grew 292 percent from \$262 million in 2006 to approximately \$1 billion in 2009. From 2006 to 2009, Turkey has been Canada's largest customer in terms of value, with exports reaching approximately \$389 million or 15 percent of total Canadian lentil exports. Turkey is a large producer of lentils however; severe drought in 2007 and 2008 impacted domestic production and led to a significant increase in imports from Canada. Lentils in this market are used in various types of soups. Turkey consumes mainly red lentils; in 2009, about 79 percent of total Canadian lentil exports to Turkey were red lentils, up from 23 percent in 2006. India, considered the world's largest consumer of lentils, was the second ranked market during this period. Exports increased five-fold from 2008 to approximately \$178 million in 2009, which could be attributed to demand shortfall in the Indian market. Droughts affecting lentil production in Turkey, India and Australia in recent years were also factors in the significant increase in Canadian lentil exports during this four-year period.

		Canadian Exports (million \$) ²				Canadian % Share of Import Market (Value) ³			
		2006	2007	2008	2009	2006	2007	2008	2009
1	Turkey	26.4	14.6	217.5	130.7	84%	69%	90%	93%
2	India	8.0	81.0	33.5	178.1	41%	72%	74%	80%
3	United Arab Emirates	22.0	24.4	53.7	89.6	63%	84%	83%	86%
4	Bangladesh	9.9	41.2	24.6	108.1	10%	54%	82%	87%
5	Algeria	20.1	31.1	51.4	49.7	97%	96%	95%	97%
6	Colombia	17.5	31.0	45.9	46.2	96%	94%	95%	96%
7	Egypt	15.5	16.6	54.7	53.7	41%	54%	78%	60%
8	Sri Lanka	2.6	15.2	35.0	66.7	3%	15%	26%	40%
9	Pakistan	14.8	20.2	17.7	48.8	39%	83%	73%	83%
10	Mexico	11.2	13.2	22.9	20.2	93%	93%	92%	94%
Total Value of Lentil Exports		262.0	457.5	828.3	1,027.0				

¹: Excludes seeds for sowing. Rankings based on four year totals from 2006 to 2009.

Source: ²Statistics Canada, May 2010 and ³Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.



¹: Figures may include seeds for sowing. Shares are based on export values.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010.

Food for Thought...

Approximately 15 percent of Canadian lentil production is used domestically. Domestic uses include feed, food and seed. The remaining 85 percent is exported to approximately 126 different international markets.

Source: Agriculture and Agri-Food Canada.

Canada's Top Destinations for Chickpeas¹

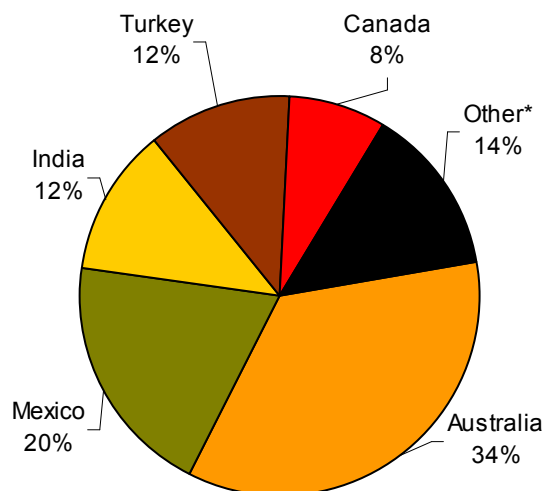
Canadian chickpea exports declined 10 percent from nearly \$56 million in 2006 to almost \$50 million in 2009. Despite this decline, Canada's top two markets: the U.S. and India both saw increases in value. From 2006 to 2009, the U.S. was Canada's largest market with total exports valued at approximately \$23 million or 12 percent of total Canadian chickpea exports during this period. An estimated 65 percent of annual Canadian chickpea exports to the U.S. were the kabuli type. Chickpeas can be marketed as canned or packaged or as flour in the U.S. market. In India, the desi type is popular throughout while the kabuli type is generally consumed in northern India; chickpea flours are commonly used in the preparation of snack foods. Other important markets include Pakistan, which saw an increase in Canadian imports from \$1 million in 2007 to \$8 million in 2009, although India and Australia are their primary suppliers. Italy, the second largest pulse consumer in the EU-27, has been a relatively stable market for Canadian chickpeas from 2006 to 2009, although the majority of its chickpeas are shipped from Mexico and Turkey.

