Alberta 2008 Specialty Crop Report






Alberta

Acknowledgment

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Several ARD staff members have made significant contributions to the successful completion and dissemination of this report. Those staff include Charlie Pearson of Market and Consumer Analysis Unit, Nabi Chaudhary of Economics Unit, Reynold Jaipaul, Roy Larsen, Melodie Mynzak, Guangzhi Liu, Gail Atkinson, Marion Harry, Marian Elson, and Margaret McDonald of Statistics and Data Development Unit.

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This report is also available on the Internet at:

http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sdd12490

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Alberta 2007 Specialty Crop Survey

Chuanliang Su

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) Unit conducts an annual Specialty Crop Survey. Now into its twenty-fifth 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 estimates. In turn, these estimates are used to validate some of the Alberta estimates generated by Statistics Canada, as well as to provide industry and other stakeholders with benchmark statistics 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 2008, survey questionnaires were mailed out to 3,713 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 2007. Survey participants were informed that participation in the survey was voluntary. Moreover, all individual responses would be 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 30, 2008, a total of 872 questionnaires were returned. Of this total, 646 were usable and partly formed the basis in the generation of the Alberta 2007 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 consultations with provincial specialists of Alberta Agriculture and Rural Development (ARD), industry, and information from published sources (e.g. Statistics Canada) were used to generate 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 their useful information and invaluable insights 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

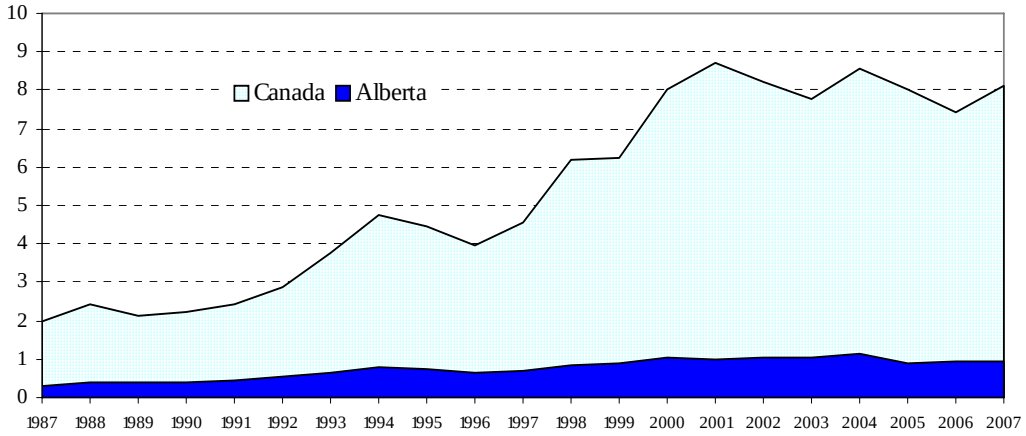
In 2007, producers in Alberta continued to seed a large acreage of specialty crops, due to the need for crop rotation and diversification. The total provincial seeded area, excluding potatoes and forage seeds, was estimated at 0.96 million acres, unchanged from a year earlier (see Figure 1). Of the total seeded area, nearly 0.90 million acres or 94 per cent were harvested for grain. To offer some perspective, shown in Figure 3 on page 4, is the percentage distribution of specialty crop seeded acreage, by crop type in 2007.

Regarding crop growing conditions, excessive moisture reserves in the spring of 2007, resulted in major delays in seeding operations in most areas of the province. Despite the late start, crops showed excellent growth and development in June. However, the hot, dry weather experienced in July caused significant deterioration in crop conditions and yield potentials. Provincial average yields for most specialty crops grown on dryland were below average, while specialty crops grown under irrigation benefited from the heat in July, producing above average yields.

In 2007, the provincial average yield for dry peas was estimated at 32.6 bushels per acre, nine per cent lower than in 2006, and six per cent below the 10-year average (see Tables 1 and 4). For triticale, the provincial average yield was 38.9 bushels per acre, one per cent lower than in 2006, and three per cent below the 10-year average. With the majority of its acreage in southern Alberta, mustard seed produced an average yield of 702 pounds per acre, or 25 per cent lower than in 2006, and seven per cent below the 10-year average.

Provincial yields were generally above average for specialty crops under irrigation. For dry beans, the provincial average yield was estimated at 2,260 pounds per acre, four per cent higher than in 2006, and the 10-year average. For sugar beets and potatoes, the provincial average yields were 25.1 tonnes per acre and 341 cwt per acre, respectively, with both yields higher than their 10-year averages.

Figure 1 - Specialty Crop Seeded Area, Alberta and Canada 1987-2007 (million acres)



Source: Statistics Canada; and Alberta Agriculture and Rural Development

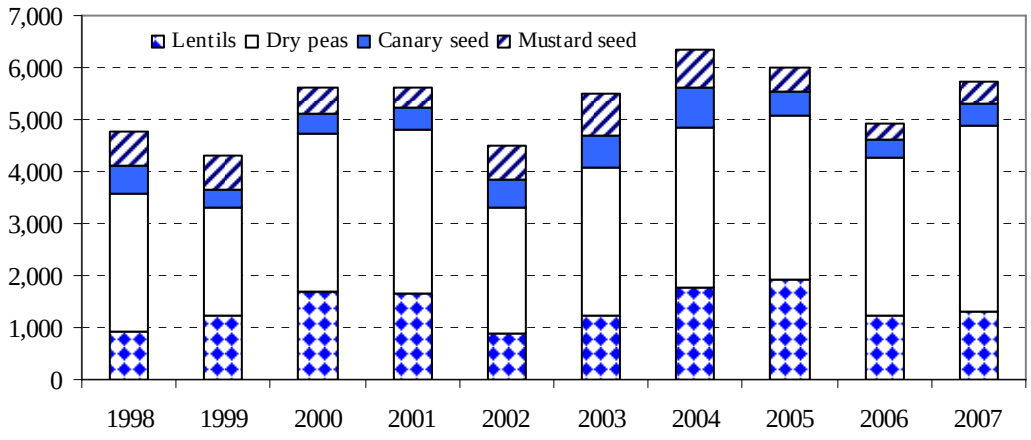
Specialty Crops in Western Canada

Based on the results of "Alberta 2007 Specialty Crop Survey" and Statistics Canada's "November Estimate of Production of Principal Field Crops, Canada, 2008", total seeded and harvested acres of specialty crops in Western Canada in 2007 increased significantly from a year earlier. This was due to a large acreage increase in Saskatchewan, more than offsetting the decline in Manitoba, as Alberta's acreage remained practically unchanged and area in British Columbia was almost negligible.

In 2007, the total seeded area of specialty crops in Western Canada jumped to 7.48 million acres, or 11 per cent higher than the 6.75 million acres in 2006. On a provincial basis, Saskatchewan with its 5.53 million acres accounted for 74 per cent of the total specialty crop seeded area in Western Canada, while Manitoba and Alberta accounted for 13 per cent each. The specialty crop seeded area in British Columbia was extremely small. Similar to seeded area, the total harvested acreage in Western Canada in 2007 was up 12 per cent from a year earlier, to 7.24 million acres.

Based on acreage, the four largest specialty crops grown in Western Canada in 2007 were dry peas, lentils, canary seed and mustard seed. Together, these crops accounted for 5.84 million acres, or 78 per cent of the total area seeded to specialty crops. Dry peas, with a total seeded area of 3.63 million acres, was the largest specialty crop, representing almost one-half (49 per cent) of the Western Canada total. Lentils was next, with seeded acres totaling 1.34 million or 18 per cent of the total, while mustard seed and canary seed accounted for six per cent each. Shown in Figure 2 is the harvested area of the top four specialty crops in Western Canada. Statistics on seeded area and production for selected specialty crops are presented in Table 5 on page 14.

