

Bi-weekly Bulletin

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LENTILS: SITUATION AND OUTLOOK

Canada is the largest producer of lentils in the world, with about 28% of world production, and its share of world exports is expected to be 65-70% in 2000-2001. The value of Canadian exports increased from \$171 million in 1996-1997 to \$289 million in 1999-2000. Lentils are the second largest special crop produced in Canada, after dry peas. Production has tripled since 1991-1992 to 914,000 tonnes (t) in 2000-2001. This issue of the *Bi-weekly Bulletin* examines the situation and outlook for lentils.

BACKGROUND

Agronomics

Lentils were first produced in the Middle East about 7,000 years ago. However, production in Canada started only in 1970. 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 waterlogging, flooding or soils with high salinity. 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. In the Brown soil zone, lentil production is good on summerfallow with medium to fine textured soils, or on stubble. In the Dark Brown and Black soil zones, lentils should be grown on stubble.

Lentils work well in a rotation with cereals, such as spring or durum wheat. Lentils are susceptible to aschochyta blight and anthracnose. To reduce the risk of aschochyta blight, they should not be seeded in the same field more than one year in three or four, depending on the area. To reduce the risk of anthracnose, they should not be seeded more than one year in four and should not be seeded in fields adjacent to lentil stubble. Lentil seed should be tested for

the presence of seed-borne aschochyta. A fungicide can be used to control seed-borne aschochyta, and root rots and blights. Nitrogen fertilizer is not recommended because lentils possess the ability to fix nitrogen from the air in nodules on the roots, where it is 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. Other fertilizer should be applied based on a soil test. Lentils require 90-100 days to mature and should be seeded as soon as the soil temperature is greater than 5° Celsius.

Lentils should be harvested at 16-18% seed moisture to prevent excess splitting or cracking of the seed.

They should be combined at a slow cylinder speed (400 rotations per minute) with the concave set wide to avoid cracking. Lentils can be stored at 16% moisture, but are considered dry at 14% moisture. 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.

Uses and Nutrition

Lentils are used almost exclusively for human consumption in soups, stews, salads, casseroles, and vegetarian dishes. They are high in fibre, a major source of complex carbohydrates, high in protein, rich in B vitamins and minerals and low in sodium and fat. Lentils are often used as a meat extender or substitute because of the high protein content and quality, and are also used in gluten-free, diabetic, low salt, low calorie, low cholesterol, and high fibre diets.

CANADA: LENTIL PRODUCTION

type	1998	1999	2000
	-1999	-2000	-2001f
thousand tonnes.....		
Large Green *	295	360	430
Medium Green **	55	90	130
Small Green ***	65	110	170
Red	50	145	160
Dark Green Speckled & Brown	15	19	24
Total	480	724	914

* Laird, Glamis, Sovereign, and Grandora

** Richlea and Vantage

*** Eston and Milestone

f: forecast, AAFC, December 2000

Source: AAFC estimates based on Statistics Canada and industry reports



WORLD

Production

World lentil production has been trending upwards from 2.65 million tonnes (Mt) in 1991-1992 to 2.96 Mt in 1999-2000. Most of the growth occurred in Canada which produced 13% of world lentils in 1991-1992 and 24% in 1999-2000. During this period, Australia was the only other country to have significant growth in lentil production, while production in Turkey decreased significantly. For 1999-2000, world production increased by 4% from 1998-1999 due to increased production in Canada. The top three producing countries (India, Canada, and Turkey) accounted for nearly 70% of world production.

Consumption and Trade

On average, about 75% of lentils are consumed in the countries where they are produced. During the 1990s, world trade has been trending upwards from 423,000 t in 1991 to 737,000 t in 1998, the latest year for which trade data is available. In 1998, the top two exporting countries (Canada and Turkey) accounted for 72% of world exports. Imports were distributed much more widely than exports, with the top ten importing countries accounting for 63% of imports. The main importing countries were Sri Lanka, Egypt, Turkey, India, Spain, Algeria, Colombia, Pakistan, France, and Peru.

