



AGRI EXPORT ADVANTAGE



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RECENT TRENDS IN INDIA'S AGRICULTURAL EXPORTS

India's exports of agriculture and allied products registered a rise of 8.1% during 2004-05 to touch US\$ 7.9 bn, from that of US\$ 7.3 bn during the previous year (**Table**). During 2004-05, exports of agri and allied products accounted for 10% of India's total exports. Underlying the rise in exports of agri and allied products during 2004-05 has been the sharp export growth registered by rice (63%), pulses (72%), tobacco (16%), nuts and seeds (22%), guar gum meal (32%), castor oil (60%), and poultry and dairy products (65%). As a result, the share of these items in total agri and allied products exports have registered a rise during 2004-05, with the share of rice exports having risen from 12.4% in 2003-04 to 18.7% in 2004-05 thereby emerging as the largest contributor to agri and allied products exports. In contrast, exports of coffee, wheat, oil meals, sugar and molasses, fresh fruits and vegetables, processed and miscellaneous processed items, and marine products, registered declines during 2004-05, with wheat and sugar and molasses exports exhibiting sharp decline during the year.

During the last three years, 2002-03 to 2004-05, the average annual growth of India's agri and allied products exports at 10.4% was much lower as compared to the 21.8% average annual growth for India's total exports. As a result, the share of agri and allied products in India's total exports has witnessed a decline; from 12.7% in 2002-03 to 11.5% in 2003-04, and further to 10% in 2004-05. Continued decline in marine products exports, which constitute a major exports item, has contributed to the declining share of agri products in overall exports.

As regards destinations for India's agri exports, exports to countries such as Bangladesh, Saudi Arabia, UAE, UK, Netherlands, Germany and China have witnessed a rise during 2002-03 to 2004-05, with resultant increased share in India's agri exports. However, exports to important markets such as the US, Japan and Malaysia have registered contraction during the same period. For instance, the share of the US in India's agri exports has declined from 14.2% in 2002-03 to 11.7% in 2004-05, while the share of Japan has also declined from 6.5% to 5.2% during the same period.

With a view to give a boost to India's agri and allied products exports, in light of the strength India possesses in the sector, the Foreign Trade Policy 2004-09 announced by the Government of India in August 2004, has laid special emphasis on the sector. The Foreign Trade Policy 2004-09, and Annual Supplement 2005, has announced a new scheme called *Vishesh Krishi Upaj Yojana* to boost exports of fruits, vegetables, flowers, minor forest produce and their value added products, as also exports of poultry and dairy products.

Towards this end, Exim Bank's recent study titled '*Fresh Fruits, Vegetables and Dairy Products: India's Potential for Exports to Other Asian Countries*' has observed that export potential of fresh fruits, vegetables and dairy sector in India is not fully tapped considering the size and diversity of these sectors. The study is of the view that it is time to bring in paradigm shift so that the future development in these sectors brings in better balance between production and other sub-systems.



Exports of Agri & allied products

(US\$ mn)

	2003-2004	% growth	% share	2004-2005(p)	% growth	% share
Agri & Allied Products	7328.1	9.4	100.0	7922.9	8.1	100.0
Tea	356.3	4.4	4.9	397.1	11.4	5.0
Coffee	236.3	15.1	3.2	224.3	-5.1	2.8
Rice	907.0	-24.7	12.4	1478.2	63.0	18.7
Wheat	520.4	43.1	7.1	322.3	-38.1	4.1
Pulses	71.5	0.3	1.0	123.3	72.4	1.6
Tobacco	238.6	12.9	3.3	277.5	16.3	3.5
Spices	336.1	-1.8	4.6	399.3	18.8	5.0
Nuts & seeds	653.6	17.6	8.9	795.2	21.7	10.0
Oilmeals	728.7	137.1	9.9	690.1	-5.3	8.7
Guargum meal	110.5	9.9	1.5	146.0	32.1	1.8
Castor oil	142.8	13.3	1.9	228.9	60.3	2.9
Sugar & molasses	269.0	-28.3	3.7	33.2	-87.7	0.4
Fresh fruits & vegetables	378.2	67.9	5.2	361.7	-4.4	4.6
Processed & misc.processed items	368.5	2.4	5.0	344.2	-6.6	4.3
Meat & preparations	373.1	31.1	5.1	386.0	3.5	4.9
Poultry & dairy products	90.4	22.0	1.2	149.2	65.2	1.9
Marine products	1328.7	-7.2	18.1	1267.5	-4.6	16.0
Others	218.3	82.6	3.0	298.9	36.9	3.8

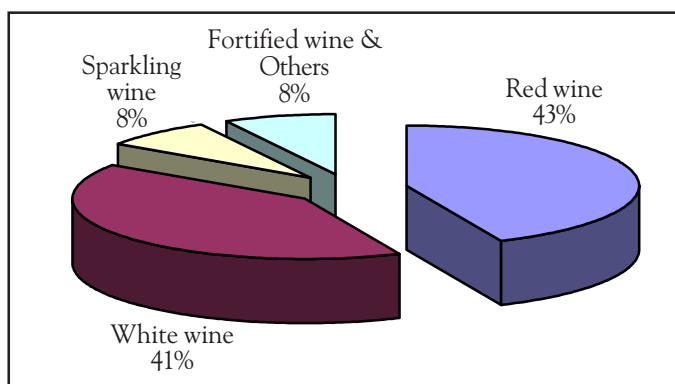
Source: Ministry of Commerce and Industry
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WINE INDUSTRY IN MAHARASHTRA