Figure 2 - Harvested Area of Selected Specialty Crops
Western Canada ('000 acres)

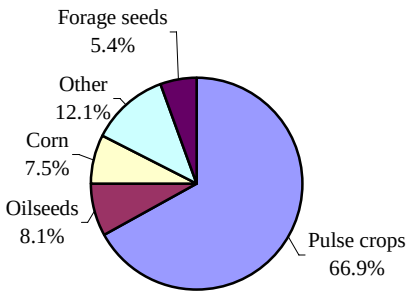


Source: Statistics Canada; and Alberta Agriculture and Rural Development

Table 1: Alberta 2007 Specialty Crops

		Seeded Area (acres)	Harvested Area (acres)	Yield (per acre)		Production (tonnes)
Pulse crops	Dry peas, green	90,000	85,000	35.2	bu	81,400
	Dry peas, yellow	510,000	500,000	32.1	bu	436,800
	Dry peas, other	10,000	10,000	34.0	bu	9,300
	All dry peas	**610,000**	**595,000**	**32.6**	**bu**	**527,500**
	Chick peas, desi	4,000	4,000	-		-
	Chick peas, kabuli	46,000	46,000	-		-
	All chick peas	**50,000**	**50,000**	**1,176.0**	**lbs**	**26,700**
	Dry beans	53,000	53,000	22.6	cwt	54,400
	Fababeans	4,000	4,000	26.0	cwt	4,717.0
	Lentils	-	-	-		-
Oilseeds	Mustard seed, brown	20,000	20,000	690.0	lbs	6,300
	Mustard seed, yellow	50,000	50,000	712.0	lbs	16,100
	Mustard seed, oriental	15,000	15,000	683.0	lbs	4,600
	All mustard seed	**85,000**	**85,000**	**702.0**	**lbs**	**27,000**
	Sunflower seed	-	-	-		-
	Safflower seed	1,800	1,800	1,080.0	lbs	880
Corn	Grain corn	10,000	7,000	128.6	bu	22,900
	Silage corn	70,000	50,000	18.5	ton	839,100
Other	Potatoes (1)	55,800	54,800	341.0	cwt	847,629
	Triticale	40,000	18,000	38.9	bu	17,800
	Canary seed	-	-	-		-
	Sugar beets (2)	34,302	34,067	25.1	tonne	853,669
Forage seeds (3)	Alfalfa seed	17,030	17,030	600.0	lbs	4,635
	Clover seed	1,814	1,814	160.0	lbs	132
	Brome grass seed	9,374	9,374	385.0	lbs	1,637
	Fescue seed	10,733	10,733	380.0	lbs	1,850
	Timothy seed	12,061	12,061	230.0	lbs	1,258
	Other	7,288	7,288	-		-
All crops		**1,072,202**	**1,010,967**	**-**		**3,231,807**

Figure 3 - Percentage Distribution of Specialty Crop Seeded Acreage, Alberta, 2007 (Total area: 1,072,202 acres)



Source: Alberta 2007 Specialty Crop Survey, ARD; and Field Crop Reporting Series, Statistics Canada

Except for:

(1) Statistics Canada, Canadian Potato Production, November 2008

(2) Alberta Sugar Beet Growers' Marketing Board

(3) Canadian Seed Growers' Association - Inspected Pedigreed Crop Acres; Yield estimates are generated from the Alberta 2007 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

Alberta Census Divisions
ID, MD and Counties

Alberta

Figure 4

Table 2 Alberta 2007 Specialty Crops by Census Division

C.D.	Dry Peas	Mustard Seed	Lentils	Dry Beans	Chick Peas
	Harvested Area (acres)				
1	89,542	6,454	-	26,274	21,928
2	68,055	28,730	-	24,628	16,176
3	23,839	7,604	-	-	-
4	29,290	29,773	-	-	-
5	111,366	12,439	-	-	5,014
6	17,099	-	-	-	-
7	61,599	-	-	-	-
8	9,037	-	-	-	-
9	-	-	-	-	-
10	80,844	-	-	-	-
11	16,039	-	-	-	-
12	9,616	-	-	-	-
13	7,185	-	-	-	-
14	-	-	-	-	-
17	27,392	-	-	-	-
18	-	-	-	-	-
19	42,202	-	-	-	-
Alberta	**595,000**	**85,000**	**-**	**53,000**	**50,000**
	Yield Per Acre				
	(bushels)	**(pounds)**	**(pounds)**	**(cwt)**	**(pounds)**
1	21.2	754.6	-	22.3	871.7
2	27.9	699.5	-	22.8	1,205.4
3	29.2	644.6	-	-	-
4	24.5	652.9	-	-	-
5	37.6	817.4	-	-	1,575
6	44.6	-	-	-	-
7	31.2	-	-	-	-
8	35.4	-	-	-	-
9	-	-	-	-	-
10	35.0	-	-	-	-
11	31.6	-	-	-	-
12	39.1	-	-	-	-
13	44.7	-	-	-	-
14	-	-	-	-	-
17	35.8	-	-	-	-
18	-	-	-	-	-
19	45.1	-	-	-	-
Alberta	**32.6**	**702.0**	**-**	**22.6**	**1,176.0**
	Production (tonnes)				
1	51,563	2,209	-	26,553	8,670
2	51,699	9,116	-	25,461	8,845
3	18,968	2,223	-	-	-
4	19,496	8,817	-	-	-
5	113,996	4,612	-	-	3,582
6	20,738	-	-	-	-
7	52,303	-	-	-	-
8	8,697	-	-	-	-
9	-	-	-	-	-
10	76,990	-	-	-	-
11	13,795	-	-	-	-
12	10,236	-	-	-	-
13	8,744	-	-	-	-
14	-	-	-	-	-
17	26,676	-	-	-	-
18	-	-	-	-	-
19	51,856	-	-	-	-
Alberta	**527,500**	**27,000**	**-**	**54,400**	**26,700**

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 2006 Specialty Crops by Census Division

