Alberta 2012 Specialty Crop Report

Alberta Government

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Alberta 2011 Specialty Crop Survey

Lukas Matejovsky

Purpose of Survey

To address some of the data and information needs of the specialty crop industry in Alberta, the Statistics and Data Development (SADD) Branch of Alberta Agriculture and Rural Development (ARD) conducts an annual specialty crop survey. Now into its twenty-eighth year, the survey captures data on area, yield and production for specialty crops grown in the province.

Data gathered from the survey are used primarily to generate related provincial and sub-provincial (Census Division) estimates. In turn, these estimates are used to validate some of the Alberta statistics produced by Statistics Canada, as well as to provide industry and other stakeholders with benchmark data for some of the "new" and emerging crops.

Methodology

The Alberta Specialty Crop Survey, which is provincial in scope, collects data through a non-probability sampling procedure. In January 2012, survey questionnaires were mailed out to 2,623 specialty crop producers across the province. The questionnaires specifically asked survey participants to provide information on the type of specialty crop grown, area (seeded and harvested acres), and yield for 2011. Survey participants were informed that participation in the survey was voluntary. Moreover, all individual responses are kept confidential under the provisions of the Federal Statistics Act, as well as under the Provincial Freedom of Information and Protection of Privacy (FOIP) Act. As of June 28, 2012, a total of 663 questionnaires were returned. Of this total, 572 were usable and partly formed the basis in the generation of the Alberta 2011 specialty crop estimates.

Survey responses received were reviewed for data completeness, validated and entered into an electronic database. The data was then subjected to computerized analyses, the results of which were rolled up into group summaries, to preserve data confidentiality of individual survey respondents. In turn, the group summaries, in conjunction with information from provincial specialists of ARD, industry, and published sources (e.g. Statistics Canada), were used to 0generate the provincial and sub-provincial (Census Division) estimates, where appropriate.

It cannot be over emphasized that extensive consultation is done with ARD's provincial specialists and industry in the development of the provincial/sub-provincial estimates. Provincial specialists are acknowledged for the invaluable insights they offer on crop conditions and yields, particularly when attempting to firm up some of the sub-provincial estimates generated from the survey. Similarly, administrative data on yield and crop area grown under private contracts also add value to the estimates.

It should be noted that the estimates are subject to error. Some of the possible sources of error include data coding, data entry and tabulation. Nonetheless, we believe that the statistics published in this report are reliable estimates for Alberta.

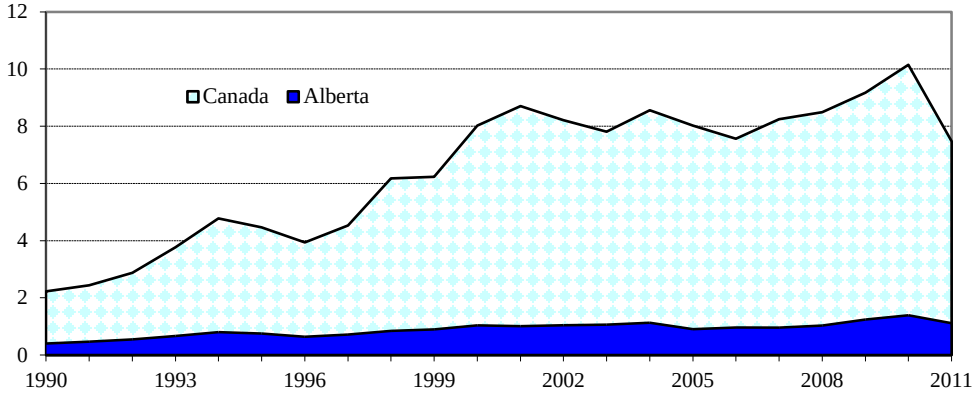
Survey Results

Area, Yield and Production in Alberta

In Alberta the term "specialty crops" refers to the following crops: dry peas, chick peas, dry beans, fababeans, lentils, mustard seed, sunflower seed, grain corn, silage corn, triticale, canary seed, sugar beets, potatoes, forage seeds and other field crops.

In 2011, the seeded area of specialty crops decreased compared to a year earlier. High prices as well as good economic returns for grain and oilseeds were the key drivers for the decline of specialty crop acreage. The total provincial seeded area, excluding potatoes and forage seeds, was estimated at 1.11 million acres, down 20 per cent, from 1.39 million acres in 2010 (see Figure 1). Of the total seeded area, 1.05 million acres or 95 per cent were harvested for grain production. To offer some perspective, shown in Figure 3 on page 4 is the percentage distribution of specialty crop seeded acreage in 2011, by crop type (i.e., pulse crops, oilseeds, corn, forage seeds, and other crops).

Figure 1 - Specialty Crop Seeded Area, Alberta and Canada 1990 - 2011 (million acres)



Source: Statistics Canada; and Alberta Agriculture and Rural Development

The 2011 crop growing conditions were mainly favorable in most areas of the province, however seeding was slower across the province due to cool temperatures in March and April and several precipitation events in the spring. The rain received throughout the summer resulted in soil moisture reserves being adequate to excessive in all regions. The warm and dry weather during September and October provided producers with the opportunity to make good harvest progress with the additional benefit of above average crop quality. However, damp weather in early November resulted in many crops in the northern part of the province being taken off wet and requiring drying.

Provincial average yields for most specialty crops were above their respective 10-year averages (2002-2011) outlined in Tables 1 and 4. The provincial average yield for dry peas in 2011 was estimated at 42.6 bushels per acre. This was nine per cent higher than in 2010, and 21 per cent above the 10-year average. With the majority of its acreage in southern Alberta, mustard seed produced an average yield of 941.0 pounds per acre in 2011, 11 per cent lower than in 2010, but still 11 per cent above the 10-year average. For triticale, the provincial average yield was 47.2 bushels per acre, 21 per cent lower than in 2010, and six per cent above the 10-year average.

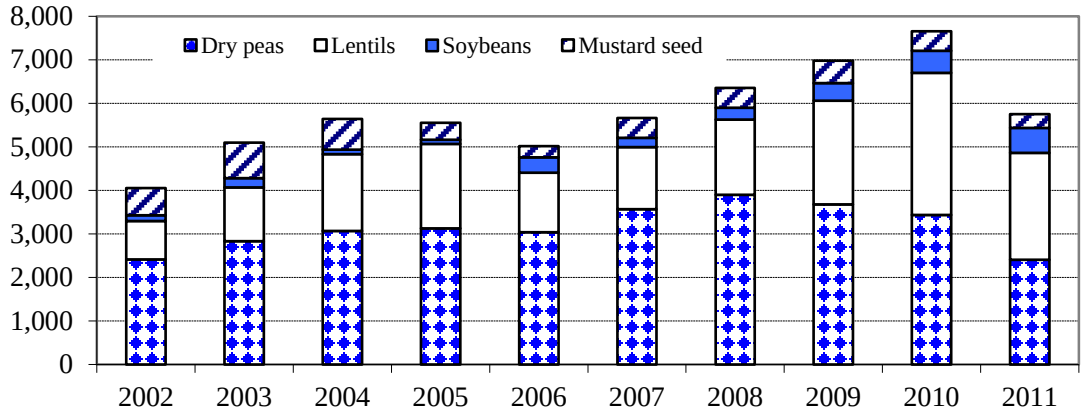
The estimated provincial average yields for specialty crops under irrigation were above the 10-year average. For dry beans, the provincial average yield was estimated at 2,370 pounds per acre, 36 per cent higher than in 2010 and 10 per cent higher than the 10-year average. For potatoes, the provincial average yield was 32,800 pounds per acre. This was four percent above the 2010 yields, and at par with the 10-year average. The provincial average yield for sugar beets was 25.8 tonnes per acre, 29 percent higher than in 2011 or 16 per cent above the 10-year average.

Specialty Crops in Western Canada

The results of "Alberta 2011 Specialty Crop Survey", and Statistics Canada's "Production of Principal Field Crops, November 2012" indicate that total seeded and harvested acres of specialty crops in Western Canada in 2011 decreased from a year earlier. This reflects smaller areas in all provinces in Western Canada.

In 2011, the total seeded area of specialty crops in Western Canada was estimated at 6.91 million acres, down 27 per cent from 9.47 million acres in 2010. On a provincial basis, Saskatchewan with 4.84 million acres, accounted for 70 per cent of the Western Canada total, while Alberta and Manitoba accounted for 16 per cent and 13 per cent, respectively. The specialty crop seeded area in British Columbia was extremely small, less than one per cent of the Western Canadian total. Similar to seeded area, the total harvested acreage in 2011 decreased 25 per cent from a year earlier, to 6.68 million acres.

Figure 2 - Harvested Area of Selected Specialty Crops
Western Canada, 2002 - 2011 (thousand acres)



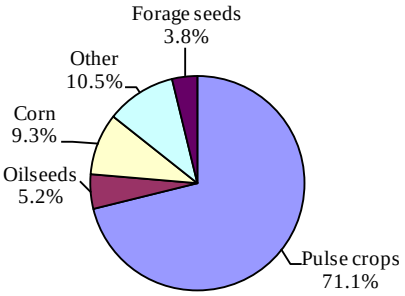
Source: Statistics Canada; and Alberta Agriculture and Rural Development

The four largest specialty crops grown in Western Canada in 2011 were dry peas, lentils, soybeans and mustard seed. Together, these crops accounted for 5.90 million acres, or 85 per cent of the total area seeded of specialty crops. Lentils was the largest specialty crop, accounting for 2.56 million acres, or 37 per cent of the Western Canada total. Dry peas were next, with seeded acres totaling 2.44 million acres (35 per cent of the total), while soybeans (575,000 acres) and mustard seed (327,958 acres) represented eight per cent and five per cent, respectively. Shown in Figure 2 below is the harvested area of the top four specialty crops in Western Canada. Historical statistics on seeded area and production for selected specialty crops are presented in Table 8 on page 16 and 17.

