2000/2001 CANADIAN POTATO SITUATION AND TRENDS

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OVERVIEW

The potato is the most important vegetable crop in Canada, accounting for 33% of all vegetable farm cash receipts or $670 million in the 2000 calendar year (see Table 1).Canadian production at 4.3 million tonnes(t) was concentrated in PEI (29%), Manitoba (19%), Alberta(15%) and New Brunswick (14%).

In 2000, 164,400 hectares (ha) were planted, a new record, but only 158,100 ha were harvested. Yields averaged 28.9 t / (ha), up about 6% (see Table 2). Varieties of potatoes vary from province to province with Russet Burbank and Shepody being the main frying varieties; Snowden, Atlantic, Norchip, and Superior the main chipping varieties; and various Russet types, Superior, Norland, Kennebec & Yukon Gold are some of the leading table varieties. Over 150 varieties of seed are grown for sale in Canada by 815 seed potato growers on 28,060 ha, almost similar to 1999.

CANADIAN SITUATION

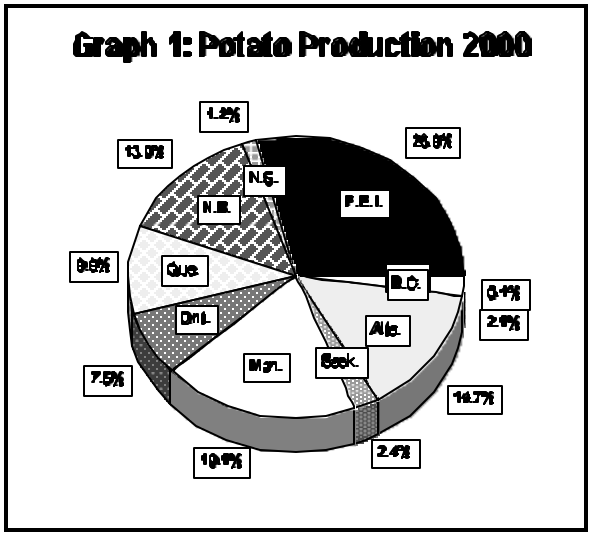
The potato industry in western Canada will likely continue to grow with the announcement of a new Simplot fry plant planned for Manitoba in the spring of 2002. This follows the recent expansions in Alberta by McCain in 2000 and Lamb-Weston in 1999.

Production

In 2000, the 7% increase in production was mainly due to higher average yields in most provinces in spite of lost acreage due to flooding in Ontario; frost in Alberta and wet weather in Manitoba. Planting did increase due to seed demand in Saskatchewan and processing demand in Alberta and Manitoba.

The 2000/2001 crop is estimated at 4.57 million t (100 million cwt); or 7 % above the 1999 crop. However this could be reduced due to frost damage in the prairie provinces.

In 2000, Alberta had the highest average yield in Canada with 34.75 t/ha (310 cwt/ac). The Atlantic region is still the leading region in Canada with 44% of production, followed by the Western region with 38% and the Central region with 18% (see Graph 1).
In the1999/2000 crop year, farm gate value (FGV) and average prices were up marginally from a year earlier. Average prices are expected to decline in 2000/2001



Source: Statistics Canada

due to record EU and US crops with attendant low prices and a US embargo on PEI potatoes because of phytosanitary restrictions. Cullage rates are expected to be higher than average in the west. Potatoes for processing are priced slightly higher for the 2000 crop year.

Processing

Over 50% of potatoes grown in Canada are processed, mostly into french fries. Ten to fifteen percent of the crop is utilized for chips and dehydration. Total utilization, export and domestic shipments were up in 1999/2000 for processed products. Frozen french fry production is estimated at 1.1 million t, up 10% from 1999 reflecting the recent expansion in Alberta. Expansion has averaged 8% annually since 1990/1991. The new dehydration plant which opened in PEI in 1998, has been sold to a US company and has increased production substantially in 2000-2001. If built in 2001, the J.R. Simplot plant in Manitoba

would add 300 million lbs of frozen product in 2002 and eventually 20,000 acres of added production. This followed announcements by Lamb-Weston and McCain for new plants to be built in Maine.

