

# **Bi-weekly Bulletin**

May 12, 2006 Volume 19 Number 7

## LENTILS: SITUATION AND OUTLOOK

Canada is the largest exporter of lentils in the world. It became the largest producer of lentils in 2005-2006, but is expected to return to second place in 2006-2007 because production is forecast to decrease sharply. Exports in 2006-2007 are expected to remain stable, while carry-out stocks decrease sharply. Prices are forecast to increase because of the lower supply. The value of Canadian exports was \$233 million (M) in 2004-2005 and is anticipated to reach nearly M\$300 in 2005-2006. This issue of the *Bi-weekly Bulletin* examines the situation and outlook for lentils.

#### WORLD

#### Production

Lentils are best adapted to production in the cooler temperate zones of the world or in the winter season in countries, such as India and Australia, which have a warm winter and a hot summer. The seed coat colour of lentils can be clear, green, tan, grey, brown or black. The cotyledon is yellow, red or green. The two main market types are red and green.

World lentil production has been trending upwards during the past 10 years, ranging from 2.76 million tonnes (Mt) in 1997-1998 to 4.17 Mt in 2005-2006. Among the main producers, production has been trending upwards in Canada, the United States (US), Australia and China, but has been relatively stable in India, Turkey, Syria, Iran, Nepal and Bangladesh. In the US, production increased sharply since lentils were first included under the loan program in 2002. Although specific data is not available, an estimated 70% of world lentil production is the red type, 25% green type and 5% brown and other types. Canada and the US produce mainly the green type whereas the rest of the world produces mainly the red type.

#### Trade

During the past 10 years, world trade has been trending upwards from 0.65 Mt in 1995 to 1.17 Mt in 2001. In 2004, the latest year for which complete data is available, exports were 1.12 Mt. The top five exporting countries (Canada, Turkey, Australia, India and the US) accounted for 82% of world exports. About 60% of the exports were the red type, 35% green and 5% brown and other. Canada's share of world exports was 33% in 2004, but

WORLD: LEN	TIL SUF	PPLY AN	ID DISPO	SITION	
	2002 -2003	2003 -2004	2004 -2005	2005 -2006	2006 2007f
Harvested Area (kha)	3,685	3,630	3,957	4,000	3,700
Average Yields (t/ha)	0.78	0.86	0.95	1.04	0.94
		tho	usand tor	nes	
Carry-in Stocks	300	100	100	450	900
Production					
India	974	880	1,100	1,000	900
Canada	354	520	962	1,278	625
Turkey	565	540	540	560	600
United States	117	111	190	234	270
Australia	45	175	95	210	196
Syria	133	168	125	154	150
China	125	132	150	160	150
Nepal	148	150	159	161	145
Iran	117	120	125	125	125
Bangladesh	115	116	122	122	115
Others	197	194	199	165	184
Total Production	2,890	3,106	3,767	4,169	3,460
Total Supply	3,190	3,206	3,867	4,619	4,360
Total Use	3,090	3,106	3,417	3,719	3,760
Carry-out Stocks	100	100	450	900	600
Stocks-to-use ratio	3%	3%	13%	24%	16%
f: forecast, AAFC, Pulse Au Source: FAO, USDA, Statis				a - May 200	6

increased to about 45% in 2005. Imports were distributed much more widely than exports, with the top 10 importing countries accounting for only 55% of imports.

#### CANADA

#### Production

Canadian lentil production has increased in response to market signals and contributed to the diversification of crop

> production in the Prairie Provinces, especially in Saskatchewan. The increase in lentil production has proven to be valuable in crop rotations which help to control weeds, diseases and insects and improve soil texture and fertility. The increased production also contributed to the expansion of the pulse crops handling, marketing and processing industry, which increased employment opportunities in rural areas. During the past 10 years, lentil production has been concentrated in Saskatchewan, which accounted for more than 95% of Canadian production. The balance was produced in Alberta and Manitoba.