		Canadian Exports (million \$) ²				Canadian % Share of Import Market (Value) ³			
		2006	2007	2008	2009	2006	2007	2008	2009
1	United States	2.7	4.6	6.2	9.8	25%	37%	34%	45%
2	India	5.9	1.1	4.5	9.6	8%	3%	5%	6%
3	Pakistan	8.3	1.0	3.3	8.0	22%	5%	9%	19%
4	Italy	4.4	5.2	3.7	4.3	19%	26%	19%	22%
5	Spain	5.4	3.4	3.2	1.9	9%	7%	5%	4%
6	Jordan	3.2	6.5	2.0	1.5	38%	44%	23%	15%
7	Colombia	3.5	3.5	2.9	1.6	38%	62%	28%	23%
8	United Kingdom	2.8	2.8	4.2	1.0	16%	6%	13%	9%
9	Portugal	1.9	5.1	1.4	0.4	13%	37%	11%	2%
10	Saudi Arabia	2.0	2.7	1.4	0.8	10%	18%	7%	4%
Total Value of Chick Pea Exports		55.6	51.1	43.1	49.8				

¹: Excluding seed for sowing. Rankings based on four year totals from 2006 to 2009.

Source: ²Statistics Canada, May 2010 and ³Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Canada's Share of World Chickpea Exports¹ - 2009



¹: Figures may include seeds for sowing. Shares are based on export values.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010.

Food for Thought...

The desi type seed must be dehulled and can be used whole, split, or milled. In India and nearby countries, desi chick peas are used whole, shelled and split to make dhal or ground to produce a fine flour called besan, which is used to make types of roti called missi roti, chana or chole, as well as sweets and snacks.

Source: Agriculture and Agri-Food Canada.

Canada's Top Destinations for Dry Beans¹

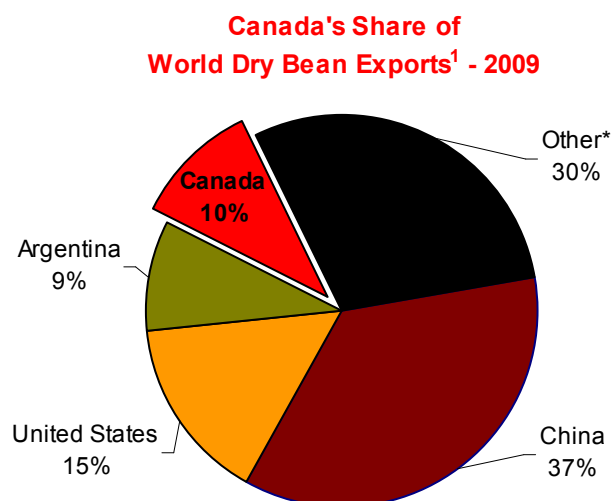
Dry beans are Canada's third largest exported pulse. Overall, the value of dry bean exports has trended upward from \$161 million in 2006 to nearly \$213 million. From 2006 to 2009, navy/white pea beans (Canada's largest bean crop) were the most exported variety representing 35 percent of total dry bean exports.

Dry beans are sold in canned form or dry packaged and further processed for use in products like soups, salads, chilis, refried beans, bean flour and snack foods. The U.K. was Canada's largest market, importing nearly \$169 million over this four-year period or 23 percent of total Canadian dry bean exports. The U.S. was Canada's second largest market, importing \$116 million or 16 percent of total Canadian dry bean exports followed by Italy with nearly \$59 million or 8 percent. Japan was the fourth largest market, importing 7 percent of total Canadian dry bean exports. Navy/white pea beans were the most exported type of bean to the U.K. and Italy while pinto beans made up the majority of exports to the U.S. Dry bean exports to the Japanese market include small red (adzuki) beans, which are used to make red bean paste, an ingredient in confectionary products.

