



Bi-weekly Bulletin

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DURUM WHEAT: OUTLOOK

World durum wheat supplies for 2001-2002 have declined from the near-record high level of 2000-2001, due to decreased production in all major growing regions. World durum consumption is expected to continue to grow, due to population increases and changing dietary preferences in many countries. Consumption is forecast to significantly exceed production, so that stocks in the major exporting countries will fall to the lowest level since 1997-1998. This will support durum prices, with a strong premium over spring wheat being maintained. Consequently, world and Canadian durum prices are expected to increase in 2001-2002, although protein premiums may be lower due to high protein in crops from the United States (U.S.) and Canada. This issue of the *Bi-weekly Bulletin* examines the situation and outlook for durum wheat.

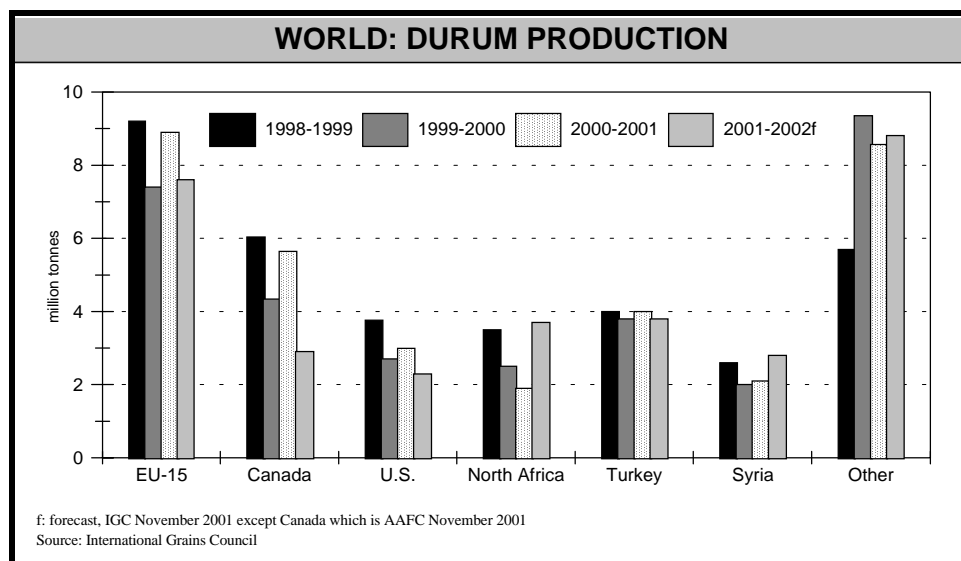
Demand Considerations

Durum wheat (*Triticum durum*) is a separate species from most other commercially grown wheat classes (which are mainly *t. aestivum*), and it therefore has unique characteristics which differ significantly from other classes of wheat. Therefore, there is limited substitutability of common wheat for durum wheat, and vice versa. Good quality durum has a very hard vitreous (i.e. glassy looking) kernel (HVK), with an amber yellow endosperm, compared to the white endosperm of common wheat. Pasta made from durum semolina maintains a desirable firm texture during cooking, and it has a natural amber colour that is associated with good quality pasta. Pasta made from common wheat, even that made from high protein hard red spring wheat, tends to absorb more water in cooking and produce a softer, stickier product, and it is white unless artificial colour is added.

In Europe and North America, pasta products such as spaghetti and macaroni are generally produced

exclusively from durum wheat. New pasta production techniques, such as high temperature drying, have improved the quality of pasta that can be made from common wheat, but discriminating pasta consumers continue to prefer pasta made from 100% durum wheat. In North Africa, durum is preferred for the production of couscous, a staple food in the region. As a result, durum demand tends to be quite price-inelastic, with small shortages resulting in large

increases in durum premiums over common wheat, and vice versa. Even if global supplies of common wheat are large, a shortage of durum can result in high durum prices, as most end-users will be unwilling to switch to common wheat. Conversely, with a limited market beyond traditional pasta and couscous production, a relatively small increase in production can result in large durum price declines, although Canadian Wheat Board (CWB) Pool Returns for



Canadian durum wheat have not been at a discount to spring wheat since 1990-1991.