Lentils are a cool season crop with a restricted root system which is only moderately resistant to high temperatures and drought. They do not tolerate water

## Canadä

logging, flooding or soils with high salinity. In the Prairie Provinces of Canada, lentils are best suited to the Brown and Dark Brown soil zones, but can be grown successfully in the Black soil zone in years without excessive moisture. Lentils work well in a rotation with cereals, such as spring or durum wheat. Nitrogen fertilizer is not recommended because lentils possess the ability to fix nitrogen in

nodules on the roots, where it can be used for plant growth. The nitrogen fixed by lentils is also used by other crops in the following years. To maximize the nitrogen fixation ability, lentil seed should be inoculated. Lentils require 90-100 days to mature and should be seeded as soon as the average soil temperature is greater than 5° Celsius.

Canadian production reached a record of 1.28 Mt in 2005-2006. Canada is the main producer of the green type of lentils in the world, accounting for about 75% of world production. However, production of the red type has been increasing and Canada has become a major producer. Canadian production of dark green speckled and brown types is small, accounting for only about 2% of total Canadian lentil production. The Canadian lentil harvest generally occurs during the period from mid-August to early October.

Most of the lentils produced in Canada have a green seed coat and yellow cotyledon. They are normally referred to as large green, medium green and small green, based on the seed size. The large green type includes the Laird, Glamis, Sovereign, Grandora, Plato and Sedley varieties. Their seed size is 60-70 grams/1000 seeds. The medium green type includes the Richlea, Vantage and Meteor varieties, with seed size of 50-55 grams/1000 seeds.

The **small green** type includes the Eston, Viceroy and Milestone varieties, with seed size of about 35 grams/1000 seeds. Canadian red type of lentils have a brown or pale green seed coat with red cotyledons. The **red** type varieties include Crimson, Redcap, Redberry, Robin, Blaze, Rouleau and Rosetown, with seed size of 30-40 grams/1000 seeds.

#### Marketing

All of the lentils produced in Canada are sold on the open market to dealers. With the increase in production, the number of dealers across the Prairie provinces who buy, clean and ship lentils to domestic and export customers has increased to about 50. There are several processing plants in Saskatchewan capable of de-hulling and splitting red and green types of lentils for the world market.

	2000	2001	2002	2003	2004	2005
	2000			nd tonne		2000
<b>o</b> 1						
Canada	519	490	352	370	372	576
Turkey	100	159	119	217	171	118
Australia	134	218	242	85	150	108
India	191	106	86	83	137	n/a
United States	78	97	102	94	83	160
Syria	16	12	11	70	71	n/a
China	18	14	21	33	37	34
Nepal	2	15	28	30	15	n/a
Other	<u>38</u>	<u>63</u>	<u>58</u>	55	84	<u>n/a</u>
Total	1,096	1,174	1,019	1,037	1,120	n/a
v	/ORLD: I	LENTIL		RTS		
	2000	2001	2002	2003	2004	2005
			thousa	nd tonne	s	
Bangladesh	37	47	63	123	110	n/a
Sri Lanka	80	91	107	91	93	n/a
Egypt	77	113	100	61	89	n/a
Colombia	67	50	65	53	63	67
Spain	50	47	47	47	41	54
Algeria	72	47	63	67	39	86
Pakistan	37	68	67	81	36	n/a
Sudan	22	14	20	14	32	n/a
Mexico	26	31	29	29	31	30
India	21	87	67	38	27	n/a
France	36	32	31	32	27	33
Italy	28	28	27	31	27	28
Saudi Arabia	15	25	21	24	26	n/a
Peru	25	28	27	20	25	n/a
Germany	37	26	21	21	24	20
United Kingdom	13	15	17	15	18	20
United States	8	10	11	13	16	14
Eritrea	9	6	2	12	16	n/a
Ecuador	15	17	16	13	15	n/a
Haiti	4	3	4	6	15	n/a
Chile	17	11	16	14	14	16
Belgium	9	9	7	9	12	12
Greece	12	12	13	10	11	13
United Arab Emirates	7	9	41	10	10	n/a
Ethiopia	8	4	1	10	10	n/a
Venezuela	15	17	16	8	9	14
Brazil	7	12	9	9	9	11
Turkey	141	99	23	17	6	64
Other	180	180	154	231	173	<u>n/a</u>
Total	1,075	1,138	1,085	1,109	1,024	n/a

The difference between imports and exports is attributed to the timing of delivery and less complete reporting for imports.