Indian market for wines is currently very small and the Indian wine industry is in a nascent stage but with the changing lifestyles of ten million strong urban upper class (1 % of total population), increasing disposable incomes, an increasing number of professionals coming back to work in India and a growing awareness of the health benefits of wine – as well as the perception of wines as being up-market and sophisticated, the industry has great potential to grow. The total Indian wine market currently is estimated at Rs. 260 crore. The Indian wine market has grown at over 20 % (CAGR) over the period 1998-2003, while in value terms; the growth has been over 25 % in the same period. Red wine is the single largest type of wine consumed followed by white wine.

Sales of wine in India by type



Source: Rabobank estimates, Industry

In terms of price segment, cost of Indian wines varies between Rs. 200-600 per litre bottle segment, accounting for over 75% of wine consumption for both red and white wine. Wines priced above Rs. 800 per bottle accounts for a meager 4% of the market.

As far as exports are concerned, Indian wine export is in a budding stage with majority of players involved in re-exports and bulk exports, mostly to United Kingdom, Germany, Belgium and few other European countries. According to the wine makers from France, California and Australia, Indian wines are comparable to any international wines and with proper marketing efforts can create a niche market for itself.

Consumption trends

The concept of wine drinking is very new to India and yet to catch pace because of the associated taboos on drinking of alcoholic beverages in Indian culture.

Wine is mainly consumed in urban India, mostly in the large metros. The consumption of wines in India recorded a spiffy 14% growth in 2003-04 to reach 490,000 - litre cases against 430,000 cases the previous year. Mumbai accounts for approximately 40% of the country's wine sales followed by Delhi with 15 %, Goa with 8 % and Bangalore with 6 %. It is expected that wine consumption in India will grow 10-fold to reach about 5 million cases in ten years.

Good indication of changing trends and growth of the industry is evident from the fact that today serving wines at small dinners and private parties in the metros and satellite cities has become a part of the etiquette; a significant change from few years ago when a wine bottle was opened only on special occasions. Other signs of changes are the emergence of Wine Clubs in a number of cities such as Delhi having two wine clubs, Bangalore, Chandigarh and Hyderabad. The number of wines on offer to consumers has also undergone a sea change. Today there are over 200 wine labels available in Mumbai retail shelves, up from a mere 30 varieties just two years ago. Not only have the number of imported wines increased exponentially, the Indian producers, too, have introduced a number of new labels and wine styles.

INDIAN WINE MARKET - VOLUMES 2003-04

Segment	VOLUMES 2003-04 (000 cases)			RETAIL VALUE	
	Domestic	Imports*	TOTAL	Rs. Crs.	Rs/btl
Sparkling wines	9	6	25	16.2	546
Still wines - premium	147	62	209	92.5	369
Still wines - cheap	254		254	33.5	110
Fortified wines	1	2	3	1.00	114
Total	421	69	490	143.2	244

* Estimate

Source: www.indianwine.com

Maharashtra Wineries

Recently, Maharashtra has become the wine hub of India by virtue of the country's two biggest grape-producing

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districts, Nasik and Sangli being located here. Together the two districts constitute 20,000 hectares of vineyards and grows more than one lakh tons of grapes a year. Apart from these, grapes are also grown in the districts of Ahmednagar, Pune, Satara, Solapur & Osmanabad, districts of Maharashtra. As much as 99% of the grapes is used for making honey, crushes and jams, or consumed as fresh or dry. The rest is used for making wine. Hence, the opportunity in this sector is immense given proper boost and guidance, this sector can create more employment opportunities and can spawn more export earnings.

One of the other reasons why wine has not caught on in India is that quality wines are priced relatively high. Since the volumes are low, production costs are high and so are the taxes. Further to that, wine drinkers in India and around the world are not very comfortable with the 'Made in India' tag. These pose a real challenge for the Indian wine makers to develop a steady market both in the domestic as well as the international market.

Apart from the strict regulations put in by Government of India for setting up of liquor and wine bars, other prohibiting factors to the Indian wine industry is the domestic excise policy of 140%-250% duty slab on each bottle, unrealistic license fee, additional sales tax on country made liquors and wines and high packaging costs involving imports of glass bottles, cork, foils and labels. However, realizing its potential, Government of Maharashtra announced a visionary Grape Policy in 2001. The salient features of the policy are:

- Declaration of Grape Wine Industry as a small scale industry
- Licensing procedure for new units simplified.
- Units will have status of 'Food processing Industry'.
- Single Window clearance facility.
- 100% exemption from excise duty for 10 years.
- Relief in Sales Tax levels.

- Grant of subsidy in production duty.
- To permit sale of wine in beer bar and wine bar.
- To encourage tourist permission to visit wine production units.

Besides, to encourage value addition on grapes, a Grape Board is proposed to be set up for quality control, certification and export promotion. Considering a long term and sustainable growth strategy for the industry, setting up of a state-of-the-art Wine Institute is also envisaged, in order to ensure maintenance of international quality in wines and provide trained manpower.