Production Considerations

The best quality durum is produced in regions having a relatively dry climate, with hot days and cool nights, during the growing season. Durum wheat also yields relatively well under dry conditions, compared to most alternative crops. Durum produced under conditions of higher moisture tends to have a low HVK count, making it less suitable for the production of pasta. Fungal diseases are also more common in moist climates, one of the more serious being fusarium head blight or "scab", which is a serious degrading factor to which no durum variety has resistance. Traditional durum consumption therefore developed in the hot dry regions around the Mediterranean such as North Africa, southern Europe, Turkey, and Syria. In North America, western North Dakota and southern Saskatchewan are the major growing regions, with a small area produced under irrigation in the Arizona and California deserts, where it is mainly grown as a rotation crop with vegetables.

World Outlook

World durum production for 2001-2002 is estimated by the International Grains Council (IGC) at 32 million tonnes (Mt), a decrease of 6% from 2000-2001. However, the major exporters' carry-in stocks were 4.9 Mt, the highest level since 1992-1993, and almost a third higher than the 10-year average. World supplies for 2001-2002 are estimated at 36.9 Mt, 4% below 2000-2001, with the declines almost entirely in the three major exporting countries; Canada, the U.S. and European Union (EU).

The declines in production for 2001-2002 are mainly the result of smaller crops in both North America and southern Europe, with North African production rising to near-normal levels following two years of drought. Seeded area in both Canada and the U.S.

declined sharply, due to expected small premiums over spring wheat prices, and extremely high stock levels. Canadian yields were sharply reduced by drought in Alberta and Saskatchewan, the major durum-producing provinces. Yields in southern Europe were also reduced by dryness.

With the major durum importing region, North Africa, having a larger production for 2001-2002, world durum trade is forecast to fall to 6.9 Mt, from 7.0 Mt (including semolina) in 2000-2001. If stocks in North Africa had not been depleted by two consecutive years of drought, the decline in trade would have been much larger. Despite decreased export demand, smaller production in the exporting countries is projected to result

in world durum stocks dropping by more than half, to 2.6 Mt, the lowest since 1997-1998, and well below the 10-year average of 3.8 Mt. Apparent usage (which includes stock change in countries other than the U.S., EU, and Canada) is expected to rise by 3%, to 34.4 Mt, slightly above the 5-year average.

