

OIL TECHNOLOGISTS' ASSOCIATION OF INDIA

JANUARY 2013 - APRIL 2013

EASTERN REGION



FOR LIMITED CIRCULATION



CONTENTS

<i>Sl. No.</i>		<i>Page No.</i>
1.	From The Editor's Desk	1
2.	About Ourselves *(Stop Press - Obituary)	3
3.	Honey : A Functional Food : A Gift Of Nature – Dr. Pubali Dhar	4
4.	68th Annual Convention of Oil Technologists' Association of India	8
5.	Parliament News	9
6.	Book Reviws	18

ZONAL EXECUTIVE COMMITTEE MEMBERS OF OTAI (EZ) FOR 2011-2013

<i>President</i>	Dr. Ranjit Chakrabarty	2343 4124	94323 05324 (M)
<i>Vice Presidents</i>	Dr. A. K. Guha	2425 3519	
	Dr. P. K. Chowdhury	2359 1139	94330 91166 (M)
	Dr. (Mrs.) P. Sengupta	2287 2345	
	Dr. A. S. Khanna	2445 5782	
<i>Hon. Secretary</i>	Dr. (Ms.) Mahua Ghosh	2416 0138	94331 12273 (M)
<i>Hon. Jt. Secretary</i>	Sri Manoj Kumar Sinha	---	98312 60312 (M)
<i>Hon. Treasurer</i>	Sri K. N. Sarkar	---	94333 99840 (M)
<i>Members</i>	Prof. D. K. Bhattacharyya	2461 9662	
	Sri K. S. Parasuram	2423 8426	98311 32068 (M)
	Dr. J. Chakraborty	2471 3434	
	Sri J. P. Singh	2282 2708	98300 40404 (M)
	Sri K. C. Lahiri	2410 0616	
	Sri H. Lahiri	2400 0553	98304 73149 (M)
	Dr. Dulal Ch. Sen	----	----
	Sri Sudarshan Sikdar	2556 3026	94330 03026 (M)
	Sri Anup Kumar Das	2593 0470	
	Sri Sandip Das	2417 6654	98301 34594 (M)
	Sri R. S. Vaidyanathan	2381 0915	
	Sri S. K. Roy	2466 6243/2463 9721	96743 92821 (M)
	Sri Tusher Kanti Mitra	----	----
<i>Special Invitee</i>	Prof Sunit Mukherjee	2466 3024	92316 95471 (M)
<i>Imm. Past President</i>	Sri. S. K. Roy	2466 6243/2463 9721	96743 92821 (M)
<i>News Letter Editor</i>	Sri. S. K. Roy	2466 6243/2463 9721	96743 92821 (M)
<i>CEC Nominee</i>	Prof. D. K. Bhattacharyya	2461 9662	
	Sri. S. K. Roy	2466 6243/2463 9721	96743 92821 (M)
	Sri R. S. Vaidyanathan	2381 0915	

Dr. R. B. N. Prasad has taken over as President OTAI & S. K. Roy as Vice President (H.Q.)

Editorial Advisory Committee

D. K. Bhattacharyya, B. V. Mehta

R. K. Shah, M. Ghosh

Editor

S. K. Roy

For enquiries please contact : S. K. Roy, Editor

5C, Tarak Mitra Lane, Kolkata - 700 026, Ph. : 2466 6243 / 2463 9721

E-mail : esskay_roy81@rediffmail.com / es.k.roy@gmail.com

FROM THE EDITOR'S DESK

QUEST FOR HEALTHY FOOD

A growing number of farmers are not ready to consume what they sell.

They set aside a patch of land in their farms to grow the original basmati rice, with its pristine fragrance, vegetables that are unspoilt by chemical sprays, and fruits that are known for their taste, not weight and volume – but only for their own consumption. For the public, they offer the more profitable produce that is brewed in a cocktail of pesticides, weedicides and chemical fertilizers.

The quest for healthy food bereft of chemicals prompted Ashok Taneja to cultivate one acre for domestic consumption out of the 75 acres of land where he grows wheat, rice and kinnows. For his own private patch, he uses organic manure and traditional seed, “For commercial selling, I choose the latest seed, fertilizers and pesticides but for my domestic consumption I stick to traditional varieties and cow dung,” says Taneja.

For example, the Pusa 1121 basmati variety gives him two and half times higher yield of 24-25 quintal compared to the traditional ‘Pakistani’ basmati that his forefathers grew. He prefers the later for its taste and purity. He also wants to keep few of his kinnow trees pesticide and insecticide-free, “I have to spray the kinnow tree at least once a week to harvest fruits. The frequency increases if it rains. This was not the case earlier,” said Taneja who is looking for a farmer who can guide him to grow fruits organically.

