DRY PEA SECTOR

OVERVIEW OF THE DRY PEA SECTOR IN MANITOBA


Peas (Seedling)

- Pea production in Manitoba began in 1908 when less than 2,000 acres were harvested, and production was quite sporadic until 1919. In the years immediately after the Second World War, Canadian production was concentrated in Manitoba.

- Pea production slowly started increasing in 1977 and the opening of the European feed pea market in 1985 brought high returns for pea producers in Western Canada. In Manitoba, growth in production reached a pinnacle of 260 thousand acres in 1998.

- In 2011, Manitoba reported 203 dry pea farms compared to 424 in 2006. This represents 2.7% of dry pea farms in Canada and approximately 1 to 2% of Canada's total dry pea production.

- Dry peas are a cool season crop with a relatively shallow root system. They are generally as drought tolerant as cereal grains, but cannot tolerate heat stress during flowering. They have performed well in all areas of the Prairies, especially in summers with cool and moist conditions.

- Peas should not be grown on the same field more than once every four years to avoid the rapid increase of soil-borne and foliar diseases.

- Dry pea production provides an agronomical sound way of extending and improving crop rotations. The crop following dry peas in the rotation generally yields more than the same crop grown after cereals or oilseeds.

- To maintain their position in the pea market, both Manitoba and Canada continually promote leading-edge research to foster improvements in variety, production and processing.

Dry Field Peas	Manitoba 2011	Manitoba 2006	Canada 2011	Canada 2006
Number of farms	203	424	7,460	10,444
Acres	39,610	91,381	2,412,216	3,123,953
Hectares	16,030	36,981	976,189	1,264,219

Source: Census of Agriculture 2011

Processing Dry Peas in Manitoba

- Processing occurs both within Winnipeg and throughout the surrounding region. There are several companies in Manitoba that clean, split and bag peas for export.

- Number 2 Yellow is the minimum grade for processing and many export markets. #1 and #2 Green are required for export markets. Major factors in downgrading peas are pale colour in greens, soil particles, splits, cracked seed coats and shrivelled, immature seed.

- Feed peas are mainly used by the hog industry along with poultry and cattle. They are a good source of energy and contain amounts of digestible energy comparable to wheat. They are high in amino acids and lysine, complementing the amino acid profile of canola meal, which is high in methionine and cystine. The amino acids in feed peas are highly digestible by hogs and poultry. In addition, dry peas do not have to be heat treated to deactivate anti-nutritional factors.

- Dry peas are very economical as a feed ingredient and can act as a substitute for imported corn and soybean meal in western Canada. However, in eastern Manitoba, using dry pea feed is a disadvantage due to lower transportation costs from the U.S mid-west corn and soybean producing areas.

- Other processing in Manitoba includes the refinement of pea starch and protein, the production of fine and coarse pea hull fibre, and the production of consumer packaged goods such as pea soups.

- Food use of dry peas includes canning, split, and whole dry markets, as well as products such as flour, starch, and fibre. These products are then used in baked goods, baking mixes, soup mixes, breakfast cereals, processed meats, health foods, pastas, and purees.

- Dry peas are low in sodium, high in protein and are an excellent source of both soluble and insoluble fibre, complex carbohydrates, B vitamins and minerals such as calcium, iron and potassium.

- Reseach at the University of Manitoba reports that dry peas are high in fibre, low in fat and cholesterol free, with a positive effect on heart health due to demonstrated cholesterol and lipid lowering properties.

- The smooth, green- and yellow-seeded varieties are used for human consumption as dry split field peas. Field peas have high levels of the essential amino acids, lysine and tryptophan.

- Field pea flour is a valued vegetable protein source that is gluten free and an excellent source of the B vitamin folate. Its use in the food industry is increasing due to unique functional properties and due to the fact that that peas are already an accepted part of the human diet throughout the world. The viscosity of slurried pea flours makes them useful in aqueous food systems.

Trade

- Canada is expected to continue to be the largest producer and exporter of dry peas in the world.

- The majority of dry peas produced by Manitoba producers are yellow peas for food and livestock feed. Green peas are also produced, although in lesser amounts.

- Some of the food quality peas are shipped to canneries in Eastern Canada.

- The majority of food pea exports are shipped to countries such as Spain, Belgium, the United States and Mexico.

- Manitoba also exports small amounts of pea flour to the United States, Belgium, Norway and the United Kingdom.

- The export human consumption market has been growing as more pulse-consuming countries, such as India and Colombia, purchase whole or split pea to provide relatively low-cost protein to their growing populations.

- Exports to India are expected to continue to increase as a result of an expanding middle class and the country's inability to meet the increasing population growth driven consumption. In India the deficit between production and imports has been growing over the past 6 years with Canadian share of exports comprising about 50% of the shortfall.

- Relatively new large markets such as China, where pea use is increasingly being incorporated into food use should continue to provide good export growth prospects.

- New export markets for food peas are expected to be developed as a result of research and market development focusing on the health aspects of a diet incorporating pulses.

- Dry peas (Pisum sativum) have the largest production volume of all special crops in Canada. The main varieties include yellow, green, maple, green marrowfat, and Austrian winter peas.

- The determination of which pea is produced is dependent upon whether the peas are destined for the feed or food market. The yellow pea is the most widely seeded and produced, with approximately 40 varieties registered in Canada, while the newest type, the green marrowfat, has two registered varieties.