To give these government initiatives a tangible shape Maharashtra Industrial Development Corporation (MIDC) has set up two wine parks with internationally comparable infrastructure - one each at Vinchur near Nashik and Palus near Sangli. Apart from their close proximity with the industrial cities such as Pune, Mumbai and Ahmedabad other salient features of these parks are high quality of roads, water supply, power and telecom facilities, effluent treatment plants set up on Build Own and Operate (BOO) basis, mother winery unit in the premises, provision for Farmers Training Institute, banks, Post Office, etc. in the park premises. Other incentives extended by the MIDC includes number of tax holidays such as, no excise duty, sales tax applicable at the rate of 4% same as that of agriculture produce, refund of octroi available to all units for a period of 7 years or the 100% value of the total fixed investment whichever is lower in 'C' zone, special capital incentive at rate of 20% of fixed capital investment with monetary ceiling of Rs. 10 Lakh for SSI unit in 'C' zone and 100% exemption on electricity duty to all new units for a period of 15 years.

Reference:

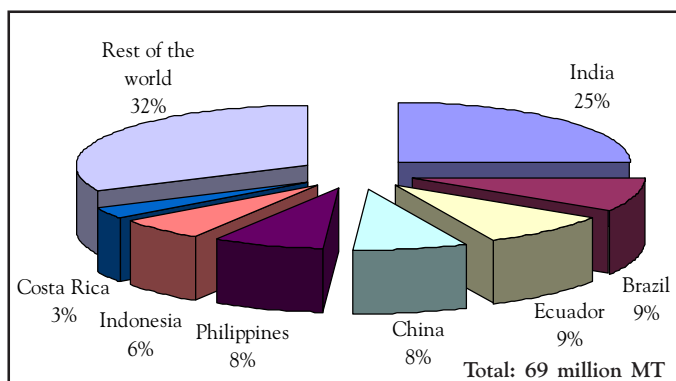
- Government of Maharashtra's Grapes Processing Industry Policy 2001
- www.indianwine.com
- Field visit

BANANA: EXPORT POTENTIAL FROM INDIA

Current world banana production is of the order 69 million MT of which India's contribution is around 16.8 million MT. India is the largest producer followed by Brazil (6.6 million MT), Philippines (5.5 million MT), Indonesia (4.4 million MT), China (1.9 million MT) and Australia (1.8 million MT). India also occupies the largest area under banana in the world covering around 11 %.

Maharashtra is the highest producer of banana in the country followed by Tamil Nadu, Gujarat, Karnataka, Assam, Andhra Pradesh and Madhya Pradesh. Banana varieties mainly grown in India are Dwarf, Cavendish, Bhusaval Keli, Basrai, Poovan, Harichhal, Nendran, Safed velchi etc.

Distribution of the world production average on the 1999-2003 period



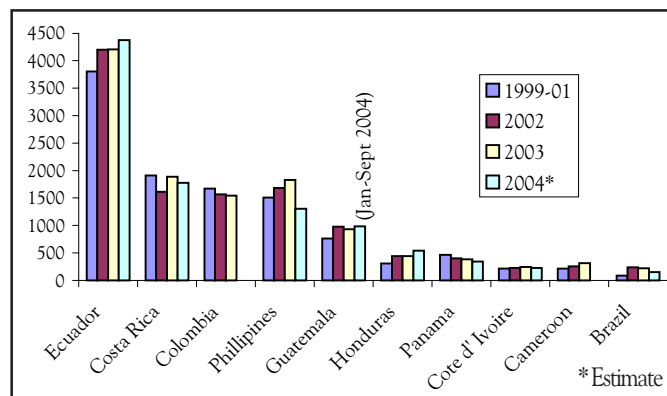
Source : FAO

The domestic supply of banana in India in 2002 was of the order of 16.44 million MT, which was 99.9 % of the total production during that year and after accounting for wastage of 20%, the total domestic supply of banana was 13.1 million MT, indicating a large post harvest loss.

Global Banana Market

The international banana market has been extremely influenced by the developments of the EU Banana Regime and the following dispute and agreement at the WTO. Global exports rose by 48% from an annual average of 7.8 million MT in 1988-90 to 11.7 million MT in 1998-2001. The exports are dominated by Ecuador, being the largest exporter, followed by Philippines, Costa Rica, Guatemala, Brazil and few other Latin American and Caribbean countries.

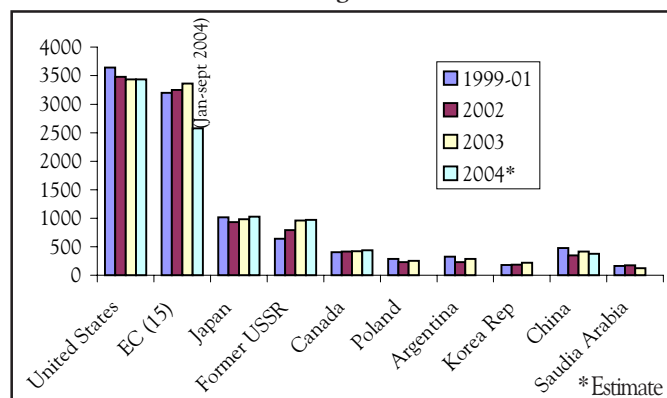
Distribution of the world banana average exports during 2004



Source : FAO

World banana imports is dominated by United States, Canada, Japan, Former USSR, Middle East and the new Accession Countries of the European Community (EC). World imports of banana are projected to rise to about 14.3 million MT by 2010, depending on the regime adopted by the EC in 2006 when there expected a transition from a banana import system based on tariff quotas to a tariff-only system.

