



# TURKEY

## LENTIL MARKET REPORT



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Agri-Food Trade Service  
(<http://ats.agr.ca>)

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The following report examines the Turkish lentil market with a focus on trade data, domestic production and consumption patterns, as well as Canadian bilateral trade. Canadian agricultural trade has seen a dramatic decline over the past several years, particularly in the export of raw commodities to the Turkish market. Such a decline is largely due to the erratic agricultural policies and tariffs implemented by the Turkish government, which have the ability to increase the import of one commodity one year and virtually eliminate it the following year.

Canadian lentils exported to Turkey are almost exclusively intended for re-export. Changes in domestic cropping patterns may potentially reduce domestic lentil production and provide growth opportunities for Canadian lentil exporters in the near future.

## Introduction to Turkey:

Turkey has seen significant political, social and economic changes over the course of the last 20 years. Since the mid 1980s, the Turkish economy has seen positive economic developments, moving towards an export driven economy, increased privatization, and integration into the world economy. The most notable economic improvement is Turkey's attempt to join the European Union. The current ruling party in Turkey is the Justice and Development Party (AKP) elected to power in November 2002, and re-elected in 2004.

In the last decade, the Turkish economy has recorded some of the highest levels of economic growth in OECD countries, with real GDP growth of 7.8 per cent in 2002. The outlook for 2004, however, appears bleak, with an anticipated financial crisis that would see GDP growth contract by 5-6 per cent.<sup>i</sup>

<b>Economic Forecast Summary</b>			
	<b>2002</b>	<b>2003</b>	<b>2004</b>
Real GDP (% change)	7.8	4.6	-5.5
Consumer prices (% change; av)	45	26	52.5
Exchange rate TL'000:US\$ (av)	1,507.20	1,519.00	2,740.20
Exchange rate TL'000:€ (av)	1,424.20	1,705.40	3,240.20
Exchange rate US\$:€ (av)	0.9	0.94	1.12
<b>Current account (US\$ m)</b>			
Goods: exports fob	39,147	44,486	49,362
Goods: imports fob	-47,782	-63,407	-56,254
Trade balance	-8,635	-18,921	-6,892
Current-account balance	-1,789	-7,274	4,635
Current-account balance (% of GDP)	-1	-3.1	2.3
<b>External financing (US\$ m)</b>			
Financing balance	-17,164	-19,325	-8,552
Total debt	131,551	143,007	139,877
Total debt service	21,879	18,779	13,528
Debt-service ratio, paid (%)	37.5	27.3	19.4
(c) Economist Intelligence Unit 2003			

Geographically, Turkey is ideally situated to access trading routes to Europe and Asia. With access to markets in the Middle East, Central Asia and Europe, Turkey has the potential to serve as a trade conduit for Canadian exporters. Canadian lentil exports to Turkey, for instance, are primarily re-exported throughout the Middle East and Mediterranean region.

Given the recent geo-political events in the region, it is also possible that, at the conclusion of the war in Iraq, Turkey may play a pivotal role in post-war reconstruction efforts. In fact, Iraq may potentially serve as a large lentil export market once the country has been stabilized.

Prior to 1991, Iraq was Turkey's second largest trading partner after Germany. Turkey continued to play a role in Iraq after 1991, primarily in the UN's oil for food program. In the year 2000, Turkish firms won substantial contracts under the program, only four years after its inception. However, Iraq proved to be a highly unstable market as deliveries under the UN program were often delayed while waiting for UN approvals.<sup>ii</sup>

It does appear possible for Turkey to provide lentils to Iraq in the near future. Whether the UN will administer a socio-economic program or whether it will be left to the United States may have an impact on Turkey's lentil exports. Should the contracts be awarded to Turkey, this report shows that Turkey will probably have to source more lentils from the international markets such as Canada, Australia, and the United States.

## **Lentil Facts:**

Lentils are generally classified by color (red and green) and by seed size. They are primarily produced for human consumption and are a staple product of diets in South America, the Middle East and the Indian sub-continent. They are an excellent source of complex carbohydrates and are high in fibre and in protein. Due to its high protein content, lentils are often used as a meat substitute or extender.

Lentils are a cool season crop with a restricted root system that is only moderately resistant to high temperatures and drought. Lentils have proven to be invaluable in crop rotation, helping to control weeds, diseases and insects, as well as improving soil texture and fertility.

## **Lentil Production and World Trade:**

There are several international factors that affect the world pulse market, including:

- i) Weather in lentil producing countries
- ii) Domestic farm policies (recently seen in the United States)
- iii) Production in lentil exporting countries (Turkey, Canada, US, Australia)
- iv) Economic crises
- v) Political instability

The factors listed above can significantly influence planting decisions made by producers in exporting countries as well as the crop yield.<sup>iii</sup>

Variability in those factors makes forecasting price trends in the lentil market difficult. Some factors may develop in a relatively short period of time with little or no warning. The resulting supply and demand shocks make lentils extremely price sensitive. Lentil price fluctuations in the world market over the past year and a half clearly demonstrate this fact, as can be seen in the following table produced by the USDA.