Consumption

From 1971 to 1999, Canada's consumption of potatoes (fresh equivalent) has increased slightly from 71 kg per capita (KPC) to 77 KPC, about the same amount as all other fresh vegetables consumed. Chips have remained constant with some growth in the re-manufactured type made from dried flakes/granules. Consumption of french fries has dramatically increased over a 25 year period. This is the result of the rapid growth of Quick Service Restaurants and a busy lifestyle.

TRADE

Canada's total exports of potatoes and products in 1999/2000 were $849 million, while imports were $194 million for a net positive trade balance of $655 million.

Fresh Potatoes

For 1999/2000, Canada's exports of fresh potatoes were 339,017t, down 25% from 1999 (see Table 3). This was mainly due to large crops in the US and the EU.

Value of fresh shipments were $100 million, down $19 million from 1998/1999. Prices were on average only 8% lower than the previous year due mainly to good demand for certain types and quality of potatoes.

In 1999/2000, Canada's fresh exports to the US were 274,651 t, valued at $87million, down $2 million from 1998/1999. Other important fresh markets ($million) were: Venezuela (7.6); Trinidad (1.8); Dominican Rep. (1.7) and Barbados (1.2). Sales to Norway, Uruguay, Cuba and Guyana were virtually halted due to low priced competition.

Fresh potatoes are imported every month of the year, all from the US and particularly in the period from March to July. Imports were up by 42% in 1999/2000 at 284,527t valued at $91.6 million. California and Washington were the major sources of the imports. Average prices were almost 25% lower than in the previous year. Antidumping duties were extended for three years on Washington State potatoes after an investigation by the Canadian International Trade Tribunal determined that imports were priced below normal values.

Seed Potatoes

Seed exports decreased in 1999/2000 from 180,778 to 168,561t, and by $3.2 million in value to $57 million(see Table 3). Most of this decrease was in shipments to the Brazil, Cuba, Venezuela, Turkey, and Portugal. Shipments to the US accounted for $48 million or 82% of Canada's exports. Other important seed markets in 1999/2000 in $ million were Mexico (10.2); Cuba (3.8); Venezuela (1.7); Uruguay (1.1); Thailand (1.0); and Dom. Rep.(.20). Alberta was the largest seed exporter at 69,428t. followed closely by NB at (56,115t), then PEI (14,928t),BC (14,916t) and Sask (5,825t).

Exports to Mexico at 15,731 were down slightly from the 17,371t from the previous year. Fewer sales to the EU are expected in the short term due to high production levels in the EU and a devaluation of the Euro by 17%. Some shipments of the 1999 and 2000 crop were made to the middle east for the first time in several years. Thailand has been a growing new market for chipping seed.

In 1999/2000, Canadian imports of table and seed reached 220,130 t. worth $88 million. Almost all imports of table (95%) and seed are from the US and are similar to the previous year. Total volume of table and seed imports represent 5.4% of Canadian production.

Processed Potatoes

Exports of frozen fries continue to expand.

In 1999/2000, 621,376t of frozen french fries were exported for a value of $636 million, an increase of nearly 20% over 1998/1999 (see Table 4). Forecasts for next year are for a smaller increase as capacity is being reached. Canada is second only to the Netherlands as the leading exporter of frozen fries. Canada's fry processors are currently not contracting genetically engineered potatoes to comply with their customers' preferences.
Source: USDA

Although most of Canadian exports went to the US, other major markets were Japan (6%), the Pacific Rim countries (5%), Latin America (4%) and the Caribbean. In all, frozen french fries are shipped to more than 90 countries around the world.

The US demand stems primarily from shifts in contracts with the fast food chains and backfilling shortages caused by strong export marketings from the US by the global companies moving product to their best economic/geographic advantage.

Canada imported $15 million of frozen french fries from the US, a decrease of 44% over 1998/1999. In 1999/2000, Canada also imported 36,149t of other potato products worth $88million of which 21,000t were potato chips ($61million), about the same as last year. Exports of potato chips to the US were up sharply by $33 million due to regional shortages and industry consolidation.