Source: FAO, Statistics Canada, USDA and Global Trade Atlas - May 2006

entils are shipped to ports nainly bagged in ontainers, although bulk hipments have been creasing with the building suitable handling acilities. From the ports to verseas customers, they re shipped mainly bagged containers, although ome are also shipped bulk containers or bulk inside he hold of ships. Most of ne Canadian lentils are xported through the ports f Vancouver and Montreal. addition to whole lentils. anada also exports split entils. The export of split entils has been increasing, s Canadian splitting apacity expanded through ne construction of new lants.

#### Exports

C	Canada exports about 70%
a	of its production, while most
3	other major producers
B	export a relatively small
а	portion of their production.
а	Canadian lentil exports are
C	dispersed throughout the
C	world. The main importing
4	countries in each region
а	are: Europe (Italy,
а	Germany, Spain, Belgium,
a	France, Greece), Middle
ŝ	East (Turkey, Egypt, United
6 2 3	Arab Emirates), Africa
	(Algeria, Morocco) South
a	America (Colombia,
a	Venezuela, Ecuador, Chile,
4	Brazil, Peru), North
1 4	America (Mexico, US) and
+ a	Asia (India, Pakistan).
2	

Although the **large green** type of lentils is exported all over the world, the main destinations are northwestern and southern Europe, Algeria, South America, and Central America. The medium green type is exported mainly to north-western Europe, Spain, Algeria, Morocco and the US. The small green type is exported mainly to Morocco, Greece, Italy, Egypt, and Mexico. The red type is exported mainly to southern Asia, the Middle East and northern Africa. The dark green speckled type is exported mainly to France and the brown type mainly to Spain.

#### **Domestic Use**

Canadian domestic use (which includes food, feed, seed, dockage, and waste) accounts for about 30% of production.

#### Prices

Canadian prices are largely determined in the international markets because Canada exports about 70% of its production. Since Canada produces most of the green type of lentils in the world, while it is a smaller producer of the red type, the level of production in Canada has much more influence on green type prices than on red type prices. The substitution of one type of lentil with another is very limited. Therefore, it is common for wide price spreads to exist between different types of lentils. Since there is no futures market for lentils, prices are negotiated directly between dealers and customers, based on supply and demand factors for each type of lentil, for immediate delivery or for delivery at some future date.

Some lentils are grown under production contracts, which guarantee a price for part of the production, but most are sold on the spot market.

#### Organisations

The Canadian Grain Commission administers quality control standards for lentils. The grades are No.1, 2, 3 and extra 3 Canada other than Red, and No.1, 2, 3 and extra 3 Canada Red. Lentils which do not meet the listed grade standards are graded Sample Canada. The major quality concerns in lentil grading are damage due to heating and peeling, split or broken seed, seed discolouration, as well as foreign material. For further information, or to access the Official Grain Grading Guide, please visit

the CGC website: (www.grainscanada.gc.ca)

#### The Canadian Special Crops Association (CSCA -

http://www.specialcrops.mb.ca/) establishes trade rules and serves as a forum for exporters, dealers and brokers involved in the industry of trading Canada's pulse and special crops, including lentils. The website includes a section where buyers can submit a request for prices.