Farmers who have witnessed per-hectare consumption of fertilizers growing to over 135 kg from less than just one kg at the time of Independence are getting aware of ill effects of agro-chemicals. In urban areas, health-conscious households prefer terrace garden to cut chemical intake. The awareness over excess use of fertilizers is increasing among farmers in rural areas too.

Gaurav Sahai, a former employee of IT giant Hewlett-Packard in the US, is doing organic farming on six acres of land belonging to his friend at Ladra Village in Mohali district. He has been getting queries from neighboring farms, “These landlords have not been farming seriously but now want to grow for themselves,” Sahai says. He adds that vegetables were preferred over cereals which are an important constituent in a daily Indian diet.

“Besides being health conscious, it is also a matter of prestige to have own organic or natural produce from your farm,” he adds.

An apple grower always vouches for the purity and juiciness the ‘golden’ apple which is a pollinating tree and devoid of colourant and excessive sprays. “We are heavily dependent on chemicals which was not the case in the Eighties. I am trying to use cow dung manure and we don’t use ether for ripening apple for our own consumption,” says Janardhan Makhaik from village Shathala tehsil Kothgarh of Himachal Pradesh. Growers have to spray pesticides to stop fungus attacks once in 2-3 weeks, the periodicity of which may increase in the rainy season.

A similar trend is seen amongst dairy farmers who feed homegrown fodder, jowar and deoiled rice bran cake to the animals. “We have been growing vegetables for in-house consumption. Now we ensure that we give organic meal to the cows,” says Jitesh Patel, a farmer who cultivates 100 acre at Dholpur Kampa in Sabarikantha district of Gujarat.

The farmer who grows potato and cotton doesn’t feel a need for organic certification. “Farmers close to big cities are getting remunerative prices for the so-called organic milk. However, we sell excess milk to the local dairy no extra price,” says Patel.

However, some farmers feel that it is a logistic nightmare to grow separately for home consumption. Ajay Vir Jakhar, chairman, Bharat Krishak Samaj, an association of agricultural producers, says, “I sell what I eat. I don’t grow anything separately.”

Farmers don’t eat what they grow for us.

A report that will make us aware about the artificial manure, sprays of herbicide and pesticide which are detrimental & pose a serious health hazard and threat to the common man in particular. Mention may be made about “Monsanto”, which uses G.M.O for the production of seeds, which has also attracted attention of various countries for controversial views.

S. K. ROY
Editor

Ack.: Inputs from The E.T./Madhavi Sally New Delhi/Cal, March-2013

ABOUT OURSELVES

OTAI (EZ) members participated in 104th Annual Symposium & Expo Of American Oil Chemists' Society At Montreal, Canada From 28th April 2013 To 1st May 2013.

One oral presentation by Dr. Mahua Ghosh entitled 'Role of phospholipid information of nanoemulsions of bioactive lipids'.

Three poster presentations :

1. Hypolipemiant and antioxidant effect of CLnA rich nanocapsules tested on rat model: by Dr. Avery Sengupta.
2. Studies on comparative efficacy of alpha-linolenic acid and alpha-eleosteric acid on prevention of methyl mercury-induced hyperlipidemia in kidney and liver of rat : by Dr. Moumita Pal.
3. Phytochemical protection against carbofuran toxicity by Ms. Sanjukta Datta.

The third one was awarded with third best poster in 'Health & Nutrition' section.

Congrats to Ms Datta !!

OBITUARY

Dr. D. P. Sen, Former Scientist and Chairman, Deptt. of Lipid Technology, Central Food Technological Research Institute, Mysore and a Life Fellow member of the OTAI, left for heavenly abode on the 12th June, 2013.

He was a scientist with National & International recognition and an unassuming person.

He has been actively associated with OTAI (E.Z.) in various ways.

OTAI (E.Z.) mourns the death of this great personality and pray for his soul to remain in peace.

HONEY : A FUNCTIONAL FOOD : A GIFT OF NATURE

Dr. Pubali Dhar

Laboratory of Food Science and Technology, Department of Home Science,
Food and Nutrition Division, University of Calcutta
20B Judges Court Road, Kolkata- 700027
pubalighoshdhar@yahoo.co.in

ABSTRACT

Honeybees, toil very hard to endow honey with miraculous and multifarious attributes. The nectar from flowers is mixed with special enzymes in the bees' saliva which ultimately culminates into honey. Even the fluttering of the bee wings provides the necessary ventilation to reduce the moisture content of the honey, thereby making it ready for consumption. Among the different food items, honey with its diverse health benefits can be regarded as a functional food. Honey is being used for centuries in traditional therapeutic practices. Alternative medical practices such as Unani and Ayurveda even to till this date rely heavily on honey as an essential component to provide therapeutic relief against plethora of ailments. The unique components available in honey comprising minerals and vitamins provides an array of micronutrients range which in synergy contributes to its health promoting functions.