World lentil production has increased significantly over the past ten years, from 2.65 million tons in 1991/1992 to 3.36 million tons in 2001/2002. Most of this growth can be attributed to an increase in Canadian lentil production. Canada saw its world market share increase from 13 per cent to 27 per cent during that period.

The top three lentil producing countries, India, Canada and Turkey, accounted for nearly 70 per cent of world production. Approximately 70 per cent of world lentil production is of the red variety with the remainder being primarily of the green variety.

World lentil trade has also increased over the past decade with the exception of 2002, which showed a significant drop in world export numbers. This was largely due to a drop in Canadian production numbers as Canadian harvested areas for 2002/2003 dropped by 58 per cent from the previous year.

Exportable supplies in both Australia and Canada, major international lentil exporters, were extremely low in the first quarter of 2003. However, if lentil production in Canada, Australia and the United States normalizes in 2003, lentil prices should come under downward pressure, dropping to early 2002 prices.<sup>iv</sup>

<b>Lentil Prices 2002</b> <b>(Avg. wholesale dealer prices)</b>	
<i>(U.S. dollars per tonne)</i>	
<b>2002</b>	
Jan	288
Feb	284
Mar	285
Apr	300
May	298
Jun	297
Jul	294
Aug	297
Sep	336
Oct	389
Nov	411
Dec	429
<b>2003</b>	
Jan	485
Feb	529
Mar	555
Source: USDA	

## **Lentil Market in Turkey:**

Turkey is a net exporter of lentils. Domestic production is largely focused on red lentils, of which a significant quantity is produced solely for the export market. The bulk of Turkish red lentils are grown in South-Eastern Anatolia. Domestic production of green lentils, on the other hand, is significantly less. Therefore, imports are required to meet local green lentil demands. Based on the adjacent table, it is

<b>Turkish Lentil Production 2003</b>	
	MT
<b>Red Lentils</b>	
Production	500,000
Local Consumption	200,000
<b>Green Lentils</b>	
Production	30,000
Local Consumption	70,000

expected that Turkey will import an estimated 30 to 40 thousand tons to meet local demand for green lentils. Green lentils are grown primarily in north-central Anatolia.

Turkey imports its red lentils for re-export to meet export demands in the region, the bulk of which are imported from Canada. These lentils are split and processed in Turkey and are then re-exported. Import regulations in Turkey allow any imported lentils that are purchased for re-export to be exempt from import tariffs.

Due to severe drought conditions, Turkish lentil production in 1999 and 2000 was severely curtailed. To maintain supply levels for the export markets in the region, many Turkish exporters increased Canadian lentil purchases. However, with weather conditions normalizing, Canadian red lentil exports to Turkey have decreased significantly.

The tables to the side show that area harvested in Turkey have years. Production still exceeds needs, yet production falls short. Therefore, to maintain its export significant amounts of red export.

<b>Lentils Area Harvested (Ha)</b>	
<b>Year</b>	<b>Area Harv</b>
1992	741,104
1993	711,653
1994	646,000
1995	640,000
1996	620,000
1997	560,000
1998	549,000
1999	517,000
2000	472,000
2001	470,000
2002	500,000

Source: FAO

<b>Lentils Production (MT)</b>	
<b>Year</b>	<b>Production</b>
1992	600,000
1993	735,000
1994	610,000
1995	665,000
1996	645,000
1997	515,000
1998	540,000
1999	380,000
2000	353,000
2001	520,000
2002	480,000

Source: FAO

both lentil production and declined over the past 10 domestic consumption of export supply needs. markets, Turkey imports lentils, mostly used for re-

## Consumption:

It has been noted that consumption of wheat, barley, corn, rice, chick peas and lentils are projected to increase slightly in 2003 over the revised levels of 2002, parallel to the increase in population.<sup>v</sup>

<b>Indicator (Turkey)</b>	<b>2000-2005</b>	<b>2005-2010</b>	<b>2010-2015</b>	<b>2015-2020</b>
Population change per year (thousands)	1 004	933	837	711
Population growth rate (%)	1.42	1.23	1.05	0.85

Traditionally, Turkey was one of the leading chick pea and lentil consuming countries in the world. However, because of Turkey's phenomenal economic growth in the past decade and growing affluence in urban centers, consumption habits appear to have shifted towards other products, such as other grains and meat.