UNITED STATES SITUATION

In 2000, US total production is estimated to be 21.3 million t, up 9.5% from 1999 - a new record. Most of the increase was in the western and mid-western states and was due mainly to 20,000 additional acres in Idaho plus good growing conditions. Overall size is larger than last year and quality is reported to be good. The farm value of the 1999 crop was US$2.75 billion, up 4% over the previous year. The average price was US$5.77, up 21 cents from a year earlier. Fresh market sales remain steady but prices have declined, particularly for large sizes. Prices for processing potatoes have remained unchanged for several years.

US fry production continued to grow to 3.5 million t with exports reaching 520, 000t (US$345) in 1998-1999, an increase of 10.2% over the previous year. The major markets are Japan (51%), Hong Kong, Taiwan and Canada with 5% each. Imports of frozen fries (385,000t) were mainly from Canada. Exports of dehydrated potatoes and chips are also up by 58%.

Imports from Canada increased due to a favourable exchange rate, good product quality, proximity to Eastern & Midwestern markets and an increasing manufacturing capacity.

US per capita consumption increased slghtly over 1999 to 64.5 kg (145 lbs) as frozen french fries continue to gain and fresh usage remains steady.

EUROPEAN UNION SITUATION

The 2000 EU crop is estimated at 48 million t, similar to last year but an increase of 9.6% from 1998. Holland, Belgium and France have above average crops and quality is better than last year. Prices have remained low with the large expected inventory and EU potatoes are very competitive on the export market due to the decline in the Euro compared to the US and Cdn dollar.

Imports of fries and dehydrated potatoes from North America are down and exports will be more competitive and likely increase.

WORLD POTATO SITUATION

According to the International Centre for Potatoes (CIP), of the Food and Agriculture Organisation (FAO) of the United Nations, potato production in developing countries entered a rapid expansion phase in the late 1990's. Annual potato production increased by 4.5% as area planted increased by 2.4%, double the rate of the past 20 years. This occurred as growth rates for maize, wheat and rice slowed, especially in Asia.

Per capita consumption has declined in Europe since the 1960's to about 86 kg but it still leads, followed by North America at about 63 kg, Latin America at 24 kg, Asia at 14 kg and Africa at 8 kg. Per capita consumption is increasing in developing countries but also has considerably more growth potential with a younger population and increasing demand for chips and fries.

Production

As of 2000 the FAO reports that worldwide potato production was 308 million tonnes (see Table 5). China is now the worlds largest producer, followed by the Russian Federation. Also, developing countries produce more than 30 percent of world potato production which is up from only 11% in the early 1960's.

Asia:

The CIP, reports that world potato production has increased faster in Asia than anywhere else. Over the past 10 years annual growth rates were 10.6% in Indonesia, 6.2% in China, 6% in Pakistan and 4.6% in India .

Africa:

80% of the potatoes in Africa are produced by Egypt, South Africa, Algeria and Morocco. Growth rates have been strong, led by Egypt at 5% annually. Expansion of irrigated areas has been the major factor, along with rising incomes and a demand for processed products.

Latin America and the Caribbean:

Potato production continues to expand at 2.2% annually led by Peru at 3.7%, Mexico at 3% and Brazil at 2.8%. Mexico has also shown the greatest rate of increase in yield per hectare.

This growth in developing countries is expected to

continue at between 2 and 3% based on recent trends. The potato will likely maintain its economic importance in the food basket for developing countries in the decades ahead.

Europe and the former USSR

In Europe and the former USSR, production continues to decline slowly at an average annual rate of one percent. In Eastern European countries, the decline is much faster as potatoes fed to livestock are rapidly being replaced by less costly grain. Poland alone has decreased its annual demand for potatoes for livestock feed by 6 to 7 million tonnes annually since the early 1990's.

North America

Until 1997, North America's potato economy had been growing at a rapid rate as a result of an expanding domestic fast food and institutional market for frozen french fries. Domestic demand spurred this industry in the early 1990's but this has now levelled off and export demand is the future growth area.