INTRODUCTION

Honey is a supersaturated solution of sugars, of which fructose (38%) and glucose (31%) are the main contributors, containing a wide range of minor constituents like phenolic acids, flavonoids, certain enzymes, carotenoid like substances, amino acids, organic acids, Maillard reaction products, vitamins and minerals. Its composition is rather variable and primarily depends on the botanical and geographical origin of the floral source, although certain external factors also play a role, such as seasonal and environmental factors and its processing.

The quality of a honey depends on its chemical composition and botanical origin. The flavonoid profiles of honeys are determined by their botanical and geographical origin(s), and by the climatic conditions of the area. Therefore, identification and quantification of the flavonoids in honey is of great interest. The flavonoids constitute one of the largest groups of naturally occurring phenolic compounds. They are derived from plants, and when the plants are used by bees to collect nectar or honeydew, these bioactive components are transferred into the bee honey. Three subgroups of flavonoids with similar structures are present in honey; namely: the flavones, the flavonols and the flavanones.

In the recent years, numerous studies have investigated the flavonoid profiles of different types of honey to identify specific compounds that can be used as markers for the determination of the botanical origin of a honey (Hadjmohammadi, 2009; Tomas-Barberan, et al. 2001; Martos, et al. 2000). Identification of these phenolic compounds appears to be one of the most promising techniques for determination of botanical origin. The flavonoids have been reported to be suitable markers for eucalyptus honey (tricetin, myricetin, quercetin, luteolin and kaempferol) (Martos et al., 2000), citrus honey (hesperetin) (Ferrerres, et al. 1993), rosemary honey (kaempferol) (Gil, Ferreres, & Tomas-Barberan, 1995) and sunflower honey (quercetin) (Tomas- Barberan et al., 2001). Conversely, Pulcini, Allegrini, and Festuccia (2006) indicated that for the characterisation of the botanical origin of a honey, differences in the whole composition of the flavonoids might be more suitable than the use of any single specific compound.

Antimicrobial activity : Since ancient times, honey has been used for treatment and prevention of wound infections. With the advent of antibiotics, the clinical application of honey was abandoned in modern Western medicine, though in many cultures it is still used. For all antibiotic classes, including the major last resort drugs, resistance is increasing worldwide and even more alarming, very few new antibiotics are being developed. The potent activity of honey against antibiotic-resistant bacteria resulted in renewed interest for its application. Several honeys have been approved for clinical application. The incomplete knowledge of the antibacterial compounds involved and the variability of antibacterial activity are however major obstacles for applicability of honey in medicine. The antibacterial activity of honey against several pathogens and its dependence on the floral origin and their phenolics has been widely reported (Al, et al. 2009, Finola, et al. 2007). Honey has been used in the treatment of and prevention of wound infections. Phenolic compounds originating from plant nectar have been proposed as important factors for the nonperoxide antibacterial activity of honey and so not all honeys possess similar activity. Several antibacterial phenolic compounds have been identified in honeys (Molan, 1992, Russell, 1990, Brocklebank, 2000, Isla,2011), but their contribution to the overall activity of honey remains unclear. The activity of individual phenolics isolated from honey is too low to substantially contribute to the antibacterial activity ((Molan, 1992, Brocklebank, 2000). Hydrogen peroxide is produced by a natural glucose oxidase system in honey; it has antibacterial effects called inhibine (White et al. 1962).

Antioxidant activity : Besides being used as a sweetening agent, honey serves as the natural food preservative. Deteriorative oxidation reactions in foods, such as browning reactions in fruits and vegetables and lipid oxidation in cooked, ground poultry are being prevented by honey. Consumption of honey elevated the antioxidant capacity of human

subjects (Gheldof et al. 2003). Honey is reported to be at its best in terms of flavor and color immediately after extraction (White 1978). Fermentation starts unless the moisture content is below 17%. The freshness and quality of the honey was evaluated by measuring diastase, invertase and hydroxymethylfurfural (HMF). Maillard reaction products generated during storage of honey have been found to show antioxidant capacity. Caramelization of carbohydrates, Maillard reaction, and decomposition of fructose in the acid medium of honey (Villamiel, 2001) lead to the formation of HMF, other furfural compounds, and MRP which eventually function as antioxidant preventing lipid peroxidation. High amounts of total flavonoids were quantified in heather honey, raspberry, black locust, and linden honey. A positive correlation between the content of polyphenols, flavonoids, and antioxidant activity was observed in honey samples (Dezmirean, 2012)