		Canadian Exports (million \$) ²				Canadian % Share of Import Market (Value) ³			
		2006	2007	2008	2009	2006	2007	2008	2009
1	United Kingdom	42.3	27.4	39.7	59.5	72%	67%	68%	66%
2	United States	17.1	24.9	39.3	34.7	42%	45%	39%	41%
3	Italy	16.8	10.6	13.4	18.0	16%	16%	13%	15%
4	Japan	11.6	13.5	15.3	13.8	10%	8%	11%	11%
5	Angola	8.4	12.1	19.6	6.8	35%	41%	39%	42%
6	Dominican Republic	7.6	7.8	11.5	5.0	42%	34%	36%	20%
7	Greece	4.9	5.2	8.5	8.3	25%	28%	27%	42%
8	Mexico	5.0	2.1	3.8	15.7	4%	4%	6%	11%
9	Portugal	3.8	5.6	6.4	4.1	18%	18%	16%	12%
10	Croatia	2.3	4.5	2.9	3.7	51%	57%	49%	43%
Total Value of Dry Bean Exports		161.0	158.1	208.0	212.6				

¹: Excludes seeds for sowing. Rankings based on four year totals from 2006 to 2009.

Source: ²Statistics Canada, May 2010 and ³Global Trade Atlas, May 2010. "Canadian % share of import market" represents share of Canadian export in the importing country.



¹: Figures may include seeds for sowing. Shares are based on export values.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010.

Food for Thought...

Canada produces over a dozen types of white and coloured beans including: Black Turtle, Cranberry, Dark Red Kidney, Dutch Brown, Great Northern, Light Red Kidney, Pink, Pinto, Small Red, White Kidney and Navy/White Pea Bean.

Source: Pulse Canada.

Canadian Pulse Export Growth 2006-2009

From 2006 to 2009, Canadian pulse export volume and value grew by 24 percent and 123 percent, respectively. Lentil exports experienced the highest percentage growth in terms of volume and value. Export quantity increased 86 percent from 657,000 tonnes in 2006 to 1.2 million tonnes in 2009 while export value grew 292 percent from \$262 million to approximately \$1 billion. Dry peas, Canada's most produced pulse type, saw export volume improve by 13 percent from nearly 2.3 million tonnes in 2006 to 2.6 million tonnes in 2009. The value of these exports jumped 75 percent from \$461 million to \$806 million during the same period.

Dry bean exports declined 13 percent from nearly 231,000 tonnes in 2006 to 201,000 tonnes in 2009 although their value increased by 32 percent from \$161 million to \$213 million. On the other hand, chickpea exports declined in both volume and value during this four-year period. Export volume declined by 28 percent from approximately 84,000 tonnes to almost 63,000 tonnes while export value fell 11 percent from approximately \$56 million to \$50 million.

Pulse Exports¹

	2006-2009 Canadian Pulse Export Growth	
	Volume	Value
Dry Peas	13%	75%
Lentils	86%	292%
Chick Peas	-28%	-11%
Dry Beans	-13%	32%
All Pulse Exports	24%	123%

¹Excluding seed for sowing.

Source: Statistics Canada, May 2010.

Top Pulse Export Products¹

	2006-2009 Canadian Pulse Export Growth	
	Volume	Value
Red Lentils	441%	928%
Green Lentils	17%	146%
Yellow Peas	54%	119%
Kidney Beans	46%	115%
Split Peas	33%	106%
Green Peas	10%	93%
Black Beans	31%	85%
Great Northern Beans	5%	69%
Pinto Beans	19%	54%
Red Kidney Beans, Light	-17%	46%
All Pulse Exports	24%	123%

¹Excluding seed for sowing. Top export products based on growth in value from 2006 to 2009.

Source: Statistics Canada, May 2010.

Food for Thought...

Pulses are a high quality source of protein, providing market opportunities for pulses, particularly dry peas, as ingredients in the pet food market.

Source: Pulse Canada.