Table 1: Alberta 2011 Specialty Crops

		Seeded Area (acres)	Harvested Area (acres)	Yield (per acre)	Production (tonnes)
Pulse crops	Dry peas, green	70,300	62,400	41.2 bu	69,900
	Dry peas, yellow	632,900	628,800	42.7 bu	731,000
	Dry peas, other	3,500	3,800	45.4 bu	4,700
	All dry peas	**706,700**	**695,000**	**42.6 bu**	**805,600**
	Chick peas, desi	2,700	2,700	2,340.0 lbs	2,900
	Chick peas, kabuli	9,800	9,800	1,695.0 lbs	7,500
	All chick peas	12,500	12,500	1,840.0 lbs	10,400
	Dry beans	45,300	41,000	23.7 cwt	44,000
	Fababeans	-	-	-	-
	Lentils	97,800	95,000	1,587.0 lbs	68,300
Oilseeds	Mustard seed, brown	2,700	2,800	1,285.0 lbs	1,700
	Mustard seed, yellow	48,500	46,900	835.0 lbs	17,800
	Mustard seed, oriental	11,800	12,800	1,255.0 lbs	7,300
	All mustard seed	**63,000**	**62,500**	**941.0 lbs**	**26,800**
	Sunflower seed	-	-	-	-
Corn	Grain corn	17,100	15,000	93.3 bu	35,600
	Fodder corn	95,900	85,000	18.0 ton	1,388,000
Other	Potatoes (1)	53,400	50,100	328.0 cwt	751,343
	Triticale	40,800	18,000	47.2 bu	21,600
	Canary seed	-	-	-	-
	Sugar beets	33,314	30,000	25.8 tonne	703,100
Forage seeds (2)	Alfalfa seed	20,028	20,028	460.0 lbs	4,179
	Clover seed	1,620	1,620	390.0 lbs	287
	Brome grass seed	4,557	4,557	290.0 lbs	599
	Fescue seed	6,587	6,587	605.0 lbs	1,808
	Timothy seed	8,486	8,486	190.0 lbs	731
	Other	4,917	4,917	-	-
All crops		**1,212,009**	**1,150,295**	**…**	**3,862,347**

Figure 3 - Percentage Distribution of Specialty Crop Seeded Acreage, Alberta, 2011 (Total area: 1,212,009 acres)



Source: Alberta 2011 Specialty Crop Survey, ARD; and Field Crop Reporting Series, Statistics Canada

Except for:

(1) Statistics Canada, Canadian Potato Production, November 2011

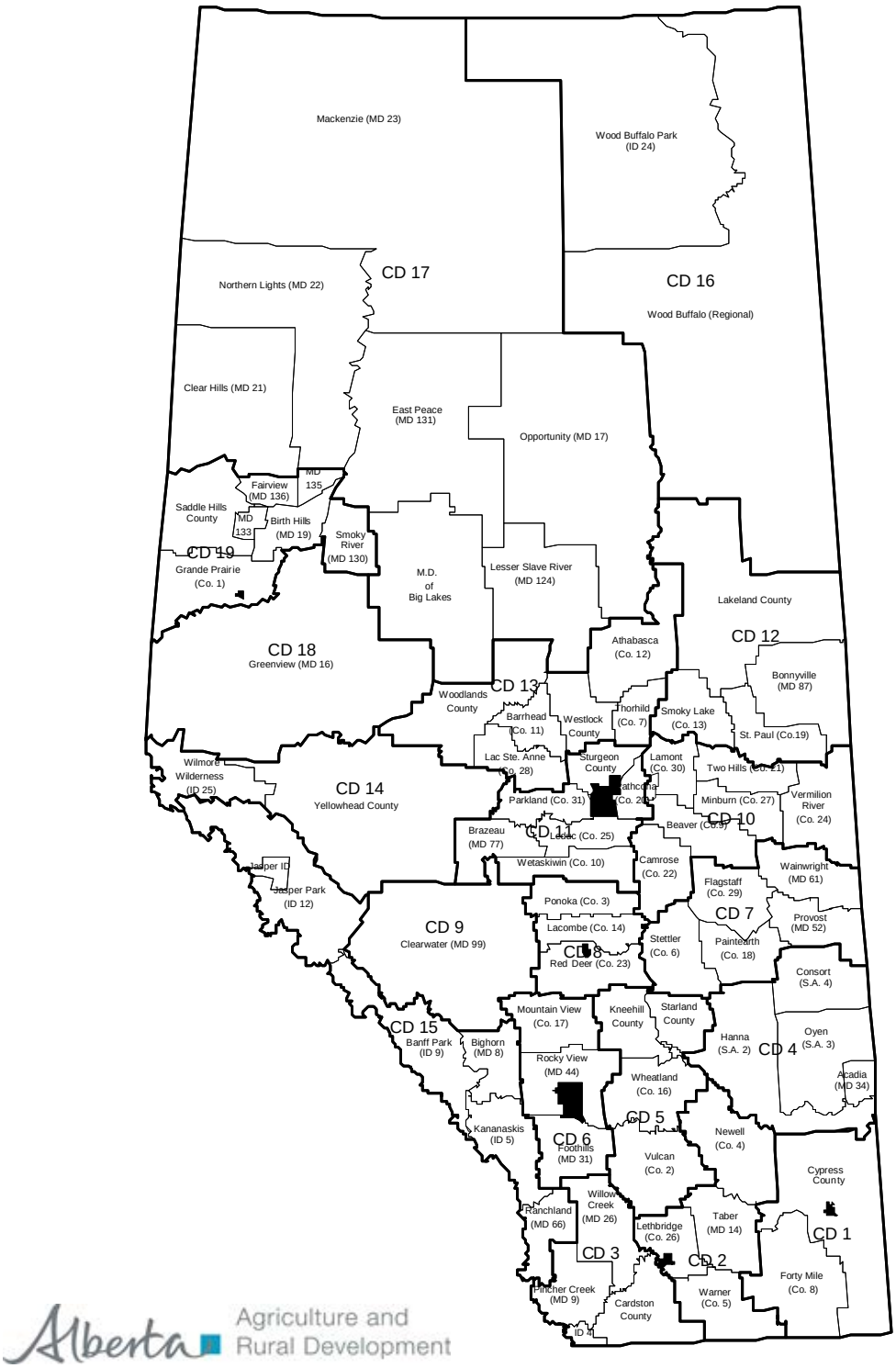
(2) Canadian Seed Growers' Association - Inspected Pedigreed Crop Acres; Yield estimates are generated from the Alberta 2011 Specialty Crop Survey, including pedigreed and common seeds.

cwt - hundredweight (hundred pounds)

ton = 2,000 lbs tonne = 1.1023 tons = 2,204.6 lbs

- Not available … Not applicable

Figure 4 - Alberta Census Divisions, ID, MD and Counties Map



Alberta Agriculture and Rural Development

Table 2: Alberta 2011 Specialty Crops by Census Division

C.D.	Dry Peas	Mustard Seed	Lentils	Dry Beans	Chick Peas
			Harvested Area (acres)		
1	74,479	15,351	37,420	12,227	1,439
2	75,135	22,708	31,474	19,721	4,806
3	39,510	4,623	-	-	-
4	28,211	9,547	20,123	-	-
5	136,129	7,688	2,893	1,462	3,855
6	22,562	-	2,453	-	-
7	46,420	-	-	-	-
8	10,704	-	-	-	-
9	-	-	-	-	-
10	96,756	-	-	-	-
11	21,942	-	-	-	-
12	12,255	-	-	-	-
13	13,877	-	-	-	-
14	-	-	-	-	-
17	38,366	-	-	-	-
18	3,305	-	-	-	-
19	75,349	-	-	-	-
Alberta	**695,000**	**62,500**	**95,000**	**41,000**	**12,500**
			Yield Per Acre		
	(bushels)	**(pounds)**	**(pounds)**	**(cwt)**	**(pounds)**
1	34.8	1,149.9	1,634.7	26.5	1,380.0
2	32.5	850.8	1,404.7	24.7	2,116.5
3	52.8	739.6	-	-	-
4	40.3	1,014.2	1,315.4	-	-
5	51.4	1,021.3	1,714.1	20.0	1,920.0
6	56.3	-	805.2	-	-
7	46.2	-	-	-	-
8	42.1	-	-	-	-
9	-	-	-	-	-
10	35.7	-	-	-	-
11	36.4	-	-	-	-
12	36.4	-	-	-	-
13	41.4	-	-	-	-
14	-	-	-	-	-
17	36.7	-	-	-	-
18	26.9	-	-	-	-
19	37.5	-	-	-	-
Alberta	**42.6**	**941.0**	**1,587.0**	**23.7**	**1,840**
			Production (tonnes)		
1	70,533	8,007	27,746	14,678	901
2	66,530	8,763	20,054	22,116	4,614
3	56,825	1,551	-	-	-
4	30,963	4,392	12,006	-	-
5	190,522	3,561	2,250	1,326	3,358
6	34,602	-	896	-	-
7	58,347	-	-	-	-
8	12,259	-	-	-	-
9	-	-	-	-	-
10	94,084	-	-	-	-
11	21,709	-	-	-	-
12	12,130	-	-	-	-
13	15,633	-	-	-	-
14	-	-	-	-	-
17	38,306	-	-	-	-
18	2,417	-	-	-	-
19	76,809	-	-	-	-
Alberta	**805,600**	**26,800**	**68,300**	**44,000**	**10,400**

Note: Totals may not add up due to rounding or insufficient data for generating estimates for some census divisions.
cwt. - hundredweight (hundred pounds) - Not available
Source: Statistics Canada; and Alberta Agriculture and Rural Development

Table 3: Alberta 2010 Specialty Crops by Census Division

C.D.	Dry Peas	Mustard Seed	Lentils	Dry Beans	Chick Peas
			Harvested Area (acres)		
1	119,140	29,497	55,104	19,524	-
2	102,198	32,924	60,047	20,993	-
3	45,778	8,498	-	-	-
4	22,577	18,425	11,733	-	-
5	157,172	17,728	4,237	-	-
6	32,042	-	-	-	-
7	75,964	-	3,775	-	-
8	22,415	-	-	-	-
9	-	-	-	-	-
10	117,851	-	-	-	-
11	43,267	-	-	-	-
12	18,605	-	-	-	-
13	18,250	-	-	-	-
14		-	-	-	-
17	41,761	-	-	-	-
18	8,694	-	-	-	-
19	98,551	-	-	-	-
Alberta	**925,000**	**100,000**	**100,000**	**40,000**	-
			Yield Per Acre		
	(bushels)	**(pounds)**	**(pounds)**	**(cwt)**	**(pounds)**
1	36.4	1,292.7	1,898.1	16.8	-
2	47.3	1,389.5	1,835.2	13.2	-
3	50.6	1,229.5	-	-	-
4	36.0	1,135.2	1,561.3	-	-
5	50.2	1,431.1	1,838.6	-	-
6	59.6	-	-	-	-
7	34.2	-	785.8	-	-
8	40.5	-	-	-	-
9	-	-	-	-	-
10	40.9	-	-	-	-
11	49.6	-	-	-	-
12	54.1	-	-	-	-
13	56.6	-	-	-	-
14	-	-	-	-	-
17	37.8	-	-	-	-
18	27.9	-	-	-	-
19	25.8	-	-	-	-
Alberta	**39.0**	**1,052.0**	**1,750.0**	**17.4**	-
			Production (tonnes)		
1	118,140	17,297	47,443	14,871	-
2	131,573	20,751	49,986	12,604	-
3	63,014	4,739		-	-
4	22,134	9,488	8,309	-	-
5	214,610	11,508	3,534	-	-
6	52,013	-		-	-
7	70,803	-	1,346	-	-
8	24,679	-	-	-	-
9	-	-	-	-	-
10	131,307	-	-	-	-
11	58,376	-	-	-	-
12	27,380	-	-	-	-
13	28,137	-	-	-	-
14	-	-	-	-	-
17	42,910	-	-	-	-
18	6,593	-	-	-	-
19	69,293	-	-	-	-
Alberta	**982,500**	**47,700**	**79,300**	**31,500**	-

Note: Totals may not add up due to rounding or insufficient data for generating estimates for some census divisions.
cwt. - hundredweight (hundred pounds) - Not available
Source: Statistics Canada; and Alberta Agriculture and Rural Development

Specialty Crops by Census Division in Alberta

This section presents estimates of area, yield and production at the Census Division level in Alberta, for dry peas, mustard seed, and dry beans. Just to note, the Census Division estimates were generated from a small sample, and as such, caution should be exercised when interpreting and using the data. Also, for reference, the Alberta Census Division and municipality map is shown on page 5 – Figure 4.