#### **Pulse Canada**

CA	CANADA: LENTIL SUPPLY AND DISPOSITION											
August - July cro	op year	2002 -2003	2003 -2004	2004 -2005	2005 -2006	2006 2007f						
Seeded Area (kł Harvested Area Yield (t/ha)	na)	601 387 0.91	554 536 0.97	778 750 1.28	884 862 1.48	535 508 1.23						
			tho	usand to	nnes							
Carry-in stocks		131	55	38	245	590						
Production Large Green Medium Green	n	185 40	270 70	590 65	760 70	290 20						
Small Green		38	60	180	190	85						
Red	need to a sed Dresson	85	110	115	240	220						
Total Production	peckled and Brown	<u>6</u> 354	<u>10</u> 520	<u>12</u> 962	<u>18</u> 1,278	<u>10</u> 625						
Imports		9	5	10	10	10						
Total Supply		494	580	1,010	1,533	1,225						
Exports												
Middle East		16	54	62	175	180						
South America	a	109	106	139	150	145						
Europe		68	82	92	125	120						
Africa		43	44	85	100	100						
Asia Control Amori	ca and Antilles	56 23	41 28	33 33	45 38	50 40						
United States	ca anu Anunes		20 12	7		<u>40</u>						
Total Exports		320	367	<u>,</u> 451	<u>,</u> 640	640						
Total Domestic	Jse	<u>119</u>	<u>175</u>	<u>314</u>	303	<u>235</u>						
Total Use		439	542	765	943	875						
Carry-out Stocl	ks	55	38	245	590	350						
Stocks-to-use ra	tio (%)	13%	7%	32%	63%	40%						
Seeded Area (ka		1,485	1,369	1,922	2,184	1,322						
Harvested Area	(kac.)	956	1,324	1,853	2,130	1,255						
Yield (lb/ac.)		816	866	1,144	1,323	1,098						
Average produ												
Large Green	\$/t	650	452	419	265	287						
Madium Craan	\$/lb	0.295	0.205	0.190	0.120	0.130						
Medium Green	\$/t \$/lb	562 0.255	430 0.195	364 0.165	220 0.100	265 0.120						
Small Green	\$/ID \$/t	0.255 430	0.195 386	0.165 485	0.100 254	276						
	\$/Ib	0.195	0.175	0.220	0.115	0.125						
Red	\$/t	364	375	386	287	298						
	\$/lb	0.165	0.170	0.175	0.130	0.135						
f: forecast, Agricu	, No. 1 Canada grade	e										
	Canada and AAFC											

(www.pulsecanada.com) is an industry organization, with the CSCA and provincial pulse growers' organizations as members. It is involved in market development, market access, policy issues and coordination of scientific research. The website contains information on pulse crops, markets, and health and nutrition.

#### **Pulse Innovation** Project (PIP)

PIP is managed by Pulse Canada and funded mainly by a M\$3.2 contribution, over three years starting in 2005, from Agriculture and Agri-Food Canada under the Science and Innovation pillar of the Agricultural Policy Framework. The goal of the PIP is to stimulate innovation in product development by understanding industry needs and targeting research that will boost the incorporation of pulses, including lentils, into food and industrial products. It will support the development and commercialization of products by working with food processors and ingredient manufacturers to ensure that the end results are foods that will be found on grocery store shelves, targeting products that are

economic, convenient and enhance nutrition and health. In addition, PIP will explore and support industrial avenues for pulses to ensure the maximum value added opportunities for producers.

#### USE

On average, about 70% of all lentils are consumed in the countries where they are produced. Total world use has been trending upwards during the past 10 years.

Lentils are generally used for food. They are canned or packaged, whole or split, for retail sale, or processed into flour. They are then used in soups, stews, salads, casseroles, snack food and vegetarian dishes. In southern Asia, split red lentils are used in curries. Lentil flour is added to cereal flour to make breads, cakes and baby foods. Lentils are often used as a meat extender or substitute because of the high protein content and quality. Lentils have a shorter cooking time than other pulses and do not need to be presoaked.

Only a relatively small volume of low quality lentils are used for livestock feed, however nutritional analysis indicates that they make an excellent feed.

#### **Healthy Diet**

Pulses, including lentils are increasingly being used in health-conscious diets to promote general well-being and reduce the risk of illness. They are low in fat, low in sodium, cholesterol free, high in protein, and are an excellent source of both soluble and insoluble fibre, complex carbohydrates, and vitamins and minerals, especially B vitamins, potassium and phosphorus.

Since lentils are low in fat, low in sodium and are cholesterol free, they are an excellent heart healthy food that may be beneficial to the prevention of cardiovascular disease. Lentils are an inexpensive, high quality source of protein. Studies have shown that whole pulses (including lentils) have demonstrated cholesterol and lipid lowering effects in humans.