World Import Growth 2006-2009¹

The volume of world pulse imports grew 8 percent from 7.1 million tonnes in 2006 to nearly 7.7 million tonnes in 2009. Collectively, the value of pulse imports grew by 66 percent from approximately \$3 billion in 2006 to \$6 billion in 2009. In terms of volume, dry beans were the most imported pulse in 2009 followed very closely by dry peas, and then lentils and chickpeas. Chickpea imports experienced the largest percentage growth in volume with imports reaching 575,000 tonnes in 2009, a 42 percent increase from 2006. Their value also improved from \$358 million in 2006 to \$452 million in 2009, a change of 26 percent.

During this period, lentil imports increased in volume by 186,000 tonnes or 24 percent to reach approximately 957,000 tonnes in 2009. This period also saw an increase in the value of lentil imports. Their value grew significantly from nearly \$371 million in 2006 to \$979 million in 2009, an increase of 164 percent. Dry bean imports expanded in volume by 22 percent from 2.5 million tonnes in 2006 to approximately 3 million tonnes in 2009. In terms of value, they were the most imported pulse type in 2009 with imports valued at almost \$3 billion, up 67 percent from 2006.

The volume of dry pea imports declined 11 percent from 3.4 million tonnes in 2006 to 3 million tonnes in 2009. However, their value increased by 40 percent during the same period, reaching close to \$1.3 billion in 2009.

In terms of volume, India has been the world's largest importer of dry peas, lentils, chickpeas and dry beans. India imported an average of nearly 1.5 million tonnes of dry peas per year during the period 2006 to 2009. An average of 657,000 tonnes of dry beans per year were imported into India in addition to 185,000 tonnes of chickpeas and 127,000 tonnes of lentils. Countries like Norway, Singapore and Romania are not considered to be significant importers of certain pulses however, from 2006 to 2009, imports to these markets have shown growth in terms of volume.

	Volume	Value
1 Dry Peas	-11%	40%
2 Lentils	24%	164%
3 Chickpeas	42%	26%
4 Dry Beans	22%	67%
Total Pulses*	8%	66%

¹: May include seeds for sowing.

*: Based on most recent information available.

Source: *Global Trade Atlas*, May 2010.

Top Markets for Dry Peas¹

		Imports (000' tonnes) ¹				2009 Canadian Share of
		2006	2007	2008	2009	Import Market (Volume)
						%
1	India	1,146	1,567	1,463	1,682	76%
2	China	330	263	203	373	95%
3	Spain	665	70	21	87	21%
Total World Imports*		3,415	2,882	2,581	3,032	

¹: May include seeds for sowing. Rankings based on four year totals from 2006 to 2009.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Top Markets for Lentils¹

		Imports (000' tonnes) ¹				2009 Canadian Share of
		2006	2007	2008	2009	Import Market (Volume)
						%
1	India	51	225	36	197	82%
2	Turkey	69	31	192	142	94%
3	Sri Lanka	108	103	103	108	40%
Total World Imports*		771	925	861	957	

¹: May include seeds for sowing. Rankings based on four year totals from 2006 to 2009.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Top Markets for Chickpeas¹

		Imports (000' tonnes) ¹				2009 Canadian Share of
		2006	2007	2008	2009	Import Market (Volume)
						%
1	India	126	107	203	302	4%
2	Spain	63	63	55	46	6%
3	Algeria	56	57	46	54	3%
Total World Imports*		406	434	522	575	

¹: May include seeds for sowing. Rankings based on four year totals from 2006 to 2009.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Top Markets for Dry Beans¹

	Imports (000' tonnes) ¹				2009 Canadian Share of Import Market (Volume)
	2006	2007	2008	2009	
1 India	552	577	516	981	2%
2 Italy	218	154	165	149	13%
3 United States	160	176	171	165	48%
Total World Imports*	2,534	2,606	2,780	3,097	

¹: May include seeds for sowing. Rankings based on four year totals from 2006 to 2009.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Select Emerging Markets for Dry Peas¹

	2006-2009 World Import Growth		2009 Canadian Share of Import Market (Volume)
	%	Tonnes	
1 Norway	1,569%	56,973	30%
2 Indonesia	431%	5,348	19%
3 Germany	109%	35,503	17%
Total World Imports*	-11%	-383,048	

¹: May include seeds for sowing.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Select Emerging Markets for Lentils¹

	2006-2009 World Import Growth		2009 Canadian Share of Import Market (Volume)
	%	Tonnes	
1 China	1,627%	3,140	1%
2 Malaysia	175%	1,723	0%
3 Argentina	114%	2,747	99%
Total World Imports*	24%	186,090	

¹: May include seeds for sowing.