In addition to economic growth and changes, consumption of lentils has declined in recent years due to two main factors:

- i) migration from rural to urban centers
- ii) increase in lentil prices

Due to the 2001 economic crisis in Turkey, many people were financially affected, which caused the market to shift its focus back to pulses. As a result, per capita consumption of chick peas and lentils has increased slightly in 2001 and 2002.<sup>vi</sup> Given the current socio-economic problems, pulses may remain a key component in the Turkish diet for some time to come.

### South Eastern Anatolia Project (GAP):

The South Eastern Anatolia Project, commonly referred to as “GAP” in Turkish, is the largest integrated regional development project in Turkey. The aim of the project is to irrigate approximately 1.7 million hectares of land for farming. Upon completion of the project farmers in this region will be able to have two, and possibly three, harvests per year which would in effect double Turkey’s total crop production.<sup>vii</sup>

It is important to note, however, that lentil production or acreage devoted to lentil crops in particular may not be greatly affected by the project. The Harran Plain, which was opened to irrigation under the GAP project in 1998, has seen significant changes in its cropping pattern. Since 1998, cotton has become the predominant crop, with production at rates of 90 per cent of the 100.000 hectares of land opened to irrigation.<sup>viii</sup>

The project has brought about significant but unintended cropping patterns. When viewing the actual versus planned cropping patterns, it is quite clear that the planners overlooked national and profitable cropping decisions made by farmers in the region. The adjacent table shows a comparison of actual and planned cropping patterns on the basis of the 1995-1997 average figures compiled by the GAP Regional

Cropping Patterns in the Harran Plain			
Crops	% Prior to Irrigation	% Planned with Irrigation	% Actual with Irrigation
Wheat (dry farming)	49	0	0
Wheat (irrigated)	0	41.5	24.6
Barley (dry farming)	20	0	0
Barley (irrigated)	0	8.5	0
Lentil (dry farming)	8	0	0
Lentil (irrigated)	0	7.5	1.81
Cotton (irrigated)	21	0	82.74
Vegetables (irrigated)	2	1.5	2.63
Fruits (irrigated)	0	13.2	0
Potato (irrigated)	0	28.3	0
Harvest II. Corn	0	55.2	5.24
Harvest II. Sesame	0	0	0.96
Harvest II Soy Beans	0	0	0.01
Total	100	155.7	117.99

Development Administration and DSI (State Water Works) 15<sup>th</sup> Regional Directorate.

As noted in the above table, cotton, the dominant crop, was not planned at all for the Harran Plain, while lentil cultivation, planned for 7.5 per cent of the acreage, only actually accounts for 1.81 per cent.

Cotton and wheat lead all other crops in areas opened to irrigation in Turkey on the basis of long-term average figures. This is largely due to the fact that farmers in the region have found price levels and market stability in both cotton and wheat more profitable. Alternative crops with high returns were cultivated only when farmers encountered problems in irrigated fields.

There are several factors that influence cropping patterns. The two most important factors cited for cultivating cotton and wheat were relative profitability and ease of marketing (market guarantees).<sup>ix</sup> The adjacent table was published by the Agricultural Economic Congress of Turkey and indicates the factors affecting farmers' choice of crops.

<b>Factors Affecting Farmers Cropping Patterns</b>	
<b>Factors</b>	<b>Distribution (%)</b>
Profitability	41.2
Ease of Marketing	14.65
Alternating Crop Options	12.3
Manpower Needs	8.8
Soil Structure	6.85
Habits	5.85
Influence of Neighbours	5.85
Market Prices	3
Market Demand	1.5
Total	100

Relative profitability, the strongest factor influencing choice of crops, is related to changes in agricultural input prices and the product price. The large majority of farmers in the region have been inclined to cultivate cotton because plant protection expenditures for this new crop are not yet required, as cotton had not been previously grown on this newly irrigated land. The virgin land also provides high crop yields. Furthermore, the establishment of cotton ginning plants and consistent cotton sales without major fluctuations have provided even greater incentives to cultivate cotton.<sup>x</sup>

## Canadian-Turkey Lentil Trade:

<b>Lentils dried, shelled, whether or not skinned or split</b>									
<i>Year (Calendar)</i>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<i>Quantity in Metric Tons</i>	4,018	5,746	448	13,054	11,785	42,221	104,857	17,003	5,281

Source: Canadian Agri-food Trade System

<b>Lentils dried, shelled, whether or not skinned or split</b>									
<i>Year (Calendar)</i>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<i>Value in (1000\$ Cdn)</i>	2,665	3,591	281	7,234	6,648	26,937	58,887	9,146	2,909

Source: Canadian Agri-food Trade System

Canadian lentil exports to Turkey have declined dramatically over the past two years. The decline in Canadian exports can largely be attributed to three factors, which are allegations of fraud, economic problems and quality concerns. Turkish buyers have significantly scaled

back imports of Canadian lentils. Fraud concerns have arisen due to evidence that Turkish buyers purchasing lentils for re-export, to avoid the 18.5 per cent import tariff, have been selling some of their purchases to the domestic market. As a result, the Turkish government stopped issuing import permits to buyers in a move to crack down on falsified import documents. Although those accused have been convicted on fraud charges the Turkish government has been slow to reissue import documents.<sup>xi</sup>

In addition to the fraud charges, the Turkish economy has also contributed to the decline of lentil imports. Strong depreciation of the Turkish lira has negatively affected the ability of buyers to purchase lentils in the international market.

