

## WHEAT SITUATION AND OUTLOOK

March 18, 2011

Market Analysis Group Grains and Oilseeds Division Food Value Chain Bureau Market and Industry Services Branch Agriculture & Agri-Food Canada www.agr.gc.ca/gaod-dco



# MARKET OUTLOOK REPORT

Volume 3 Number 1

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### WHEAT SITUATION AND OUTLOOK

This issue of the MARKET OUTLOOK REPORT series examines the situation and outlook for world, Canadian and United States wheat and durum markets.

For 2010-2011, world all wheat (including durum) production decreased by 35 million tonnes (Mt) from 2009-2010 to 647.6 Mt, while durum production decreased by 6.5 Mt to 34.5 Mt. For Canada, wheat production decreased by 1.3 Mt to 20.1 Mt, while durum production decreased by 2.4 Mt to 3 Mt.

For 2011-2012, world all wheat production is forecast to increase by 22.4 Mt from 2010-2011 to 670 Mt, while durum production increases by 1 Mt to 35.5 Mt. For Canada, wheat production is forecast to increase by 0.6 Mt to 20.7 Mt, while durum production increases by 0.8 Mt to 3.8 Mt.

#### WORLD

#### All Wheat (Including Durum)

World all wheat (including durum) production for 2010-2011 decreased by 35 Mt from 2009-2010 to 647.6 Mt. The decrease in production is due to lower yields and a decrease in the harvested area. The sharpest decrease in production, at 20.2 Mt, was in Russia because of drought. World supply decreased by 4.9 Mt to 844.9 Mt as higher carry-in stocks offset most of the decrease in production. World use is expected to increase by 10.5 Mt to

663 Mt with growth in both the food and feed markets.

World trade is forecast to decrease by 9.9 Mt to 124.3 Mt due to the limiting effect of lower production in exporting countries such as Canada, Ukraine, Kazakhstan and most significantly Russia. Russian exports are forecast to be only 4 Mt compared to 18.6 Mt for 2009-2010 because the Russian government banned exports as production estimates were reduced. Exports from Ukraine are forecast to drop by 5.3 Mt and significant decreases in exports are also expected for Canada, Turkey and Kazakhstan. The most significant increase in

exports is forecast for the US at 10.8 Mt, followed by Argentina at nearly 2 Mt.

Carry-out stocks are forecast to decrease by 15.4 Mt from 2009-2010 to 181.9 Mt. The carry-out stocks would be higher than the past ten year average of 163 Mt.

 $\label{eq:world:model} \textbf{WORLD: ALL WHEAT (including durum) SUPPLY AND DISPOSITION}$ 

WORLD. ALL WILLAT (Including durum) OUT LT AND DIST COTTON				
	2009 -2010	2010 -2011f	2011 -2012f	
Harvested Area (million ha)	226.7	221.8	227.0	
Average Yields (t/ha)	3.01	2.92	2.95	
	million tonnes			
Production	682.6	647.6	670.0	
Carry-in Stocks	167.2	197.3	181.9	
Total Supply	849.8	844.9	851.9	
Food, seed and industrial	533.5	539.1	546.0	
Feed and residual	119.0	123.9	125.9	
Total Use	652.5	663.0	671.9	
Carry-out Stocks	197.3	181.9	180.0	
Stocks-to-use ratio (%)	30%	27%	27%	
Trade (July-June)	134.2	124.3	127.0	

Source: USDA, March 2011, except for feed and residual which is an AAFC calculation

f: USDA forecast for 2010-2011, AAFC forecast for 2011-2012, March 2011

#### Durum

World durum production decreased by 6.5 Mt from 2009-2010 to 34.5 Mt. Supply decreased by 3.5 Mt to 44.8 Mt. The main decrease in production was for Canada. Use is expected to increase marginally to 38.1 Mt.

World trade is forecast to decrease slightly to 7.3 Mt because of the lower supply and higher prices.

Carry-out stocks are forecast to decrease sharply from 2009-2010 to 6.7 Mt. The carry-out stocks level is well below the past ten year average of 8.3 Mt.

#### **UNITED STATES**

US all wheat seeded area declined by 9% from 2009-2010, but abandonment decreased and average yields increased resulting in only a marginal decrease in production to 60.1 Mt. Soft red winter wheat production fell sharply, while production of hard red winter, hard red spring and white wheat increased. Durum production decreased slightly. Supply increased by 8.2 Mt to 89.6 Mt because of sharply higher carry-in stocks. Supply increased for all classes of wheat except for soft red winter.