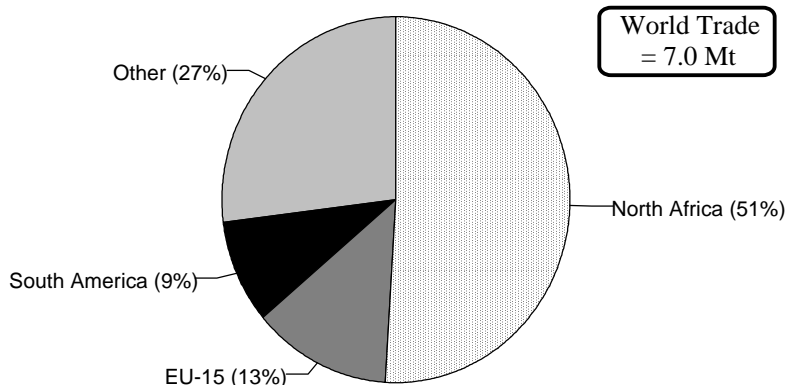
MAJOR EXPORTERS

CANADA

Supply

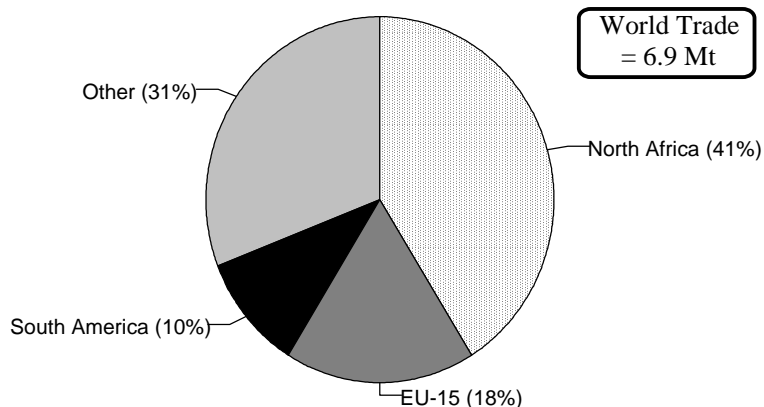
In response to expectations of no premium over Canada Western Red Spring (CWRS) in 2001-2002, and record high farm-held stocks, western Canadian farmers reduced their durum

WORLD: DURUM IMPORTS (2000-2001)



Source: International Grains Council, November 2001 except Canada which is AAFC, November 2001

WORLD: DURUM IMPORTS (2001-2002)



Source: International Grains Council, November 2001 except Canada which is AAFC, November 2001 forecast

area by 15%, to 2.24 million hectares. The CWB Pool Return Outlook (PRO) released on April 26, 2001 projected a discount of \$3 per tonne (/t) for No.1 Canada Western Amber Durum (CWAD) with 11.5% protein, versus the comparable grade of CWRS wheat. Additionally, in the summer of 2001, the major durum growing regions of western Canada experienced the worst drought since 1988. Western Canadian durum yields in 2001-2002 are estimated by Statistics Canada at just 1.45 tonnes per hectare (22 bushels per acre {bu/ac}), more than 30% below the previous year. Due to the combination of a smaller area and drought-reduced yields, production fell by almost 50%, to 3.1 Mt, the lowest since 1988-1989. Despite the record

high carry-in stocks, supplies declined by 20%, to 5.9 Mt.

Quality

The quality of the 2001 durum crop is reported to be extremely good, with about 80% of the crop grading No.2 CWAD or higher, compared to the 10-year average of just 55%. Protein content is well above normal, due to the hot dry growing conditions, with No.1 CWAD averaging about 14% protein (13.5% moisture basis), versus 13.2% last year and the 10-year average of just 12.6%.

Exports

Despite the decreased supplies of durum available, Canadian exports (including semolina) are forecast to rise by 9% compared to 2000-2001, to 3.8 Mt. With

increased production in North Africa, import demand from this major market has been reduced. However, durum production in the EU, particularly Italy, is down by 17% from a year ago and this is expected to result in smaller exports from and larger imports into the EU. A smaller U.S. durum crop will mean reduced exports and increased imports for the U.S. This reduced export competition and increased demand will more than offset the loss of some import demand from North Africa. Canada is therefore expected to increase its share of the world durum market in 2001-2002.

Stocks

It is likely that the CWB will be able to accept deliveries of most durum in 2001-2002, and farm held carry-out stocks will fall sharply compared to 2000-2001. Farm-held stocks as of July 31, 2002 are forecast at 0.2 Mt, compared to a record 1.2 Mt on July 31, 2001. Commercial stocks are forecast to fall to 1 Mt from 1.67 Mt a year earlier. Total 2001-2002 carry-over stocks are projected at 1.2 Mt, compared to a record 2.9 Mt in 2000-2001 and the 5-year average of 1.8 Mt.

UNITED STATES

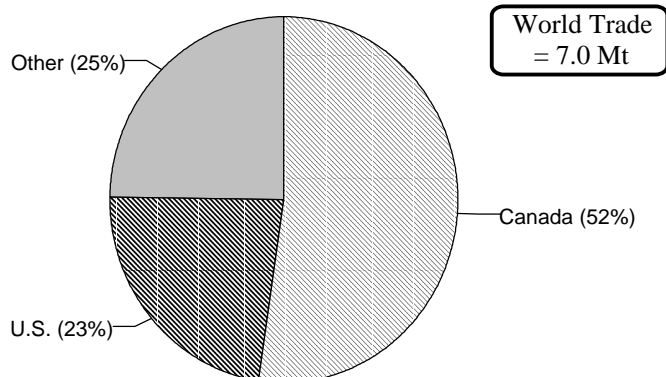
Supply

U.S. durum production is concentrated in North Dakota, which accounts for about 85% of total U.S. durum area. With rising spring wheat prices and large farm-held stocks in the spring of 2001, U.S. durum growers reduced their durum area by 26% from 2000, to just 2.91 million acres, the lowest since 1994. The average yield in 2001 was slightly below-average at 30 bu/ac. U.S. 2001 production, as a result, is down by 24% from 2000, at only 84 million bushels (Mbu) (2.29 Mt), the smallest crop since 1993. Carry-in stocks were 10% lower than for last year, further reducing domestic supplies.

