The Canola Industry in Canada

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Although many market analysts continue to look at the long term trends and conclude the growth in demand for oil will outpace the growth in demand for protein meal - thus favoring high oil-bearing seeds like canola - we are, at present, in a situation with market factors stronger for protein meals than vegetable oils - making soybean crush margins favorable and canola crush margins unfavorable.

We also have in Canada, and in combination with the situation just outlined, a canola supply that continues to be seen as, at best, only adequate. This keeps upward pressure on seed prices and further erodes crush margins. This prompted announcements of slowdowns and shutdowns by Canadian crushers in late 1996. However, the export seed market is capable of absorbing the reduced domestic demand and seed supplies are expected to continue tighter than desired.

Export demand for Canadian canola seed remains strong in the Japanese and Mexican markets. The US market for canola oil and meal continues to grow. Europe has also been a market, although sporadic, for both seed and meal in recent years. Canada will, in 1997, have a canola processing capacity of over 4 million tonne. Over the past 50 years, Canada has produced over 4.0 million tonne in only six years. Five of those years have occurred since 1990.

Annual seed production requirements are seen to be in the area of a minimum 6.0 million tonne. Canada produced 5.0 million tonne in 1996. In fact, we have produced 6.0 million or more only twice in history.

Canada's canola processing industry now consists of 10 plants, owned by five companies. Another new plant is being built in Manitoba and owned by Canadian Agra foods Corporation. With the expansion of existing crushing capacities, and new plants coming on line, Canada's canola crush is forecast to double over the next 5 - 6 years. A Cargill plant in Saskatchewan began operation in 1996. Canadian Agra foods facility in Manitoba will begin operation in 1997. Consequently, Canada's canola crush capacity in 1997 will be approximately 4 million tonne. Adding only Japanese demand of 1.6 to 1.8 million tonne, we would have a demand between Canada and Japan for nearly 6 million tonne.

Over the next five years, production requirements are expected to grow to 7.0 or 8.0 million tonne. Demand continues to strain production capability. The emphasis is for Canada to expand canola production either through an expanded acreage base or increased production per acre.

By the year 2000, the Canadian industry will be poised to meet world demands for value

Canola Seed Supply & Demand (000 tonne)

	1980-81	1993-94	1994-95	1995-96	1996-97	2000-01
Beginning Stocks	1,477	692	330	589	901	500
Production	2,483	5,525	7,233	6,436	5,037	8,000
Imports	1	23	42	97	45	150
Total Supply	3,961	6,240	7,604	7,123	5,983	8,650
Exports	1,372	3,347	3,912	2,804	2,535	2,500
Domestic Crush	1,003	2,238	2,513	2,753	2,550	5,000
Seed, Feed & Waste	237	325	591	666	420	650
Total Demand	2,612	5,910	7,016	6,223	5,505	8,150
Ending Stocks	1,349	330	589	901	478	500
Stocks/Use	51.6%	5.6%	8.4%	14.5%	8.6%	6.1%

added oilseed products. A potential supplydemand picture for the year 2000 would include canola production in excess of 7.5 million tonne in order to service a seed export market of about 2.5 million tonne and a domestic processing industry of about 5.0 million tonne. Processing 5.0 million tonne of canola in Canada would result in 3.0 million tonne of meal produced and 2.0 million tonne of oil produced. We anticipate a continued dependence on the USA as the major market outlet for both canola oil and meal. However, in the case of canola oil, we expect substantially increased volumes to be destined to Asia, including Japan, China, India, Pakistan, Singapore and Taiwan. Major market growth for canola meal is anticipated in Korea, Taiwan, Thailand and domestically.

The secret is to ensure we have the production in Canada to meet our current customers' needs and needs of the customers we will be servicing with our expanded crush capacity. There are two approaches to increasing supply: increase the acreage base and/or increase the yield per acre. The industry is responding by allocating the lion's share of Canola Council expenditure to research and agronomic activities that can increase supply through increased yields and expanded acreage.

In Canada, canola acreage, and ultimately production, depends on its competitiveness relative to other cropping alternatives available to producers. When canola is not competitive with wheat and barley, we struggle to achieve the acreage base we require to meet our demands. Yield improvement in canola is the key to competitiveness. Genetically increasing yield, agronomically increasing yield, and reducing yield losses from pests are all important strategies.

The Council operates canola production centers across western Canada as demonstration farms for testing varieties, illustrating responses to different fertilizer practices, and demonstrating the economic effects of pest control programs related to weeds, insects and diseases. They also provide the basis for winter meetings with producers to discuss the results of variety trials, fertility trials and pest management.

Genetics and, in particular, varieties with novel traits appear to provide us with one of the best means to achieve both an expanded acreage base and increased yields. We are also investing in the development of canola quality mustard that would expand the available acreage as well as bring some inherent advantages related to disease and agronomy.

Canola varieties with novel traits are currently providing us herbicide tolerance and hybridization. The advancements possible through this technology could impact Canada's production capability in a number of ways. The first and most obvious is increased yield from the reduced pressure of canola pests. A second is in relation to the increased return to producers from novel trait varieties. Assuming these increased returns are realized ahead of any similar advancements in other western Canadian crops, canola will become more attractive to producers and more acres may be seeded. Thirdly, novel traits related to pest control could, in time, enable producers to shorten rotation requirements without negative consequences.

Canada has produced novel trait canola (hybrids, glufosinate tolerance, and glyphosate tolerance) in both 1995 and 1996. The production was undertaken within tightly controlled and identity preserved contract production programs. Now that Canada, the USA and Japan (the three markets that represent by far the majority demand for Canadian canola) have approved these novel traits, identity preserved contract production programs have been dropped. New novel traits and new events, or transformations, of previously approved traits, will be subject to identity preserved programs until approvals are in place in the three major markets.

In 1997 there is the potential to have 14 licensed varieties with novel traits. These all relate to herbicide tolerance and hybridization systems. They also encompass both the *rapa* and *napus* species. There is also one modified oil variety, however, it is grown under contract and identity preserved for a very specific market niche.

As an indication of the potential of this science, in 1996 there were 79 authorized submissions of novel trait canola for confined release in Canada. Confined release relates to field trials with reproductive isolation distances and strict seed disposal guidelines. These 79 submissions related to herbicide tolerance (37), hybridization (8), nutritional enhancement (1), modified oil composition (22), stress tolerance (4), disease resistance (7), pharmaceutical uses (3), and industrial enzymes (5). You can see from this mosaic of traits that the potential benefit from this science is tremendous.