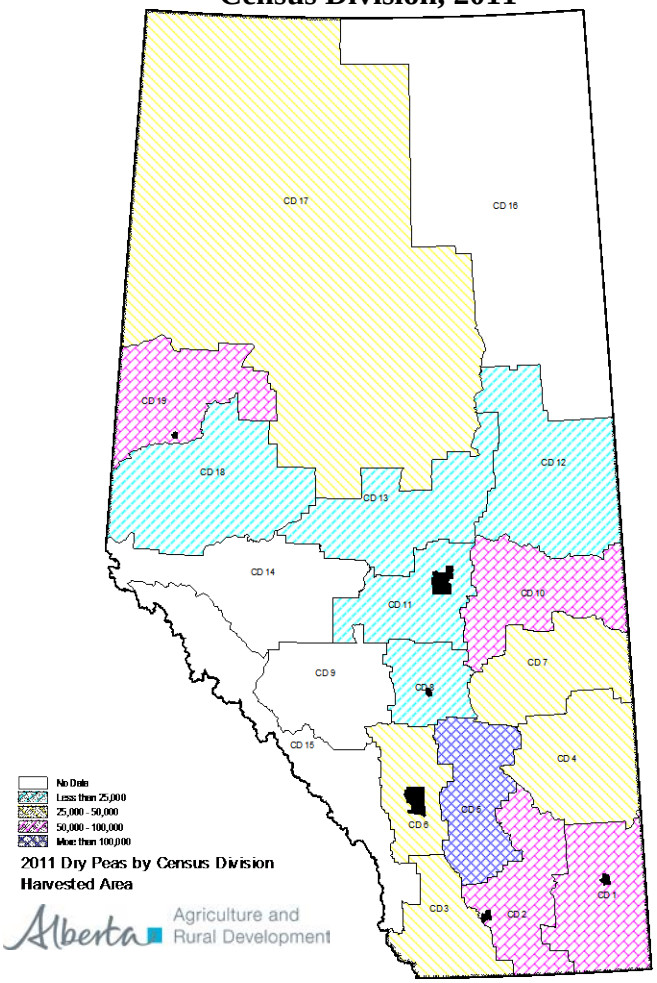
Dry Peas

The total seeded area of dry peas in 2011 reached 706,700 acres (see Table 1), down 24 per cent from a year earlier. Of the total seeded area, 695,000 acres were harvested, 25 per cent decrease from 2010. Due to favorable crop growing conditions, the provincial average yield increased nine per cent from 2010, to 42.6 bushels per acre and was 21 per cent above the 10-year average.

The total provincial production of dry peas reached 805,600 tonnes, down 18 per cent from the 2010 record high production of 982,500 tonnes, but still 29 per cent above the 10-year average. This was attributed to the lower seeded and harvested areas.

Dry peas are grown primarily on dryland across the province, the largest acreages are in Census Divisions 5 (Drumheller area), 10 (Vegreville), 19 (Grande Prairie), and 2 (Lethbridge) - see Table 2 and Figure 5. In 2011, these four Census Divisions (5, 10,19 and 2) accounted for 55 per cent of the provincial total harvested area. Just to note, dry pea yields were quite varied across the province.

Figure 5 – Alberta Dry Peas Harvested Area by Census Division, 2011



Mustard Seed

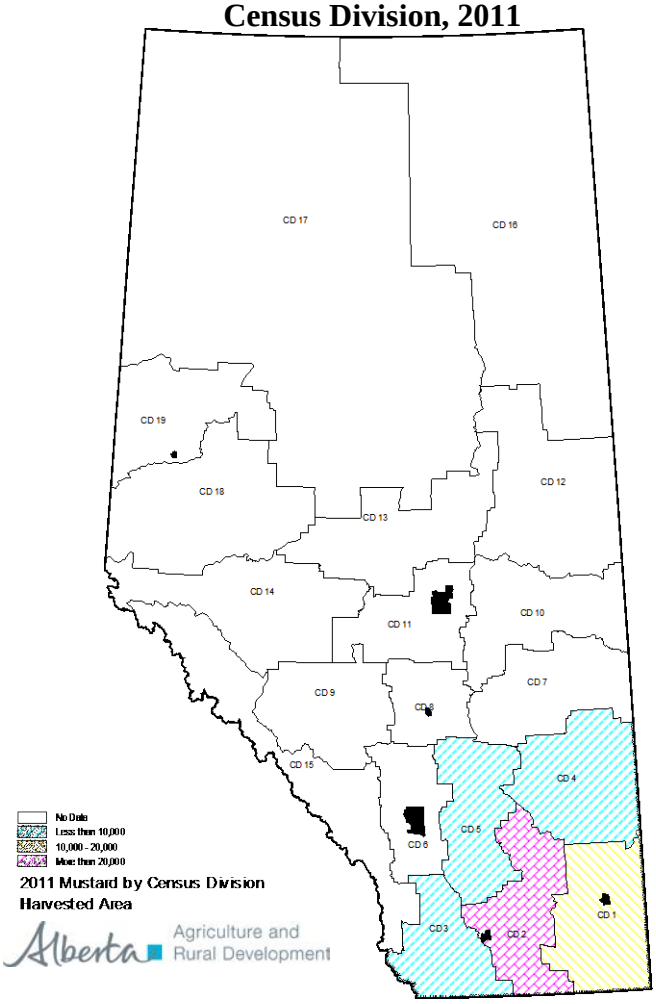
The total seeded area of mustard seed in 2011 was estimated at 63,000 acres (see Table 1). Of this total, 62,500 acres were harvested, down 37 per cent from 2010. The provincial average yield was estimated at 941.0 pounds per acre, 11 per cent lower than in 2010, but still 11 per cent above the 10-year average.

The total provincial production of mustard seed was estimated at 26,800 tonnes, down 44 per cent from 2010. The lower production stemmed from a decline in seeded area, harvested area, and yield.

Alberta produces three types of mustard seed – brown, yellow and oriental. Of the three types, yellow mustard seed continues to dominate, accounting for 67 per cent (17,800 tonnes) of the provincial total production in 2011. Oriental mustard seed and brown mustard seed represented 27 per cent (7,300 tonnes) and six per cent (1,700 tonnes), respectively.

Mustard seed is mostly grown on dryland in southern Alberta. Table 2 and Figure 6 show that in 2011, most of the total harvested area was in Census Divisions 1 (Medicine Hat) and 2 (Lethbridge). Compare to 2010, harvested area proportionally decreased on all divisions. Mustard seed yields varied significantly across Census Divisions. For example, Census Division 1 had the highest yield of 1,149.9 pounds per acre, while the lowest yield of 739.6 pounds per acre was reported in Census Division 3 (Claresholm).

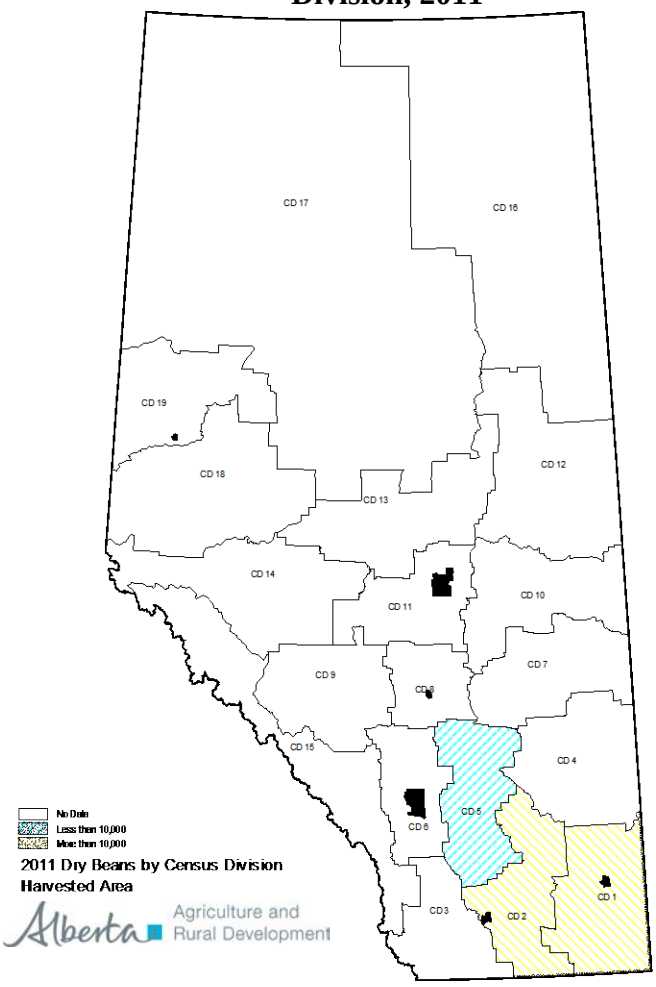
Figure 6 – Alberta Mustard Harvested Area by Census Division, 2011



Dry Beans

In 2011, Alberta producers seeded a total of 45,300 acres to dry beans (see Table 1), up one cent from 2010. Of the total seeded area, 41,000 acres were harvested, up by three per cent from a year earlier. The provincial average yield was estimated at 2,370 pounds per acre, up 36 per cent from 2010, and 10 per cent above the 10-year average.

Figure 7 – Alberta Dry Beans Area by Census Division, 2011



Total provincial production of dry beans in 2011 was up 40 per cent from 2010, to 44,000 tonnes. The higher production was attributed to an increase in harvested area and average yield.

Dry beans are grown mostly under irrigation in southern Alberta. In 2011, a total of 30,376 acres or 67 per cent of the provincial dry bean seeded area was irrigated, according to information from the Irrigation and Farm Water Division of Alberta Agriculture and Rural Development[1].