- Yellow peas are grown for either human food or animal feed. Green peas are grown for human consumption; and small amounts of other types are also grown such as marrowfat for snack foods, maple types for bird feed and small-seeded forage types.

- Dry pea production is expected to trend moderately upwards due to increasing demand in the food and feed sectors, the continued development of improved varieties and their fit in rotations with other crops.

Dry Pea Outlook for Canada 2012-2013

- For 2012-13, area seeded to dry peas is forecast to increase by 42% from 2011-12 due to higher expected returns relative to other crops and lower carry-in stocks. Intended seeded area in Saskatchewan, the largest dry pea growing province, and Alberta increased by 46% and 30%, respectively.

- The expected strength in green pea types relative to yellow types in 2011-12 may encourage a rise in area seeded to green peas. No.1 green pea farm gate prices are forecast at a $15/t premium to No.1 yellow prices for 2012-13.

- Supply is forecast to increase significantly but partly offset by lower carry-in stocks.

- Exports are expected to increase by about 10% to 2.3 Mt, due to increased exports to China and the Indian subcontinent (India, Pakistan and Bangladesh), Canada's largest dry pea export market. This area is expected to account for over 60% of Canada's pea exports, near the five-year average. Exports to the US are forecast to fall due to an increase in US production.

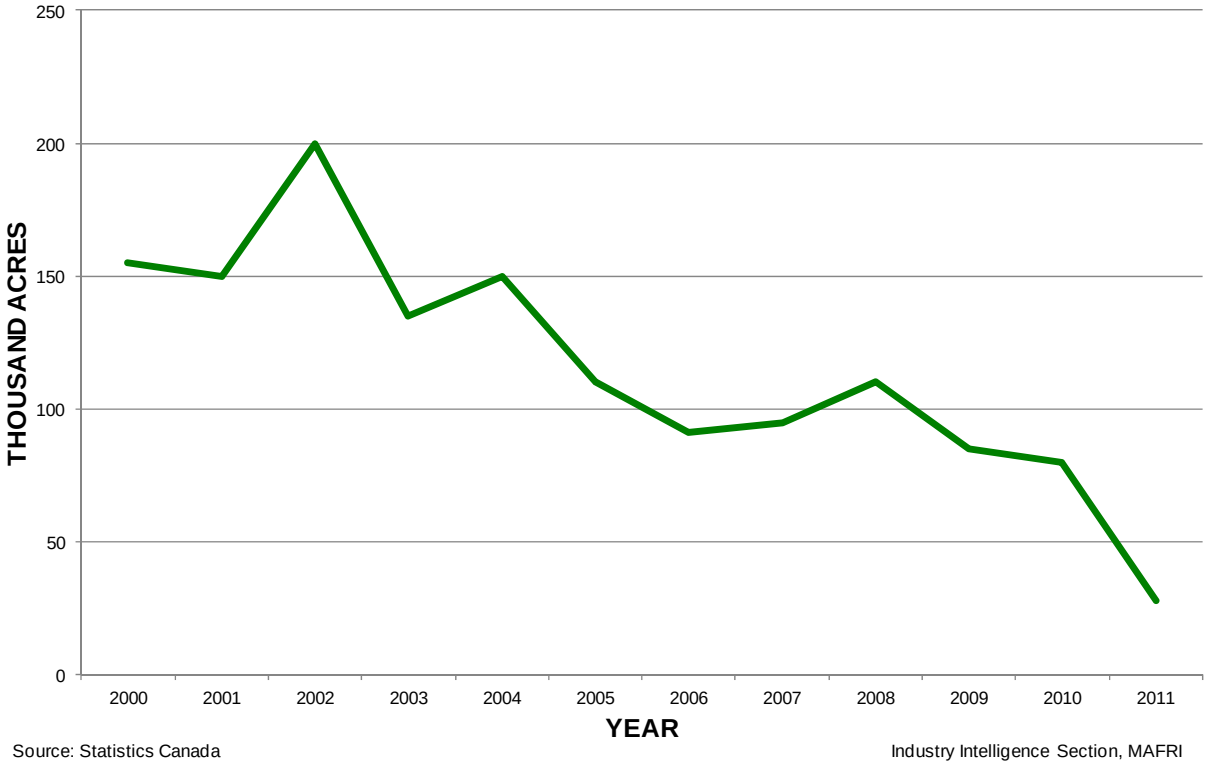
- Carry-out stocks are expected to increase but remain tight. The higher expected production likely will not be enough to alleviate the tight supply. Supply is expected to be tight for the second year in a row and the average dry pea price for 2012-13 is forecast to be lower, but near the historical highs of 2011-12. For 2012-13, US dry pea area is forecast by the USDA at 0.3 Mha, up 68% from 2011-12. Assuming normal yields and abandonment, US dry pea production is forecast by AAFC at 0.5 Mt, nearly double the production from 2011-12.

- For 2012-13, the pulse crop in India, is forecast at 17.0 Mt, down 5% from 2011-12 due to lower seeded area. In addition, domestic consumption of pulses in India is forecast to increase by 5% to about 20.0 Mt. As a result, imports are expected to increase to over 3.0 Mt. With the smaller Rabi pulse crop in India harvested in the February-March period of 2012, this is expected to increase the pace of Canadian dry pea exports to India for the remainder of the 2011-12 crop year and into the beginning of the 2012-13 crop year.