C.D.	Dry Peas	Mustard Seed	Lentils	Dry Beans	Chick Peas
	Harvested Area (acres)				
1	70,509	6,754	3,195	21,084	18,630
2	59,093	8,732	2,207	27,910	16,063
3	16,233	3,556	-	-	-
4	16,776	20,539	808	-	1,226
5	104,492	13,331	-	1,038	1,952
6	16,116	-	-	-	-
7	69,492	-	-	-	573
8	8,037	-	854	900	-
9	350	-	-	-	-
10	80,999	-	529	-	1,025
11	15,628	-	-	-	-
12	10,027	-	-	-	-
13	8,345	-	-	-	-
14	661	-	-	-	-
17	32,142	-	-	-	-
18	3,720	-	-	-	-
19	45,380	-	-	-	-
Alberta	**565,000**	**60,000**	**10,600**	**61,500**	**40,000**
	Yield Per Acre				
	(bushels)	**(pounds)**	**(pounds)**	**(cwt)**	**(pounds)**
1	30.8	1,035.5	-	22.5	906.5
2	39.7	994.4	1,772.8	22.0	1,847.3
3	30.6	899.5	-	-	-
4	31.7	668.5	-	-	1,260.0
5	36.3	986.0	-	-	-
6	28.8	-	-	-	-
7	34.0	-	-	-	-
8	36.5	-	-	-	-
9	-	-	-	-	-
10	34.4	-	-	-	-
11	36.8	-	-	-	-
12	41.6	-	-	-	-
13	53.0	-	-	-	-
14	-	-	-	-	-
17	39.3	-	-	-	-
18	-	-	-	-	-
19	33.5	-	-	-	-
Alberta	**35.9**	**939.2**	**1,400.0**	**21.8**	**1,432.5**
	Production (tonnes)				
1	59,052	3,172	-	21,518	7,660
2	63,805	3,939	1,775	27,824	13,460
3	13,501	1,451	-	-	-
4	14,488	6,228	-	-	701
5	103,303	5,962	-	-	-
6	12,636	-	-	-	-
7	64,304	-	-	-	-
8	7,978	-	-	-	-
9	-	-	-	-	-
10	75,833	-	-	-	-
11	15,668	-	-	-	-
12	11,365	-	-	-	-
13	12,032	-	-	-	-
14	-	-	-	-	-
17	34,339	-	-	-	-
18	-	-	-	-	-
19	41,325	-	-	-	-
Alberta	**552,600**	**25,600**	**6,731**	**60,800**	**26,000**

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, dry beans and chick peas. 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 Alberta in 2007 was estimated at 610,000 acres (see Table 1). Of this total, 595,000 acres were harvested, or five per cent higher than in 2006, and nine per cent above the 10-year average. Due to the dry conditions in July 2007, the average yield, estimated at 32.6 bushels per acre, was nine per cent lower than in 2006, and six per cent below the 10-year average.

The total provincial production of dry peas was estimated at 527,500 tonnes, five per cent lower than in 2006. The lower production was attributed to a lower yield, which more than negated the impact of a larger harvested area.

Although dry peas are grown primarily on dryland across the province, more acreage is concentrated in Census Divisions 1 (Medicine Hat area), 5 (Drumheller area) and 10 (Vermilion area) - see Table 2 and Figure 5. These three Census Divisions (1, 5 and 10) accounted for 47 per cent of the provincial total harvested area in 2007. Just to mention, dry pea yields varied across the province.

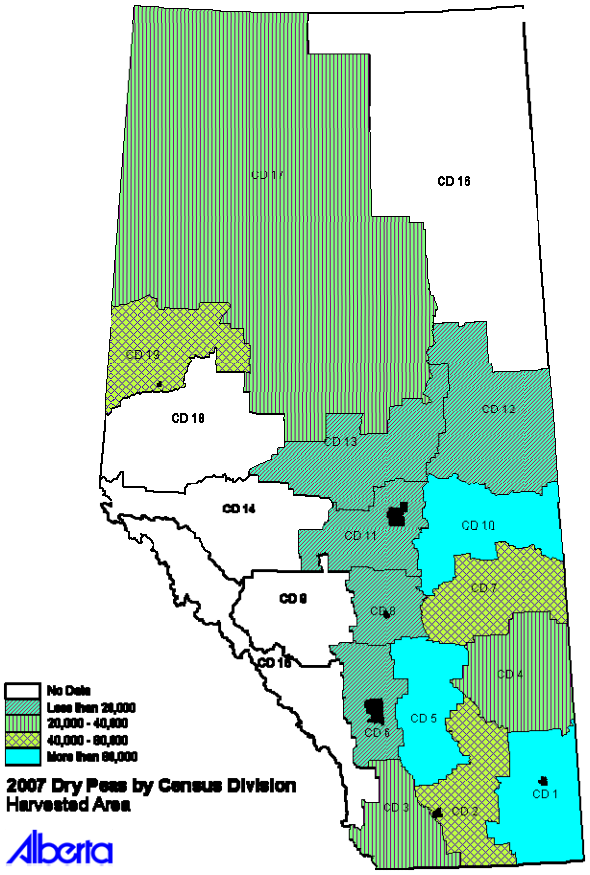


Figure 5

Mustard Seed

In 2007, the total seeded and harvested area of mustard seed in the province was estimated at 85,000 acres (see Table 1). Due to the hot, dry weather in July, the provincial average yield fell 25 per cent from 2006, to 702 pounds per acre.

Despite the lower yield, the total provincial production of mustard seed, estimated at 27,000 tonnes, was five per cent higher than in 2006. The higher production stemmed from a 42 per cent increase in the harvested area, more than negating the impact of the lower yield.

Of the three types of mustard seed produced in Alberta, yellow mustard seed continues to dominate, accounting for 60 per cent of the provincial total production in 2007, while brown and oriental mustard seed represented 23 per cent and 17 per cent, respectively.

In 2007, over 80 per cent of the total harvested area in the province was in Census Divisions 2, 4 and 5 (see Table 2 and Figure 6). Also, mustard seed yields varied significantly across Census Divisions. For example, Census Division 5 had the highest yield of 817 pounds per acre, while the lowest yield of 645 pounds per acre was reported in Census Division 3.

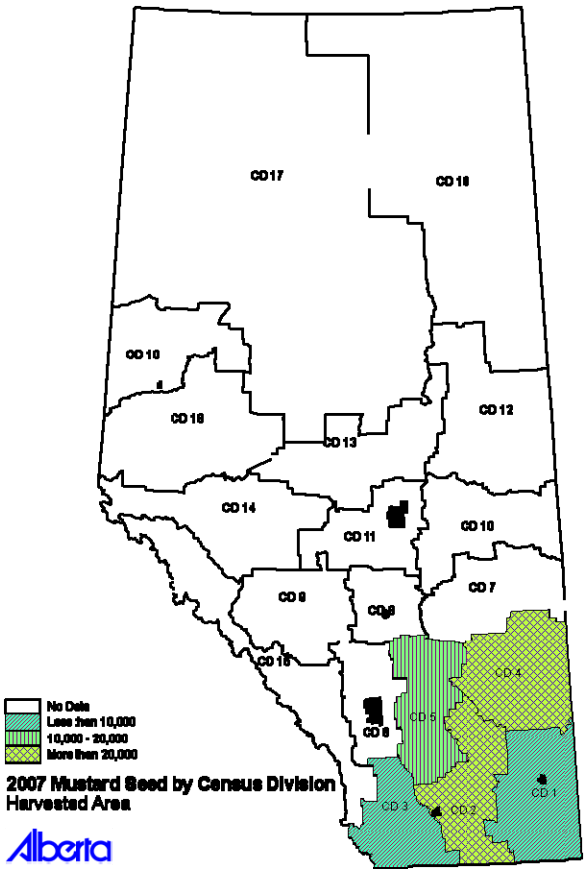


Figure 6

Dry Beans

In 2007, Alberta producers seeded and harvested 53,000 acres of dry beans (see Table 1). The provincial average yield was estimated at 2,260 pounds per acre, up four per cent from the 2006 yield of 2,180 pounds per acre. The higher yield in 2007 was mainly a result of above seasonal temperatures in July, which was beneficial to crops grown under irrigation.

The total production of dry beans in 2007 was estimated at 54,400 tonnes, or 11 per cent lower than in 2006. Driving the lower production was a substantial decline in harvested area, despite the higher yield.

Dry beans are grown mostly under irrigation in southern Alberta. In 2007, a total of 46,492 acres or 88 per cent of the provincial dry bean seeded area was irrigated, according to information from the Water Resources Branch of Alberta Agriculture and Rural Development.