*: Based on most recent information available.

Source: Global Trade Atlas, May 2010. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Select Emerging Markets for Chickpeas¹

	2006-2009 World Import Growth		2009 Canadian Share of Import Market (Volume)
	%	Tonnes	%
1 Singapore	280%	1,283	0%
2 Turkey	134%	2,523	0%
3 United States	69%	9,271	51%
Total World Imports*	42%	168,946	

¹: May include seeds for sowing.

*: Based on most recent information available.

Source: *Global Trade Atlas, May 2010*. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Select Emerging Markets for Dry Beans¹

	2006-2009 World Import Growth		2009 Canadian Share of Import Market (Volume)
	%	Tonnes	%
1 Morocco	356%	25,832	0%
2 Romania	229%	25,160	0%
3 Turkey	75%	23,335	1%
Total World Imports*	22%	563,019	

¹: May include seeds for sowing.

*: Based on most recent information available.

Source: *Global Trade Atlas, May 2010*. "Canadian % Share of Import Market" represents share of Canadian exports in the importing country.

Food for Thought...

Pulse consumption in Canada is still considered low however, consumption has increased over the past two decades by nearly one kg per person.

Source: *Alberta Agriculture and Food*.

Canadian Pulse Imports 2006-2009¹

Canada imports very little pulses. Over the period, 2006 to 2009, Canada's pulse imports were valued at nearly \$211 million. In contrast, exports were valued at approximately \$6.2 billion over the same four year period. The most imported type were navy/white pea beans with a 26 percent share of total Canadian pulse imports from 2006 to 2009, the equivalent of approximately \$54 million. Nearly all of these imports came from the U.S. Top pulse imports also included beans, nes and feed peas with a share of 13 percent and 8 percent, respectively. The U.S., China and Thailand were the top suppliers of beans, nes while the majority of feed peas were imported from the U.S. In terms of value, Canada's largest pulse import were dry beans with a 64 percent share of total pulse imports during the period 2006 to 2009, followed by dry peas with 18 percent. Lentils and chickpeas each had a 9 percent share of total pulse imports.

Canada's Top Imports of Pulses¹

		(million \$)			
		2006	2007	2008	2009
1	Navy/White Pea Beans	9.5	7.8	20.9	15.6
2	Beans, nes ²	4.2	5.6	9.2	9.5
3	Feed Peas	4.9	4.3	1.9	5.2
4	Mung, Green, Gram Beans ³	1.4	2.1	3.0	4.9
5	Lentils, nes	3.5	2.0	4.1	3.4
	Other	20.8	17.5	25.3	24.3
Total Value of Canadian Pulse Imports		44.4	39.3	64.4	62.8

¹: Excludes seeds for sowing. Rankings based on 2009 data.

²: Not elsewhere specified.

³: packaged, >500 grams

Source: Statistics Canada, May 2010.

Canada's Top Suppliers of Pulses¹

		(million \$)			
		2006	2007	2008	2009
1	United States	30.9	24.7	41.1	37.9
2	China	4.7	5.0	6.7	6.8
3	Thailand	0.9	2.4	5.3	4.5
4	India	3.9	1.3	1.7	3.7
5	Australia	0.5	0.2	0.7	2.1
	Other	3.5	5.8	8.9	7.8
Total Value of Canadian Pulse Imports		44.4	39.3	64.4	62.8

¹: Excludes seeds for sowing. Rankings based on 2009 data.

Source: Statistics Canada, May 2010.

Food for Thought...

The word pulse comes from the Latin *puls* meaning thick soup or potage.

Source: Pulse Canada.