Additionally, Census Divisions 1, 2 and 5 collectively accounted for 81 per cent of the provincial total harvested area (see Table 2 and Figure 7). Dry beans are generally grown under contract in Alberta.

[1] Alberta Irrigation Information 2011 is available at: http://www1.agric.gov.ab.ca/$Department/deptdocs.nsf/all/irr7401/$FILE/altairriginfo2011.pdf

Table 4: Alberta Specialty Crop Area, Yield and Production, 2002-2011

		2002	2003	2004	2005	2006	2007r	2008r	2009r	2010r	2011
Alfalfa Seed (1)											
Inspected area	(acres)	12,709	11,292	10,345	10,050	14,458	17,030	17,600	18,235	21,265	20,028
Yield	(lbs/acre)	265.0	550.0	370.0	270.0	585.0	600.0	520.0	345.0	320.0	460.0
Production	(tonnes)	1,528	2,817	1,736	1,231	3,836	4,635	4,151	2,854	3,087	4,179
Canary Seed											
Harvested area	(acres)	10,000	10,000	10,000	6,000	3,300	-	-	-	-	-
Yield	(lbs/acre)	520.0	900.0	1,040.0	1,200.0	-	-	-	-	-	-
Production	(tonnes)	2,400	4,100	4,700	3,266	-	-	-	-	-	-
Corn for Grain											
Harvested area	(acres)	10,000	5,000	5,000	5,000	3,000	7,000	15,000	15,000	-	15,000
Yield	(bu/acre)	80.0	60.0	65.0	104.0	130.0	128.6	93.3	113.3	-	93.3
Production	(tonnes)	20,300	7,600	8,300	13,200	9,900	22,900	35,600	43,200	-	35,600
Fodder Corn											
Harvested area	(acres)	30,000	30,000	20,000	35,000	55,000	60,000	40,000	70,000	50,000	85,000
Yield	(tons/acre)	16.0	16.7	18.6	14.3	19.1	18.5	15.8	17.3	15.0	18.0
Production	(tonnes)	362,900	453,600	340,200	453,600	952,500	1,007,000	571,500	1,102,200	680,400	1,388,000
Fababeans											
Harvested area	(acres)	3,000	2,000	5,000	4,000	4,000	4,000	4,500	5,000	-	-
Yield	(cwt/acre)	5.0	20.0	26.0	27.5	26.3	-	30.0	24.0	-	-
Production	(tonnes)	700	1,800	5,900	5,000	4,800	-	6,100	5,400	-	-
Dry Beans											
Harvested area	(acres)	40,000	52,000	34,000	55,000	61,500	53,000	35,000	58,000	40,000	41,000
Yield	(cwt/acre)	17.5	25.6	22.2	21.2	21.8	22.6	22.0	20.9	17.4	23.7
Production	(tonnes)	31,700	60,300	34,200	52,800	60,800	54,400	34,900	55,100	31,500	44,000
Dry Peas											
Harvested area	(acres)	440,000	585,000	600,000	530,000	565,000	595,000	700,000	750,000	925,000	695,000
Yield	(bu/acre)	18.5	30.9	39.3	42.8	35.9	32.6	38.4	32.7	39.0	42.6
Production	(tonnes)	221,600	491,300	642,300	617,500	552,600	527,500	731,400	666,700	982,500	805,600
Lentils											
Harvested area	(acres)	6,000	15,000	18,000	20,000	10,600	-	9,800	50,000	100,000	95,000
Yield	(lbs/acre)	713.0	1,013.0	1,372.0	1,563.0	1,400.0	-	1,536.0	1,476.0	1,750.0	1,587.0
Production	(tonnes)	1,900	6,900	11,300	14,100	6,731	-	6,800	33,400	79,300	68,300
Mustard Seed											
Harvested area	(acres)	70,000	135,000	125,000	75,000	60,000	85,000	100,000	115,000	100,000	62,500
Yield	(lbs/acre)	603.0	634.0	902.0	915.0	939.2	765.0	820.0	915.0	1,052.0	941.0
Production	(tonnes)	19,100	38,800	51,200	31,100	25,600	29,500	37,200	47,700	47,700	26,800
Safflower Seed											
Harvested area	(acres)	2,000	2,500	3,200	-	-	1,800	-	-	-	-
Yield	(lbs/acre)	320	1,215	-	-	-	1,080	-	-	-	-
Production	(tonnes)	300	1,378	-	-	-	880	-	-	-	-
Sugar Beets (2)											
Harvested area	(acres)	27,754	27,389	34,954	33,667	36,992	34,067	18,211	27,000	28,000	30,000
Yield	(tonnes/acre)	15.2	22.9	21.2	19.9	26.0	25.1	21.2	24.4	20.0	25.8
Production	(tonnes)	422,389	628,081	740,508	668,141	963,165	853,669	385,219	657,700	508,000	703,100

Source: Statistics Canada; and Alberta Agriculture and Rural Development cwt. - hundred weight r - Revised - Not available

(1) Inspected pedigreed acres are from Canadian Seed Growers' Association; yield and production data are from the Alberta Specialty Crop Survey.

(2) Alberta Sugar Beet Growers, Annual Report, for data prior to 2009

Table 4 (Cont'd): Alberta Specialty Crop Area, Yield and Production, 2002-2011

		2002	2003	2004	2005	2006	2007r	2008r	2009r	2010r	2011
Sunflower Seed											
Harvested area	(acres)	6,000	3,000	5,000	3,500	1,790	-	-	-	-	-
Yield	(lbs/acre)	1,500.0	1,500.0	800.0	-	1,850.0	-	-	-	-	-
Production	(tonnes)	4,100	2,000	1,800	-	1,502	-	-	-	-	-
Triticale											
Harvested area	(acres)	10,000	35,000	25,000	20,000	15,000	28,000	14,000	10,000	25,000	18,000
Yield	(bu/acre)	32.5	33.9	44.0	43.0	39.3	38.8	54.6	50.0	60.0	47.2
Production	(tonnes)	8,300	30,100	27,900	21,800	15,000	17,800	19,400	12,700	38,100	21,600
Potatoes											
Harvested area	(acres)	55,800	61,000	57,000	51,500	53,500	54,800	52,000	49,700	45,000	50,100
Yield	(cwt/acre)	280.0	330.0	350.0	344.0	342.0	341.0	336.0	322.0	314.0	328.0
Production	(tonnes)	708,700	913,097	904,932	803,598	829,952	847,642	792,530	725,896	640,937	745,401

Source: Statistics Canada; and Alberta Agriculture and Rural Development

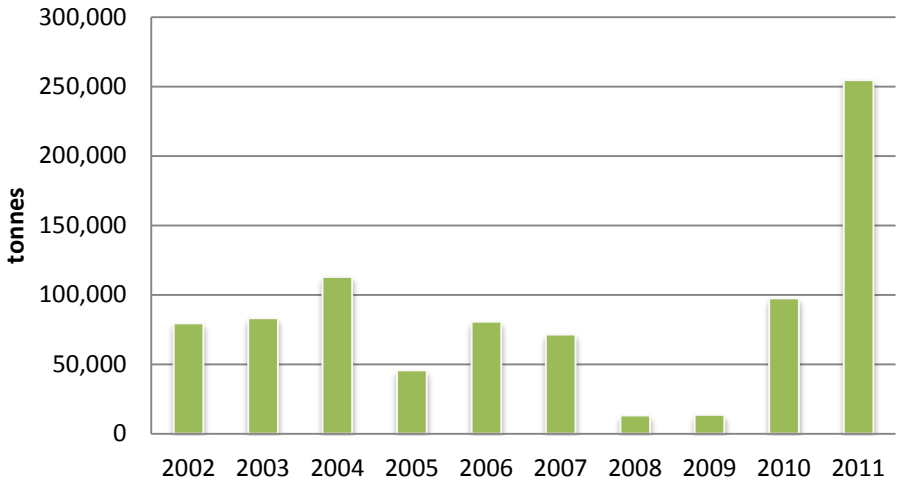
cwt - hundred weight (hundred pounds) r - Revised - Not available

Exports of Alberta Specialty Crops

Dry Peas

In 2011, Alberta dry peas exports, at 254,514 tonnes, accounted for nine per cent of total Canadian exports of 2.9 million tonnes. This was more than double the 97,402 tonnes Alberta exported in 2010 (see Figure 8), and one per cent below the 10-year average (2002 to 2011). In 2011, 65 per cent of Alberta dry peas exports (164,330 tonnes) were to India, followed by China at 75,911 tonnes and Bangladesh at 7,500 tonnes. Table 5 shows the top 10 destinations of Alberta's dry peas exports.

Figure 8 - Alberta Dry Peas Exports, 2002-2011



Source: Statistics Canada

Table 5: Alberta Dry Peas Exports, Top 10 Destinations, 2010 and 2011

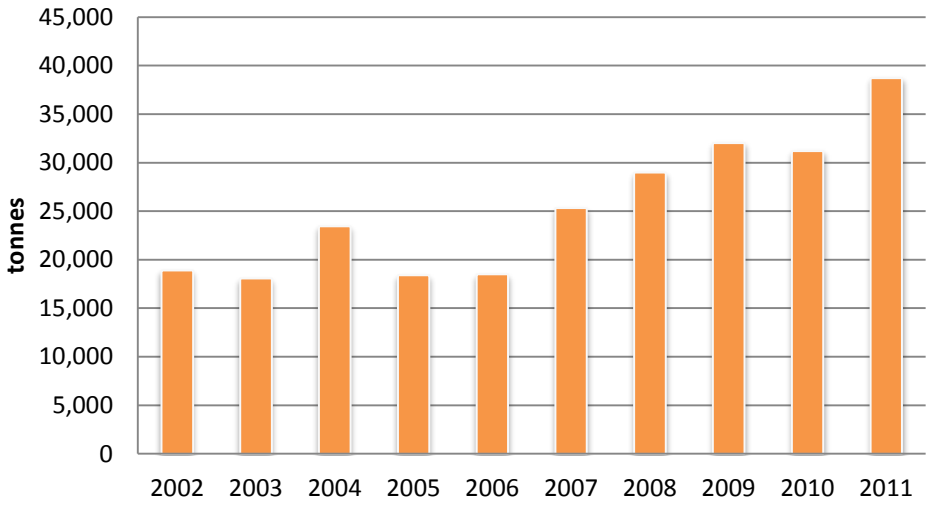
	2010			2011	
		tonnes			tonnes
	World	97,402		World	254,514
1	Bangladesh	59,900	1	India	164,330
2	India	17,156	2	China	75,911
3	China	8,849	3	Bangladesh	7,500
4	Indonesia	2,535	4	United States	1,498
5	United Arab Emirates	1,403	5	Philippines	955
6	Colombia	1,307	6	Turkey	703
7	Philippines	1,175	7	Japan	514
8	Yemen	645	8	Thailand	452
9	United States	476	9	Peru	179
10	Thailand	473	10	Taiwan	151

Source: Statistics Canada

Mustard Seed

In 2011, Alberta mustard seed exports, at 38,711 tonnes, accounted for 30 per cent of total Canadian exports of 129,465 tonnes. This was up 24 per cent compared to 31,214 tonnes in 2010 (see Figure 9), and 48 per cent above the 10-year average. In 2011, Alberta exported 27,866 tonnes of mustard seeds to United States which represented 72 per cent of total Alberta exports to the world, followed by Japan with 4,855 tonnes, and Thailand with 1,992 tonnes. Table 6 shows the top 10 destinations of Alberta's mustard seed exports.