Quality

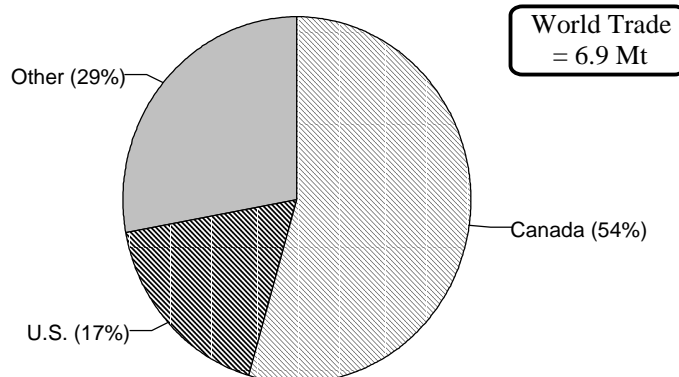
The quality of U.S. 2001 durum is much better than last year, and somewhat better than the 5-year average,

WORLD: SHARE OF DURUM TRADE (2000-2001)



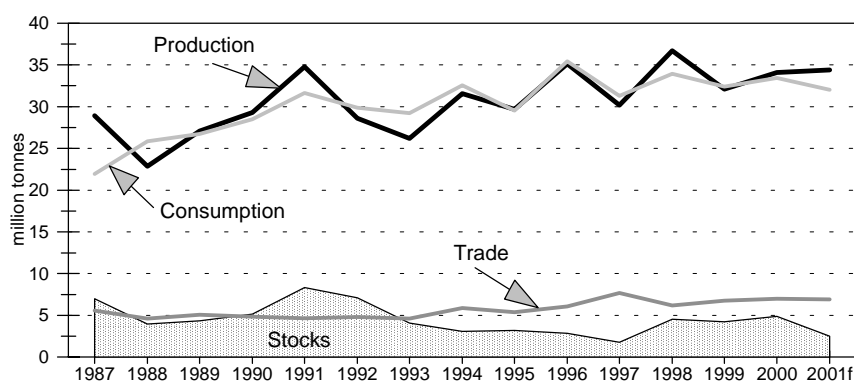
Source: International Grains Council, November 2001 except Canada which is AAFC, November 2001

WORLD: SHARE OF DURUM TRADE (2001-2002)



Source: International Grains Council, November 2001 except Canada which is AAFC, November 2001 forecast

WORLD: DURUM SUPPLY AND DISPOSITION



Note: Stocks include EU, U.S., and Canada

Consumption includes stock change in countries other than EU, U.S., and Canada

f: forecast, IGC, November 2001

Source: IGC

according to the North Dakota Wheat Commission (NDWC). The NDWC surveys durum grown in North Dakota and Montana, with the North Dakota State University Cereal Science Department conducting the quality analysis. The average durum grade in 2001 is No.2 Hard Amber Durum (HAD), versus No.3 HAD last year, and 50% of the crop grades No.2 HAD or better. Over 95% of the crop had a falling number over 350 seconds, compared to less than half of last year's crop. The vitreous kernel count is 88%, compared to 75% in 2000, and the average of 81%, and protein levels are high. This means that supplies of top quality milling durum may be close to or above those of last year, despite the lower production.