Recently, Canada has played a significant role in this expansion and now exports frozen fries to more than 90 countries. Canada ranks second to the Netherlands in frozen fry exports.

The US frozen fry industry has grown 4% annually since 1990. In 1999/2000 production is expected to rise from 3.8 million tonnes to 3.9 million tonnes and exports from 521 tonnes to 573 tonnes (see Table 6). Most of these exports are to the Pacific Rim countries where fast food outlets have continued to expand.

GLOBAL FRENCH FRY MARKETS

The most significant change to the potato industry in the past 30 years has been the growth in consumption of french fries along with a decline in fresh potato use. This appears to be a function of higher disposable incomes and a more hectic lifestyle where people eat away from home more often due to time constraints. North America has led this trend followed by Europe and other developed countries. Fast food firms believe most of their future growth will be in the developing world and processing is expanding to keep pace in Eastern Europe, the former USSR, Argentina, Colombia, China and Egypt.

Good quality fries must be available in these markets to meet this demand. Initially, supplies are exported from existing plants, but eventually the companies tend to source local supplies and more countries will become processors. Rising incomes, tourism, microwave ovens, increased numbers of females in the workplace, urbanization and diversification of diets will stimulate further growth.

Positive benefits to this include more rural employment, more stable markets and improved technology transfer. The use of pesticides; the planting of fewer varieties used mainly for processing, and nutrition concerns have become important issues. All these concerns are being addressed by research through the CIP and national programs in many countries.

OPPORTUNITIES & CHALLENGES

" Potatoes are the fourth most important food crop in the world with global production projected at 300 million t. in 2000.

" Canada's potato production is expected to be 4.5 million t. or 1.5% of the world production. In 2000, Canada was the 13th largest potato producer in the world.

" The average size of Canadian potato farms continues to increase as processed demand increases and growers attempt to improve economies of scale.

" In Canada and many other regions in the world there is an increase in irrigated acreage to ensure higher yields and consistent quality for the expanding processing industry.

" There is increased use of on farm tissue culture, cuttings and micro tuber propagation as many seed growers attempt to reduce risks from diseases.

" Growth in production and demand from the developing world (eg. South America, Asia & Africa) should offer opportunities for Canadian seed production and processing technology/investment

" There is scope for increased acreage and productivity improvement in many of the developing countries, particularly in the warmer climates.

" Improved storage facilities in many parts of the world will also enhance the profitability of the crop.

" Increased concentration at the processor and retailer level in Canada is a concern for growers wanting a more competitive market environment and improved

prices after several years of input cost increases. Open market production must also decrease to avoid chronic oversupply situations.

" For the fresh market to grow it must become a more specialised niche market with new varieties, heritage varieties etc. New promotion, cooking and packaging ideas will also be needed. Fresh cut potatoes and prepared products are also a promising growth area for hotels, restaurants institutions and home use.

" Seed potato and fresh market trade will increase for niche market varieties. Opportunities exist for seed potatoes with northern vigour in warm climate countries to help improve yields.

" Fast food outlets continue to grow rapidly on a world wide basis. Most of this expansion will be outside of North America.

" Coated fries which are crisper and stay hot longer are also a growing trend which will increase demand for flour and starch inputs as well as increasing recovery rates.

" Aside from the globalization of the french fry industry there are increasing opportunities in snack products with healthier, low fat, no fat and baked snack food products in many flavours.

Research

" A solution for the control of late blight is essential for the long term success of the potato industry. An intensive cooperative global research program is under way to reduce fungicide use through breeding or other techniques.

" A virus reduction strategy has been implemented in seed production areas to improve seed quality, increase yield potential and improve profitability and competitiveness in domestic and export markets.

" In the long term, biotechnology can assist in improving disease and insect resistance and reduce pesticide use. It can also be used in the development or modification of varieties with improved nutrition or capable of incorporating vaccines for low cost immunization programs in some parts of the world.

" The avoidance of genetically engineered varieties by major processors and retailers in order to protect market share will continue in the short term until the public becomes more educated about the issue.