CANADA

Production

Canadian production increased by 50% in 1999-2000 to a record 724,000 t. Saskatchewan produced about 97% of Canadian lentils and the remainder was produced in Alberta and Manitoba. Canada has been mainly a producer of green lentils, although the production of red lentils is increasing and accounted

for about 20% of the production in 1999-2000. Production of dark green speckled and brown lentils is small, accounting for only about 3% of lentil production. The Canadian lentil harvest generally occurs during the period from mid-August to early October.

Marketing

All of the lentils produced in Canada are sold on the open market to dealers. There are about 40 dealers across the Prairie Provinces who buy, clean and ship lentils to domestic and export customers. Lentils are shipped mainly in containers, although there are also bulk shipments. The dealers range from large corporations and

producer co-operatives to small family-owned businesses. There are several processing plants in Saskatchewan capable of de-hulling and splitting red and green lentils for the world market. Some lentils are grown under production contracts, which guarantee a price for part of the production, but most are sold on the spot

WORLD: LENTIL PRODUCTION

	1996 -1997	1997 -1998	1998 -1999	1999 -2000	2000 -2001
.....thousand tonnes.....					
Canada *	403	379	480	724	914
India	714	883	850	900	900
Turkey **	645	515	540	400	380
Bangladesh	170	171	163	165	165
Australia ***	38	36	46	103	145
Nepal	118	124	114	132	135
United States **	60	108	88	108	135
China	120	107	128	125	120
Syria	152	88	154	43	105
Iran	120	83	95	95	95
Other	233	186	195	165	178
World	2,773	2,680	2,853	2,961	3,272

Source: FAO, except *Statistics Canada, **USDA, and ***ABARE
December 2000

CANADA: LENTIL SUPPLY AND DISPOSITION

<i>August-July crop year</i>	1996 -1997	1997 -1998	1998 -1999	1999 -2000	2000 -2001f
Harvested Area (thousand ha)	304	329	372	497	688
Yield (t/ha)	1.33	1.15	1.29	1.46	1.33
.....thousand tonnes.....					
Carry-in Stocks	127	140	65	60	80
Production	403	379	480	724	914
Imports	4	4	7	10	5
Total Supply	534	523	552	794	999
Exports	286	349	372	520	640
Total Domestic Use	108	109	120	194	204
Total Use	394	458	492	714	844
Carry-out Stocks	140	65	60	80	155
Stocks-to-Use Ratio (%)	36	14	12	11	18
Average producer price (\$/t)	470	324	381	380	300-330
Harvested Area (thousand ac.)	751	813	919	1,228	1,700
Yield (lb/ac.)	1,187	1,026	1,151	1,303	1,187
Production (Mlb)	888	836	1,058	1,596	2,015
Average producer price (\$/lb)	0.213	0.147	0.173	0.172	0.141-0.154

f: forecast, AAFC, December 2000
Source: Statistics Canada and AAFC

market. Market development activities are conducted under the leadership of Pulse Canada, a national organization of producers, processors, and exporters.

Prices

Canadian prices are determined on an export basis because Canada exports about 75% of its production. The average price, over all types and grades, peaked at about \$470 per tonne (t) in 1996-1997, but dropped to \$324/t in 1997-98, then recovered to \$380/t in 1998-1999 and 1999-2000.

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. In 1999-2000, the prices of Laird and Eston lentils were considerably higher than the other types. Since there is no futures market for lentils, prices are negotiated directly between the dealers and customers, based on supply and demand factors for each type of lentil, for immediate delivery or for delivery at some future date.

Domestic Use

Canadian domestic use, which includes food, feed, seed, dockage, and waste, accounts for about 25% of production. It has been increasing in line with increased production. Only a small amount of low grade lentils is used for livestock feed. Lentils are generally used for food and either, canned, packaged dry for retail sale, or processed into soups, stews, flour, and snack food.