Canada's Agriculture Labour Force

The number of people employed in Canadian agriculture decreased by 7 percent from an estimated 346,000 employees in 2006 to nearly 321,000 employees in 2009. Canadian agriculture now represents almost 9 percent of people employed in the total goods-producing sector and nearly 2 percent in all Canadian industries. In 2009, about 71 percent of agriculture employees were men and 29 percent were women. Of the number of Canadian agriculture employees in 2009, Ontario represented 26 percent followed by Quebec (18 percent), Alberta (17 percent), Saskatchewan (14 percent), British Columbia (11 percent) and Manitoba (8 percent). Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick, collectively had a 6 percent share of total agriculture employees. According to the 2006 Census of Agriculture, the average age of farm operators was 52 years. In contrast, the average age of the Canadian labour force was 41.2 years. The average age of farm operators has increased from 49.9 years in 2001 and 48.4 years in 1996.

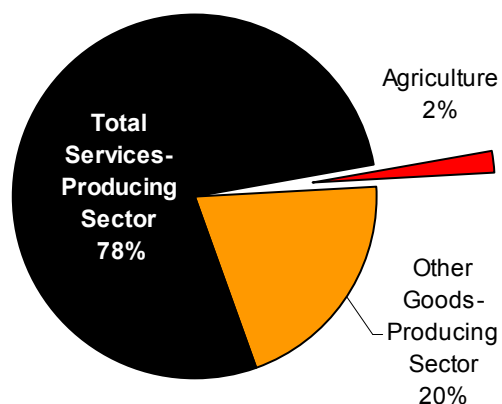
	Employees (thousands)			
	2006	2007	2008	2009
Agriculture	346.4	337.2	327.0	320.5
Other Goods-Producing Sector	3,639.5	3,655.7	3,694.4	3,416.0
Total Goods-Producing Sector¹	3,985.9	3,993.0	4,021.3	3,736.4
Total Services-Producing Sector²	12,498.4	12,873.5	13,104.5	13,112.5
Total All Industries	16,484.3	16,866.4	17,125.8	16,848.9

¹: Total goods-producing sector consists of the following industries: agriculture; forestry, fishing, mining, oil and gas; utilities; construction and manufacturing.

²: Total services-producing sector consists of the following industries: trade; transportation and warehousing; finance, insurance, real estate and leasing; professional, scientific and technical services; business, building and other support services; educational services; health care and social assistance; information, culture and recreation; accommodation and food services; other services and public administration.

Source: Statistics Canada, 71F0004XCB, Labour Force Survey, January 2010.

Canadian Agriculture's Share of Employees - 2009



Source: Statistics Canada, 71F0004XCB, Labour Force Survey, January 2010.

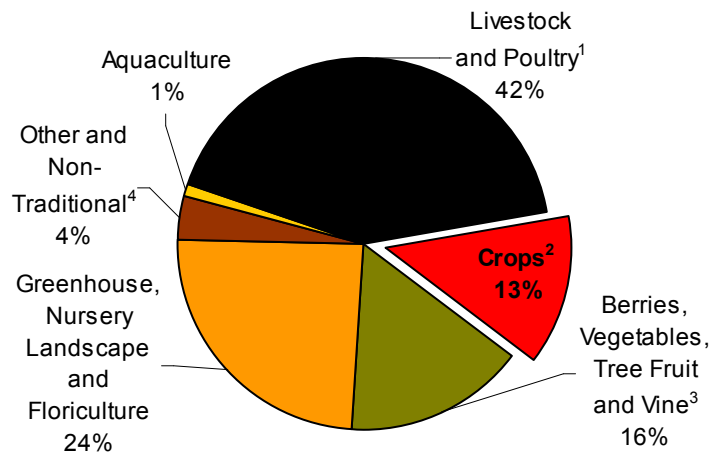
Food for Thought...

It is estimated that the Canadian ingredient market processes 50,000 to 70,000 tonnes of pulses into flour or its constituent parts.

Source: Alberta Agriculture and Food.

