

GM Food Labeling

– Likely Impact on the Prices of Vegetable oils in India

Prologue:

The government of India has recently made the labeling of GM food mandatory which has implications for the food industry in general and for domestic vegetable oils in particular. This write up is to analyze the likely impact on the prices of domestic vegetable oils.

The prices of soy oil futures in the domestic exchanges have risen by 7-7.5% in a span of 9 trading days after the Government of India's announcement to make the labeling of GM foods mandatory.

Domestic Vegetable oil Scenario:

- With a percapita annual consumption of 11 Kilograms of edible oils, the consumption of vegetable oils in India works out to be **12.1 Million Tonnes** per year.
- India is one of the largest importers of vegetable oils in the world with the import dependency in the tune of 32-38%.
- The government of India has selectively formulated the Base import prices and the Import duties to promote the imports of crude oil to protect the domestic refineries in India.
- Indian edible oil imports are in the range of 4.3 to 5.1 Million tonnes over the period of 1998/99 to 2004/05.
- Government's policies likely to support the imports of crude over refined oils

Imports of vegetable oils (Thousand tonnes)

	Crude Vegetable Oil							Subtotal (A)
	Palm Oil	Crude Olein	Sunflower Oil	Soybean Oil (degummed)	Rape Oil	CotSeed Oil	Coconut Oil	
1998-99	0.00	0.00	545.01	626.76	171.95	32.21	4.00	1379.93
1999-00	828.36	0.00	573.79	687.38	100.57	64.06	1.70	2255.86
2000-01	1404.72	32.88	387.76	1414.94	35.97	31.45	2.40	3310.12
2001-02	1891.54	920.02	2.80	1475.53	10.40	0.00	2.50	4302.79
2002-03	2151.29	1261.57	94.60	1167.72	5.54	0.00	7.70	4688.43
2003-04	2059.58	491.94	75.82	890.70	0.00	0.00	2.03	3520.07
2004-05	2369.57	186.68	5.02	2001.75	0.00	0.00	7.29	4570.31
2005-06	527.37	14.74	72.34	359.91	0.00	0.00	2.00	976.36

	Refined Oil					
	RBD Palmolein	Sunflower Oil	Rapeseed Oil	Soy oil	Subtotal (B)	Total (A+B)
1998-99	2676.71	7.50	82.66	246.62	3013.50	4393.42
1999-00	2213.78	0.00	6.32	19.00	2239.10	4494.95
2000-01	1516.69	0.00	0.00	7.00	1523.69	4833.81
2001-02	118.90	0.00	0.00	3.50	122.39	4425.18
2002-03	319.38	0.00	0.00	28.99	348.37	5114.45
2003-04	796.85	0.00	0.00	15.32	812.17	4396.59
2004-05	422.74	0.00	0.00	25.00	447.74	5041.61
2005-06	57.89	0.00	0.00	2.20	60.08	1045.94

GM foods – Vegetable oils:

- GMO (genetically modified organisms) are those whose genes are manipulated to make a bigger and a better product. GM foods are those in which GMO are used.
- Due to the recent advancement in the technology, the soy beans are genetically modified for higher protein content and the soy beans grown in the Argentina and Brazil are mostly GM soy beans.
- Most of the Soy oil imported into India is crushed from GM soy beans.
- If the government's move were to be implemented, most of the edible oils sold in retail and the foods in which the imported GM oil is used are to be labeled. This may deter the consumers from the use of these foods/oils thus enhancing the demand for the domestic vegetable oils.

The recent rally in most of the vegetable oils was primarily in anticipation of higher demand for the edible oils crushed and refined in India.