In 2007, Census Divisions 1 and 2 jointly accounted for 96 per cent of the provincial total harvested area (see Table 2 and Figure 7). Dry beans are generally grown under contract in Alberta.

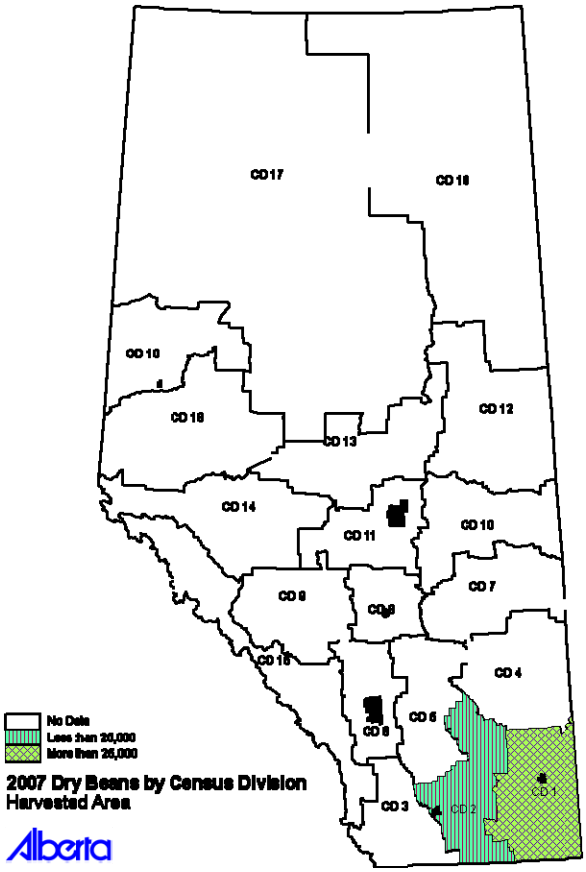


Figure 7

Chick Peas

The total seeded area of chick peas in Alberta in 2007 increased 23 per cent from a year earlier, to 50,000 acres (see Table 1). With all the seeded acres harvested, chick peas produced an average yield of 1,176 pounds per acre, or 18 per cent lower than in 2006. Yields were down due to the dry conditions in July 2007.

The total provincial production of chick peas was estimated at 26,700 tonnes, practically unchanged from 2006. A larger harvested area essentially negated the impact of a lower yield.

Chick peas are primarily grown on dryland in southern Alberta, with only small amounts produced under irrigation. In 2007, about 76 per cent of the provincial total harvested area was in Census Divisions 1 and 2 (see Table 2 and Figure 8).

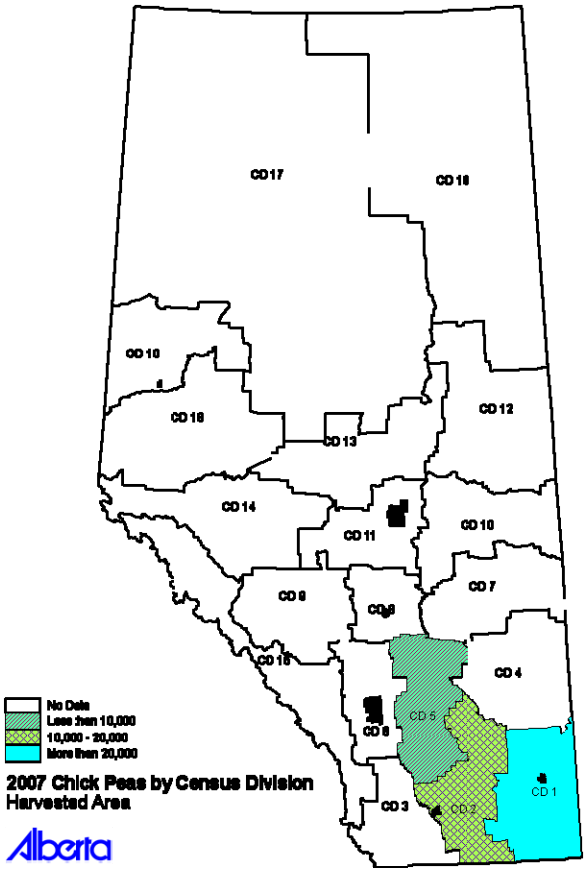


Figure 8

Table 4: Alberta Specialty Crop Area, Yield and Production, 1998-2007

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alfalfa Seed (1)											
Inspected area	(acres)	12,069	16,461	17,117	15,381	12,709	11,292	10,345	10,050	14,458	17,030
Yield	(lbs/acre)	425.0	200.0	525.0	385.0	265.0	550.0	370.0	270.0	585.0	600.0
Production	(tonnes)	2,327	1,493	4,076	2,686	1,528	2,817	1,736	1,231	3,836	4,635
Canary Seed											
Harvested area	(acres)	20,000	10,000	10,000	4,000	10,000	10,000	10,000	6,000	3,300	-
Yield	(lbs/acre)	950.0	1,400.0	1,100.0	775.0	520.0	900.0	1,040.0	1,200.0	-	-
Production	(tonnes)	8,600	6,400	5,000	1,400	2,400	4,100	4,700	3,266	-	-
Corn for Grain											
Harvested area	(acres)	5,000	10,000	10,000	3,000	10,000	5,000	5,000	5,000	3,000	7,000
Yield	(bu/acre)	90.0	80.0	110.0	86.7	80.0	60.0	65.0	104.0	130.0	128.6
Production	(tonnes)	11,400	20,300	27,900	6,600	20,300	7,600	8,300	13,200	9,900	22,900
Corn Silage											
Harvested area	(acres)	15,000	15,000	30,000	30,000	30,000	30,000	35,000	35,000	55,000	50,000
Yield	(tons/acre)	20.0	13.3	17.0	16.0	16.0	16.7	18.6	14.3	19.1	18.5
Production	(tonnes)	272,200	181,400	462,700	435,400	435,453	453,606	589,701	453,638	952,500	839,100
Fababeans											
Harvested area	(acres)	2,000	-	-	3,000	3,000	2,000	5,000	4,000	4,000	4,000
Yield	(cwt/acre)	25.0	-	-	17.0	5.0	20.0	26.0	27.5	26.3	-
Production	(tonnes)	2,300	-	-	2,300	700	1,800	5,900	5,000	4,800	-
Dry Beans											
Harvested area	(acres)	45,000	47,000	45,000	59,000	40,000	52,000	34,000	55,000	61,500	53,000
Yield	(cwt/acre)	22.2	20.0	21.3	22.3	17.5	25.6	22.2	21.2	21.8	22.6
Production	(tonnes)	45,400	42,700	43,500	59,700	31,700	60,300	34,200	52,800	60,800	54,400
Dry Peas											
Harvested area	(acres)	500,000	455,000	640,000	570,000	440,000	585,000	600,000	530,000	565,000	595,000
Yield	(bu/acre)	35.9	42.9	35.6	32.6	18.5	30.9	39.3	42.8	35.9	32.6
Production	(tonnes)	488,000	530,800	620,500	506,200	221,600	491,300	642,300	617,500	552,600	527,500
Lentils											
Harvested area	(acres)	15,000	22,000	32,000	15,000	6,000	15,000	18,000	20,000	10,600	-
Yield	(lbs/acre)	1,180.0	1,245.0	684.0	722.0	713.0	1,013.0	1,372.0	1,563.0	1,400.0	-
Production	(tonnes)	8,000	12,400	9,900	5,000	1,900	6,900	11,300	14,100	6,731	-
Mustard Seed											
Harvested area	(acres)	110,000	90,000	50,000	50,000	70,000	135,000	125,000	75,000	60,000	85,000
Yield	(lbs/acre)	795.0	1,100.0	606.0	373.0	603.0	634.0	902.0	915.0	939.2	702.0
Production	(tonnes)	39,700	44,800	13,800	8,500	19,100	38,800	51,200	31,100	25,600	27,000
Safflower Seed											
Harvested area	(acres)	12,000	5,000	3,000	1,000	2,000	2,500	3,200	-	-	1,800
Yield	(lbs/acre)	1,020	900	625	750	320	1,215	-	-	-	1,080
Production	(tonnes)	1,400	2,000	900	300	300	1,378	-	-	-	880
Sugar Beets (2)											
Harvested area	(acres)	41,132	44,522	42,017	28,457	27,754	27,389	34,954	33,667	36,992	34,067
Yield	(tonnes/acre)	23.3	18.9	21.9	18.4	15.2	22.9	21.2	19.9	26.0	25.1
Production	(tonnes)	959,310	839,773	920,252	523,110	422,389	628,081	740,508	668,141	963,165	853,669