Trade

The United States Department of Agriculture projects that U.S. durum exports (June-May) will fall by 10%, to 45 Mbu (including products), due to lower supplies and reduced import demand from North Africa. As of November 8, 2001, U.S. 2001-2002 durum exports (including outstanding sales) were 0.59 Mt, up from 0.55 Mt in 2000-2001. However, with a June-May crop year, this includes several months of old-crop durum, and the pace of exports is expected to decline later in the year. Italy remains the major destination for U.S. durum exports, at

0.39 Mt, more than double that of a year ago. Exports to North Africa have fallen to only 0.09 Mt, down more than 60% from last year. U.S. carry-out stocks are projected to be more than halved in 2001-2002, falling to 20 Mbu (0.54 Mt).

U.S. durum imports from Canada are projected to increase to 0.4-0.5 Mt in 2001-2002, compared to the 0.36 Mt purchased in 2000-2001 (August-July). With extremely good quality Canadian durum being available, and with some fusarium damage to a portion of the U.S. crop, U.S. durum millers are expected to turn to increased imports from Canada. The millers also like the guaranteed supply of consistent quality durum that is available from the CWB.

EUROPEAN UNION

Supply

The EU is the largest durum producer in the world, with production concentrated in Italy, Spain, France, and Greece. However, it is also the largest consumer of durum, and since 1993-1994 it has been a significant net importer of durum wheat. EU durum area decreased slightly in 2001, and yields were below normal levels, particularly in Italy. As a result, EU production decreased by 15%, to 7.6 Mt. With carry-in stocks down by 27%, EU domestic durum supplies have fallen to 8.4 Mt, the lowest since 1997-1998.

Trade

The reduced supplies have resulted in the IGC forecasting a 51% increase in EU import requirements, to 1.3 Mt, the highest since 1997-1998. The EU has imported an average of 0.4 Mt of durum from Canada over the past 5 years, but this is forecast to increase to about 0.5-0.6 Mt in 2001-2002. EU durum exports, which rose to an above average 0.6 Mt in 2000-2001, are expected to fall back to about 0.3 Mt (including semolina) in 2001-2002, slightly below the 5-year average. Semolina exports are projected to be about 0.15 Mt, compared to 0.20 Mt last year. With durum supplies tightening, no EU export subsidies for durum are expected in 2001-2002. EU durum carry-out stocks are expected to decline to 0.6 Mt, the lowest since 1997-1998.

Other Producers

The other major durum producing countries are Turkey, Syria, Kazakhstan, India, Australia, and Mexico.

Turkey is the third largest durum producer in the world, next to the EU and Canada, with production averaging 3.9 Mt over the past 5 years. Turkey exported an average of about 0.3 Mt over the past 5 years. Turkey has a large pasta industry and is a major exporter of pasta. Small quantities of durum, averaging 16,000 tonnes a year, are imported to supplement domestic production, especially in years with a poor quality domestic crop. In 2001-2002, Turkey is expected to export less and import more durum for blending, due to disease problems in its 2001 crop. Turkey is not a major Canadian market, tending to source its imports from the EU and the U.S.

Syrian durum production has risen sharply, from 1.1 Mt in 1990 to 2.8 Mt in 2001. Some durum is exported, especially when world prices are high, with the 5-year average being 0.3 Mt and with 2001-2002 exports forecast at 0.2 Mt. **Kazakhstan** durum production averages about 2.2 Mt annually, with 2.5 Mt produced in 2001. Most Kazakh

durum is consumed within the Former Soviet Union. **Indian** durum production is trending upward, rising from about 1.4 Mt a decade ago to 1.8 Mt in 2001. No Indian durum is expected to be exported, due to poor quality and inadequate segregation in the handling system. **Mexican** durum production has tripled over the past 10 years, from 0.35 Mt in 1992 to 1.1 Mt in 2001. Some Mexican durum is exported, averaging 0.3 Mt over the past 5 years. **Australian** durum production has risen from virtually zero in 1990 to about 0.5 Mt for 2001, and Australia has become a significant durum exporter, with a projected 0.4 Mt exported in 2001-2002, targeting the Italian market.