Distribution of the world banana average imports during 2004



Source FAO

World banana prices recovered in 2004 due to number of factors, key being the increased demand in the northern hemisphere because of cool weather and reduced competition from summer fruits in the wake of lower local harvests, rise in cost of sea transportation resulting in increase in import prices and joining of ten new countries in EU in May 2004 and their banana imports being subjected to EU's tariff-quota system.

The current banana price trend in the leading import markets is given below.

Current Import Prices (average) in the Global Market

Import Prices (Average)	1999-01	2002	2003	2004
National Currency /kg				
France (Euro)	0.55	0.53	0.50	0.53
Germany (Euro)	0.78	0.85	0.75	0.85
United States (US cents)	47.73	52.85	37.48	52.49
Japan (Yen)	54.79	68.13	62.38	61.09

Source : FAO

Despite the fact, that Indian banana accounts for 15% of the total world output and occupies the first place in production in the world, it has negligible share in world exports.

Banana- Value of Exports (2003)

Country	Value (1000\$)
Ecuador	1,084,169
Belgium	746,056
Costa Rica	554,250
Colombia	389,648
Philippines	333,000
Guatemala	209,982
United States of America	199,763
Honduras	159,972
Germany	151,371
Panama	105,192
India	2,517

Source : FAO

Key reasons for negligible export of banana from India are lack of commercially viable varieties of banana, non-availability of on-farm packing house, pre-cooling and cold storage facilities, improper pre-harvest practices and post-harvest handling, improper market research, improper quarantine measures followed and inefficient marketing. Maintenance of quality and appearance assumes utmost importance in the export of the banana fruit as it is easily damaged in transit and at farm level too. Considering the rising international banana market and varietal specifications involved in its international

trade, India to make a mark has to develop a range of highly tolerant, resistant banana and banana products, competitive both in the domestic and international markets. The success of Indian banana industry lies in creation of optimum on-farm and post harvest infrastructure, development of highly efficient fruit and product supply chains, producing disease free fruit, flow of effective and timely market information, adoption of organic fruit production, implementation of biotechnology, efficient market development and following effectively all quarantine issues.

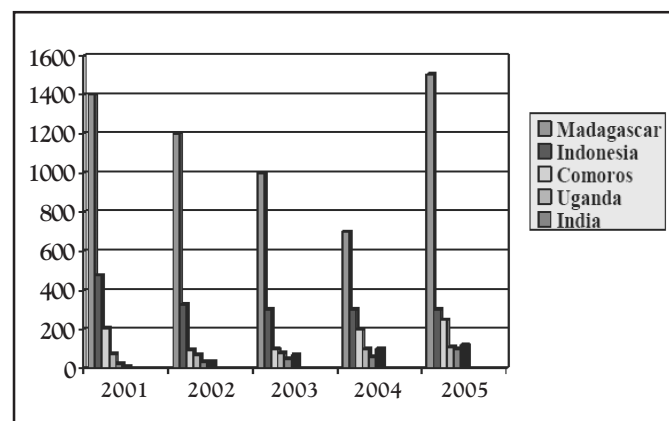
Reference:

- Seminar proceedings: "Global Conference on Challenges and Opportunities in Globalizing Banana", Mumbai
- FAO

VANILLA EXPORTS: WHERE INDIA STANDS

The international vanilla market is characterized by its extreme volatility. Three features dictate the international vanilla market, viz., highly speculative cycles, raw material quality and competition from synthetic vanillin. Prices can fluctuate enormously over a period of few months. The world production was of the order of 5,400MT in 2004. The production has been increasing rather heavily in recent years with an average annual growth at 4 % over a 10-year period.

Projected Vanilla Production by Main Exporting Countries



Source: Vanilla Congress 2003

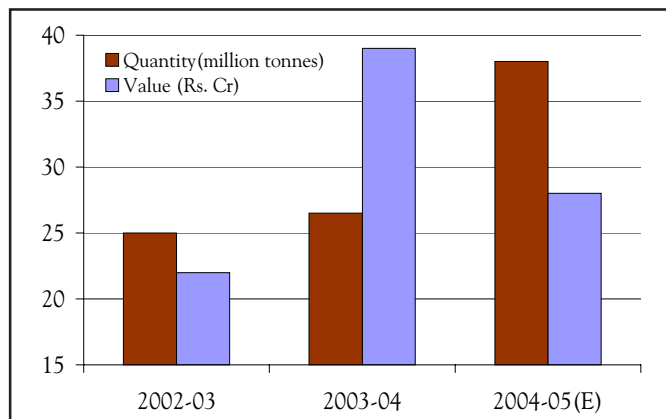
Increase in production without corresponding growth in demand has pushed cured vanilla prices in the

international market down to US\$ 35 a kg from over US\$ 500 a kg two years ago. The prices of cured beans of vanilla are conventionally administered by Madagascar, the largest producers and suppliers. Shooting prices during 2003-04 was due to the shortage of supply from Madagascar, owing to their political instability and crop failure as a result of repeated cyclones.