Exports

Canadian lentil exports have been increasing in line with increased production. Canadian exports were 209,000 t in 1991-1992, but rose to 520,000 t in 1999-2000. Canadian lentil exports are mostly to western Europe, the Middle East, northern Africa and the

western hemisphere.

The main importing countries, in order of importance, for 1999-2000 were: Turkey, Colombia, Algeria, Morocco, Spain, Egypt, Italy, Mexico, France, and Belgium.

Although Lairds are exported all over the world, the main destinations are Spain, north-western and southern Europe, Algeria, South America, and Central America (except Mexico). Richleas are exported mainly to the United States, north-western Europe, Spain and northern Africa. Estons are exported mainly to Morocco, Greece, Italy, Egypt, and Mexico. Reds are exported mainly to the Indian sub-continent, the Middle East and northern Africa, mostly de-hulled and split. Dark green speckled are exported mainly to France and brown mainly to Spain. Canadian producers and dealers are far more dependent on trade than their counterparts in most other countries.

OUTLOOK

World: 2000-2001

World production increased by 13% to about 3.27 Mt largely due to increased production in Canada. Total supply increased by 10% to about 3.57 Mt. Canada accounted for 28% of world production, compared to 24% in 1999-2000.

Canada: 2000-2001

Canadian harvested area increased by 38% to 688,000 hectares (ha) due to relatively good lentil price prospects compared to most other crops. Production increased by 26% to 914,000 t, with about 97% of the lentils produced in Saskatchewan. Five varieties of green

lentils (Glamis, Sovereign, Grandora, Vantage, and Milestone) were introduced for commercial production. However, the seed supply available for seeding the Glamis, Sovereign, Grandora, and Vantage varieties was limited. It has become customary to refer to green lentils as large, medium, and small (based on seed size) because of the introduction of the new varieties. Large green lentils now include Laird, Glamis, Sovereign, and Grandora varieties, medium green lentils include Richlea and Vantage varieties, and small green lentils include Eston and Milestone varieties. The red lentil production consists of the varieties Crimson and Redwing, as well as two new varieties, Redcap and Robin, introduced in 2000-2001. However, the seed supply of Redcap and Robin was limited. Although production data by type is not available, there are indications that production of all types of lentils increased. The quality of the crop was average, but better than in 1999-2000.