Studies have reported the beneficial effects of soluble dietary fibre on cardiovascular disease in humans, especially in lowering both total serum and LDL-cholesterol levels. In addition, clinical research has shown soluble fibre to be beneficial in the management of type-2 diabetes. Insoluble dietary fibre consumption can be beneficial to a healthy colon and has been associated with reducing the risk of colon cancer. Diets high in fibre have demonstrated beneficial effects on weight loss because they deliver more bulk and less energy.

Lentils are an excellent source of the B vitamin folate which is an essential nutrient. In addition, folate consumption during pregnancy has been shown to reduce the risk of neural tube defects.

Flour made from lentils is gluten free and is a very nutritious option for people with celiac disease.

#### OUTLOOK: 2006-2007

#### World

World production is forecast to decrease by 17% from 2005-2006, to 3.46 Mt, mainly due to lower production in Canada. Canada's share of world production is expected to decrease to 18% from 31% in 2005-2006. World supply is forecast to decrease by only 6% to 4.36 Mt, as higher carry-in stocks offset most of the decrease in production. Canada's share of world supply is expected to decrease to 28% from 33% in 2005-2006. Total world use is forecast to increase, while carry-out stocks fall sharply.

#### Canada

Area seeded to lentils in Canada is expected to decrease by 40%, according to Statistics Canada's seeding intentions survey. The sharp decrease in expected seeded area is due to historically low prices and high carry-in stocks for green lentils. Since the survey was conducted during March 17-31, 2006, the actual seeded area may differ from the intentions due to changes in the market outlook and expected prices, and producer reaction to the seeding intentions report. Assuming normal precipitation for the growing and harvest periods, and the resulting normal abandonment and trend yields, production is expected to decrease by 51% from 2005-2006 to 625,000 tonnes. In 2005-2006, average yields were significantly above trend. The main factor to watch is precipitation during the

growing and harvest periods. At the start of seeding, soil moisture reserves in the lentil growing areas were generally average to above average. Production is expected to decrease for all types, with a moderate decrease for red lentils, and a large decrease for green lentils.

Supply is forecast to decrease by only 20% to 1.23 Mt, due to higher carry-in stocks. Exports are expected to be similar to 2005-2006. Carry-out stocks are forecast to decrease sharply to 0.35 Mt, with the stocks-to-use ratio decreasing to 40%. Average producer prices are forecast to increase from 2005-2006 because of the lower world and Canadian supply. However, prices could be very volatile, especially for the green types, if there are any production problems.

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### Electronic version available at www.agr.gc.ca/mad-dam/

ISSN 1207-621X AAFC No. 2081/E

Bi-weekly Bulletin is published by the: Market Analysis Division, Marketing Policy and Environment Policy Directorate Strategic Policy Branch Agriculture and Agri-Food Canada. 500-303 Main Street Winnipeg, Manitoba, Canada R3C 3G7 Telephone: (204) 983-8473 Fax: (204) 983-5524

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To receive a free e-mail subscription to Bi-weekly Bulletin, please send your request to bulletin@agr.gc.ca.

Issued also in French under title: Le Bulletin bimensuel ISSN 1207-6228 AAFC No. 2081/F

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While the Market Analysis Division assumes responsibility for all information contained in this bulletin, we wish to gratefully acknowledge input from the following:

Pulse Canada; Saskatchewan Agriculture and Food; Saskatchewan Pulse Growers, Market and Industry Services Branch (AAFC)

#### CANADA: ESTIMATED RETURNS NET OF VARIABLE COSTS, 2006-2007

#### MANITOBA

	Wheat	Barley	Canola	Flaxseed	Soybeans	Oats	Sunflower	Dry Pe	as
	CWRS	Feed 5/	Calibia	FlaxSeeu	Soybeans	Oals	Confectionery	Green (food)	Feed
Variable Costs (VC) 1/					\$/ha				
Seed (inc. treatment)	25	23	68	34	189	31	87	48	48
Fertilizer	100	100	118	87	36	92	115	47	47
Chemicals	75	63	126	52	42	24	125	69	69
Fuel	33	33	33	33	38	33	34	34	34
Machinery Operating	25	25	25	25	24	25	27	26	26
Crop Insurance	13	12	22	16	26	16	25	15	15
Operating Interest	8	8	12	8	11	7	13	7	7
Other	19	19	19	19	20	19	20	20	20
Total VC	297	281	421	272	386	246	446	266	266
Projected Returns <sup>2/</sup>	2 CWRS*	1 CW	1 CAN	1 CW	2 CAN	1 CW	1 CAN	2 CAN	Feed
Projected Yield (t/ha)	2.65	3.35	1.75	1.35	2.00	2.90	1.45	2.45	2.45
Forecasted Price (\$/t) 3/	138	76	257	213	200	128	375	140	115
Projected Revenue (\$/ha)	366	255	450	288	400	371	544	343	282
Returns Net of VC(\$/ha)	68	(27)	28	16	14	125	98	77	16