Wound healing property : Recently, high concentrations of an antibacterial compound, methylglyoxal (MG), was identified in manuka honeys [Adams et al. 2008, Mavric et al. 2008]. MG is a reactive α -oxoaldehyde formed both enzymatically and nonenzymatically in mammalian and microbial cells as an intermediate in the glycolytic pathways [Booth, 2003, Kalapos, 2008]. MG is involved in the formation of advanced glycation end products implicated in growth arrest and cell death [Booth, 2003,]. Clinical studies on the wound healing properties of manuka honey have found that it stimulates healing and promotes the re-growth of healthy tissue with no adverse effects [Molan 2006]. Subjects with Fournier's gangrene (Subrahmanyam, 2004), burns (Subrahmanyam, 1991) who were treated with honey dipped gauze to their wounds demonstrated faster clearing of slough and healthy granulation tissue and reduced duration of hospital stay

Prebiotic property : The GI microflora is in a dynamic equilibrium that may be altered by diet, medication, stress, aging and various other environmental factors. The non-digestible carbohydrates, a variety of oligosaccharides that occur naturally in foods such as fruits, vegetables, milk and honey (Tannock, 1999) serves as prebiotic (Crittenden, 1999). The effect of honey oligosaccharides on the growth of fecal bacteria like bifidobacteria and lactobacilli revealed that honey has potential prebiotic activity.

Apoptosis Honey has been used in palliative care of various cancers. Antineoplastic activity of honey was studied in an experimental bladder cancer implantation model (Swellam 2003). Anti proliferative and proapoptotic effects of honey was studied in human gastric mucosa (Ghaffari, 2012).

Conclusion : Honey is the 'treasure-chest' of phytonutrients, enzymes, bioactive peptides, oligosaccharides which equips it with its health promoting properties. It's a naturally processed food product of flower nectars by honeybees which packs a multitude of health promoting biomolecules with no synthetic parallels. A marvel of nature: Honey.

References

- Adams CJ, Boulton CH, Deadman BJ, Farr JM, Grainger MNC, Manley-Harris M. *Carbohydr Res* 2008 ; 343:651-9.
- Al ML, Daniel D, Moise A, Bobis O, Laslo L, Bogdanov S. *Food Chem*, 2009;112 (4) : 863-7.
- Booth I, Ferguson G, Miller S, Li C, Gunasekera B, Kinghorn S. *Biochem Soc Trans* 2003; 31:1406-8.
- Brocklebank RJ, Lu YR. *Food Chem*. 2000;70:427-435.
- Crittenden, R. (1999). Prebiotics. In J. Tannock (Ed.), *Probiotics : A critical review*. Norfolk, England: Horizon Scientific Press.
- Ferrerres, Garcia-Viguera, Tomas-Lorente, Tomas - Barberan. *J Sci of Food and Agric* 1993; 61: 121-3.
- Finola M, Lasagno M, Marioli J. *Food chem*, 2007;100 (4):1649-53.
- Ghaffari A, Somi M, Safaiyan A, Modaresi J, ostadrahimi A. *Health and Promotional Perspectives* 2012;2:53-59.
- Gheldof N, and Engeseth N J. *J. Agric. Food Chem*. 2003;50:3050-55.
- Gil MI, Ferreres F, Ortiz A, Subra E., Tomás-Barberán A. *J. Agric. Food Chem*. 1995; 43: 833-38.
- Dezmirean GI, Liviu MA., Bobis O, Dezmirean D S, Bonta V , and Erler S. *J. Agric. Food Chem.*, 2012; 60 (32): 8028-35.
- Hadjmohammadi M, Vahid S., *J Chromatography B*, 2012; 880: 34-41.
- Isla M I, Craig, A, Ordonez R, Zampini, C, Sayago J. *LWT-Food Sci. Technol*. 2011;44: 1922-30.
- Kalapos MP. *Chem Biol Interact* 2008;171:251-71.
- Martos I, Ferreres F, Tomás Barberán, FA. *J. Sci. Food Agric.*, 2000;48:1498-1502.
- Mavric E, Wittmann S, Barth G, Henle T. *Mol Nutr Food Res* 2008;52: 483-9.
- Molan, P. C. *Bee World*, 1992;73, 5-28.
- Molan PC. *Int J Low Extrem Wounds* 2006;5:40-54.
- Patrizio Pulcini, Francesco Allegrini and Norma Festuccia, *Apiacta*, 2006, 41, 21-27.
- Russell KM, Molan PC, Wilkins A L, Holland PT. *J. Sci. Food Agric*. 1990;38:10-13.
- Subrahmanyam M, Ugane SP. *Ind J of Surgery* 2004; 66 (2): 75-77
- Subrahmanyam M. *Bri J of Surgery* 1991; 78: 497-8
- Swellam T, Miyanaga N, Onozawa M, Hattori K, Kawai K, Shimazui T, Akaza H. *Inter J Uro* 2003; 10: 213-9.
- Tannock G. (Ed.). (1999). *Probiotics: A critical review*. Norfolk, England: Horizon Scientific Press.
- Tomás-Barberán FA, Martos I, Ferreres F, Radovic BS, Anklam E. *J. Sci. Food Agric*. 2001;81: 485-96.
- Villamiel M, Dolores del Castillo M, Corzo N, Olano A. *J Sci Food Agri*, 2001; 81, 790-793.
- White JW, Subers MH. *J Apic Res* 1963;2: 93-100.