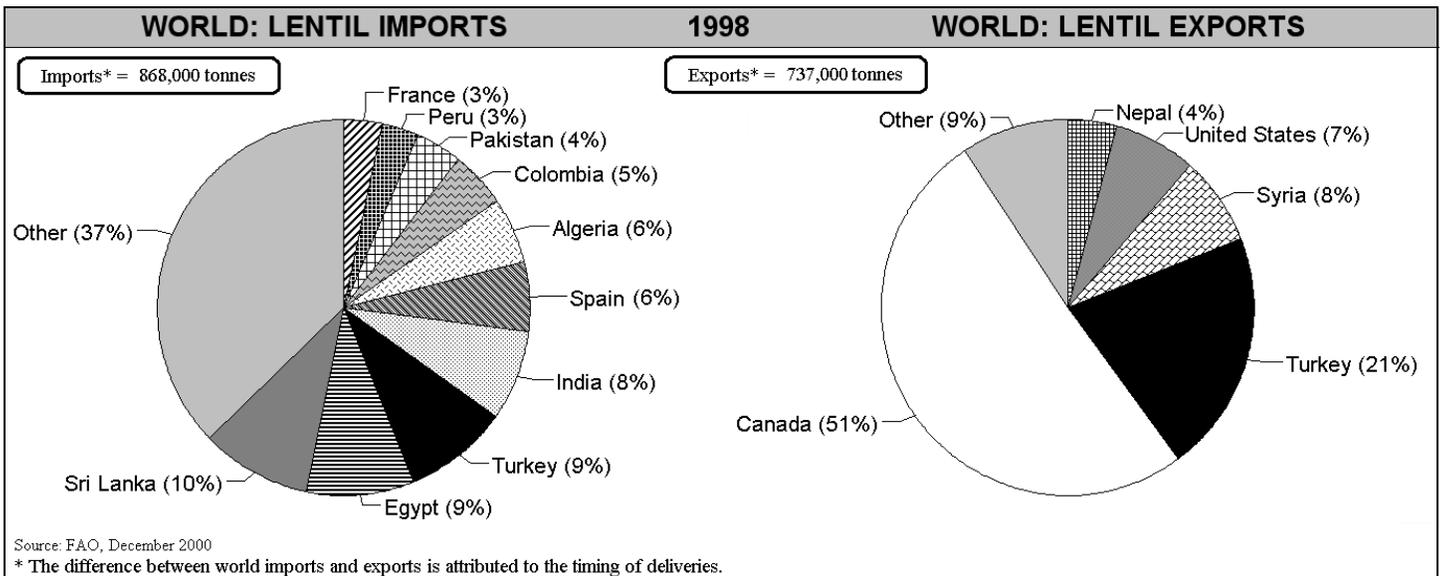
Total supply increased by 26% to 999,000 t, but exports are forecast to increase by 23% to 640,000 t because of strong demand and the increased Canadian share of total world supply. Canada's share of world exports is expected to grow to about 65-70%.

CANADA: LENTIL EXPORTS

<i>August-July crop year</i>	1996 -1997	1997 -1998	1998 -1999	1999 -2000	2000 -2001f
thousand tonnes.....				
Middle East	18	34	44	136	175
South America	93	110	94	121	140
Europe	105	112	100	117	120
Africa	42	44	73	93	115
Central America and Caribbean	18	25	28	27	40
Asia and Oceania	3	10	24	22	40
United States	<u>7</u>	<u>14</u>	<u>9</u>	<u>4</u>	<u>10</u>
Total	286	349	372	520	640

f: forecast, AAFC, December 2000

Source: Statistics Canada



Export markets for the new green lentil varieties are expected to be the same as for the respective size older varieties. The export volume for the Vantage, Sovereign, Grandora, and Glamis varieties is expected to be small because of low production. Total domestic use is forecast to increase by 5% to 204,000 t. Carry-out stocks are forecast to increase significantly to 155,000 t, with a stocks-to-use ratio of 18%. Average prices for lentils have dropped more in 2000-2001 compared to 1999-2000 than for any other crop. The average producer price over all grades and types is forecast to drop by 15-20% to \$300-330/t, because of increased supply. The price spread between the various types of lentils is narrower than in 1999-2000, but there is a price premium for the large and small green lentils compared to the other types.

Canada: 2001-2002 and longer-term
Canadian lentil seeded area for 2001-2002 will depend on the price prospects for lentils as compared to alternative crops. Increased supplies and carry-out stocks in 2000-2001 are expected to continue pressuring prices. Therefore, the potential for a significant price increase in 2001-2002 is limited, unless production decreases. Producer returns

for lentils are expected to be better than for some alternative crops and area seeded for lentils is expected to be similar to 2000-2001. Agriculture and Agri-Food Canada's first area and production forecasts for 2001-2002 will be released in early January 2001.

For the longer-term, seeded area to lentils in Canada is expected to continue trending upwards, although the rate of growth is not likely to be as high as during the 1990s. Canada's share of total world production is also expected to increase. Saskatchewan is expected to continue dominating lentil production in Canada because it has the largest land base suitable for producing lentils.

For periodic updates on the situation and outlook for lentils, visit the Market Analysis Division Website for "Canada: Special Crops Situation and Outlook".

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GREETINGS OF THE SEASON AND BEST WISHES FOR THE NEW YEAR

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