High prices in the recent years have enthused farmers in countries such as Uganda, Papua New Guinea, India, Costa Rica, China and Colombia to take up vanilla cultivation. The current fall of prices can be attributed to the recovery of the Madagascar crop, introduction of new entrants in the market and shift in demand to alternate products such as synthetic vanillin and natural identical vanillin as a result of skyrocketing prices of natural vanillin. Although vanilla extract from beans is still used by the food industry, this accounts for less than 1 % of vanillin production. Remaining 99% is obtained synthetically. While the cost of synthetic vanillin is US\$15 a kg, natural vanillin is available at over US\$ 80, depending upon the extracts, as per market sources. The current depression in the world vanilla market will continue to prevail until companies who shifted to alternate products revert to using natural vanillin from beans. Traders expect the vanilla price to settle down at US\$ 60-70 per kg by 2007-08.

India entered the international vanilla market during a crisis due to shortage of supply from Madagascar and resulting price rise. Indian vanilla, according to industrial sources is at par with Madagascar Bourbon vanilla in terms of vanillin content and quality, which made importers source vanilla beans from India in order to meet the demand of natural vanillin. In 2003-04, India exported 26 MT of cured vanilla beans at Rs. 36.06 crore (US\$ 8 million) registering a phenomenal annual average growth rate of 92 % between 1999-2003. According to latest estimates by Spices Board, vanilla exports from India have posted a 90% increase in quantity and a higher average price than Madagascar at US\$ 47.30 a kg of cured beans during last fiscal. India came into the market with a small production last year at about 50 MT only. Currently India has 100MT of cured beans to offer to the international vanilla market.

Vanilla Exports Trend from India



Source: Spices Board

Since the last season Indian growers has been fetching Rs. 900 (US\$ 20) per kg of cured vanilla beans and on an average of Rs. 250 –275 (US\$ 5.5-6) for a kg of green beans. As per industry sources, currently, Indian vanilla is enjoying fairly good demand in the US, France, Germany, Netherlands, UK and Japan. Considering the export potential, Spices Board has been encouraging vanilla cultivation as an intercrop to coconut, arecanut, coffee, cardamom and other spices in the states of Tamil Nadu, Karnataka and Kerala and also intends to provide support facilities for the expansion of area under the cultivation of vanilla, as an intercrop, to the states of Andhra Pradesh, Maharashtra, Madhya Pradesh, Orissa, West Bengal, Andamans and North Eastern States. Vanilla cultivation has become a major activity for farmers in Karnataka particularly in its five districts namely Shimoga, Uttara Kannada, Dakshina Kannada, Udupi and Chikmagalur, which have been declared as the Agri-Export Zone (AEZ) for vanilla by Government of India.

Under the current prices and costs and with the recent initiative taken up by the Spices Board of branding Indian vanilla through the new brand of spices called 'Flavourit', Spices Board sources claims that vanilla cultivation is profitable even at Rs. 150 a kg of vanilla green beans.

References:

- Spices Board
- FAO

MAXIMUM RESIDUAL LIMITS (MRLs) FOR SELECT FRUITS AND VEGETABLES FOR EU

Maximum Residual Limits (MRLs) are the maximum allowed concentrations of pesticide residues in food products such as fruits, vegetables, processed foods etc. In the European Union, legislation has been laid down regulating the presence of pesticide residues in food products by setting MRLs. This is an on-going programme of setting MRLs for pesticides that are used in the member states of the European Union. The pesticides banned under MRLs in EU, is not necessarily banned in other countries such as DDT.

In general, the levels of the MRLs are fixed on the basis of Good Agricultural Practice (GAP). The levels are specific for crop-pesticide combinations; which means that the MRL of a certain pesticide on apple can differ from the MRL of that same pesticide on papaya. Besides the level determined on the basis of GAP, the toxicology of the substance and its effect on human health are also taken into account based on scientific data.

In cases where experimental data are not available, the MRLs are automatically fixed by default at the detection limit (LOD). This is the lowest level that can be measured in laboratory tests. When the information regarding such MRLs are available after GAP or residual trails, these MRLs are reconsidered. When the MRL equals the LOD, and they are not based on the levels that can be achieved when farming according to GAP, it might be very difficult to comply with these standards. These are often the case for products from developing countries where there are no required experimental data. Such cases can be understood by following case of pineapple of Ghana:

Example: Pineapple & Ethophon

In July 2001, the EU had set the MRL for Ethophon (pesticide) on the limit of detection, of 0.5 mg/kg. In the same month, the Italian government inspectors found a more of the MRLs for ethophon in pineapples from Ghana. In pineapple, most MRLs in the EU are fixed at the LOD (the detection limit), which is often difficult to comply with, if that specific pesticide is used in production. This incident led to the phasing out of the use of ethophon in Ghana, which solved the problem. Whereas, the EU raised the MRL on request of pineapple producers of Ivory Coast to a level of 2 mg/kg, which equals the level set in Codex Alimentarius MRLs.