68th ANNUAL CONVENTION OF OIL TECHNOLOGISTS’ ASSOCIATION OF INDIA INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN OLEOCHEMICALS & LIPIDS EXPO-2013

August 8-10, 2013, CSIR-Indian Institute of Chemical Technology, Hyderabad.

Oil Technologists’ Association of India (OTAI) and American Oil Chemists’ Society (AOCS) are jointly organizing an International Conference on “Emerging Trends in Oleochemicals” and “Lipids Expo-2013” during August 8-10, 2013 at CSIR-Indian Institute of Chemical Technology, Hyderabad, India. CSIR-Indian Institute of Chemical Technology (CSIR-IICT), European Federation for the Science and Technology of Lipids (Euro Fed Lipid), Japan Oil Chemists Society (JOCS), The International Society for Fat Research (ISF) and The Solvent Extractors’ Association of India (SEA) are extending their support to this event. The Conference is being organized by OTAI (SZ).

The Conference will address the global trends in the oleochemical R & D and industrial sector. The conference will provide an excellent opportunity to bring together all the stakeholders in the Oleochemical Industries and Research Organizations on a common platform to network, share resources and provide future directions in the areas of Surfactants, Lubricants, Coatings, Specialty Oleochemicals, Personal & Home Care Products, Oleochemicals based on Microbial Transformations and Glycerol & Oilseed Cakebased Products.

“Lipids Expo-2013” is being organized at the Convention Centre. Vegetable Oil Industries, Project and Process Engineering Companies/Consultants, Plant & Machinery Manufacturers, Specialty Chemical Manufacturers, Analytical Equipment Manufacturers/Dealers are requested to participate in the Exhibition.

Delegate Registration Fees (Indian Delegates)

Send payment along with covering letter mentioning delegate name, name for badge, designation, organisation, address for correspondence, PIN code, Telephone, Fax, Mobile and Email to :

Dr. BV S K Rao, Convener
International Conference on
“Emerging Trends in Oleochemicals”
C/o. Centre for Lipid Research
CSIR-Indian Institute of Chemical Technology
Tarnaka, Hyderabad - 500 007, India
Phone : 91-40-27191848, 2719 3179
Mobile No.: 91-7382297530
Tele Fax : 91-40-2719 3370
E-mail : otaisz@gmail.com

Registration Fees *	Till 20.07.2013 Rs.	From 21.07.2013 Rs.
Non-OTAI Members	8,000	9,000
OTAI Members	4,000	5,000
OTAI Life Members	3,000	4,000
Students	1,000	1,500
Spouse	3,000	3,000

*To add 12.36% Service Tax

Complete brochure can be down loaded from www.iictindis-org/OLEO-2013

PARLIAMENT NEWS

Lok Sabha Unstarred Question No. 3561 - Answered on 19th March 2013

PRODUCTION OF PULSES AND OILSEEDS

Shri Rama Shankar Raj Bhar / Shri A. T. Nana Patil

Will the Minister of Agriculture be pleased to state :

- (a) whether there has been a decline in the production of pulses and oilseeds in the country during each of the last three years and the current year;
- (b) if so, the details thereof, State-wise along with the reasons therefor;
- (c) the steps taken / being taken by the Government to increase the production of pulses and oilseeds in the country;
- (d) whether the Government is aware that there is difference in the production of pulses and oilseeds in various States including Uttar Pradesh;
- (e) if so, the details thereof; and
- (f) the fund allocated by the Government to increase production of oilseeds & pulses and its promotion ?

Answer

Minister of State in the Ministry of Agriculture and Food Processing Industries.