FACTORS AFFECTING THE FUTURE

" Rising energy costs and water shortages in North America may influence decisions on how much irrigated land will be in production and where and when processing plants will expand in the near term.

" Consumer groups and retailers in the EU and elsewhere are demanding reductions in the use of pesticides for production and protection of the environment.

" Insect and disease resistance and herbicide tolerance through genetic engineering will become an extremely valuable tool as part of Integrated Pest Management systems to reduce overall pesticide use, avoid crop losses and reduce the impact on the environment.

Regulations

" The Canadian and US Potato industries have agreed that the Canadian system of Ministerial Exemptions for the movement of bulk produce and US Marketing Orders are important in their respective countries and should not have an impact on trade.

" Pressure for more post harvest testing for seed and fewer field generations are likely to continue in the future.

" Harmonization of grade standards with the US is continuing and will reduce barriers to trade in the future.

" In the long term, the pesticide registration process is moving towards harmonization for North America and the rest of the world, leading to safer materials and fewer competitive imbalances.

Market Access

" Border disputes with the US, regarding the quality of Canadian potatoes need to be resolved as objectively as possible to avoid trade disruptions.

" Phytosanitary agreements based on sound, objective scientific protocols need to be respected with existing and potential importing countries to secure trade possibilities in these markets.

Packaging & Labelling

" Retail & case coding requirements will increase costs for some sectors but will create overall efficiencies in the system. Large buyers in Canada and US will continue to insist on implementing these supply chain efficiencies.

" Varieties with modified genes are being regulated through labelling legislation and variety registration legislation in several countries to allow consumers to have a choice in the products they purchase.

CONCLUSION

The potato industry will continue to expand and become a more important food source throughout the world. Trade will continue to grow, particularly for processed products, higher valued and specialised products and for high quality seed required to produce crops for specific markets.

1 tonne = 1000 Kg, 1.1 ton or 22 cwt)
1 ton = 2,000 lb (0.909 tonne)
1 acre = 0.40 hectare
1 hectare = 2.47 acres
FCR = Value based on a "calendar year"
FGV = Value calculated on any given "crop year".

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TABLE 1

Potato Farm Cash Receipts ($million)

	1996	1997	1998	1999	2000	% change 1999 - 2000
Canada	**533**	**513**	**614**	**715**	**670**	**-6**
PEI	138	129	172	195	155	-21
Manitoba	91	94	105	121	95	-21
New Brunswick	71	64	82	98	78	-20
Québec	73	69	68	89	94	6
Alberta	62	52	64	77	112	45
Ontario	49	58	55	59	65	10
British Columbia	24	20	26	40	32	-20
Saskatchewan	18	18	34	27	27	-
Nova Scotia	7	7	6	7	10	43

Source: Statistics Canada

TABLE 2

Canadian Potato Production

Province	1996/1997	1997/1998	1998/1999	1999/2000	2000/2001	% change 1999/2000 & 2000/2001
Production ('000 tonnes)						
PEI	1,287	1,346	1,322	1,297	1,323	2
MAN	762	745	773	745	873	17
NB	650	660	682	624	636	2
Québec	465	455	475	460	454	-1
Alberta	377	401	431	556	671	21
Ontario	336	352	352	351	343	-2
Canada	**4,084**	**4,171**	**4,329**	**4,268**	**4,569**	**7**
Farm Gate Value ($million)						
PEI	138	189	218	196		
MAN	104	126	115	118		
NB	68	86	103	95		
Québec	69	74	84	86		
Alberta	58	67	76	105		
Ontario	54	63	61	65		
Canada	**491**	**605**	**736**	**742**		
Area Planted ('000 ha)						
PEI	45	45	45	46	44	-4
MAN	28	29	30	29	32	10
NB	22	23	23	23	22	-4
Québec	19	19	19	18	18	-
Alberta	13	13	13	17	21	24
Ontario	16	16	17	18	18	-
Canada	**149**	**152**	**156**	**159**	**164**	**3**