Oil year 2005-2006 - A Glimpse

COOIT'S ESTIMATES OF PRODUCTION AND MARKETABLE SURPLUS OF OILSEEDS AND AVAILABILITY OF VEGETABLE OILS DURING OIL YEAR 2005-2006

(In Lakh Tonnes)

		2005-2006					2004-2005				
		Marketable Surplus				Marketable Surplus					
Oil seeds/ S.E. Oils	Oil Recovery %	Oil Seed Production	Kharif	Rabi	Total Marketable Surplus	Total Oil Availability	Oil Seed Production	Kharif	Rabi	Total Marketable Surplus	Total Oil Availability
OILSEEDS											
Groundnut (inshell)	40	64.5	16.2	10	26.2	10.5	60.7	16.7	8.3	25	10
Soybean	17	65.0	57.5	--	57.5	9.8	58.5	51	--	51	8.7
Rape/Mustard	33	70.2	2.5	66.2	68.7	22.7	66	1.5	63	64.5	21.3
Sunflower	35	16.2	5.5	10.6	16.1	5.6	15.8	4.9	10.9	15.8	5.5
Sesame	45	6.0	1.0	1.8	2.8	1.3	7.2	1.7	2.5	4.2	1.9
Castor	42	9.1	9.1	--	9.1	3.8	8	8	--	8	3.4
Niger	30	1.1	0.7	--	0.7	0.2	1.5	1.2	--	1.2	0.4
Safflower	30	2.1	--	2.1	2.1	0.6	2.1	--	2.1	2.1	0.6
Linseed	43	2.0	--	2	2	0.9	2	--	2	2	0.9

SUB TOTAL		236.2	92.5	92.7	185.2	55.4	221.8	85	88.8	173.8	52.7
OTHER OILSEEDS											
Cottonseed	11	84.9	70.4	--	70.4	7.7	79.9	65.9	--	65.9	7.2
Copra	65	6.5	6.5	--	6.5	4.2	6.5	6.5	--	6.5	4.2
SUB TOTAL		91.4	76.9	--	76.9	11.9	86.4	72.4	--	72.4	11.4
SECONDARY SOURCE											
Rice Bran	15	--	--	--	--	7.3	--	--	--	--	6.8
Rapeseed Cake	9	--	--	--	--	1.5	--	--	--	--	1.5
Sunflowerseed Cake	12	--	--	--	--	0.8	--	--	--	--	0.8
Groundnut Cake	7	--	--	--	--	1	--	--	--	--	0.8
Cottonseed & Others	7	--	--	--	--	0.8	--	--	--	--	0.7
Minor Oilseeds	--	--	--	--	--	0.8	--	--	--	--	0.8
Local Palm Oil	--	--	--	--	--	0.5	--	--	--	--	0.4
SUB TOTAL		--	--	--	--	12.7	--	--	--	--	11.8
GRAND TOTAL		327.6	169.4	92.7	262.1	80	308.2	157.4	88.8	246.2	75.9

The availability of vegetable oils from domestic sources for the oil year 2005-2006 is pegged at 8.0 Million tonnes up by 4.1 million tonnes from the last year.

Vegetable Oils Balance Sheet 2005-2006

(In Million tonnes)

2005-2006				
		Scenario 1	Scenario 2	Scenario 3
	Supply	Demand	Demand	Demand
Consumption		11.3	11.9	12.1
Production	8			
Imports (Till Feb 06)	1.04			
Beginning stock	0.38			
Total Supply	9.42			
Short fall		1.88	2.48	2.68

With a production of 8 Million Tonnes and carry over stock of 0.38 Million Tonnes India has imported 1.04 Million tonnes of Edible oils till February 2006.

Scenario 1:

The consumption of edible oils last year was 11.3 Million tonnes and if consumption remains the same. The short fall in the edible oils works out to be 1.88 Million tonnes which has to be met entirely by imports (GM oils)

Scenario 2:

Time series analysis of the consumption projects the consumption of vegetable oils to be 11.9 Million tonnes which puts the short fall in the edible oils to be 2.48 Million tonnes which has to be met by imports (GM oils)

Scenario 3:

With a percapita consumption of edible oils at 12 Kgs per year and the population of India at 110 crores, the consumption projects the consumption of vegetable oils to be 12.1 Million tonnes which puts the short fall in the edible oils to be 2.68 Million tonnes which has to be met by imports (GM oils)

Putting things in Perspective

- ❖ In any of these scenarios we are looking at a short fall in the range of 1.88 to 2.68 million tonnes which has to be met by the way of imports of GM oils from the South American countries. Labeling of these oils and foods manufactured using these oils will certainly shift the consumption from GM to Non GM oils thus rising the demand for the edible oils crushed and refined in India.
- ❖ We expect the prices of vegetable oils especially Soy, Mustard and Ground nut oil to rise further