Outlook for Dry Peas	**2010-2011**	**2011-2012p**	**2012-2013f**
Area Seeded (kha)	1,396	942	1,340
Area Harvested (kha)	1,322	914	1,300
Yield (t/ha)	2.28	2.31	2.23
Production (kt)	3,018	2,116	2,900
Imports (kt)	33	10	20
Total Supply (kt)	3,951	2,661	3,020
Exports (kt)	3,012	2,100	2,300
Total Domestic Use (kt)	404	461	470
Carry-out Stocks (kt)	535	100	250
Stocks-to-use Ratio (%)	16	4	9
Average Price ($/t)	250	300-330	255-285

Source: Statistics Canada and Agriculture and Agri-Food Canada, June 2012

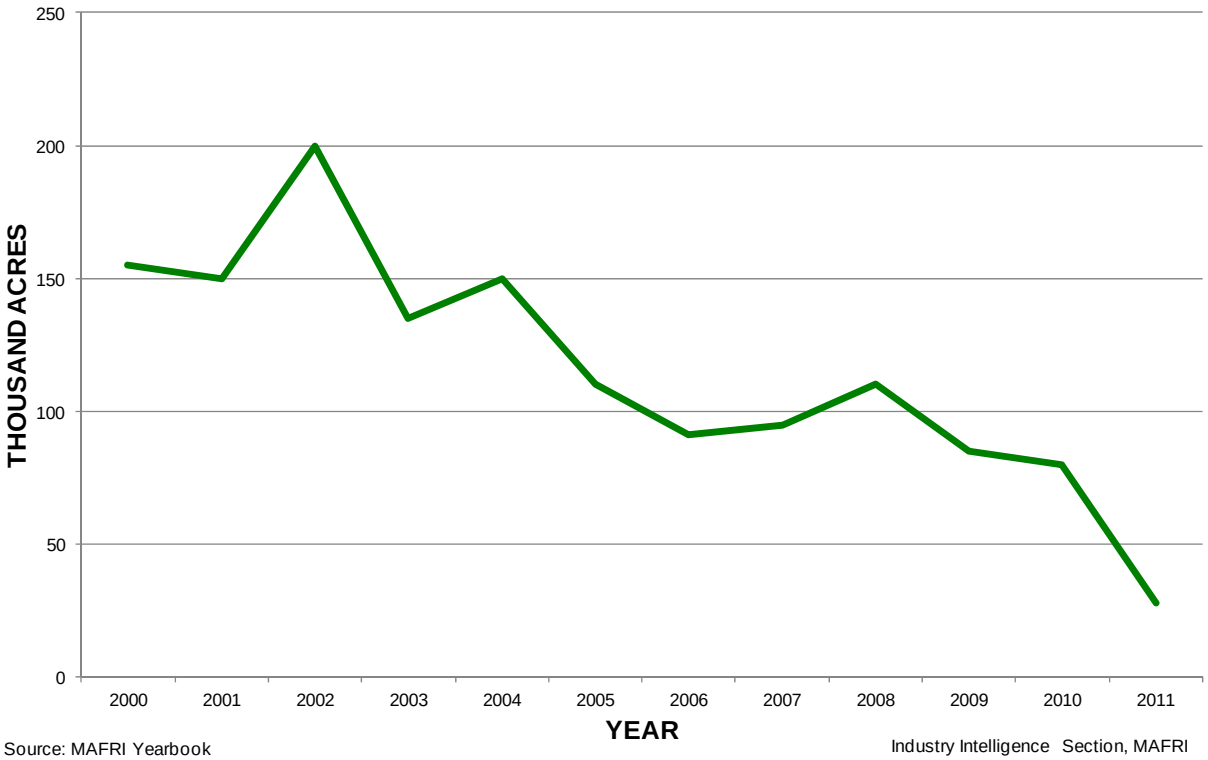
Peas - Seeded Acres in Manitoba
2000 - 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

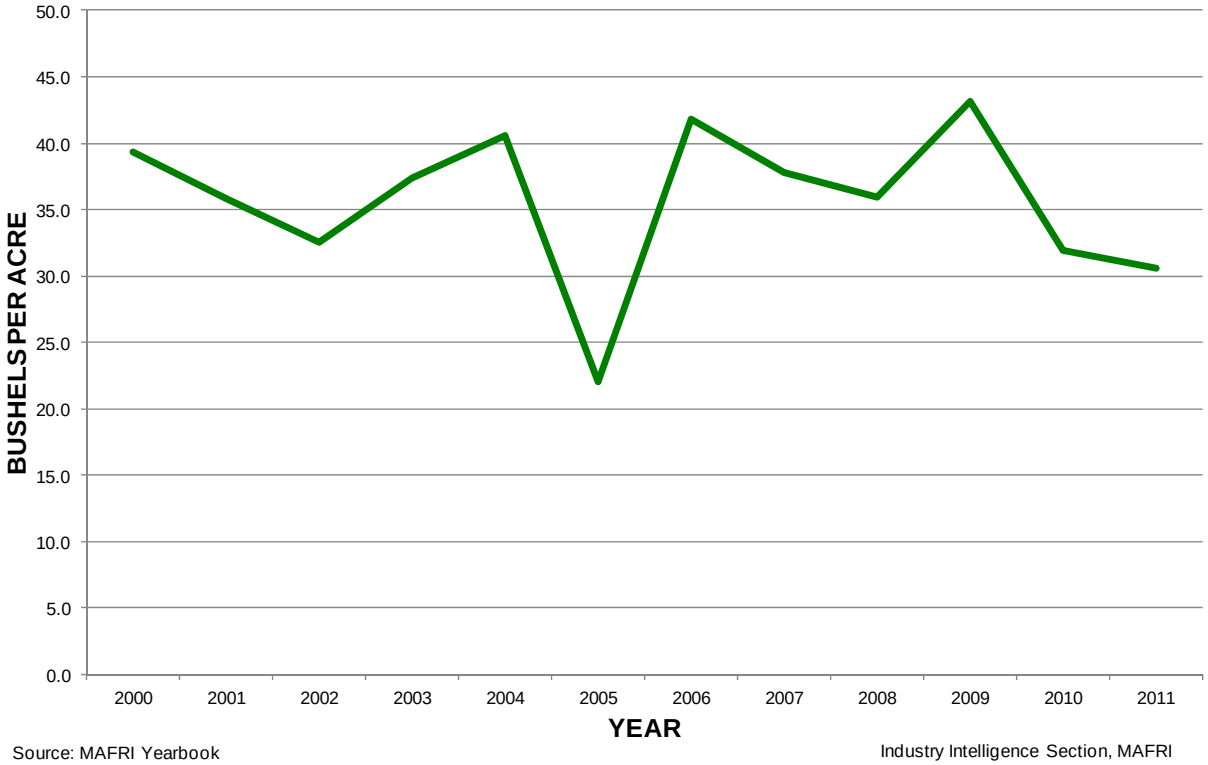
Peas - Harvested Acres in Manitoba
2000 - 2011