The pineapple example also shows that some MRLs are fixed at very low levels in the European Union, sometimes even stricter than those of Codex Alimentarius. Hence, the Indian exporters of fruits, vegetables and other food products to EU should be well aware about the latest MRLs for their products. The existing EU legislation regarding MRLs are laid down in the following directives and amendments:

- Directive 76/895/EEC establishing MRLs for selected fruits and vegetables.
- Directive 86/362/EEC establishing MRLs for cereals and cereal products.
- Directive 86/363/EEC establishing MRLs in products of animal origin.
- Directive 90/642/EEC establishing MRLs in products of plant origin, including fruits and vegetables.

This European legislation on MRLs is amended almost every year to bring it into line with the current status of scientific knowledge. Once, EU MRLs have been set, they are published in the Official Journal of the EU. Member States have to incorporate these harmonised MRLs in national legislation within a year. These information on MRLs are available online at the following web-link:

http://europa.eu.int/comm/food/plant/protection/pesticides/index_en.htm

MRLs for select residues for few fruits and vegetables are given below in the Table (updated as on November 2004):

*“*Maximum residue levels (MRLs) and Limit of Determination (LOD) are expressed in milligrams of residue per kilogramme of food (mg/kg).”*

RESIDUE	APPLES		GRAPES		MANGOES		BROCCOLI		GHERKINS	
	MRL	LOD	MRL	LOD	MRL	LOD	MRL	LOD	MRL	LOD
Bentazone	0.10	0.10	0.10	0.10	0.10	0.10	0.1	0.1	0.10	0.10
Bitertanol	2.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.50	0.05
Captan	3.00		0.10		0.10				0.10	
Carbendazim	2.00	0.10	5.00	0.10	0.10	0.10	0.1	0.1	0.10	0.10
Chlorothalonil	1.00	0.01	0.01	0.01	0.01	0.01	3	0.01	5.00	0.01
DDT	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Diphenylamine	5.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Endosulfan	0.30	0.05	0.50	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Ethephon	3.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Iprodione	10.00	0.02	0.02	0.02	0.02	0.02	0.05	0.02	2.00	0.02
Lindane	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Malathion	0.50		2.00		0.50				3.00	
Maneb	3.00	0.05	5.00	0.05	0.05	0.05	1	0.05	2.00	0.05
Parathion	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Phosphamidon	0.15		0.15		0.15				0.15	
Pyrethrins	1.00		1.00		1.00				1.00	
Thiabendazole	5.00	0.05	5.00	0.05	5.00	0.05	5	0.05	0.05	0.05
Thiram	3.00		3.00		3.00				3.00	
Triforine	2.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.50	0.05

Reference:

http://europa.eu.int/comm/food/plant/protection/pesticides/index_en.htm

“GREEN GOLD” OF INDIA: BAMBOO

Bamboo, a perennial woody grass with sizes ranging from miniature to giant culms over 60 metres, is also termed as “Green Gold”, due to great potential to create employment and export earning. Though India has second largest reserve of Bamboo (after China), it is perceived that, its potential has not been utilized at full extent. The size of Indian bamboo is estimated to be USD 1 billion, as compared to US\$ 5 billion of China. India's share is estimated to reach at US\$ 5.7 billion in 2015.

It has been estimated that the combined value of internal and commercial consumption of bamboo in the world is to the tune of US\$ 10 billion (approximately Rs. 50,000 crore), which is expected to reach about US\$ 20 billion by 2015. Considering the size of bamboo economy in world and domestic bamboo resources, India can really extract better value through value addition.

Considered as poor men's timber, majority portion of bamboo produced in India is either used in household

activities or paper industry. The uses of bamboo in value added products, such as mat, flooring, furniture, craft items, fibre, cloths, agarbatti sticks etc, having prospective export markets, are still at nascent stage. Most of these products are made by cottage industries, which itself run in many constraints such as low level of mechanization, lack of technical skills, lack of marketing skills etc.

In India, bamboo is largely grown in the North-Eastern states, Orissa, Bengal, Bihar, Madhya Pradesh, Maharashtra, Karnataka, Tamil Nadu, Kerala, Goa and Uttar Pradesh. According to the Forest Survey of India Report, the total forest area under bamboo is 8.96 million hectare, which is about 12.8% of total Forest area. Despite a huge area under bamboo, supply of quality bamboo shoots is not adequate. Production of bamboo is still undertaken as unorganized or forestry plants. The current low-level uses of bamboo are due to several factors such as location of bamboo based industries away from bamboo

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growing areas, use of whole bamboo where only parts are needed resulting in waste as the hard portion could have been put to better use for making bamboo boards, lack of technology for use of inferior quality bamboo, and lack of use of species for the purpose for which it is best suited for value addition.



The current demand for bamboo for various purposes is estimated at 26.69 million tons as against the supply of 13.47 million tons. The current supply is largely used for subsistence purposes in food, shelter, foot bridges, fencing and industrial activities.

With the recent efforts by “National Mission on Bamboo Applications, Department of Science & Technology, Govt. of India”, to promote bamboo cultivation and trade, researches on bamboo and its various applications are undertaken by various research institutes such as IIT-Delhi, IIT-Mumbai. Bamboo fibre clothes and saris are fast catching the fancy in domestic and international markets. Efforts are also on to declare bamboo as a horticultural crop and promote cultivation of edible bamboo varieties and bamboo shoots as a food delicacy.