In their study, Labour Market Information on Recruitment and Retention in Primary Agriculture, the Canadian Agricultural Human Resource Council (CAHRC) estimates that crop commodities (all farm sizes), which includes pulses, employed an estimated 13 percent of Canadian agricultural employees. The largest employing commodity group was livestock and poultry (42 percent) followed by the greenhouse, nursery landscape and floriculture group (24 percent) and the commodity group berries, vegetables, tree fruit and vine (16 percent). The remaining commodity groups, other and non-traditional, and aquaculture, employed an estimated 4 percent and 1 percent of Canadian agricultural employees, respectively.

Estimated Share of Canadian Agricultural Employment by Commodity Group



¹: Beef and dairy cattle, poultry and eggs, swine, and other animals including sheep, goats, bison, elk, alpaca, horses, rabbits, deer, fox and mink.

²: Grains, cereals, oilseeds, pulses, pastures, forages, fibre and seed production.

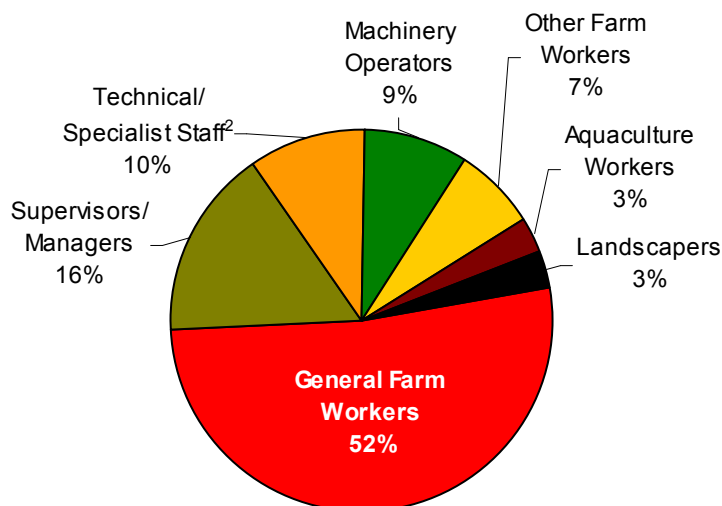
³: Field fruit and vegetables, melons, potato, tree fruit and vine.

⁴: Herbs and spices, maple, sod, bees, tobacco, hemp and non-timber forest products.

Source: *Labour Market Information on Recruitment and Retention in Primary Agriculture, Canadian Agricultural Human Resource Council, 2009.*

The CAHRC study also provides estimates of employment by major occupational group (non-seasonal positions). General farm workers represented approximately half of the share of Canadian agricultural employment (52 percent). The second largest occupational group were supervisors/managers with an estimated 16 percent followed by technical/specialist staff (10 percent), machinery operators (9 percent) and other farm workers (7 percent). Aquaculture workers and landscapers had the smallest shares of Canadian agricultural employment with 3 percent each.

Estimated Share of Canadian Agricultural Employment by Major Occupational Group¹



¹: Non-seasonal positions.

²: Science professionals, agricultural consultants and specialists, technicians and engineers, and professional/technical animal health workers (formally trained).

Source: *Labour Market Information on Recruitment and Retention in Primary Agriculture*, Canadian Agricultural Human Resource Council, 2009.

Food for Thought...

Europe and Oceania are the two regions of the world where pulses are still consistently used in large quantities for livestock feed. In Europe, it is mainly dry peas and dry beans that are used as feed and in Oceania, lupins are consumed as livestock feed.

Source: *Saskatchewan Pulse Growers*.

Business Risk Management Programs

Under the federal-provincial-territorial initiative, Growing Forward, a suite of Business Risk Management programs is available to producers to help protect their income and manage risks such as drought, flooding, low prices, and increased input costs. Together, these programs provide protection for different types of losses, as well as cash flow options.

AgriInvest

AgriInvest is a savings account for producers, supported by governments, which provides coverage for small income declines and allows for investments that help mitigate risks or improve market income.

For more information about AgriInvest, please visit: www.agr.gc.ca/agriinvest or call AAFC toll free at 1-866-367-8506.

AgriStability

The AgriStability program provides support when a producer experiences larger farm income losses. The program covers declines of more than 15 percent in a producer's average income from previous years.