Figure 9 - Alberta Mustard Seed Export, 2002-2011



Source: Statistics Canada

Table 6: Alberta Mustard Seed Exports, Top 10 Destinations, 2010 and 2011

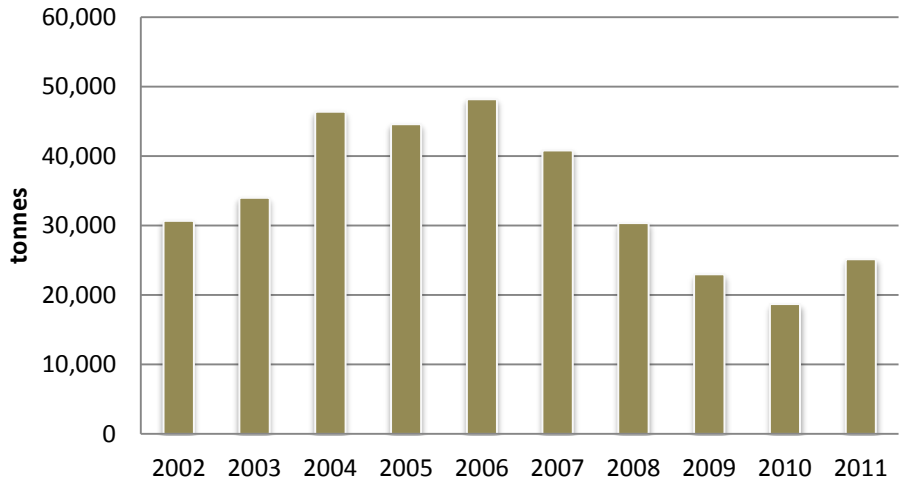
	2010			2011	
		tonnes			tonnes
	World	31,214		World	38,711
1	United States	21,910	1	United States	27,866
2	Japan	4,908	2	Japan	4,855
3	Korea, South	1,248	3	Thailand	1,992
4	Thailand	658	4	Korea, South	1,617
5	Germany	649	5	Venezuela	1,467
6	Venezuela	645	6	India	547
7	India	489	7	El Salvador	95
8	Korea, North	120	8	Philippines	80
9	Australia	100	9	Taiwan	60
10	Taiwan	100	10	United Kingdom	39

Source: Statistics Canada

Dry Beans

Alberta accounted for 12 per cent of total Canadian dry beans exports (217,119 tonnes) in 2011. Alberta exported 25,147 tonnes of dry beans, up 34 per cent compared to 18,721 tonnes in 2010 (see Figure 10). Dry beans exports were 27 per cent below the 10-year average. In 2011, Alberta exported 19,199 tonnes of dry beans to United States which represented 76 per cent of total Alberta exports to the world, followed by Greece with 3,158 tonnes and France with 522 tonnes. Table 7 shows the top 10 destinations of Alberta's dry beans exports.

Figure 10 - Alberta Dry Beans Export, 2002-2011



Source: Statistics Canada

Table 7: Alberta Dry Beans Exports, Top 10 Destinations, 2010 and 2011

	2010			2011	
		tonnes			tonnes
	World	18,721		World	25,147
1	United States	13,455	1	United States	19,199
2	Greece	1,560	2	Greece	3,158
3	Turkey	817	3	France	522
4	Korea, South	726	4	Australia	405
5	Chile	498	5	Algeria	346
6	Dominican Republic	389	6	Angola	345
7	Cuba	363	7	Korea, South	341
8	Australia	357	8	Turkey	318
9	Italy	181	9	Italy	157
10	Angola	94	10	Switzerland	45

Source: Statistics Canada

Table 8: Western Canada Specialty Crops Area, Production, and Canadian Exports, 2002-2011

	2002	2003	2004	2005	2006	2007r	2008r	2009r	2010r	2011
Mustard Seed					Seeded Area ('000 acres)					
Alberta	85.0	140.0	130.0	80.0	62.5	85.0	100.0	120.0	100.0	63.0
Saskatchewan	600.0	675.0	600.0	400.0	268.2	375.0	370.0	405.0	370.0	265.0
Manitoba	30.0	25.0	8.0	-	-	-	-	-	-	-
Western Canada	715.0	840.0	738.0	480.0	330.7	435.0	470.0	525.0	470.0	328.0
					Production ('000 tonnes)					
Alberta	19.1	38.8	51.2	31.1	25.6	29.5	37.2	47.7	47.7	26.8
Saskatchewan	125.2	176.9	232.8	152.7	82.6	95.3	123.9	160.6	134.3	103.2
Manitoba	10.0	10.4	2.7	-	-	-	-	-	-	-
Western Canada	154.3	226.1	286.7	183.8	108.2	124.8	161.1	208.3	182.0	130.0
					Exports ('000 tonnes)					
Canada	147.6	122.3	114.3	123.2	140.8	168.6	159.8	111.2	127.6	129.5
Sunflower Seed					Seeded Area ('000 acres)					
Alberta	6.0	3.0	5.0	3.5	1.8	-	-	-	-	-
Saskatchewan	30.0	45.0	30.0	30.0	15.9	10.0	-	-	-	-
Manitoba	210.0	220.0	165.0	185.0	190.2	190.0	160.0	160.0	135.0	35.0
Western Canada	246.0	268.0	200.0	218.5	207.9	200.0	160.0	160.0	135.0	35.0
					Production ('000 tonnes)					
Alberta	4.1	2.0	1.8	-	1.5	-	-	-	-	-
Saskatchewan	17.2	15.6	6.4	11.7	-	5.0	-	-	-	-
Manitoba	136.1	124.7	44.0	72.7	157.3	119.8	105.6	101.9	67.6	19.8
Western Canada	157.4	142.3	52.2	84.4	158.8	124.8	105.6	101.9	67.6	19.8
					Exports ('000 tonnes)					
Canada	94.4	102.0	71.2	33.6	58.8	142.4	97.5	70.7	45.5	42.8
Lentils					Seeded Area ('000 acres)					
Alberta	15.0	15.0	18.0	24.0	10.8	-	10.0	50.0	105.0	97.8
Saskatchewan	1,320.0	1,250.0	1,800.0	1,960.0	1,400.0	1,435.0	1,745.0	2,355.0	3,340.0	2,460.0
Manitoba	-	4.0	7.0	-	-	-	-	-	-	-
Western Canada	1,335.0	1,269.0	1,825.0	1,984.0	1,410.8	1,335.0	1,755.0	2,405.0	3,445.0	2,557.8
					Production ('000 tonnes)					
Alberta	1.9	6.9	11.3	14.1	6.7	-	6.8	33.4	79.3	68.3
Saskatchewan	326.1	475.0	902.7	1,150.2	692.8	733.9	1,043.2	1,496.8	1,840.3	1,455.0
Manitoba	-	2.7	1.8	-	-	-	-	-	-	-
Western Canada	328.0	484.6	915.8	1,164.3	699.5	733.9	1,050.0	1,530.2	1,919.6	1,523.3
					Exports ('000 tonnes)					
Canada	351.7	369.9	372.2	576.0	682.7	921.6	857.3	1,240.4	1,182.3	1,160.8
Dry Peas					Seeded Area ('000 acres)					
Alberta	650.0	600.0	640.0	555.0	587.3	610.0	710.0	800.0	935.0	706.7
Saskatchewan	2,135.0	2,145.0	2,375.0	2,550.0	2,430.5	2,925.0	3,165.0	2,875.0	2,610.0	1,700.0
Manitoba	200.0	135.0	150.0	110.0	91.4	95.0	110.0	85.0	80.0	30.0
Western Canada	2,990.0	2,890.0	3,170.0	3,220.0	3,115.5	3,630.0	3,985.0	3,760.0	3,625.0	2,436.7
					Production ('000 tonnes)					
Alberta	221.6	491.3	642.3	617.5	552.6	527.5	731.4	666.7	982.5	805.6
Saskatchewan	881.8	1,292.7	2,291.5	2,313.4	1,861.5	2,309.6	2,725.6	2,612.7	1,973.1	1,671.1
Manitoba	176.9	137.4	160.0	56.9	103.5	97.7	107.5	100.0	62.6	25.3
Western Canada	1,283.8	1,930.9	3,097.2	2,993.6	2,519.9	2,934.8	3,564.5	3,379.4	3,018.2	2,502.0
					Exports ('000 tonnes)					
Canada	917.0	1,088.4	1,613.7	2,407.9	2,408.1	2,258.1	1,973.7	2,668.2	2,859.6	2,921.2

Source: Statistics Canada; and Alberta Agriculture and Rural Development - Not available r - Revised

Table 8 (Cont'd): Western Canada Specialty Crops Area, Production, and Canadian Exports, 2002-2011

	2002	2003	2004	2005	2006	2007r	2008r	2009r	2010r	2011
Canary Seed					Seeded Area ('000 acres)					
Alberta	10.0	10.0	10.0	6.0	3.3	-	-	-	-	-
Saskatchewan	580.0	570.0	820.0	435.0	326.2	425.0	390.0	355.0	365.0	275.0
Manitoba	100.0	60.0	30.0	20.0	9.0	15.0	20.0	15.0	30.0	-
Western Canada	690.0	640.0	860.0	461.0	338.5	440.0	410.0	370.0	395.0	275.0
					Production ('000 tonnes)					
Alberta	2.4	4.1	4.7	3.3	-	-	-	-	-	-
Saskatchewan	142.4	198.7	284.4	219.3	129.1	155.7	184.6	188.7	143.2	128.6
Manitoba	32.7	31.8	11.4	7.9	4.0	6.8	10.4	8.7	10.3	-
Western Canada	177.5	234.6	300.5	230.5	133.1	162.0	195.0	197.4	153.5	128.6
					Exports ('000 tonnes)					
Canada	145.6	164.3	152.9	174.9	187.1	185.1	181.1	153.6	178.5	178.3

Source: Statistics Canada; and Alberta Agriculture and Rural Development - Not available r - Revised