Shri Tariq Anwar

(a) & (b) The production of pulses and oilseeds in the country during 2010-11, 2011-12 and 2012-13 has been higher than their production during 2009-10. Statewise details of production of pulses and oilseeds in the country during 2009-10 to 2012-13 (2nd Advance Estimates) are given in the Annexure.

(c) In order to increase production of pulses and oilseeds, Government has been implementing several Crop Development Schemes / Programmes such as National Food Security Mission-Pulses (NFSM-Pulses), Rashtriya Krishi Vikas Yojana (RKVY), Marco Management of Agriculture (MMA), Integrated Scheme of Oilseeds, Pulses, Oil Palms & Maize (ISOPOM) etc. In addition, a new programme "Accelerated Pulses Production Programme (A3P) has been started under NFSM since 2010-11 to take up active propagation of key technologies in the form of block demonstrations for improving productivity of pulses. Further, a Special Plat to Achieve more than 19 million tonnes of pulse production during 2012-13 has also been initiated.

(d) & (e). The reasons for variation in production and productivity of different agricultural crops including pulses and oilseeds vary from State to State. Besides variation in the natural soil fertility, the major reasons for low production of these crops include uneven distribution of rainfall, dependence on monsoon, small & fragmented land holdings, improper nutrient & pest management, low use of good quality seeds, lack of adequate agricultural machinery and low adoption of improved package of practices etc.

(f) Details of funds allocated by Government under the major scheme / programme during 2012-13 are as under :

(Rupees Crore)

Scheme	Funds Allocated
National Food Security Mission (NFSM)	1977.02
Rashtriya Krishi Vikas Yojana (RKVY)	9217.00
Marco Management of Agriculture (MMA)	900.00
Integrated Scheme for Oilseed, Pulses, Oil Palm and Maize (ISOPOM)	387.03

Annexure referred to in reply to parts (a) and (b) of Lok Sabha Unstarred Question No. 3561 due for answer on 19.3.2013.

State-wise Estimates of Production of Pulses and Oilseeds

('000 Tonnes)

State / UT	Oilseeds			
	2009-10	2010-11	2011-12	2012-13*
Andhra Pradesh	1500.00	1995.6	1264.7	1546.0
Arunachal Pradesh	28.3	29.1	33.0	#
Assam	144.7	153.6	149.5	154.0
Bihar	144.6	136.3	139.5	178.1
Chhattisgarh	200.4	217.2	169.5	216.0
Goa	8.1	8.3	8.0	#
Gujarat	3097.0	4896.1	5035.0	3385.8
Haryana	877.5	963.8	771.0	941.0
Himachal Pradesh	3.8	7.7	8.6	8.1
Jammu & Kashmir	49.7	53.0	53.4	51.0
Jharkhand	79.5	113.7	155.5	178.8
Karnataka	1005.0	1270.0	942.0	950.0
Kerala	1.2	2.1	2.4	0.9
Madhya Pradesh	7636.2	8035.4	7727.8	8290.9
Maharashtra	2814.0	5040.0	4485.0	4128.8
Manipur	0.7	26.7	28.3	#
Meghalaya	7.0	7.1	7.6	#
Mizoram	3.0	3.8	2.4	#
Nagaland	84.6	66.3	66.8	#
Orissa	172.2	179.0	165.8	183.8
Punjab	83.4	71.5	68.0	81.9
Rajasthan	4407.2	6604.8	5744.5	6062.2
Sikkim	9.4	7.9	7.8	#
Tamil Nadu	939.6	933.1	1113.7	1162.5
Tripura	2.5	3.4	3.5	#
Uttar Pradesh	816.0	919.4	935.0	949.8
Uttarakhand	33.0	27.5	32.5	36.0
West Bengal	727.1	703.6	672.4	774.4
A & N Islands	NG	NG	NG	NG
D & N Haveli	0.1	0.1	0.1	#
Delhi	4.9	1.3	4.9	#
Daman & Diu	NG	NG	NG	NG
Pondicherry	1.1	0.9	0.5	#
Others	NA	NA	NA	185.6
All India	24881.8	32479.0	29798.7	29485.3

* 2nd advance estimates released on 08.02.2013; # included in others: N G Not Grown; NA not Applicable.

INCLUSION OF OIL PALM IN THE LIST OF CROPS FOR GIVING MSP

Shrimati Gundu Sudharani

Will the Minister of Agriculture be pleased to state :

- (a) the details of States which are cultivating oil palm and producing palm oil in the country during the last ten years, year-wise and State-wise;
- (b) whether it is a fact that Government of Andhra Pradesh has requested the Ministry for inclusion of oil palm in the list of crops for giving MSP;
- (c) if so, the details of the proposal sent by the State Government; and
- (d) the action Ministry has taken on the above request ?