MAJOR IMPORTERS

North Africa

The four North African countries of Algeria, Morocco, Tunisia, and Libya constitute the largest durum import market in the world. Durum based foods are a cultural tradition in these countries, where most durum is consumed in the form of couscous, which is small balls of semolina steamed and prepared in a similar manner to rice. Traditional breads are also made with durum flour, particularly in Morocco. Domestic production is insufficient to meet requirements, and imports have averaged 2.8 Mt over the past 5 years, representing over 45% of annual consumption.

Grain production in this region is largely dependent on winter rains, which are somewhat unreliable, and as a result production is quite variable, ranging over the past 5 years from a high of 5.6 Mt in 1996 to a low of 1.9 Mt in 2000. Production for 2001 is estimated by the IGC at a slightly above average 3.7 Mt, almost double the drought-reduced 2000 crop. Imports are forecast to decline by 22% compared to last year, to 2.8 Mt, and an even larger decline in imports would have occurred if not for depleted stocks after two years of drought. In 2000-2001, Canada exported a total of 1.97 Mt to this region,

55% of total regional imports. This is expected to decline to between 1.7 and 1.8 Mt in 2000-2001, with Canada increasing its market share to 60-65%. As of September 30, 2001, Canadian exports to North Africa were only 0.08 Mt, versus 0.38 Mt a year earlier.

Other Importers

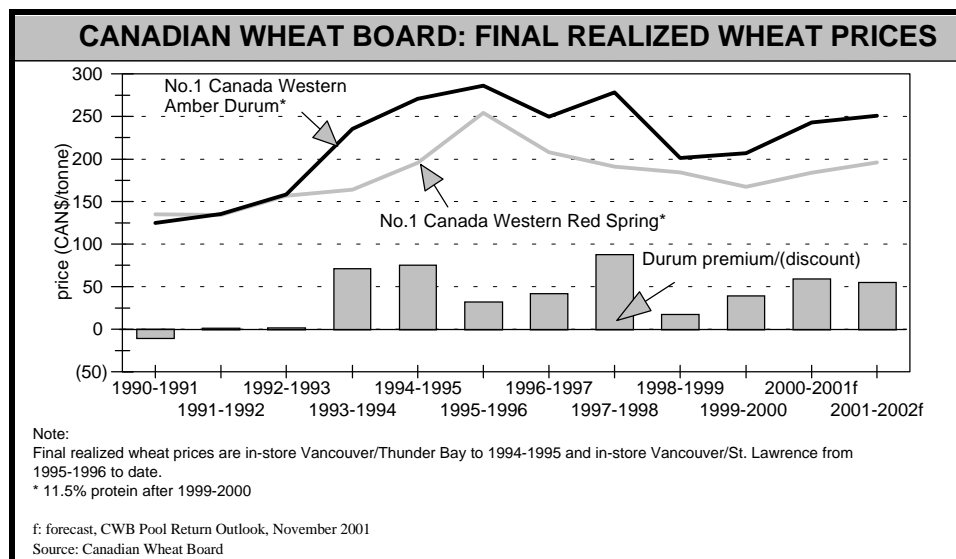
The other major durum importing countries are Japan, Venezuela, Peru, and Chile. The South American countries represent a major growth market for Canadian durum. Pasta has traditionally been produced from common hard wheat in much of South America. However, through market development work by the CWB, the CGC, and the Canadian International Grains Institute, Canadian durum exports into South America have increased steadily over the last decade, to 0.6 Mt in 2000-2001, with a similar level forecast for 2001-2002. Durum imports by Japan have also increased steadily due to changing dietary habits, and are forecast at about 0.2 Mt for 2001-2002, similar to the previous year.

PRICE FORECASTS

World durum prices for 2001-2002 are forecast to increase slightly from 2000-2001, but protein premiums are expected to weaken. From August 1 to November 16, 2001, the U.S. export price for No.2 HAD free on board (FOB) Gulf ports (2 HAD Gulf) has averaged US\$195/t, with the price on November 16

being \$198/t, compared to US\$183/t for the 2000-2001 Canadian August-July crop year. No.3 HAD durum at St. Lawrence ports (3 HAD SL), against which the CWB prices most Canadian durum for overseas export, has averaged US\$175/t, versus the current price of US\$181/t, and US\$162/t for the previous crop year. The premium over Dark Northern Spring wheat with 14% protein (DNS 14) has averaged US\$34/t, well above the US\$22/t seen for 2000-2001. Prices are expected to remain near current levels for the remainder of the 2001-2002 crop year.