For more information about AgriStability, please visit: www.agr.gc.ca/agristability or contact AAFC toll free at 1-866-367-8506.

AgriInsurance

AgriInsurance is an existing program which includes insurance against production losses for specified perils (weather, pests, disease) and is being expanded to include more commodities.

For more information about AgriInsurance, please visit: www.agr.gc.ca/agriinsurance or contact AAFC toll free at 1-866-367-8506.

AgriRecovery

AgriRecovery is a disaster relief framework which provides a coordinated process for federal, provincial and territorial governments to respond rapidly when disasters strike, filling gaps not covered by existing programs.

For more information about AgriRecovery, please visit: www.agr.gc.ca/agrirecovery or contact AAFC toll free at 1-866-367-8506.

Advance Payments Program (APP)

APP is a complementary program to the Business Risk Management suite. It helps crop and livestock producers with cash flow and provides flexibility for marketing of commodities.

For more information about the APP, please visit: www.agr.gc.ca/app or contact AAFC toll free at 1-866-367-8506.

Useful Links

AAFC Programs and Services

Information on Growing Forward Programs and Services is available at:
www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1204137480722&lang=eng

Statistics

For the latest market information and analysis available from Agriculture and Agri-Food Canada, please consult the following publication:

Canada: Pulse and Special Crops Outlook
www.agr.gc.ca/pol/mad-dam/index_e.php?s1=pubs&s2=spec

Associations

Pulse Canada is an industry association that represents growers, processors and traders of pulse crops in Canada. Direction and funding for Pulse Canada is provided by the Alberta Pulse Growers Commission, the Saskatchewan Pulse Growers, Manitoba Pulse Growers Association, the Ontario Bean Producers Marketing Board, the Ontario Coloured Bean Growers, and the processors and exporters of Canadian dry peas, lentils, chickpeas and dry beans that are members of the Canadian Special Crops Association.

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Fax: 204-925-4454
Web: www.pulsecanada.com

The Canadian Special Crops Association represents most exporters, dealers, brokers, and processors involved in trading Canada's special crops. These crops include dry peas, lentils, mustard seed, buckwheat, dry beans, chickpeas, faba beans, safflower seeds, canary seeds, and sunflower seeds. A request for prices can be submitted at: www.specialcrops.mb.ca/request.html.

Canadian Special Crops Association
1215 - 220 Portage Avenue
Winnipeg, Manitoba R3C 0A5 Canada
Email: office@specialcrops.mb.ca
Tel: 204-925-3780/925-3783
Fax: 204-925-3785
Web: www.specialcrops.mb.ca

Useful Links

Provincial Links

Dry Peas

Manitoba, Agriculture, Food and Rural Initiatives
<http://gov.mb.ca/agriculture/crops/pulsecrops/bhe01s01.html>

Saskatchewan Agriculture and Food
www.agriculture.gov.sk.ca/pea

Lentils

Alberta Agriculture and Rural Development
[www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/crop763?opendocument](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/crop763?opendocument)

Manitoba, Agriculture, Food and Rural Initiatives
www.gov.mb.ca/agriculture/crops/pulsecrops/bhf01s01.html

Saskatchewan Agriculture and Food
www.agriculture.gov.sk.ca/Lentil

Dry Beans

Manitoba, Agriculture, Food and Rural Initiatives
www.gov.mb.ca/agriculture/crops/pulsecrops/bhd03s01.html

Ontario Ministry of Agriculture, Food and Rural Affairs
www.omafr.gov.on.ca/english/crops/field/beans.html

Saskatchewan Agriculture and Food
www.agriculture.gov.sk.ca/bean

Chickpeas

Alberta Agriculture and Rural Development
[www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/crop752?opendocument](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/crop752?opendocument)

Saskatchewan Agriculture and Food
www.agriculture.gov.sk.ca/chickpea

Canadian Agricultural Human Resource Council

Labour Market Information on Recruitment and Retention in Primary Agriculture
www.cahrc-ccrha.ca/docs/Labour%20Market%20Information%20Final%20Report.pdf

Notes:

Notes:

For further information, please contact:

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