Source: MAFRI Yearbook

Industry Intelligence Section, MAFRI

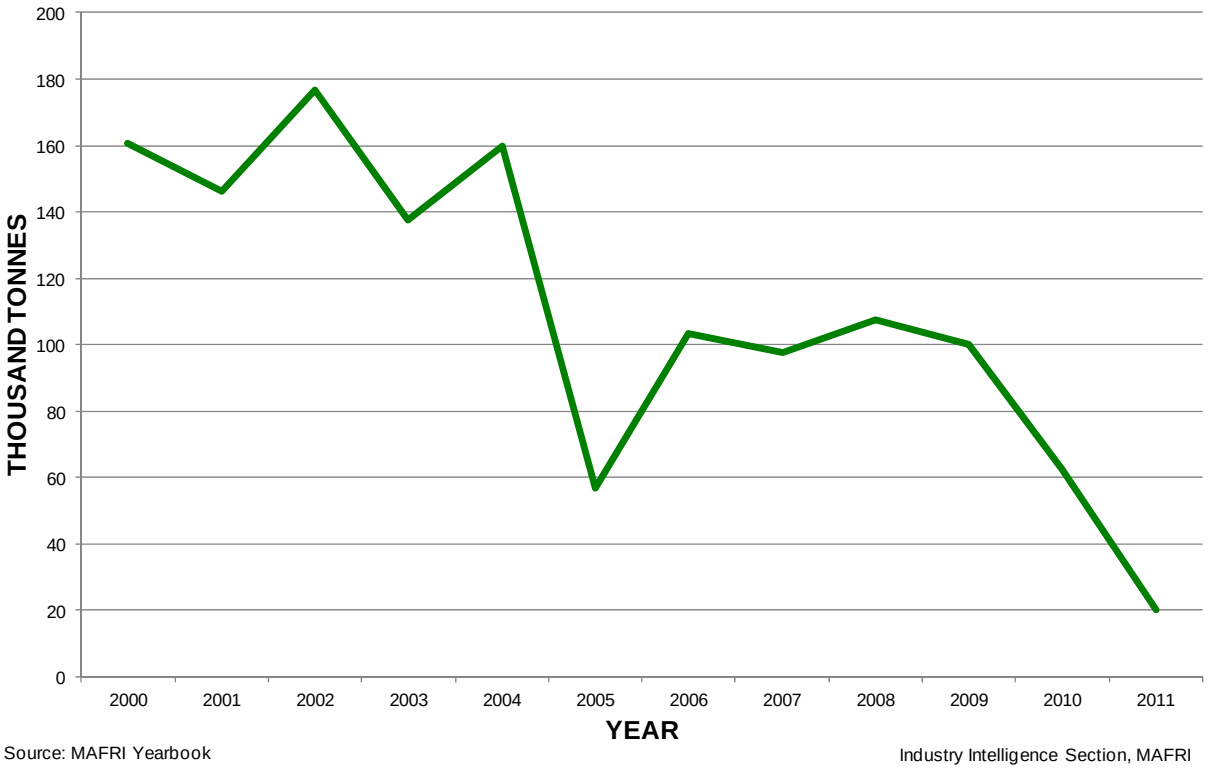
Peas - Yield per Acre in Manitoba
2000 - 2011