Source: Statistics Canada

PEI: Prince Edward Island
MAN: Manitoba
NB: New Brunswick

TABLE 3

Canada's Export & Import Markets

Year	1996/1997	1997/1998	1998/1999	1999/2000	%change 1999/2000
EXPORTS ('000 t)					
Table stock	278.0	435.3	373.3	339.0	-9
Seed	153.5	190.5	180.8	168.6	-7
TOTAL	431.5	625.8	554.1	507.6	-8
Value ($million)					
Table stock	71.4	125.1	119.8	100.1	-16
Seed	43.0	59.8	59.9	56.7	-5
TOTAL	114.4	184.9	179.7	156.8	-8
IMPORTS ('000 t)					
Table stock	222.4	249.8	224.0	208.6	-7
Seed	11.9	14.8	11.8	11.6	-2
TOTAL	234.3	264.6	235.8	220.2	4
Value ($million)					
Table stock	80.7	85.0	93.4	84.8	-9
Seed	3.0	4.2	3.4	3.3	-3
TOTAL	84.6	98.9	85.1	88.1	4
BALANCE OF TRADE ('000 t)					
Table stock	55.6	185.5	149.3	130.4	-13
Seed	141.6	175.7	169	157	-7
TOTAL	197.2	361.2	318.3	287.4	-10
Value ($million)					
Table stock	-9.3	40.1	26.4	15.3	-42
Seed	40.0	55.6	56.5	53.4	-5
TOTAL	29.8	86.0	94.6	68.7	-27

Source: Statistics Canada

TABLE 4

Canada's Exports & Imports of Processed Potatoes

Year	1997/1998	1998/1999	1999/2000	% Change 1999/2000 vs 1998/1999
EXPORTS ('thousand tonnes)				
Frozen fries	454	527	621	18
Others	14	13	29	123
Total	468	540	650	**20**
Value ($million)				
Frozen fries	418	512	636	24
Others	20	23	56	143
Total	438	535	692	29
IMPORTS ('thousand tonnes)				
Frozen fries	25	23	13	-43
Others	39	41	39	-5
Total	64	64	52	-19
Value ($million)				
Frozen fries	29	28	16	-43
Others	90	90	90	-
Total	119	118	106	-10
BALANCE OF TRADE ('million tonnes)				
Frozen fries	429	504	608	21
Others	-25	-28	-10	-64
Total	404	476	598	26
Value ($million)				
Frozen fries	389	484	620	28
Others	-70	-67	-34	-49
Total	319	417	586	41
Others: dried, canned and salad potatoes				

Source: Statistics Canada

TABLE 5

World Production (million tonnes)

Country	1998	1999	2000	% change 2000-1999
China	48	48	62	29
Russia	31	33	33	-
Poland	26	29	23	-21
USA	21	24	23	-4
India	19	24	23	-4
Ukraine	18	17	13	-24
Germany.	12	13	13	-
Belarus	10	11	9	-18
Netherlands	8	9	8	-11
UK	7	8	7	-13
France	6	7	6	-14
Turkey	5	6	5	-17
Canada	4	4	4	-
Spain	3	4	3	-25
World	324	318	308	-3

Source: Food and Agriculture Organization of the United Nations

TABLE 6

World French Fry Situation

Countries	Production	Exports	Imports
Canada (In '000 t)			
1995/1996	650	233	12
1996/1997	775	345	12
1997/1998	948	493	31
1998/1999	1003	569	26
1999/2000F	1086	650	27
Japan			
1995/1996	35	0	215
1996/1997	33	0	234
1997/1998	35	0	276
1998/1999	35	0	297
1999/2000F	35	0	320
Netherlands			
1995/1996	1,073	925	79
1996/1997	1,126	970	56
1997/1998	1,344	1,199	44
1998/1999	1,450	1333	57
1999/2000F	1543	1411	55
USA			
1995/1996	3,254	350	160
1996/1997	3,382	386	249
1997/1998	3,624	468	373
1998/1999	3,757	521	405
1999/2000F	3,858	573	424
F: Forecast Source: USDA			