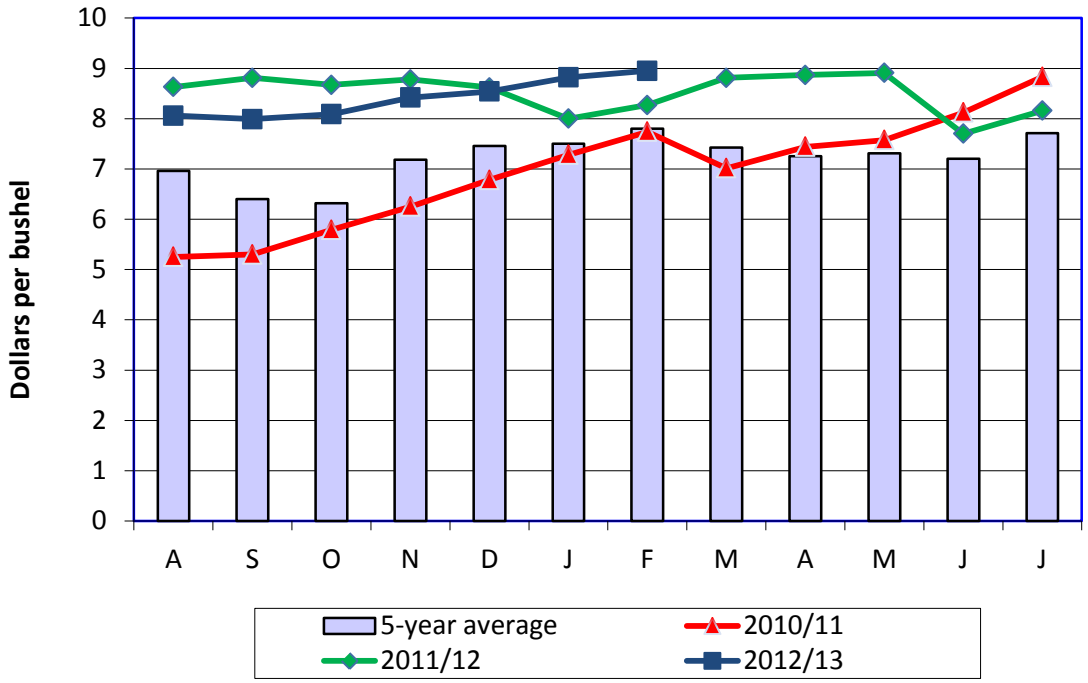
Markets for Selected Specialty Crops

Charlie Pearson

Field Peas

Yellow edible pea prices have held in the $8 to $9 per bushel range over the 2012 fall, similar to a year ago but above the five year average. Canadian field pea production in 2012 was estimated to be about 2.8 million tonnes, up 13 percent from 2011.

Figure 11 - Yellow Edible Pea Prices (August to July)

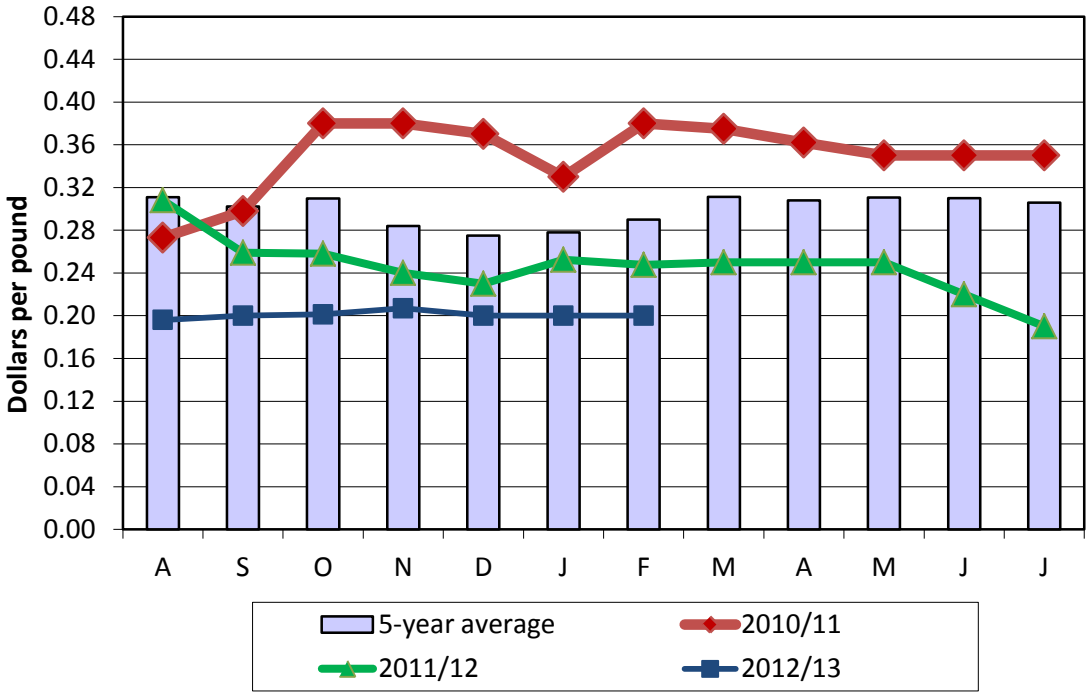


Source: Alberta Agriculture and Rural Development

Lentils

Large seeded green lentils (Laird types) have declined into the 20 cents per pound range, well under the 24 cent per pound average over the past crop year. Western Canadian lentil production in 2012 is estimated to be 1.5 million tonnes, similar to 2011.

Figure 12 - Large (Laird) Lentil Prices (August to July)

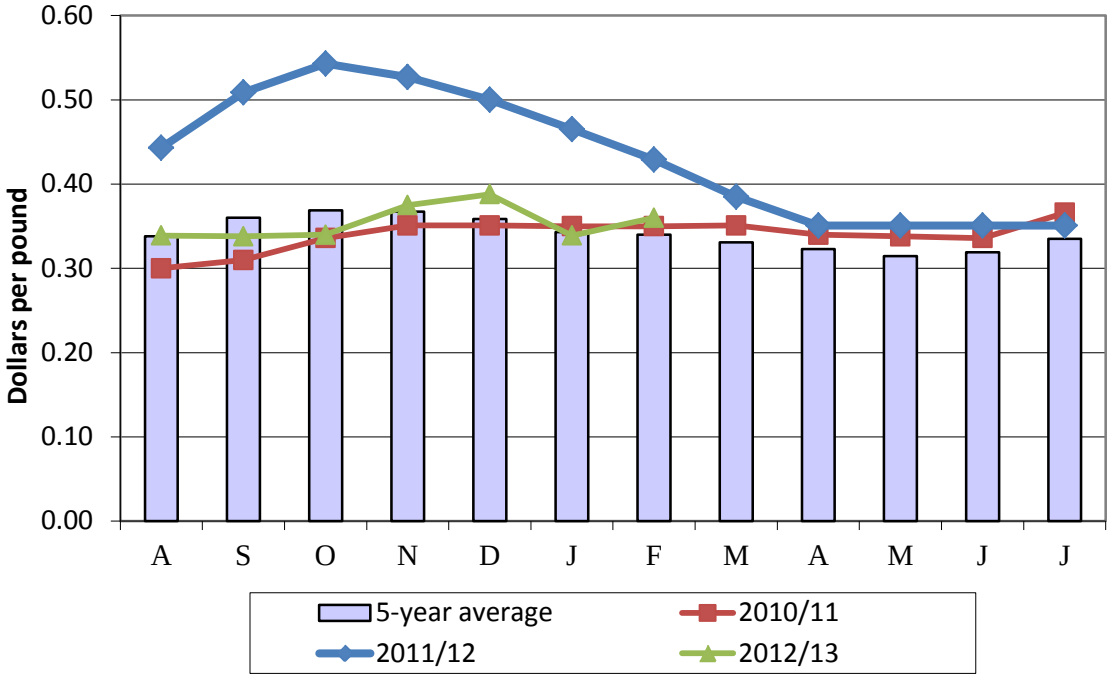


Source: Alberta Agriculture and Rural Development

Chick peas

Kabuli chickpea prices have mostly held around 35 cents per pound over the 2012 fall, similar to the 5 year average. Western Canadian chickpea production in 2012 was estimated to be 158,000 tonnes, up almost 84 percent from 2012.

Figure 13 - Kabuli Chickpea Prices - 9 mm (August to July)

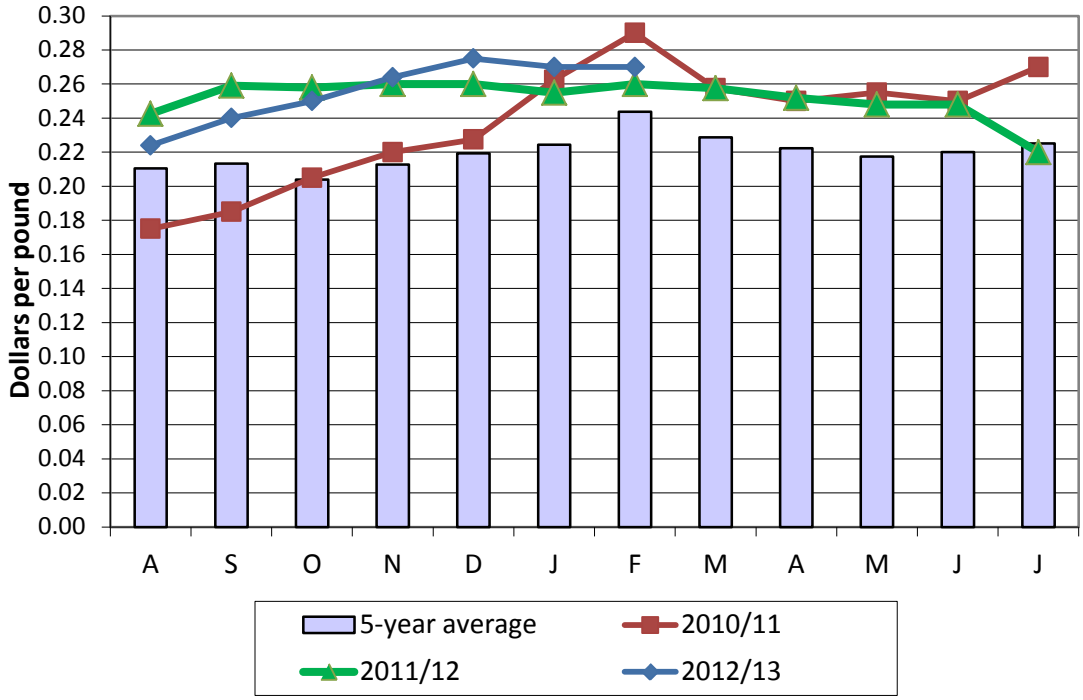


Source: Alberta Agriculture and Rural Development

Canary Seed

Western Canadian canary seed prices ranged from 24 to 28 cents per pound range the 2012 fall, similar to the same period a year ago but well above the 5 year average. Canadian canary seed production in 2012 is estimated to be 130,000 tonnes, similar to 2011.