Source: MAFRI Yearbook

Industry Intelligence Section, MAFRI

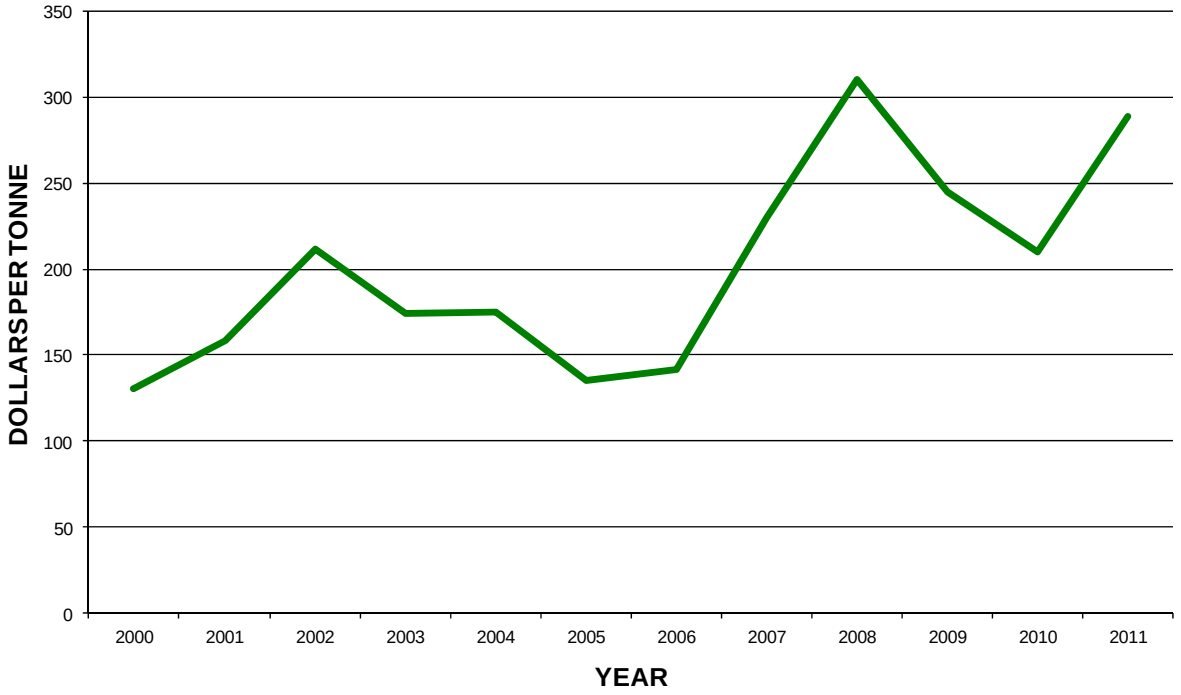
Peas - Tonnes Produced in Manitoba
2000 - 2011