Source: Statistics Canada; and Alberta Agriculture and Rural Development cwt - hundredweight (hundred pounds) - 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

Table 4: Alberta Specialty Crop Area, Yield and Production, 1998-2007 (Cont'd)

		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Sunflower Seed											
Harvested area	(acres)	5,000	5,000	5,000	5,000	6,000	3,000	5,000	3,500	1,790	-
Yield	(lbs/acre)	1,900.0	1,600.0	2,240.0	1,250.0	1,500.0	1,500.0	800.0	-	1,850.0	-
Production	(tonnes)	4,300	3,600	5,100	2,800	4,100	2,000	1,800	-	1,502	-
Triticale											
Harvested area	(acres)	50,000	60,000	50,000	20,000	10,000	35,000	25,000	20,000	15,000	18,000
Yield	(bu/acre)	38.0	53.3	41.0	37.0	32.5	33.9	44.0	43.0	39.3	38.9
Production	(tonnes)	48,300	81,300	52,100	18,800	8,300	30,100	27,900	21,800	15,000	17,800
Potatoes											
Harvested area	(acres)	32,200	42,300	47,700	57,300	55,800	61,000	57,000	51,500	53,200	54,800
Yield	(cwt/acre)	295.0	290.0	310.0	315.0	280.0	330.0	350.0	344.0	342.0	341.0
Production	(tonnes)	430,900	556,400	670,700	818,700	708,700	913,097	904,932	803,598	825,280	847,629

Source: Statistics Canada; and Alberta Agriculture and Rural Development

cwt - hundredweight (hundred pounds) - Not available

Table 5: Western Canada Specialty Crops Area and Production

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Mustard Seed					Seeded Area ('000 acres)						
Alberta	145.0	110.0	100.0	50.0	60.0	85.0	140.0	130.0	80.0	62.5	85.0
Saskatchewan	560.0	580.0	585.0	465.0	330.0	600.0	675.0	600.0	400.0	268.2	350.0
Manitoba	17.0	10.0	7.0	10.0	20.0	30.0	25.0	8.0	-	-	-
Western Canada	722.0	700.0	692.0	525.0	410.0	715.0	840.0	738.0	480.0	330.7	435.0
					Production ('000 tonnes)						
Alberta	50.6	39.7	44.8	13.8	8.5	19.1	38.8	51.2	31.1	25.6	27.0
Saskatchewan	186.5	195.5	259.7	185.1	91.2	125.2	176.9	232.8	152.7	82.6	87.3
Manitoba	6.3	3.4	1.9	3.3	5.1	10.0	10.4	2.7	-	-	-
Western Canada	243.4	238.6	306.4	202.2	104.8	154.3	226.1	286.7	183.8	108.2	114.3
Sunflower Seed					Seeded Area ('000 acres)						
Alberta	5.0	5.0	5.0	5.0	5.0	6.0	3.0	5.0	3.5	1.8	-
Saskatchewan	35.0	40.0	65.0	25.0	20.0	30.0	45.0	30.0	30.0	15.9	10.0
Manitoba	85.0	125.0	140.0	155.0	155.0	210.0	220.0	165.0	185.0	190.2	190.0
Western Canada	125.0	170.0	210.0	185.0	180.0	246.0	268.0	200.0	218.5	207.9	200.0
					Production ('000 tonnes)						
Alberta	3.2	4.3	3.6	5.1	2.8	4.1	2.0	1.8	-	1.5	-
Saskatchewan	14.3	21.3	35.4	12.4	8.1	17.2	15.6	6.4	11.7	-	5.0
Manitoba	47.6	86.2	82.9	101.8	92.9	136.1	124.7	44.0	72.7	157.3	119.8
Western Canada	65.1	111.8	121.9	119.3	103.8	157.4	142.3	52.2	84.4	158.8	124.8
Lentils					Seeded Area ('000 acres)						
Alberta	25.0	20.0	25.0	32.0	20.0	15.0	15.0	18.0	24.0	10.8	-
Saskatchewan	780.0	900.0	1,210.0	1,660.0	1,720.0	1,320.0	1,250.0	1,800.0	1,960.0	1,275.8	1,335.0
Manitoba	8.0	15.0	16.0	35.0	10.0	-	4.0	7.0	-	-	-
Western Canada	813.0	935.0	1,251.0	1,727.0	1,750.0	1,335.0	1,269.0	1,825.0	1,984.0	1,286.6	1,335.0
					Production ('000 tonnes)						
Alberta	8.3	8.0	12.4	9.9	5.0	1.9	6.9	11.3	14.1	6.7	-
Saskatchewan	365.2	465.9	702.6	888.1	557.9	326.1	475.0	902.7	1,150.2	629.5	673.9
Manitoba	5.3	5.9	8.8	16.1	3.4	-	2.7	1.8	-	-	-
Western Canada	378.8	479.8	723.8	914.1	566.3	328.0	484.6	915.8	1,164.3	636.2	673.9
Dry Peas					Seeded Area ('000 acres)						
Alberta	385.0	510.0	470.0	660.0	610.0	650.0	600.0	640.0	555.0	587.3	610.0
Saskatchewan	1,500.0	1,900.0	1,520.0	2,240.0	2,550.0	2,135.0	2,145.0	2,375.0	2,550.0	2,430.5	2,925.0
Manitoba	205.0	260.0	105.0	155.0	150.0	200.0	135.0	150.0	110.0	91.4	95.0
Western Canada	2,097.0	2,680.0	2,104.0	3,065.0	3,320.0	2,990.0	2,890.0	3,170.0	3,220.0	3,115.5	3,630.0
					Production ('000 tonnes)						
Alberta	421.8	488.0	530.8	620.5	506.2	221.6	491.3	642.3	617.5	552.6	527.5
Saskatchewan	1,158.1	1,613.8	1,623.4	2,072.4	1,388.0	881.8	1,292.7	2,291.5	2,313.4	1,861.5	2,309.6
Manitoba	178.3	225.9	92.0	160.5	146.1	176.9	137.4	160.0	56.9	103.5	97.7
Western Canada	1,762.3	2,336.8	2,251.9	2,864.3	2,044.8	1,283.8	1,930.9	3,097.2	2,993.6	2,519.9	2,934.8
Canary Seed					Seeded Area ('000 acres)						
Alberta	10.0	20.0	15.0	10.0	5.0	10.0	10.0	10.0	6.0	3.3	-
Saskatchewan	250.0	450.0	340.0	360.0	360.0	580.0	550.0	820.0	435.0	326.2	425.0
Manitoba	20.0	50.0	15.0	40.0	55.0	100.0	60.0	30.0	20.0	9.0	15.0
Western Canada	280.0	520.0	370.0	410.0	420.0	690.0	620.0	860.0	461.0	338.5	440.0
					Production ('000 tonnes)						
Alberta	3.7	8.6	6.4	5.0	1.4	2.4	4.1	4.7	3.3	-	-
Saskatchewan	102.1	201.8	152.0	148.6	101.2	142.4	190.5	284.4	219.3	129.1	155.7
Manitoba	9.2	24.9	7.6	17.2	11.3	32.7	31.8	11.4	7.9	3.7	6.3
Western Canada	115.0	235.3	166.0	170.8	113.9	177.5	226.4	300.5	230.5	132.8	162.0