Figure 14 - Canary Seed Prices (August to July)

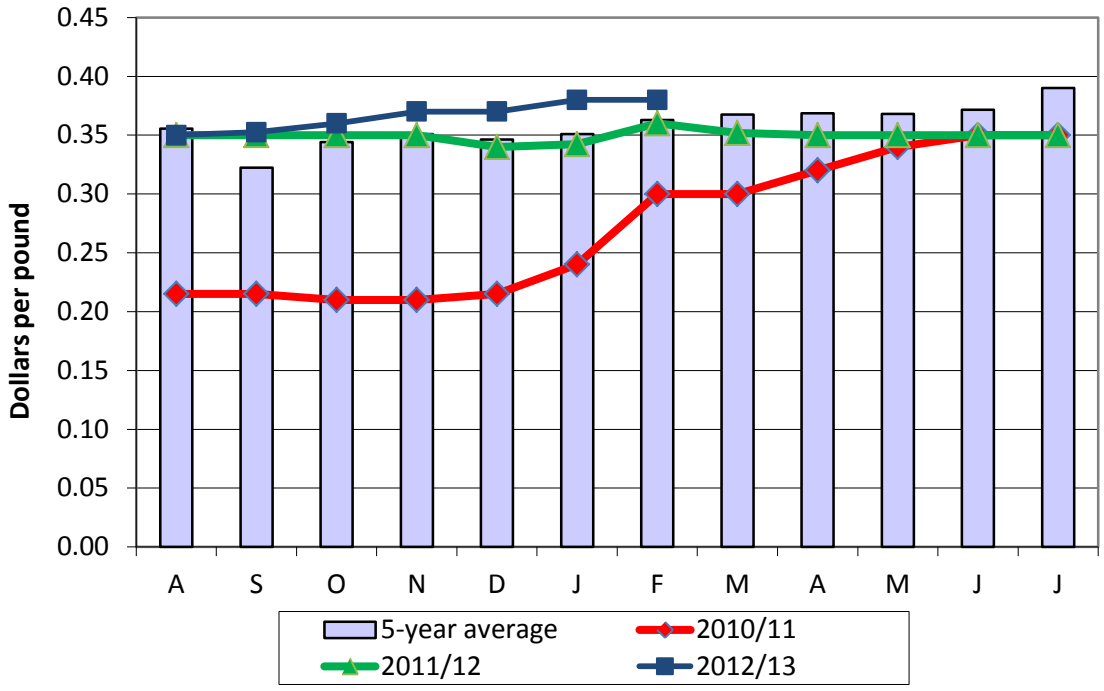


Source: Alberta Agriculture and Rural Development

Mustard Seed

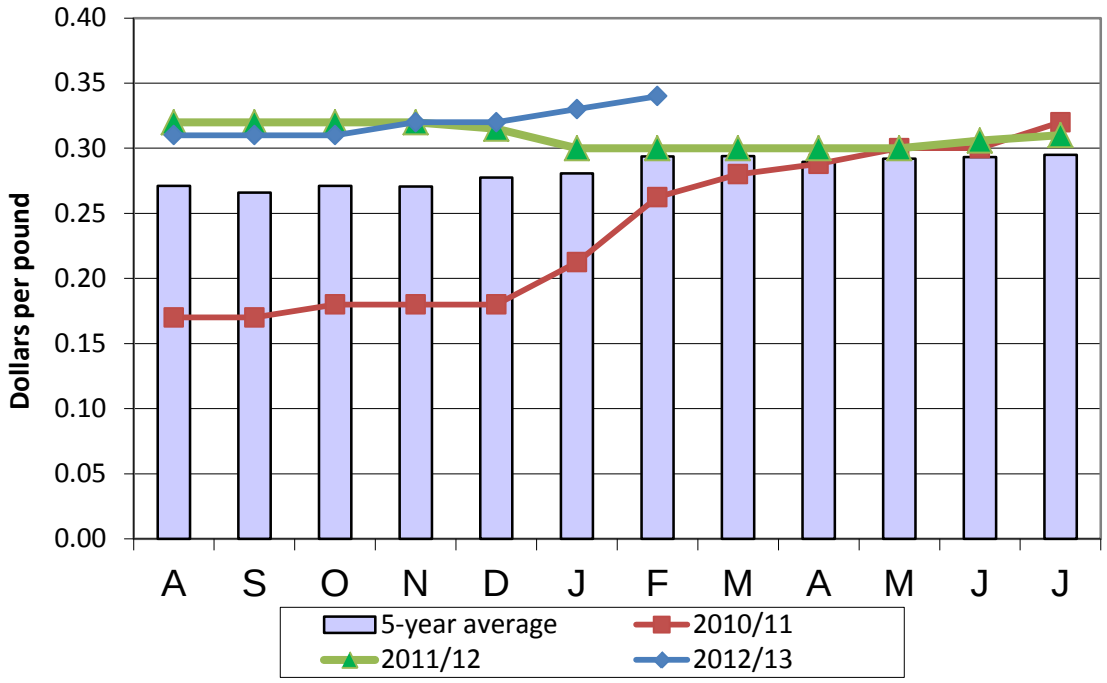
Brown and yellow mustard prices have held around 32 and 35 cents per pound respectively the 2012 fall, similar to this past year. Oriental mustard prices have been in the 25 to 26 cents per pound range. Western Canadian mustard production in 2012 is estimated by Statistics Canada to be 119,000 tonnes, down 8 percent from 2011.

Figure 15 - Yellow Mustard Seed Prices (August to July)



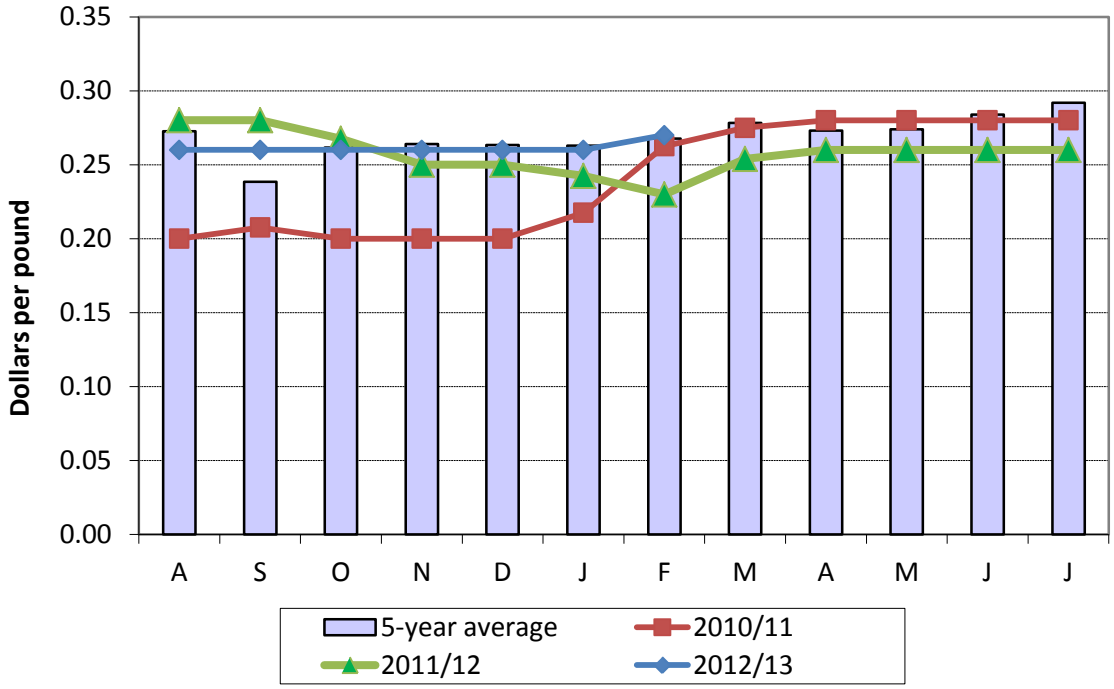
Source: Alberta Agriculture and Rural Development

Figure 16 - Brown Mustard Seed Prices (August to July)



Source: Alberta Agriculture and Rural Development

Figure 17 - Oriental Mustard Seed Prices (August to July)



Source: Alberta Agriculture and Rural Development

Economics of Specialty Crop Production

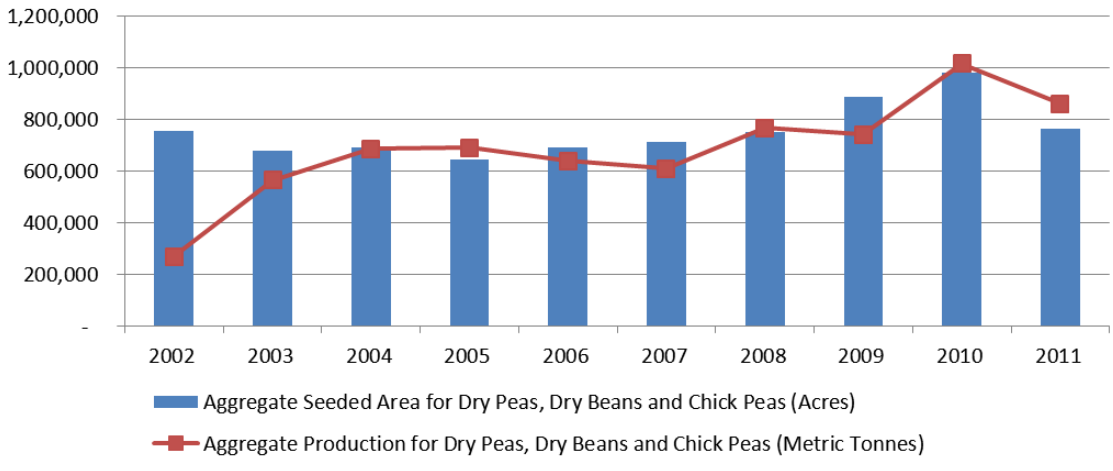
Emmanuel Anum Laate

Costs and returns for crops, livestock, and several other enterprises have been monitored in the province in an extensive way since the 1960's. These studies have been viewed as an important tool for assisting producers in their cropping decisions and the federal and provincial governments in developing policies and programs for different farm enterprises. In addition, results from these studies have served to fill some data gaps for other provinces.