Source: MAFRI Yearbook

Industry Intelligence Section, MAFRI

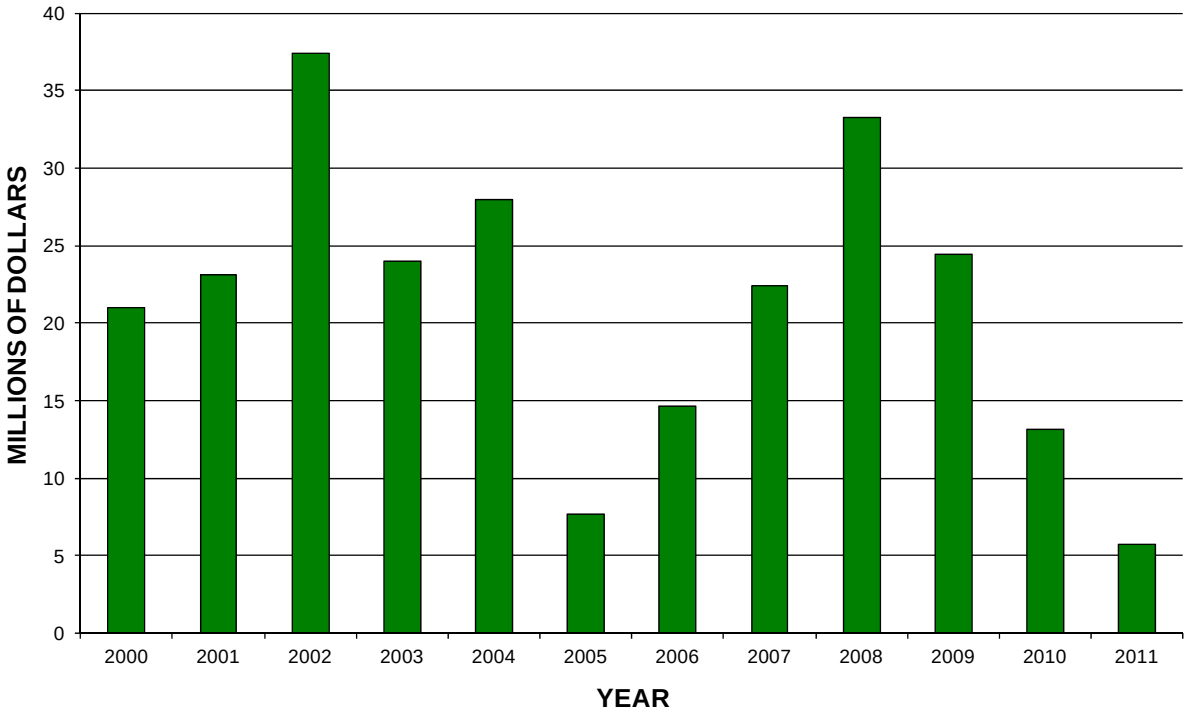
Dry Pea Prices in Manitoba
2000 – 2011



Source: STC, AAFC, MAFRI

Industry Intelligence Section, MAFRI

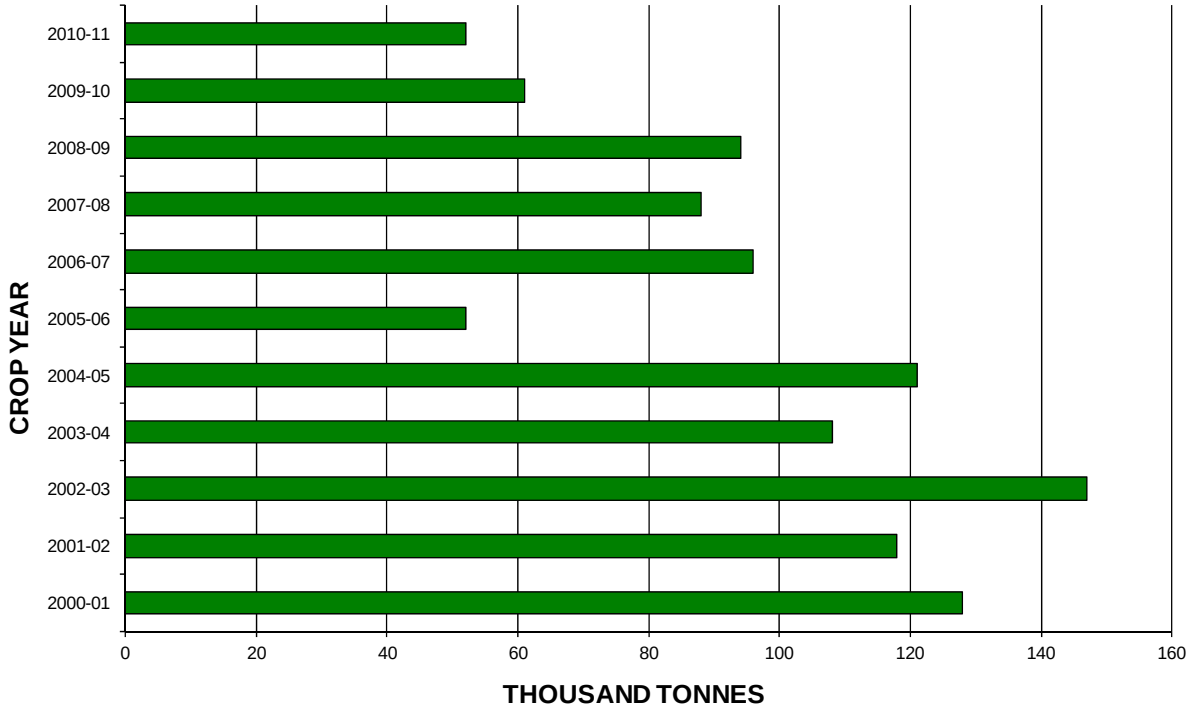
Value of Dry Pea Production in Manitoba
2000 - 2011



Source: STC, AAFC, MAFRI

Industry Intelligence Section, MAFRI

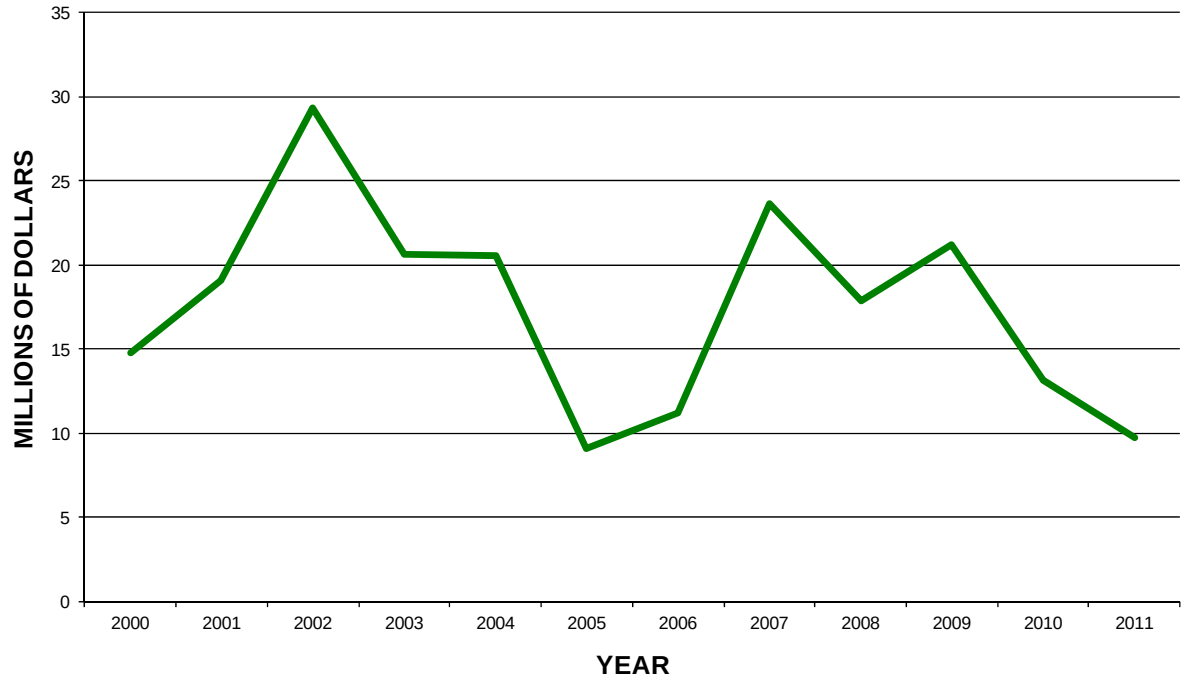
Marketings of Manitoba Dry Peas
2000 - 2011