Exports are forecast to increase by 10.7 Mt to 34.7 Mt because of lower supply in most competing countries, especially Russia. Therefore, the US is expected to account for 28% of world exports compared to only 18% for 2009-2010.

Use is forecast to increase for the food, seed and industrial, and the feed components.

Carry-out stocks are forecast to decrease significantly to 22.9 Mt. The carry-out stocks would be higher than the past ten year average of 16.9 Mt.

WORLD: DURUM SUPPLY AND DISPOSITION			
	2009 -2010	2010 -2011f	2011 -2012f
Harvested Area (million ha)	17.8	16.3	16.8
Average Yields (t/ha)	2.30	2.12	2.11
	million tonnes		
Production	41.0	34.5	35.5
Carry-in Stocks	7.3	10.3	6.7
Total Supply	48.3	44.8	42.2
Food and seed	35.3	35.7	35.2
Feed	2.7	2.4	2.0
Total Use	38.0	38.1	37.2
Carry-out Stocks	10.3	6.7	5.0
Stocks-to-use ratio (%)	27%	18%	15%
Trade (July - June)	7.6	7.3	7.3
Source: IGC, February 2011 f: IGC forecast for 2010-2011, AAFC	forecast for 201	1-2012, Febi	ruary 2011

UNITED STATES: ALL WHEAT (including durum) SUPPLY AND DISPOSITION			
June - May crop year	2009 -2010	2010 -2011f	2011 -2012f
Seeded Area (000 ha)	23,945	21,693	23,070
Harvested Area (000 ha)	20,191	19,278	19,220
Yield (t/ha)	2.99	3.12	2.94
		million tonne	s
Carry-in stocks	17.9	26.6	22.9
Production	60.4	60.1	56.6
Imports	3.2	3.0	3.0
Total Supply	81.5	89.6	82.5
Exports	24.0	34.7	31.3
Total Domestic Use	30.9	32.0	32.6
Total Use	54.9	66.7	63.9
Carry-out Stocks	26.6	22.9	18.6
Stocks-to-use ratio	48%	34%	29%
Seeded Area (000 ac)	59,168	53,603	57,000
Harvested Area (000 ac)	49,892	47,636	49,500
Yield (bu/ac)	44	46	44
Production (million bushels)	2,218	2,208	2,080
Average Farm Price (US\$/bu) Average Futures Prices	4.87	5.70	7.50
Chicago - SRW	5.08	7.10	7.30
Kansas City - HRW	5.24	7.70	7.90
Minneapolis - HRS	5.48	7.90	8.10

The average farm and futures prices are forecast to increase sharply from 2009-2010 because of the lower world supply, sharply higher demand for US wheat, lower expected carry-out stocks and a general increase in grain prices.

#### **CANADA**

For wheat and durum producers in western Canada, 2010-2011 has been a very challenging year because of excessive precipitation in all areas, except for north-western Alberta and north-eastern British Columbia which had normal to lower-than-normal precipitation. As a result, a significant area of wheat and, to a lesser extent durum, was not seeded and there was significant damage in terms of production and quality. Adding to the problems were a relatively cool summer, continuing wet weather

into the harvest period and excessive soil moisture in most growing areas. Fortunately, the weather conditions improved in late September and producers were generally able to complete their harvest by late October. In contrast, growing conditions for wheat producers in eastern Canada were generally good. Eastern Canada accounts for 11% of Canadian wheat (excluding durum) production.

#### Wheat (excluding durum)

Canadian wheat production (excluding durum) decreased by 1.3 Mt from 2009-2010 to 20.1 Mt because of a 6% lower seeded area and lower yields. Production decreased for all classes, except for an increase for soft white spring wheat, because of an increase in the seeded area for that class of wheat, and a small increase for Canada Prairie Spring wheat.

The average grade quality of wheat in western Canada was much lower than for 2009-2010 and much lower than the past ten-year average because of the unfavourable growing conditions. For Canada Western Red Spring (CWRS) wheat, which accounts for about 75% of Canadian wheat production, an estimated 40% graded in the top milling grades 1 and 2 in 2010-2011, compared to the past ten year average of 68%. For 2009-2010, 89% graded 1 and 2. The average protein content is estimated to be slightly higher than for 2009-2010, but lower than for the past ten year average. The average quality of the eastern Canadian wheat crop was normal.