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INTERNATIONAL TRADE IN GMOs AND GM PRODUCTS

Biotechnology is a technology, which offers the power to change the characteristics of living organisms by transferring the genetic information from one organism, across species boundaries, into another organism. These solutions continue the tradition of selection and improvement of cultivated crops and livestock developed over the centuries. However, biotechnology identifies desirable traits more quickly and accurately than conventional plant and livestock breeding and allows gene transfers, impossible with traditional breeding. The use of biotechnology in sectors such as agriculture and medicine has produced a growing number of genetically modified organisms (GMOs) and products derived from them. A GMO can be defined as “an organism, with the exception of human beings, in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination.

Biotechnology offers significant opportunities for agriculture and farmers. At present, the perceived benefits of genetically modified crops are better weed and insect control, higher productivity and flexible crop management. The “first generation” GM crops are mainly benefiting the producers who can obtain higher yields at lower cost. The long-term benefits would be more sustainable agriculture and better food security that would benefit everybody, and especially the developing countries. Scientists have developed genetically altered rice – called golden rice – to combat vitamin A deficiency, the world’s leading cause of blindness. There

are a number of examples of food products that are being developed to act as edible vaccines and have raised hopes of solving many of the problems associated with the delivery of safe, effective vaccines in developing countries. A shift is, therefore, occurring from the current generation of “agronomic” traits to the next generation of “quality” traits, from which consumers, more than producers, would be able to benefit.

International Trade

According to statistics from the International Service for the Acquisition of Agri-biotech Applications (ISAAA), the global area of GM crop plantation has grown 47 times since 1996, and the estimated global GM crop area in 2004 was 81 million hectares, cultivated by approximately 8.25 million farmers in 17 countries. Herbicide-tolerant soybean was the dominant transgenic crop, followed by Bt maize, Bt cotton, and herbicide-tolerant canola. 14 countries were having 50,000 hectares or more lands under cultivation for biotech crops. The eight leading biotech crop countries are the US, representing 59 per cent of global transgenic crop area; Argentina, 20 per cent; Canada and Brazil, 6 per cent each; China, 5 per cent; Paraguay, 2 per cent; and India and South Africa, 1 per cent each. Plantings were also found in Uruguay, Australia, Romania, Mexico, Spain, the Philippines, Honduras, Colombia, and Germany. More than one-third of the global transgenic crop area in 2004 was grown in developing countries.

In 2004, 56 per cent of soybean, 28 per cent of cotton, 19 per cent of canola and 14 per cent of maize planted globally were transgenic. If the global areas (conventional and transgenic) of the four principal GM crops are aggregated, the total area is 284 million hectares of which 29 per cent was biotech in 2004. In 2004, the global market value of GM crops was \$4.70 billion. The market value is based on the sale price of transgenic seed plus any technology fees that apply.

The Challenge

While GM crops may offer great benefits to agriculture, farmers and consumers, in particular to poor people in developing countries, biotechnology does not come without risks and uncertainty. There are many fears linked to perceived threats of biotechnology to health of human, animal and plant life, to the conservation of biodiversity and to the environment at large. Although there is not yet any definite scientific evidence of harm to humans, animals or the environment, it is submitted by many that adverse effects may be revealed in the future by more extensive research. The fear is that GMOs may change the toxicity and allergenicity of food, thus fostering allergic reactions or altering antibiotic resistance. A major environmental concern relates to potential consequences of gene flow from GM to non-GM individuals of the same species and to the possibility of unpredictable crosses with other species. Some claim that crops modified to be tolerant to herbicides could foster the development of “super weeds”. GMOs could threaten the world’s biological diversity and lead to excessive dependence on few crop varieties, thereby increasing the vulnerability of crops to diseases. There is also an apprehension that, due to biotechnology, large numbers of patents would be given, which may make the cultivation of crops very expensive for poor farmers, leading to food security problems.

Regulatory Status

Considering the importance and various perceived impacts of biotechnology, each country has been

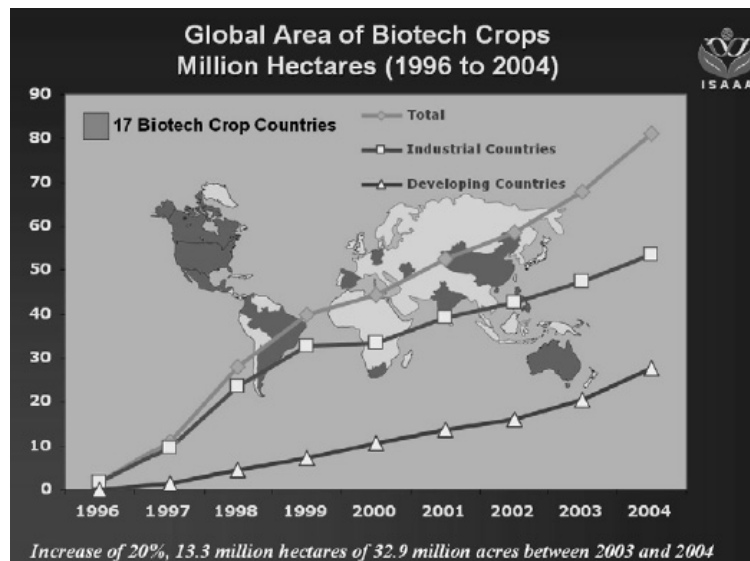
implementing adequate legislation and framework, based on the risk assessment and perception of benefits in future. Assessments of the risks and benefits related to agro-biotechnology vary substantially between countries and regions, and so do the regulatory approaches such as rules on GM approval, marketing, import, labeling and documentation. When GM products are commercialized internationally, as has been the case since the second half of the 1990s, the diverging domestic requirements may hamper international trade in agro-biotechnology products and further complicate an already difficult regulatory trade system in the agricultural sector.