Source: STC, AAFC, MAFRI

Industry Intelligence Section, MAFRI

Farm Cash Receipts for Dry Peas in Manitoba
2000 – 2011



Source: Statistics Canada

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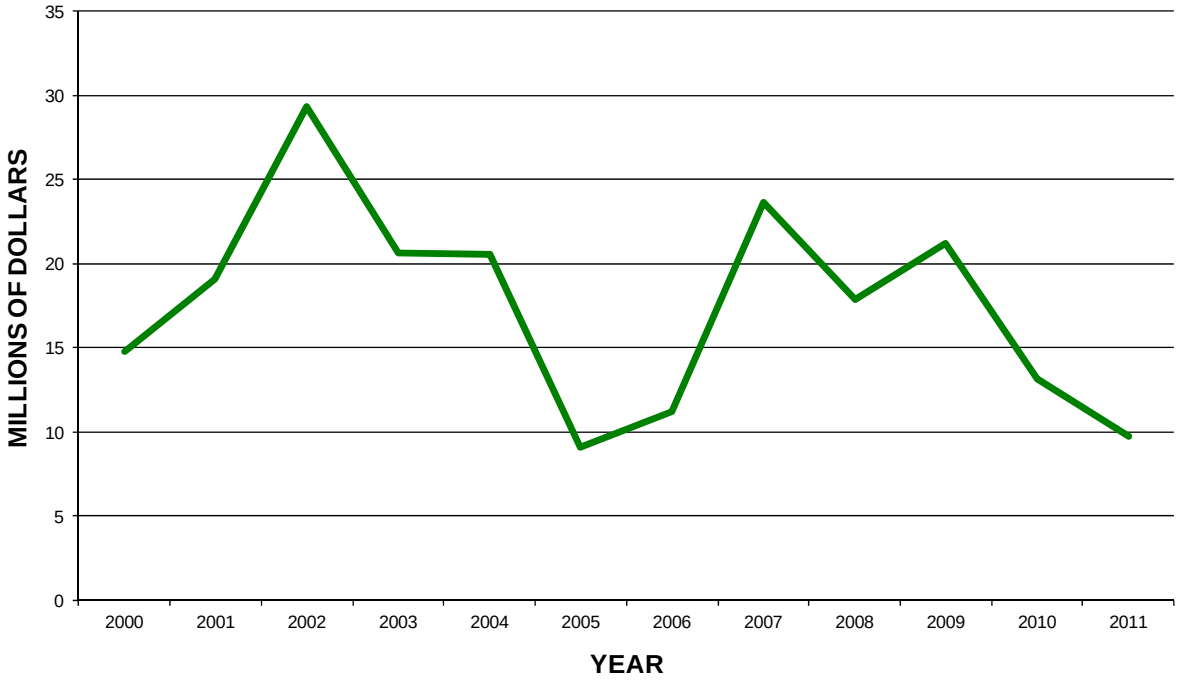
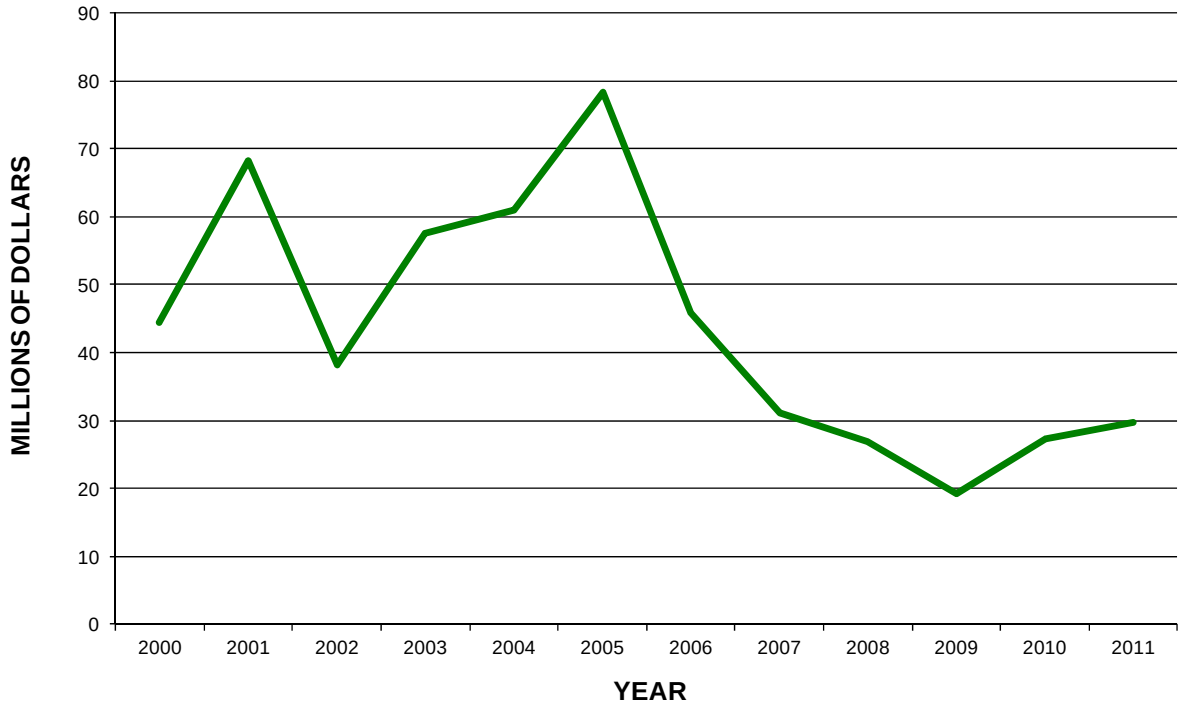