CANADA: ALL WHEAT (including durum) SUPPLY AND DISPOSITION			
Aug - July crop year	2009 -2010	2010 -2011f	2011 -2012f
Seeded Area (000 ha)	10,065	8,549	9,130
Harvested Area (000 ha)	9,638	8,269	8,800
Yield (t/ha)	2.79	2.80	2.78
	thousand tonnes		nnes
Carry-in stocks	6,547	7,830	5,500
Production	26,848	23,167	24,500
Imports	117	42	30
Total Supply	33,512	31,039	30,030
Total Exports	18,481	17,500	17,200
Total Domestic Use	7,201	8,039	8,030
Total Use	25,682	25,539	25,230
Carry-out Stocks	7,830	5,500	4,800
Stocks-to-use ratio (%)	30%	22%	19%

Source: Statistics Canada and AAFC, March 2011

f: AAFC forecast, March 2011

Supply fell by 0.9 Mt to 25.3 Mt, as higher carry-in stocks partly offset the decrease in production. The sharply lower availability of the top milling grades produced in 2010-2011 was slightly offset by carry-in stocks from the exceptionally good 2009-2010 crop, which account for 20% of the total supply.

Exports are forecast to decrease by 1.1 Mt to 13.6 Mt because of the lower supply and expected lower world trade.

Domestic use is expected to increase by 0.8 Mt, with increases for food, seed, industrial and feed uses. Carry-out stocks are forecast to decrease by 0.6 Mt to a historically low level of 4.5 Mt.

The Canadian Wheat Board (CWB) Pool Return Outlook (PRO) for the base grade, 1 CWRS 12.5% protein, in store St. Lawrence/Vancouver is 50% higher than for 2009-2010 due to support from the lower world and Canadian supply, the export ban by Russia and declining world, US and Canadian carry-out stocks. The decrease in supply was especially large for high grade and high protein hard wheat because of the significantly lower 2010-2011 crop quality in Canada and Australia.

#### Durum

Canadian durum production decreased by 2.4 Mt to 3 Mt because of a 44% lower seeded area. The seeded area decreased sharply because of low prices and high 2009-2010 carry-out stocks.

The average grade quality of the 2010-2011 durum crop is estimated to be much lower than for 2009-2010 and much lower than normal because of the unfavourable growing conditions. For 2010-2011 only 16% is estimated to grade 1 and 2, compared to the past ten year average of 62%. For 2009-2010, 83% graded 1 and 2. The average protein content is estimated to be slightly lower than for 2009-2010, and slightly lower than the past ten year average.

Supply fell by 1.6 Mt to 5.8 Mt, as higher carry-in stocks partly offset the decrease in production. The lower quality 2010-2011 production was partly offset by carry-in stocks from the exceptionally high quality 2009-2010 crop, which account for 47% of the 2010-2011 supply.

Exports are forecast to increase slightly to 3.9 Mt. Domestic use is expected to increase with higher food, seed and feed uses. Carry-out stocks are forecast to decrease by 1.7 Mt to a historically low 1 Mt.

The CWB PRO for the base grade, 1 CWAD 12.5% protein, in store St. Lawrence/Vancouver is 52% higher than for 2009-2010 because of the lower world and Canadian durum supply.

#### OUTLOOK: 2011-2012

#### **WORLD**

#### All Wheat (including durum)

World all wheat production for 2011-2012 is forecast to increase by 22.4 Mt from 2010-2011 to 670 Mt. However, supply is expected to increase by only 7 Mt to 851.9 Mt because of lower carry-in stocks.

The increase in expected production is due to a higher harvested area and slightly higher yields. Most of the increase in production is expected to be in Russia, Ukraine, and Kazakhstan, because of an expected return to normal growing conditions.

Aug - July crop year	2009 -2010	2010 -2011f	2011 -2012f
Seeded Area (000 ha)	7,755	7,274	7,500
Harvested Area (000 ha)	7,408	7,024	7,220
Yield (t/ha)	2.90	2.87	2.87
		thousand to	onnes
Carry-in stocks	4,644	5,124	4,500
Production	21,448	20,142	20,700
Imports	115	20	20
Total Supply	26,207	25,286	25,220
Exports	14,662	13,600	14,000
Domestic Use			
Food	2,570	2,570	2,580
Industrial	721	850	910
Seed	721	745	760
Feed, waste, and dockage*	2,409	3,021	2,970
Total Domestic Use	6,421	7,186	7,220
Total Use	21,083	20,786	21,220
Carry-out Stocks	5,124	4,500	4,000
Stocks-to-use ratio	24%	22%	19%
Average price CWRS** (\$/t)	218	326	335
Average price SRW*** (\$/t)	160	237	245
(ψ/ι)	100	201	240
Exchange Rate (CAN\$/US\$)	1.05	1.01	0.99

Source: Statistics Canada and AAFC, March 2011

- f: AAFC forecast, except CWB PRO for average CWRS price, March 2011
- \* calculated residually
- \*\* CWB No. 1 CWRS 12.5% protein in store St. Lawrence/Vancouver
- \*\*\* Ontario SRW delivered to terminal

World all wheat use is forecast to increase by 8.9 Mt to 671.9 Mt, due mainly to growing demand for food use.