Lastly, concerns have been voiced from Turkish buyers regarding the quality of Canadian lentils. Apparently, there is confusion surrounding certification based on submitted samples versus official inspections. Len Seguin, Canadian Grain Commission chief grain inspector, has noted that if buyers in Turkey are willing to pay the extra costs, they will get more reliable shipments with better quality lentils.<sup>xii</sup>

Another fairly recent development that may negatively impact exports of Canadian lentils to Turkey is the establishment of a pulse processing plant in Regina that was up and running during crop year 2002. This joint venture will involve three partners, Arbel Pulse and Grain Co. of Turkey, Saskatchewan Government Growth Fund, and Regina-based Crown Ventures Fund Inc. Arbel Pulse and Grain Co. is the oldest and largest pulse processor in Turkey, and is the largest importer of Canadian red lentils in the world, with annual imports of 32,000 tonnes.<sup>xiii</sup> This \$5.2 million dollar venture will be capable of cleaning and splitting up to 75,000 tons of red lentils a year. Numbers as low as 50,000 tonnes of lentils were split in the province in 1999 and of those none were red lentils.

### **Future for Canadian Exporters:**

Despite the challenges currently faced within the Turkish lentil market, it is premature to disregard Turkey as a market for the future. Several issues, though, must be resolved before Turkey becomes a viable market once again. Greater trust must be established in Turkey's political and economic structures, a move that would instil greater confidence among international exporters.

In addition to a greater sense of trust, Turkey must also create greater political and economic stability. Rapid turnover of the governing political body and the formation and cessation of domestic political parties in Turkey further discredits the legitimacy of the Turkish political system and undermines medium to long-term policy measures.

More importantly, implementation of sudden volatile tariff and non-tariff barriers to foreign imports negatively affects confidence of international exporters and investors. Creating artificial or government-induced market conditions is not reflective of the domestic market for imported agricultural commodities.



However, given Turkey's geographical location and its trade relations with the Middle East, Europe, and the Commonwealth of Independent States, it will remain a key trade conduit for the future. Furthermore, should Turkey become a member of the European Union, it would provide a lucrative market for Canadian agricultural products via a re-export program as we have seen with Canadian lentils.

Turkey is a country with tremendous potential for Canadian exporters and should be considered an excellent market into which Canadian lentil exporters could re-enter.

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<sup>i</sup> *ibid*

<sup>ii</sup> Economist Intelligence Unit "Post-war Iraq seen as major potential export market" 29 Sep 2003, <[http://www.viewswire.com/index.asp?layout=display\\_article&doc\\_id=291891](http://www.viewswire.com/index.asp?layout=display_article&doc_id=291891)>

<sup>iii</sup> Boersh, Marlene. "Canadian Pulse Acreage Trends and Price Potentials." Saskatchewan Pulse Growers. <[http://www.saskpulse.com/web/pdfs/pdays03\\_boersch.pdf](http://www.saskpulse.com/web/pdfs/pdays03_boersch.pdf)>

<sup>iv</sup> FAO Commodities and Trade "June 2003 pulse market assessment" Jun 2003. <[http://www.fao.org/es/ESC/en/20953/21023/highlight\\_26892en.html](http://www.fao.org/es/ESC/en/20953/21023/highlight_26892en.html)>

<sup>v</sup> *ibid*

<sup>vi</sup> *ibid*

<sup>vii</sup> Republic of Turkey Prime Ministry GAP Regional Development Administration "Factors Affecting Cropping Patterns in Irrigated Areas and Preventive Measures Necessary in the Southeastern Anatolia Project (GAP)" <<http://www.gap.gov.tr/English/Dergi/D7121999/onlem.html>>

<sup>viii</sup> *ibid*

<sup>ix</sup> *ibid*

<sup>x</sup> *ibid*

<sup>xi</sup> Pratt, Sean. "Turkey halts lentil imports" The Western Producer. <<http://www.producer.com/articles/20010308/news/20010308news03.htm>>

<sup>xii</sup> *ibid*

<sup>xiii</sup> Johnstone, Bruce. "Pulse-processing plant to set up here" Regina Leader Post <<http://www.canada.com/regina/leaderpost/archives/story.asp?id=872D4704-F504-48A4-B6E0-C2F524B4BD21>>