Source: Statistics Canada

Industry Intelligence Section, MAFRI

Manitoba Dry Pea Exports
2000 - 2011



Source: Statistics Canada

Industry Intelligence Section, MAFRI

Farm Supply and Disposition of Manitoba Dry Pea Crop, 2000/01 to 2011/12

000 tonnes	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Opening Stocks Aug1	8	3	2	2	5	10	5
Production	57	104	98	108	100	63	20
Total Supply	**65**	**107**	**100**	**110**	**105**	**73**	**25**
Marketings	52	96	88	94	61	52	18
Seed	6	6	7	6	5	2	1
Carry-over	4	3	3	6	10	6	1
Feed/Waste/Dockage	3	2	2	4	29	13	5
Total Disposition	**65**	**107**	**100**	**110**	**105**	**73**	**25**

000 bushels	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Opening Stocks Aug1	294	110	73	73	184	367	184
Production	2,094	3,821	3,601	3,968	3,674	2,315	735
Total Supply	**2,388**	**3,932**	**3,674**	**4,042**	**3,858**	**2,682**	**919**
Marketings	1,911	3,527	3,233	3,454	2,241	1,911	661
Seed	220	220	257	220	184	73	37
Carry-over	147	110	110	220	367	220	37
Feed/Waste/Dockage	110	73	73	147	1,066	478	184
Total Disposition	**2,388**	**3,932**	**3,674**	**4,042**	**3,858**	**2,682**	**919**

- **DRY PEAS - Common Conversions**
  1 metric tonne dry peas = 36.743 bushels.
  There are 60 pounds in 1 bushel of dry peas.

Production and Value of Manitoba Dry Peas

Year	Seeded Area (hectares)	Harvested Area (hectares)	Average Yield (kg per ha)	Production (tonnes)	Price per Tonne ($/tonne)	Total Value ($000)
1990	36,400	36,400	2,000.000	73,500	178	13,083
1991	51,557	51,557	1,600.000	84,400	171	14,432
1992	50,600	48,600	2,200.000	108,900	193	21,018
1993	80,900	60,700	1,400.000	85,700	182	15,597
1994	85,000	80,900	2,100.000	168,700	182	30,703
1995	72,800	72,800	2,000.000	147,000	206	30,282
1996	58,700	56,700	2,300.000	132,000	219	28,908
1997	82,900	82,900	2,200.000	178,300	177	31,559
1998	105,200	103,200	2,200.000	225,900	147	33,207
1999	42,400	38,400	2,400.000	92,000	144	13,248
2000	62,600	60,600	2,600.000	160,500	131	20,966
2001	60,700	60,700	2,400.000	146,100	158	23,123
2002	80,800	80,800	2,200.000	176,900	212	37,423
2003	54,600	54,600	2,500.000	137,400	174	23,974
2004	60,600	58,600	2,700.000	160,000	175	27,949
2005	44,500	38,400	1,500.000	56,900	136	7,720
2006	37,000	36,800	2,800.000	103,500	142	14,658
2007	38,500	38,500	2,500.000	97,700	230	22,422
2008	44,400	44,400	2,400.000	107,500	310	33,305
2009	34,400	34,400	2,900.000	100,000	245	24,485
2010	32,400	29,200	2,100.000	62,600	210	13,148
2011	11,300	9,700	2,100.000	20,000	289	5,772

Year	Seeded Area (acres)	Harvested Area (acres)	Average Yield (bu per acre)	Production (000 bushels)	Price per Bushel ($/bushel)	Total Value ($000)
1990	90,000	90,000	30.0	2,700	4.85	13,083
1991	127,401	127,401	24.3	3,100	4.66	14,432
1992	125,000	120,000	33.3	4,000	5.25	21,018
1993	200,000	150,000	21.0	3,150	4.95	15,597
1994	210,000	200,000	31.0	6,200	4.95	30,703
1995	180,000	180,000	30.0	5,400	5.61	30,282
1996	145,000	140,000	34.6	4,850	5.96	28,908
1997	205,000	205,000	32.0	6,550	4.82	31,559
1998	260,000	255,000	32.5	8,300	4.00	33,207
1999	105,000	95,000	35.6	3,380	3.92	13,248
2000	155,000	150,000	39.3	5,900	3.55	20,966
2001	150,000	150,000	35.8	5,370	4.31	23,123
2002	200,000	200,000	32.5	6,500	5.76	37,423
2003	135,000	135,000	37.4	5,050	4.75	23,974
2004	150,000	145,000	40.6	5,880	4.75	27,949
2005	110,000	95,000	22.0	2,090	3.69	7,720
2006	91,381	91,000	41.8	3,800	3.86	14,658
2007	95,000	95,000	37.8	3,590	6.25	22,422
2008	110,000	110,000	35.9	3,950	8.43	33,305
2009	85,000	85,000	43.2	3,675	6.66	24,485
2010	80,000	72,000	31.9	2,300	5.72	13,148
2011	28,000	24,000	30.6	735	7.85	5,772

SOURCE: Statistics Canada; Agriculture and Agri-Food Canada; Manitoba Agriculture, Food and Rural Initiatives.