Source: Statistics Canada; and Alberta Agriculture and Rural Development

- Not available

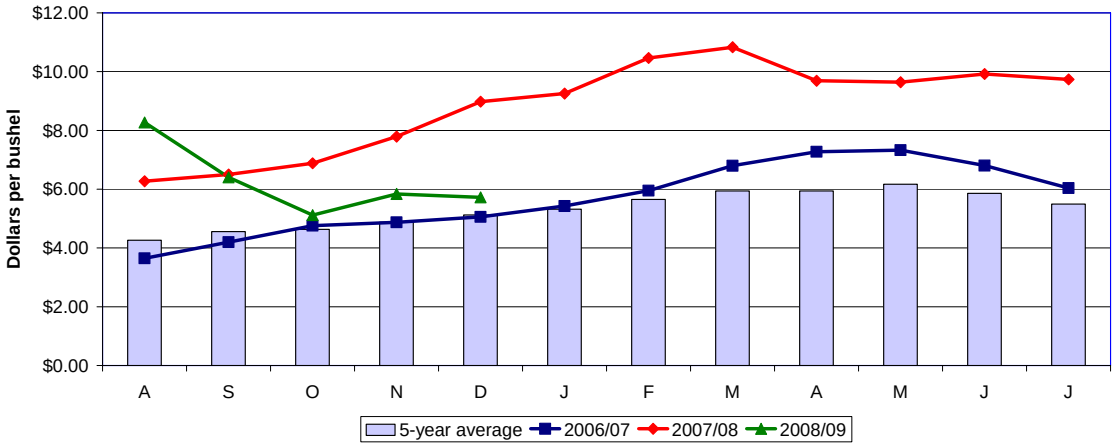
Markets for Selected Specialty Crops

Charlie Pearson

Dry Peas

The recent international financial crisis, particularly the tight world credit condition, has pushed dry pea prices lower. With respect to supply in Canada, record harvested acreage and high yields in 2008 resulted in a record production, adding pressure to the dry peas market. Prices for human consumption dry yellow peas in Canada are currently under $6.00 per bushel. Due mainly to large supplies in Canada and the world, market prices for dry yellow peas are likely to remain in the range of $5.50-6.50 per bushel during the first half of 2009, significantly below the 2007/08 prices.

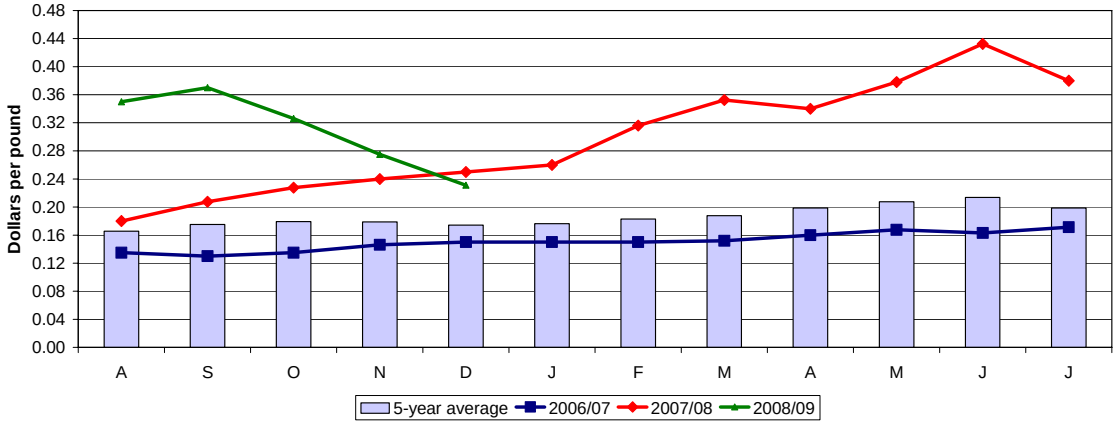
Figure 9 - Yellow Edible Pea Prices (August to July)



Lentils

The total Canadian supply of lentils has improved, as a result of increased production in 2008 (stemming from larger acreage and higher yields). Similar to other agricultural commodities, the lentil market has been under pressure recently. Prices for high quality large green lentils are currently in the range of 21-23 cents per pound, compared to 35 cents per pound three months ago. The current lentil prices at 21-23 cents per pound are expected to hold through the winter and spring.

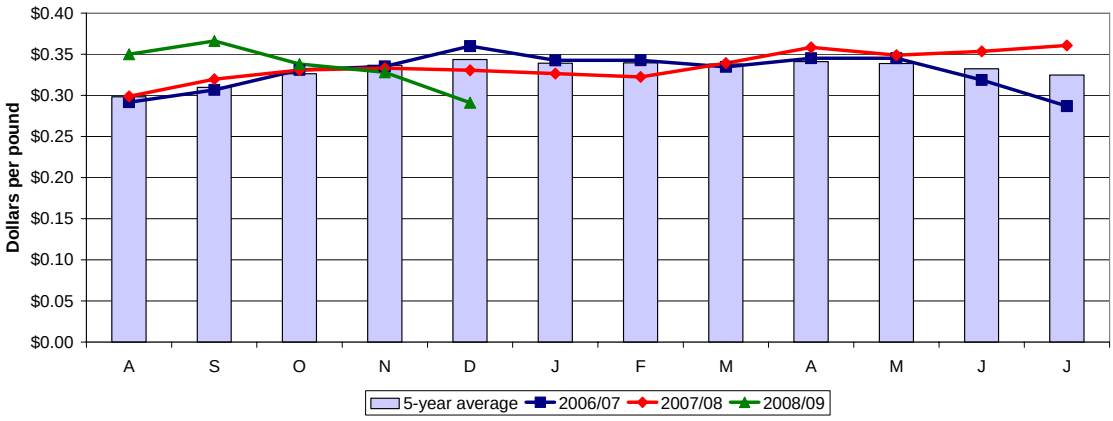
Figure 10 - Large (Laird) Lentil Prices (August to July)



Chick Peas

Due to a large decline in harvested acreage, total Canadian production of chick peas in 2008 decreased markedly from a year earlier. Despite some losses in market prices recently, the reduced Canadian supply has contributed to a relatively less volatile market for chick peas, compared to other agricultural commodities. Kabuli prices are currently just below 30 cents per pound, and are expected to hold for the remainder of the winter.