#### SASKATCHEWAN: Brown Soil Zone - conventional seeded stubble

		Wheat		Barley	Lentils	Mustard	Chickpe	eas
	CWRS	Durum	CPS	Feed 5/	Large Green	Yellow	Large Kabuli	Desi
Variable Costs (VC) 4/					\$/ha			
Seed (inc. treatment)	22	22	19	14	40	42	178	47
Fertilizer	72	72	72	72	21	70	21	21
Chemicals	39	40	40	37	92	43	166	101
Fuel	37	37	37	37	40	38	40	40
Repairs	14	14	14	14	25	14	22	22
Crop Insurance	8	11	10	11	38	18	41	25
Interest	5	5	5	5	7	6	12	7
Other	14	14	14	12	12	11	9	9
Total VC	211	215	211	201	276	243	490	272
Projected Returns 2/	1 CWRS*	1 CWAD*	1 CPS	1 CW	1 CAN	1 CAN	2 CW	2 CW
Projected Yield (t/ha)	1.80	1.80	2.25	2.00	1.15	0.80	1.10	1.20
Forecasted Price (\$/t) 3/	142	140	99	85	285	310	505	275
Projected Revenue (\$/ha)	256	252	223	170	328	248	556	330
Returns Net of VC(\$/ha)	45	37	12	(31)	52	5	66	58

#### SASKATCHEWAN: Black Soil Zone - conventional seeded stubble

	Wheat	Bar	ley	Oats	Dry Pe	as	Flaxseed	Canola	Canary
	CWRS	Malting	Feed 5/		Yellow (food)	Feed	FlaxSeeu	Canola	Seed
Variable Costs (VC) 4/					\$/ha				
Seed (inc. treatment)	22	15	15	29	40	36	17	54	1:
Fertilizer	89	89	89	89	17	17	79	93	8
Chemicals	52	47	47	25	74	69	60	59	4
Fuel	37	37	37	37	40	40	40	38	3
Repairs	19	19	19	19	28	28	23	19	1
Crop Insurance	11	12	12	12	16	16	21	17	1
Interest	6	6	6	6	6	6	7	7	
Other	17	12	12	12	11	11	12	12	1:
Total VC	254	237	237	229	231	221	260	299	24
Projected Returns <sup>2/</sup>	2 CWRS*	SS2R	1 CW	3 CW	2 CAN	Feed	2 CW	1 CW	
Projected Yield (t/ha)	2.25	2.65	2.85	2.35	2.15	2.15	1.20	1.50	1.0
Forecasted Price (\$/t) 3/	136	105	80	117	135	105	207	253	21
Projected Revenue (\$/ha)	306	278	228	275	290	226	248	380	21
Returns Net of VC(\$/ha)	52	41	(9)	46	59	4	(11)	80	(34

1/2006 Manitoba Agriculture, Food and Rural Initiatives variable costs.

ble costs. 2/ AAFC forecast, May, 2006

3/ AAFC forecast prices for 2006-07. For wheat, durum and malting barley, the April 2006-07 CWB PRO is used.

 $4\!/\,2006$ Saskatchewan Agriculture, Food and Rural Revitalization

\* CWRS: 13.5% protein / CWAD: 13.0% protein / CERW 12.0% protein Totals may not add due to rounding.