The Economics Branch of Alberta Agriculture and Rural Development has been conducting economic studies on various farm enterprises for the last several decades. Since the early 1990's, the Branch has placed greater emphasis on developing costs and returns data on specialty crops for farm diversification purposes. As mentioned above, results from these studies have been very helpful to primary producers when making cropping decisions. Furthermore, individual producers have also used the results from these studies to compare costs and returns and profitability margins of their farms with the group averages from the respective areas in order to develop better management practices. Agri-businesses and other stakeholders have also used the results of the economic studies for feasibility studies.

During the last ten years, area under special crops in Alberta has quite diversified. Figure 18 shows the trend in provincial total seeded area in acres and production in metric tonnes for dry field peas, dry beans and chick peas from 2002 to 2011.

Figure 18 - Total Seeded Area and Production for Dry Field Peas, Dry Beans and Chick Peas in Alberta, 2002 – 2011



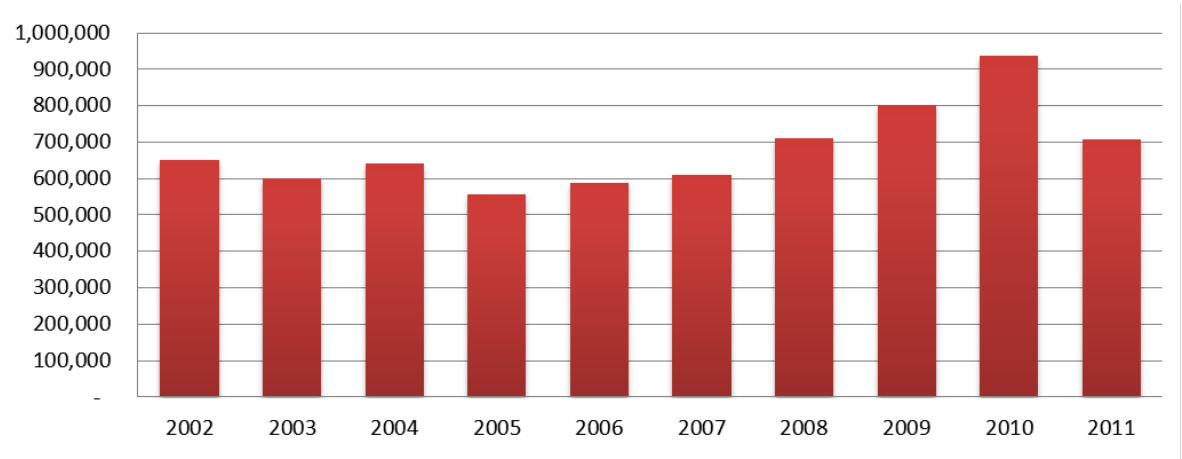
Source: Statistics Canada

In 2011, total production and area seeded to dry peas, dry beans and chick peas decreased by approximately 22 per cent and 15 per cent respectively compared to 2010. The lower

production for the 2011 crop was a result of fewer seeded acres, as yields were higher than in 2010. About 92 per cent of the total area was seeded to dry peas in 2011.

Figure 19 shows the trend in the provincial seeded acres of dry peas from 2002 to 2011. Area planted to dry peas in 2011 was 706.7 thousand acres, down 24 per cent from 2010 acres.

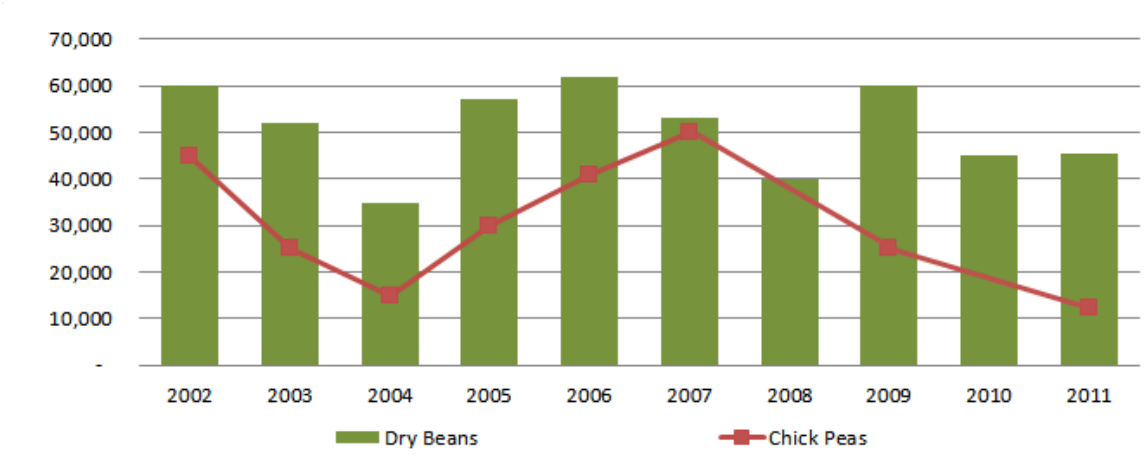
Figure 19 - Alberta Dry Peas Seeded Acres, 2002 – 2011



Source: Statistics Canada

Figure 20 shows area seeded to dry beans and chick peas in Alberta over the period 2002 to 2011. Dry beans seeded acres in 2011 was up about one per cent compared to the 2010 crop. Most of the dry beans are grown under contract on irrigated land in southern Alberta.

Figure 20 - Alberta Dry Beans and Chick Peas Seeded Acres, 2002 – 2011



Source: Statistics Canada

In 2008 and 2010 area planted to chick peas decreased considerably thus Statistics Canada had only a few producers to report. Therefore no actual data on seeded acres was

published for 2008 and 2010. The changes in chick pea acreage over the last decade could be attributed to drought concerns, crop diseases, and production in major importing countries.

Additionally, producer interest in other specialty crops, including caraway, buckwheat, coriander, borage, herbs and spices, continues to grow.

Tables 9, 10 and 11 present estimates of 2011 production costs and returns for dry field peas, dry beans and chick peas (desi and kabuli) respectively. Readers are cautioned to use these costs as guidelines because costs and returns could vary significantly from one operation to another.

Table 9 Production Costs and Returns for Dry Peas
Dark Brown Soil Zone, 2011

Production Costs and Returns for Dry Peas Dark Brown Soil Zone, 2011		
Yield per Acre (bushels)	40.0	
Expected Market Price/Bushel ($)	7.91	
	$ Per Acre	**$ Per Bushel**
Revenue ($)		
(a) Gross Revenue	**316.40**	**7.91**
Costs ($)		
Seed and Seed Cleaning	29.31	0.73
Fertilizer Rates: 2N 16P 1K 3S	17.00	0.43
Chemicals	25.23	0.63
Hail/Crop Insurance Premiums	13.44	0.34
Trucking and Marketing	5.25	0.13
Fuel	13.06	0.33
Repairs - Machinery & Buildings	7.48	0.19
Utilities & Miscellaneous Expenses	6.50	0.16
Custom Work & Labour	8.45	0.21
Operating Interest Paid	4.82	0.12
Unpaid Labour	13.46	0.34
(b) Total Variable Costs	**144.01**	**3.60**
Taxes, License & Insurance	11.61	0.29
Equipment & Building - Depreciation	18.76	0.47
Paid Capital Interest	5.57	0.14
(c) Total Capital Costs	**35.94**	**0.90**
(d) Cash Costs (B+C-Unpaid Labour - Depreciation)	**147.73**	**3.69**
(e) Total Production Costs (b + c)	**179.95**	**4.50**
Gross Margin (a - d)	**168.67**	**4.22**
Return to Investment (a – e + Paid Capital Interest)	**142.02**	**3.55**
Return to Equity (a - e)	**136.45**	**3.41**

Note: Returns per acre would vary with yield and price.
Source: Alberta Agriculture and Rural Development

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Table 10 Production Costs and Returns for Dry beans Dark Brown Soil Zone, 2011

Production Costs and Returns for Dry beans Dark Brown Soil Zone, 2011		
Yield per Acre (lbs)	2,500	
Expected Market Price/Pound ($)	0.43	
	$ Per Acre	**$ Per Pound**
Revenue ($)		
(a) Gross Revenue	**1,075.00**	**0.43**
Costs ($)		
Seed and Seed Cleaning	31.21	0.01
Fertilizer Rates: 2N 16P 1K 3S	105.56	0.04
Chemicals	69.24	0.03
Hail/Crop Insurance Premiums	32.99	0.01
Trucking and Marketing	17.41	0.01
Fuel	67.08	0.03
Repairs - Machinery & Buildings	50.70	0.02
Utilities & Miscellaneous Expenses	21.48	0.01
Custom Work & Labour	13.38	0.01
Operating Interest Paid	13.75	0.01
Unpaid Labour	99.38	0.04
(b) Total Variable Costs	**522.19**	**0.21**
Taxes, License & Insurance	34.20	0.01
Equipment & Building - Depreciation	67.80	0.03
Paid Capital Interest	12.40	0.00
(c) Total Capital Costs	**114.40**	**0.05**
(d) Cash Costs (b + c - Unpaid Labour - Depreciation)	**469.40**	**0.19**
(e) Total Production Costs (b + c)	**636.58**	**0.25**
Gross Margin (a - d)	**605.60**	**0.24**
Return to Investment (a – e + Paid Capital Interest)	**450.81**	**0.18**
Return to Equity (a - e)	**438.42**	**0.18**

Note: Returns per acre would vary with yield and price.
Source: Alberta Agriculture and Rural Development

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Table 11 Production Costs and Returns for Desi and Kabuli Chick Peas, 2011

Production Costs and Returns for Desi and Kabuli Chick Peas, 2011		
	Desi Chick Peas	**Kabuli Chick Peas**
Estimated Yield per Acre (lbs)	1,600	1,719
Price per Pound ($)	0.26	0.39
	$ Per Acre	**$ Per Acre**
Revenue ($)		
(a) Gross Revenue	**416.00**	**670.41**
Costs ($)		
Seed	23.95	55.09
Fertilizer	11.33	12.31
Chemicals	12.95	16.44
Machinery Expenses (Fuel & Repair)	19.78	22.74
Custom Work & Hired Labour	7.63	9.23
Utilities & Miscellaneous	8.69	9.33
Interest on Variable Expenses	2.85	3.78
(b) Total Variable Costs	**87.19**	**128.91**
Building Repair	3.01	3.01
Property Expenses, Insurance & License	8.22	8.22
Machinery & Building Depreciation	23.55	23.55
Machinery & Building Investment	13.55	13.55
Labour & Management	18.53	21.50
(c) Total Other Costs	**66.86**	**69.84**
(d) Total Production Costs (b + c)	**154.05**	**198.75**
Return Over Variable Expenses (a - b)	**328.81**	**541.50**
Return Over Total Production Costs (a - d)	**261.95**	**471.66**

Note: Returns per acre would vary with yield and price.
Source: Alberta Agriculture and Rural Development

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