Figure 11 - Kabuli Chickpea Prices - 9 mm (August to July)

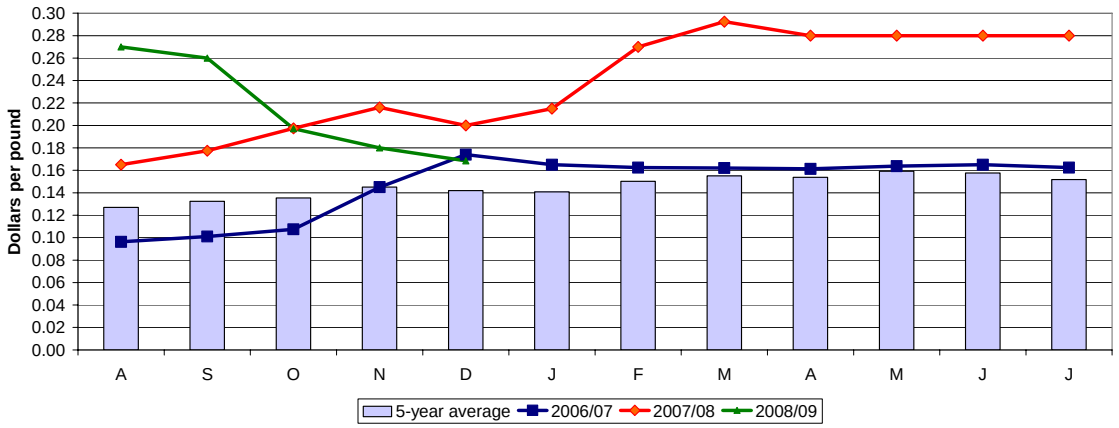


Canary Seed

The total Canadian production of canary seed in 2008 increased from a year earlier, with higher yields more than offsetting a decline in harvested acreage. Similar to other agricultural commodities, prices for canary seed have decreased recently. Market prices are currently at the 16-17 cents per pound level, compared to 26-28 cents per pound four

months ago. With the tight supply, canary seed prices are likely to be in the range of 17-20 cents per pound in the remainder of the 2008/09 crop year.

Figure 12 - Canary Seed Prices (August to July)



Mustard Seed

Due to a combination of larger harvested acreage and higher yields, total Canadian production of mustard seed in 2008 increased significantly from a year earlier. Of the three types of mustard seed produced, yellow mustard seed continues to dominate and accounts for more than 50 per cent of the total mustard seed acreage. Despite some recent declines in prices, mustard seed market remains relatively strong compared to most other specialty crops. In general, markets prices for all three types of mustard seeds in 2008/09 are expected to be significantly above their 5-year averages.

Figure 13 - Yellow Mustard Seed Prices (August to July)

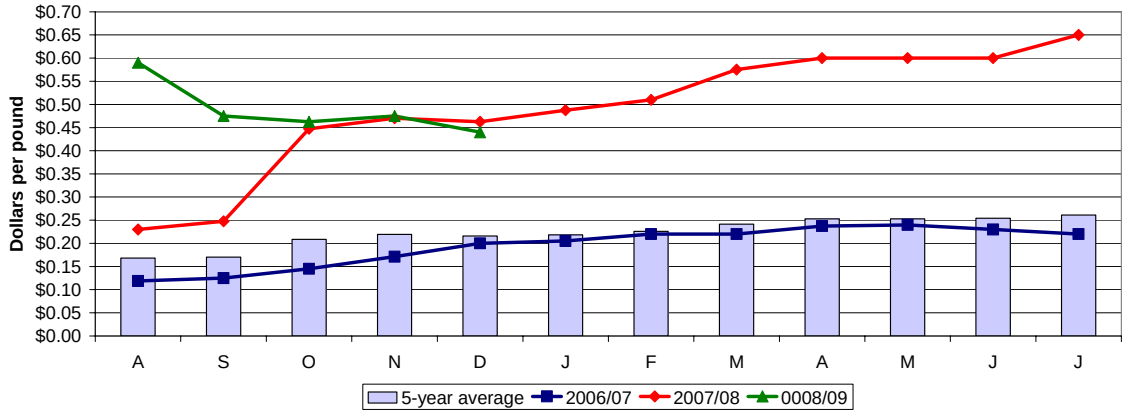


Figure 14 - Brown Mustard Seed Prices (August to July)

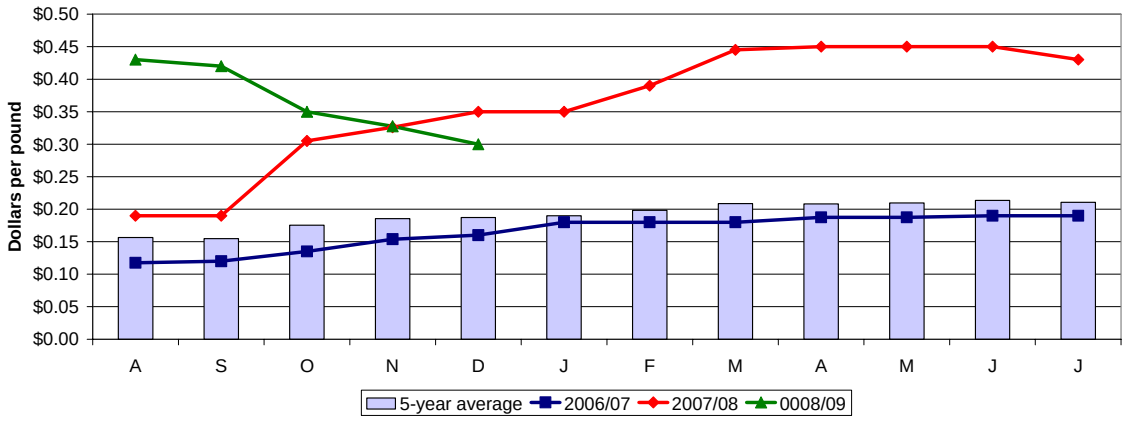
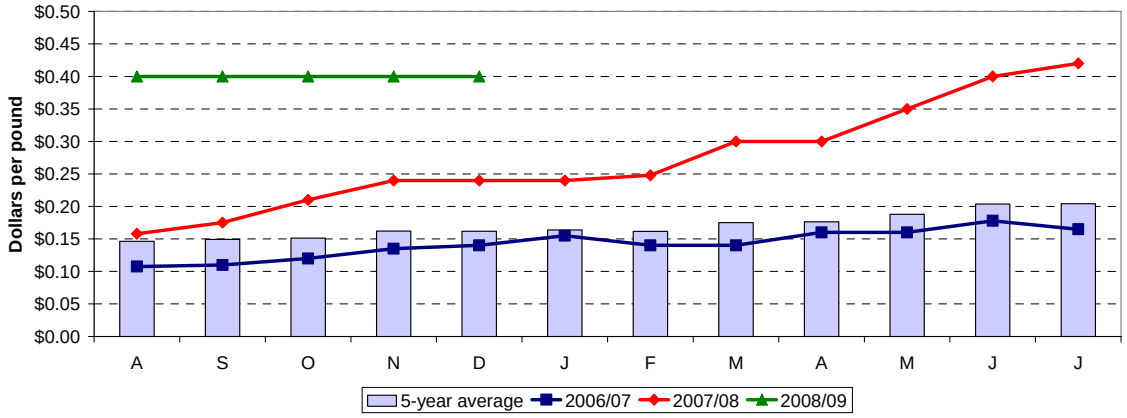


Figure 15 - Oriental Mustard Seed Prices (August to July)



Economics of Specialty Crop Production

Nabi Chaudhary

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 Unit (formerly known as Production Economics Branch), in the Economics and Competitiveness Division 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, greater emphasis has been placed on developing costs and returns data on specialty crops for farm diversification purposes.