World trade is forecast to increase by 2.7 Mt to 127 Mt because of higher production in several exporting countries, such as Russia, Kazakhstan and Ukraine.

Carry-out stocks are forecast to decrease by 1.9 Mt to 180 Mt.

#### **Durum**

World durum production is forecast to increase by 1 Mt from 2010-2011 to 35.5 Mt. Supply is expected to decrease by 2.6 Mt to 42.2 Mt because of lower carry-in stocks. The main increase in production is expected to be in Canada.

World trade is forecast at 7.3 Mt, the same as for 2010-2011.

World use is expected to decrease slightly to 37.2 Mt because of the tighter supply.

Carry-out stocks are forecast to decrease by 1.7 Mt to a historically low 5 Mt.

#### **UNITED STATES**

US all wheat seeded area is expected to increase by 6% from 2010-2011. Production is forecast to decrease by 3.5 Mt to 56.6 Mt, due to higher abandonment and lower average vields resulting from drier conditions in the US winter wheat growing areas than in 2010-2011. Production is expected to increase for soft red winter wheat, be stable for white wheat, and decrease for hard red winter, hard red spring and durum wheat. Supply is forecast to decrease by 7.1 Mt because of lower carry-in stocks. Supply is expected to increase for soft red winter wheat, but decrease for the other classes.

Exports are forecast to decrease by 3.4 Mt to 31.3 Mt because of higher production in competing countries, such as Russia, Kazakhstan and Ukraine.

Domestic use is forecast to increase slightly.

Carry-out stocks are forecast to decrease by 4.3 Mt to 18.6 Mt.

The average futures prices are forecast to increase slightly from 2010-2011 because of the lower US supply. However, the average farm price is expected to increase sharply to a record level because a large portion of the 2010-2011 crop was priced before prices started increasing in late July 2010.

#### **CANADA**

#### Wheat (excluding durum)

Canadian wheat production is forecast to increase by 0.6 Mt from 2010-2011 to 20.7 Mt because of an expected 3% higher seeded area. The winter wheat seeded area increased by 21% because of higher prices and better seeding conditions in Ontario compared to the previous year. Although sharply higher prices would encourage more seeding, the

Aug - July crop year	2009 -2010	2010 -2011f	2011 -2012f
Seeded Area (000 ha)	2,291	1,275	1,630
Harvested Area (000 ha)	2,230	1,244	1,580
Yield (t/ha)	2.42	2.43	2.41
		thousand t	tonnes
Carry-in stocks	1,903	2,706	1,000
Production	5,400	3,025	3,800
Imports	2	22	10
Total Supply	7,305	5,753	4,810
Exports	3,820	3,900	3,200
Domestic Use			
Food	261	265	270
Seed	121	155	160
Feed, waste, and dockage*	397	433	380
<b>Total Domestic Use</b>	779	853	810
Total Use	4,599	4,753	4,010
Carry-out Stocks	2,706	1,000	800
Stocks-to-use ratio	59%	21%	20%
Average price** (\$/t)	203	308	371

Source: Statistics Canada and AAFC, March 2011

- f: AAFC forecast, except CWB PRO for average price, March 2011
- \* calculated residually
- \*\* CWB No. 1 CWAD 12.5% protein in store St. Lawrence/Vancouver

spring wheat area is forecast to increase by only 2% because of very wet soil conditions in some of the wheat growing areas of western Canada.

Supply is forecast to fall marginally to 25.2 Mt, as lower carry-in stocks more than offset the increase in production.

Exports are forecast to increase by 0.4 Mt to 14 Mt because of the expected increase in world trade and an expected return to normal quality in Canada. Domestic use is expected to increase marginally. Carry-out stocks are forecast to decrease to a low level of 4 Mt.

The CWB PRO for the base grade in store St. Lawrence/Vancouver is 3% higher than for 2010-2011, because of the expected lower US supply and lower Canadian, US and world carry-out stocks.