The United States, Canada and Argentina, major agricultural exporters, have substantially applied the conventional risk assessment approach, especially during the first years of the agro-biotechnology revolution, and

have widely authorized most GM products for production and consumption. While, Regulators in Europe and Japan have taken up a more cautious approach based on guaranteeing a very low level of risk to human health and the environment. They have therefore imposed strict control measures on approval and marketing of GMOs and GM products.

As for the developing countries, the major GM crops approved for

commercial release are Bt cotton, which is grown commercially in China, India, South Africa, Argentina, Mexico and Colombia. The Philippines approved cultivation of Bt maize in 2002. In October 2003, Brazil authorized the planting of GM soybean until the end of 2003 and the sale of GM soybean crops until the end of 2004. In India, four varieties of Bt Cotton is approved for commercial cultivation, whereas, field trails for several GM crops are going on. Major agencies involved in approval of GM crops are The Genetic Engineering Approval Committee (GEAC) under the Department of Environment, Forests and Wildlife and The Review Committee on Genetic manipulation (RCGM) under the Department of Biotechnology.



Source:

UNCTAD Paper on “International Trade In GMOs and GM Products: National and Multilateral Legal Frameworks”

NEWS FOCUS
World Food Prize 2005 awarded to Dr. Modadugu Gupta

An Indian scientist, Dr. Modadugu V Gupta has been named winner of the \$250,000 World Food Prize for his work to enhance nutrition for over one million people, mostly very poor women, through the expansion of aquaculture and fish farming in South and Southeast Asia and Africa. The award was announced by Ambassador Kenneth M. Quinn, President of the World Food Prize Foundation on June 10, 2005.

In making the announcement, Ambassador Quinn indicated that Dr. Gupta had been selected for this honor based on his work over three decades at the World Fish Center, a member of the Consultative Group on International Agricultural Research (CGIAR) of the World Bank. The Ambassador added that Dr. Gupta developed unique methods of fish farming, requiring little cost while causing no environmental damage. As a result, landless farmers and poor women have turned a million abandoned pools, roadside ditches, seasonally flooded fields and other bodies of water into mini-factories churning out fish for food and income. Dr. Gupta is also working with a growing number of African countries to implement similar measures.

Dr. Gupta is the sixth citizen of India to receive the World Food Prize since it was established in 1986. Previous recipients were Dr. M.S. Swaminathan in 1987, Dr. Verghese Kurien in 1989, Dr. Gurdev Khush in 1996, B.R. Barwale in 1998 and Dr. Surinder K. Vasal in 2000.

The World Food Prize will be formally presented to Dr. Gupta at a ceremony on October 13, 2005 in the Iowa State Capitol Building in Des Moines. The ceremony will be held as part of the World Food Prize International Symposium, which will focus on the Twin Global Challenges of Malnutrition and Obesity and Overnutrition.

Source: www.worldfoodprize.org

China Expects Soybean Imports To Increase 45%

China is expected to import a record 24.5 million tonnes of soybeans in the 2004-05, 45% higher from the 16.9

million tonnes imported in 2003-04, according to the China National Grain and Oils Information Center (CNOGIC). China is expected to import around 12 million tonnes of soybeans from the U.S., said Cao Zhi, a senior analyst at CNOGIC.

Domestic edible oil demand, expected around 18 million tonnes in the 2004-05 marketing year, is estimated to outstrip local supply by around 4 million to 5 million tonnes, which will be largely filled by crushing imported soybeans.

Domestic soymeal demand, including feed and other usage, is expected to total 21.68 million tonnes in 2004-05, compared with an estimated total production of 24.36 million tonnes during the same period, according to CNOGIC.

Source: *The American Soybean Association Weekly Update, June 13, 2005*

FAO forecasts slight drop in cereal trade in 2005-06

World cereal trade is set to decline slightly in the 2005-06 marketing season, according to FAO's first forecast in the June 2005 issue of "Food Outlook". FAO puts global cereal trade in 2005-06 at 230 million tonnes, or 1.3% below the previous season, mainly due to lower wheat import demand.

With prospects for the 2005 global cereal crop remaining favourable, FAO now forecasts world output in 2005 at 1996 million tonnes, just 2.8 percent below the record 2004 crop. Pulse production is also expected to decline just slightly in 2005 to 61 million tonnes.

Virtually all the decline in global cereal output in 2005 is forecast for major producing and exporting developed countries. "The bulk of the decrease is expected in coarse grains production in the United States and Europe," according to the report, "where yields are expected to return closer to average after record levels last year."

Source: *Food and Agriculture Outlook (FAO) – Food Outlook, June 2005*

The news items and information published herein have been collected from various sources, which are considered to be reliable. While every care has been taken for authenticity of the material published, Exim Bank accepts no responsibility for authenticity or accuracy of such items.

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