Continued volatile markets for traditional cereals and oilseeds have encouraged producers to diversify their operations into new and emerging specialty crops. 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 used the results of the economic studies for feasibility studies.

During the last ten years, area under special crops has increased significantly in Alberta. The total seeded area of dry peas was 385,000 acres in 1997, and jumped to 610,000 acres in 2001. In 2002, seeded area increased seven per cent, to 650,000 acres. However, seeded area declined to 600,000 acres in 2003. In 2004, seeded area was estimated at 640,000 acres, an increase of about seven per cent over 2003. The seeded area in 2005 decreased 13 per cent, to 555,000 acres. In 2006, seeded area for dry peas increased six per cent, to 587,263 acres. The total harvested area in 2006 was 565,000 acres, or 96 per cent of the seeded area. The provincial average yield for the 2006 dry pea crop was 35.9 bushels per acre. Area seeded to dry peas increased by about four per cent over 2006, to 610,000 acres in 2007. Of the total seeded area, 595,000 acres were harvested with an average yield of 32.6 bushels per acre.

Dry beans acreage in Alberta has fluctuated over the last decade. The total seeded area was 60,000 acres in 2001, and remained unchanged in 2002. It decreased about 13 per cent, to 52,000 acres in 2003. The acreage continued to decline, and totaled 35,000 acres in 2004. In 2005, the total seeded area was estimated at 57,000 acres, an increase of almost 63 per cent over 2004. The acreage in 2006 jumped to 62,039 acres, or nine per cent higher than in 2005. Of the total seeded area in 2006, 61,500 acres were harvested, with an average yield of 2,180 pounds per acre. In 2007, area seeded to dry beans decreased by about 15 per cent, to 52,900 acres. Average yield for the 2007 dry beans crop was estimated at 2, 260 pounds per acre. Please note most of the dry beans are grown under contract on irrigated land in southern Alberta.

In the late 1990's, producers showed considerable interest in chick peas (known as the new Cinderella crop on the Prairies). Chick peas were a huge crop in Saskatchewan from 1999 to 2001, occupying almost one million acres. In Alberta, acreage under chick peas was 100,000 acres in 2001, double the acreage in 2000. However, the area under chick peas decreased drastically to 45,000 acre in 2002, primarily due to drought concerns and disease problems. In

2003, the acreage dropped to 25,000 acres. The decline in area continued in 2004, with a total of 15,000 acres, the lowest area on record. In 2005, the total seeded area doubled, to 30,000 acres. In 2006, it increased about 37 per cent to 40,749 acres. Of this total seeded, 40,000 acres were harvested, with an average yield of 1,433 pounds per acre. In 2007, area seeded to chick peas (Kabuli and Desi) increased to 50,000 acres, approximately 23 per cent higher than in 2006. 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.

Shown in Table 6 are estimates of 2007 production costs and returns for dry peas. Costs and returns data for dry beans and chick peas (desi and kabuli) are presented in Tables 7 and 8, respectively.

Table 6: Production Costs and Returns for Dry Peas
Dark Brown Soil Zone, 2007

	$ Per acre	$ Per bushel
Revenue per Acre		
Yield per Acre (bushels)	32.60	
Expected Market Price/Bushel ($)	4.87	
(a) Gross Revenue per Acre	**160.71**	**4.87**
Costs per Acre ($)		
Seed and Seed Cleaning	27.70	0.84
Fertilizer Rates: 2N 16P 1K 3S	9.79	0.30
Chemicals	29.21	0.89
Hail/Crop Insurance Premiums	7.89	0.24
Trucking and Marketing	1.81	0.05
Fuel	10.54	0.32
Repairs - Machinery & Buildings	8.23	0.25
Utilities & Miscellaneous Expenses	12.36	0.37
Custom Work & Labour	7.47	0.23
Operating Interest Paid	2.86	0.09
Unpaid Labour	4.29	0.13
(b) Variable Costs	**122.15**	**3.70**
Taxes, License & Insurance	10.71	0.32
Equipment & Building - Depreciation	18.65	0.57
Paid Capital Interest	5.40	0.16
(c) Capital Costs	**34.76**	**1.05**
(d) Total Production Costs (b+c)	**156.91**	**4.75**
Gross Margin	**27.85**	**0.84**
Return to Investment (a-d+capital interest)	**9.20**	**0.28**
Return to Equity (a-d)	**3.80**	**0.12**

Note: Returns per acre would vary with yield and price.

Source: Alberta Agriculture and Rural Development

Table 7: Production Costs and Returns for Dry Beans
Dark Brown Soil Zone, 2007

	$ Per acre	$ Per pound
Revenue per Acre		
Yield per Acre (lbs)	2,180	
Expected Market Price/Pound ($)	0.26	
(a) Gross Revenue per Acre	**566.80**	**0.26**
Costs per Acre ($)		
Seed and Seed Cleaning	28.34	0.01
Fertilizer Rates: 2N 16P 1K 3S	76.16	0.04
Chemicals	89.81	0.04
Hail/Crop Insurance Premiums	10.25	0.01
Trucking and Marketing	8.13	0.00
Fuel	43.70	0.02
Repairs - Machinery & Buildings	51.81	0.03
Utilities & Miscellaneous Expenses	13.93	0.01
Custom Work & Labour	10.80	0.01
Operating Interest Paid	2.96	0.00
Unpaid Labour	94.10	0.05
(b) Variable Costs	**429.95**	**0.21**
Cash/Crop Share Rent	0.00	0.00
Taxes, License & Insurance	30.85	0.02
Equipment & Building - Depreciation	66.80	0.03
Paid Capital Interest	9.85	0.00
(c) Capital Costs	**107.50**	**0.05**
(d) Total Production Costs (b+c)	**537.45**	**0.27**
Gross Margin	**106.00**	**0.05**
Return to Investment (a-d+capital interest)	**39.20**	**0.02**
Return to Equity (a-d)	**29.35**	**0.01**

Note: Returns per acre would vary with yield and price.

Source: Alberta Agriculture and Rural Development

Table 8: Production Costs and Returns
Desi and Kabuli Chick Peas, 2007

	Desi Chick peas	Kabuli Chick peas
Revenue Per Acre		
Estimated Yield per Acre (lbs)	1,140	1,210
Price per Pound ($)	0.15	0.26
(a) Gross Revenue per Acre ($)	**171.00**	**314.60**
Costs per Acre ($)		
Variable Costs per Acre		
Seed	22.30	51.56
Fertilizer	13.39	14.55
Chemicals	15.71	19.94
Machinery Expenses (Fuel & Repair)	23.35	23.35
Custom Work & Hired Labour	6.78	6.78
Utilities & Miscellaneous	9.20	9.88
Interest on Variable Expenses	2.17	2.92
(b) Total Variable Costs	**92.90**	**128.98**
Other Costs per Acre		
Building Repair	2.05	2.05
Property Expenses, Insurance & License	5.65	5.65
Machinery & Building Depreciation	18.09	18.09
Machinery & Building Investment	12.70	12.70
Labour & Management	16.15	16.15
(c) Total Other Costs	**54.64**	**54.64**
(d)TOTAL PRODUCTION COSTS (b+c)	**147.54**	**183.62**
RETURNS PER ACRE ($)		
Return Over Variable Expenses (a-b)	78.10	185.62
Return Over Total Production Costs (a-d)	23.46	130.98

Note: Returns per acre would vary with yield and price.

Source: Alberta Agriculture and Rural Development