The November 2001-2002 CWB PRO for No.1 CWAD with 12.5% protein is CAN\$257/t in-store St. Lawrence or Vancouver (I/S SL/VC), \$3/t above 2000-2001. Prices for high protein durum are expected to decline from last year due to high protein levels in both the Canadian and U.S. crops. The PRO for No.1 CWAD with 14.5% protein is down by \$10/t from 2000-2001, at \$263/t I/S VC/SL. Prices for medium quality durum, however, are forecast to increase from 2000-2001, due to tighter supplies, with the PRO for No.3 CWAD being \$234/t I/S VC/SL, \$10/t higher than last year. The premium for durum over spring wheat is expected to remain relatively high.



OUTLOOK: 2002-2003

It is very early to look ahead to the next crop year, but some general trends can be noted. One is that Canadian durum production is expected to rebound sharply. By the spring of 2002, Canadian producers will be faced with rapidly declining durum stocks and large expected premiums over spring wheat. As a result, durum area is forecast to recover sharply in western Canada. Assuming normal yields, a 5 Mt crop in western Canada for 2002-2003 is possible, although current low subsoil moisture levels would require above-

average winter snowfall and timely spring rains to achieve normal yields. In the U.S., production is not expected to rise significantly since many farmers have experienced three years with quality problems. These farmers may be reluctant to seed durum in 2002, despite high prices for milling quality durum. Improved growing conditions in southern Europe would result in increased EU production. Overall, world supplies, despite sharply lower carry-in stocks, are expected to increase. Unless demand rises concurrently, a decline in durum prices for 2002-2003 would occur. However, weather conditions are an

unknown quantity, and a continuation of the current dry conditions in western Canada could cut into production, or drought could return to North Africa this winter. The trade will watch with interest as weather conditions unfold across the major producing regions of the world, beginning with North African winter rains and continuing into 2002 Saskatchewan summer growing conditions.

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WORLD: DURUM WHEAT PRODUCTION, TRADE AND STOCKS

	1998 -1999	1999 -2000	2000 -2001	2001 -2002f
.....million tonnes				
PRODUCTION				
EU-15	9.2	7.4	8.9	7.6
Turkey	4.0	3.8	4.0	3.8
North Africa	3.5	2.5	1.9	3.7
Canada	6.0	4.3	5.6	3.1
Syria	2.6	2.0	2.1	2.8
U.S.	3.8	2.7	3.0	2.3
Other	<u>5.7</u>	<u>9.4</u>	<u>8.6</u>	<u>8.9</u>
World	34.8	32.1	34.1	32.2
EXPORTS ^{/1}				
Canada	3.6	3.8	3.7	3.8
U.S.	1.4	1.3	1.6	1.2
Other	<u>0.9</u>	<u>1.7</u>	<u>1.7</u>	<u>1.9</u>
World	5.9	6.8	7.0	6.9
IMPORTS ^{/1}				
North Africa	2.7	3.0	3.6	2.8
EU-15	0.8	1.1	0.9	1.3
South America	0.6	0.6	0.6	0.7
Other	<u>1.7</u>	<u>2.1</u>	<u>1.9</u>	<u>2.1</u>
World	5.9	6.8	7.0	6.9
CARRY-OUT STOCKS				
Canada (July 31)	1.9	1.8	2.9	1.2
EU-15 (June 30)	1.1	1.1	0.8	0.8
U.S. (May 31)	<u>1.5</u>	<u>1.3</u>	<u>1.2</u>	<u>0.6</u>
Total ^{/2}	4.5	4.2	4.9	2.6

^{/1} Trade data includes semolina (July-June)

^{/2} Canada, EU, and U.S. only

f: forecast, AAFC and IGC, November 2001

Sources: IGC, USDA, CGC, STC

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