#### **Durum**

Canadian durum production is forecast to increase by 0.8 Mt from 2010-2011 because of an expected 28% rise in the seeded area, resulting from sharply higher prices and low carry-in stocks. Supply is expected to decrease by 0.9 Mt to 4.8 Mt, as lower carry-in stocks more than offset the increase in production.

Exports are forecast to decrease by 0.7 Mt to 3.2 Mt because of the lower supply. Domestic use is expected to be decrease slightly. Carry-out stocks

are forecast to decrease by 0.2 Mt to a very low 0.8 Mt.

The CWB PRO for the base grade in store St. Lawrence/Vancouver is 20% higher than for 2010-2011 because of the lower Canadian and world supply.

#### WHEAT CLASSES (EXCLUDING DURUM)

Canada Western Red Spring (CWRS) wheat is estimated to account for 76% of Canadian wheat production in 2010-2011, winter wheat for 13% and other spring wheat classes for 11%. Included in the CWRS production estimate is a relatively small volume of hard white spring wheat (CWHWS). Some hard red spring wheat, Canada Eastern Red Spring (CERS) wheat, is produced in eastern Canada. Other spring wheat production includes Canada Prairie Spring (CPS), Canada West Extra Strong (CWES), Canada Eastern Hard White Spring (CEHWS), and Soft White Spring (SWS). The winter wheat produced in western Canada is hard red winter (HRW), while eastern Canada mostly produces soft red winter (SRW) along with some HRW and soft white winter (SWW).

**CWRS**, as well as **CERS**, is a hard wheat with a high protein content. It provides excellent milling properties with high yield of flour, desirable bright colour and minimal protein loss, as well as balanced dough properties. CWRS is widely used for the production of high volume pan breads. Due to good gluten strength, it is also used extensively, either alone or in blends with weaker wheats, for the production of a diverse range of products, such hearth breads, noodles, flat breads and steam breads.

**CWHWS**, as well as **CEHWS**, has milling properties equivalent to or slightly higher to CWRS wheat. An added benefit is the improved flour colour and lack of speckiness. The dough strength is suitable for bread products and noodles.

**CPS** is medium in hardness, gluten strength and protein content. Most of the CPS wheat produced is red (CPSR), but a small volume of CPS white wheat is also produced. CPS wheat is used for pan breads, flat breads, steamed breads and other products such as noodles and crackers.

**CWES** is a hard wheat with exceptionally strong gluten. CWES wheat is mixed with other wheats to increase the flour's gluten strength. It is also used for frozen dough because frozen dough made from CWES wheat flour has a much longer shelf life.

**HRW** has low to medium protein, medium strength gluten and hard kernel characteristics. It is used for pan, hearth and steamed breads, pancake flour and noodles.

**SRW**, **SWW** and **SWS** have low protein and low gluten strength. They are mostly used for cakes, cookies and pastries. However, ethanol manufacturers in western Canada are using significant quantities of SWS wheat because of its high yield and low protein content.

CWRS normally accounts for about 80% of Canadian wheat exports and CWRS wheat is exported throughout the world. CWHWS exports are mostly to Asia. CPS wheat exports are generally to Asia. HRW wheat exports are mostly to Asia, while SRW wheat exports are mostly to Asia, Africa and the US. SWS exports are mostly to South America and Asia. CWES exports are mostly to Europe.

Wheat is also used for livestock feed. Any class and grade of wheat can be used for that purpose, although in practice the cheaper classes and lower grades are used in order to be competitive with other feed sources such as corn. In addition the Canada Western General Purpose wheat class was developed to meet the needs of the feed and industrial sector. There are no quality requirements for this class. Ethanol producers generally use softer and lower protein wheat.

#### **DURUM**

Canadian durum is generally produced in the drier parts of the Prairies, southern Saskatchewan and Alberta, where generally dry conditions during harvest result in a high quality durum crop.

Canadian durum milling properties provide high yields of semolina with bright yellow colour. There are two levels of durum strength available, with the Extra Strong types being segregated for quality assurance purposes. Conventional strength durum provides pasta with good cooking quality, while the stronger varieties provide extended cooking tolerance and good blending capability. Canadian durum is also used to produce high quality couscous, a dietary staple in parts of northern Africa, and for durum bread in the Mediterranean region.

Canadian durum is mostly exported to the US, EU-27, Algeria, Morocco, Tunisia, Japan and Venezuela. The volume exported to other countries depends on the volume produced in Canada, volume produced in competing exporting countries and prices.