Answer

Minister of State in the Ministry of Agriculture and Food Processing Industries.

Shri Tariq Anwar

(a) The State-wise and year-wise details of area under oil palm cultivation and production of Crude Palm Oil (CPO) are given at Annexure-I and II.

(b) to (d) : Government of Andhra Pradesh had earlier requested for including oil palm in the list of crops identified for announcing Minimum Support Price (MSP). Under the MSP Scheme those commodities are covered which are mostly items of mass consumption of all India nature with fairly long shelf life and/or necessary for food/nutrition security. Since oil palm is a perishable commodity, it is not covered under MSP. However, it is covered under Market Intervention Scheme (MIS), which is implemented on the requests of State Governments, for procurement of perishable and horticultural commodities in the event of fall in market prices. The above position has been communicated to Government of Andhra Pradesh.

On the request of Government of Andhra Pradesh, Ministry of Agriculture has sanctioned Market Intervention Scheme (MIS) for procurement of 90,000 MT of Oil Palm Fresh Fruit Bunches (FFB) at the Market Intervention Price (MIP) of Rs. 5720/- per MT with overhead expenses of Rs. 100/- per MT or actual whichever is less from 1.01.2013 to 31.03.2013 in the state.

Annexure-1

Annexure referred to in reply to Rajya Sabha Question No. 1260 due for answer on 8.3.2013.

State-wise & Year-wise Target and Achievement of Area Expansion under.

Oil Palm Development Programme (OPDP) of ISOPOM and Oil Palm Area Expansion (OPAE) under RKVY during last ten years.

(Area in ha)

Sl. No.	State	2002-03		2003-04		2004-05		2005-06		2006-07		Total for 10th Plan	
		Target	Ach	Target	Ach	Target	Ach	Target	Ach	Target	Ach	Target	Ach
1.	A.P.	3200	1948	3800	2780	4200	5998	4800	9563	5200	11882	21200	32171
2.	Karnataka	1200	335	1400	452	1500	1046	1500	1591	1800	3714	7400	7138
3.	T. N.	1800	570	1800	722	1900	1091	2000	1210	2200	1746	9700	5339
4.	Gujarat	300	193	400	8	450	3	500	24	550	57	2200	285
5.	Orissa	400	0	400	0	400	0	500	0	500	300	2200	300
6.	Goa	200	48	300	28	300	14	350	7	400	3	1550	100
7.	Tripura	200	117	200	0	300	25	300	55	300	19	1300	216
8.	Assam	200	0	200	0	250	0	300	0	300	0	1250	0
9.	W.B.	0	0	0	0	0	0	0	0	0	0	0	0
10.	Kerala	300	277	300	438	400	132	400	188	400	270	1800	1305
11.	Maharashtra	0	0	0	0	0	0	0	0	0	0	0	0
12.	A & N	0	0	0	0	0	0	0	0	0	0	0	0
13.	Mizoram	200	0	200	0	300	12	350	24	350	185	1400	221
14.	Chattisgarh												
	Total	8000	3488	9000	4428	10000	8321	11000	12661	12000	18176	50000	47074

* New area expansion under OPAE (RKVY) except Kerala.

Oil Palm Development Programme (OPDP) Scheme not implemented so far.

(Area in ha)

Sl. No.	State	2007-08		2008-09		2009-10		2010-11		2011-12*	
		Target	Ach	Target	Ach	Target	Ach	Target	Ach	Target	Ach
1.	A.P.	15000	12074	20000	17049	15000	7755	15000	7456	40000	14500
2.	Karnataka	5000	4314	5000	3005	3500	2325	3600	2936	7000	4314
3.	Tamil Nadu	3500	1780	2000	1939	3375	1423	3000	2200	7000	2134
4.	Gujarat	1000	356	1000	518	1000	740	1000	286	1000	904
5.	Orissa	1000	991	1000	1000	0	0	3000	3000	3700	4300
6.	Goa	100	9	25	5	20	7	20	2	20	6
7.	Tripura	0	0	0	0	0	0	0	0	0	0
8.	Assam	0	0	0	0	0	0	0	0	0	0
9.	W.B.	0	0	0	0	0	0	0	0	0	0
10.	Kerala	480	182	475	115	350	91	400	89	250	60
11.	Maharashtra	0	0	0	0	0	0	250	80	200	200
12.	A & N	0	0	0	0	0	0	0	0	0	0
13.	Mizoram	3500	1614	2000	2547	4466	3499	2500	1877	1000	1970
14.	Chattisgarh									100	0
	Total	29580	21321	31500	26178	27711	15841	28770	17925	60270	28388

* New area expansion under OPAE (RKVY) except Kerala.