#### CANADA: ESTIMATED RETURNS NET OF VARIABLE COSTS, 2006-2007

#### ALBERTA: Brown Soil Zone - stubble, except durum, canola and mustard

	Wh	eat	Barley	Canola	Lentils	Chickpeas	Mustard		
	CWRS	Durum	Feed 5/	Canola	Large Green	Large Kabuli	Yellow		
Variable Costs (VC) <sup>1/</sup>				\$/ha					
Seed (inc. treatment)	31	37	27	62	37	161	31		
Fertilizer	48	32	48	32	20	20	32		
Chemicals	58	37	30	62	48	73	49		
Fuel	22	22	22	22	22	22	22		
Repairs	21	21	21	21	21	21	21		
Crop Insurance	31	32	35	42	40	33	32		
Interest	4	3	3	4	3	7	3		
Other	65	65	65	65	65	65	65		
Total VC	280	250	251	310	256	402	256		
Projected Returns 2/	1 CWRS*	1 CWAD*	1 CW	1 CAN	1 CAN	2 CW	1 CAN		
Projected Yield (t/ha)	1.80	1.80	1.90	1.35	1.20	1.20	0.85		
Forecasted Price (\$/t) 3/	150	142	88	258	290	505	310		
Projected Revenue (\$/ha)	270	256	167	348	348	606	264		
Returns Net of VC(\$/ha)	(10)	6	(84)	38	92	204	7		

#### ALBERTA: Black Soil Zone - stubble

	Wheat		Barley	Oats	Dry P	eas	Canola
	CWRS	CPS	Feed 5/	Udis	Green (food)	Feed	Callola
Variable Costs (VC) 1/					\$/ha		
Seed (inc. treatment)	31	36	27	30	67	67	62
Fertilizer	112	112	112	112	89	89	146
Chemicals	68	68	61	30	73	73	73
Fuel	26	26	26	26	26	26	26
Repairs	23	23	23	23	23	23	23
Crop Insurance	17	20	17	22	21	21	20
Interest	6	6	5	4	6	6	7
Other	63	63	63	63	63	63	63
Total VC	347	354	335	311	368	368	420
Projected Returns 2/	2 CWRS*	1 CPS	1 CW	1 CW	2 CAN	Feed	1 CAN
Projected Yield (t/ha)	2.50	3.40	3.25	2.45	2.40	2.40	1.75
Forecasted Price (\$/t) 3/	144	107	88	104	140	115	258
Projected Revenue (\$/ha)	360	364	286	255	336	276	452
Returns Net of VC(\$/ha)	13	10	(49)	(56)	(32)	(92)	31

#### **Ontario: - conventional seeded**

	Whe	Wheat		Corn	Soybeans	Dry Beans	Canola
	SRW	HRW	Feed	Grain		White Pea	winter
Variable Costs (VC) 4/				\$/ha.		· · · · · · · · · · · · · · · · · · ·	
Seed (inc. treatment)	86	115	80	143	90	145	85
Fertilizer	132	178	108	203	36	61	238
Chemicals	16	16	47	87	93	122	33
Fuel	26	26	26	39	26	42	20
Repairs	39	39	39	41	42	45	32
Crop Insurance	20	20	11	36	25	45	22
Interest	19	23	14	25	12	16	15
Other(includes drying)	55	55	45	206	70	80	68
Total VC	393	472	372	781	394	556	514
<b>D</b>	4.05514	4.05514	<b>F</b> 1	0.05		4.041	4.041
Projected Returns 2/	1 CERW	1 CERW*	Feed	2 CE	-	1 CAN	1 CAN
Projected Yield (t/ha)	5.00	4.25	3.30	8.00	2.60	2.00	2.10
Forecasted Price (\$/t) 3/	130	150	105	112	215	495	255
Projected Revenue (\$/ha)	650	638	347	896	559	990	536
Returns Net of VC(\$/ha)	257	166	(25)	115	165	434	22

1/2006 Alberta Agriculture, Food and Rural Development variable costs.

3/ AAFC forecast prices for 2006-07. For wheat, durum and malting barley, the April 2006-07 CWB PRO is used.

4/ 2006 Ontario Ministry of Agriculture and Food.

\* CWRS: 13.5% protein / CWAD: 13.0% protein / CERW 12.0% protein

Totals may not add due to rounding.

5/ Off-Board

2/ AAFC forecast, May, 2006