Oil Palm Development Programme (OPDP) Scheme not implemented so far.

Annexure-II

Annexure referred to in reply to Rajya Sabha Question No. 1260 - Answered on 8.3.2013.

State-wise, Year-wise quantity of Crude Palm Oil (CPO) obtained under Oil Palm Development Programme (OPDP) under ISOPOM during last ten years.

(In MTs)

Sl. No.	State	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1.	A.P.	18960.00	21457.00	23905.00	43500.00	35509.00	38000.00	43593.00	57402.00	63487.00	97987.00
2.	Karnataka	606.64	646.00	681.01	793.00	974.00	1037.46	1170.00	1118.00	1459.00	173.59
3.	Tamil Nadu	0.00	NR	110.49	178.26	248.66	272.70	365.50	364.60	485.80	758.80
4.	Gujarat	2.94	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5.	Orissa	0.00	0.00	0.00	0.00	0.00	0.00	476.00	589.00	871.00	2162.00
6.	Goa	330.85	324.00	348.93	379.00	345.00	342.45	392.76	279.48	329.35	394.45
7.	Tripura	0.00	NR	NR	NR	NR	NR	NR	NR	NR	NR
8.	Assam	0.00	0.00	0.00	0.00	0.00	0.00	NR	NR	NR	NR
9.	Kerala	6572.00	6387.00	5792.94	6478.00	6888.00	5750.00	7400.00	6600.00	6900.00	7500.00
10.	A & N	1696.00	0.00	0.00	0.00	0.00	NR	NR	NR	0.00	0.00
11.	Mizoram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	28168.43	28817.00	30838.37	51328.26	43964.66	45402.61	53397.26	66353.08	73532.15	110541.84

Note: Data / Information based on inputs provided by State Govts. & Dte of Oilseeds Dev. Hyderabad
The production of CPO is based on the production of oil extraction ratio; i.e. 16%-17% of total Fresh Fruit Bunches (FFBs) produced.

Lok Sabha Unstarred Question No. 1215 - Answered on 5th March 2013

Export of Edible Oil

Shri P. Kumar :

Will the Minister of Consumer Affairs, Food and Public Distribution be pleased to state :

- whether the Government has removed the ban on export of branded edible oil;
- if so, the details thereof;
- whether the Government has decided to set up a committee to calibrate the minimum export price from time to time; and
- if so, the details thereof

Answer

Minister of State (Independent Charge) for Consumer Affairs, Food & Public Distribution.
(Prof. K. V. Thomas)

(a) & (b) : Yes, Madam, Export of edible oils in branded consumer packs of upto 5 kg was allowed with a ceiling of 20,000 tons per annum. Recently Government has removed the

quantitative limit on export of edible oils in branded consumer packs of upto 5 kg with a Minimum Export Price of USD 1500 per MT vide Notification dated 5th February, 2013 issued by Department of Commerce.

(c) & (d) Yes, Government has set up an inter-ministerial committee to calibrate the Minimum Export Price from time to time under the Chairmanship of Commerce Secretary. Secretary Consumer Affairs and Secretary, Food & Public Distribution are the members of the committee.

Rajya Sabha Unstarred Question No. 658 - Answered on 4th March 2013

Demand and Supply of Edible Oils

Shri Aayanur Manjunatha:

Will the Minister of Consumer Affairs, Food and Public Distribution be pleased to state :

- (a) whether there exists a gap between demand and supply of edible oils in the country;
- (b) if so, the details thereof and the reasons therefor indicating the production, demand and import of edible oils in the country during each of the last three years and the current year;
- (c) whether Government proposes to import edible oils in the next year to meet the domestic demand and keep the prices under control; and
- (d) if so, the steps taken or the plans chalked out by Government in this regard ?

Answer

Minister of State (Independent Charge) for Consumer Affairs, Food & Public Distribution.
(Prof. K. V. Thomas)

(a) & (b) : Yes, Sir. There is gap between demand and supply of edible oils in the country. Domestic production is able to meet only half of the demand of edible oils and the existing gap is met through imports. The consumption of edible oils in the country has been increasing steadily due to increasing population and increase in purchasing power whereas there is no commensurate increase in the production of oilseeds. Decline in sowing area of oilseeds due to deficient rainfall in major oilseeds growing states during the current season, less availability of oilseeds for crushing in 2012 have contributed to lower production of edible oils.

The production, availability/demand and import of edible oils in the country during the last three years and current year is detailed below :

(Quantity in Lakh tons)

Year (Nov.-Oct)	Area shown (in lakh hectares)*	Production of Oilseeds*	Domestic Availability of Edible Oils	Import**	Total Availability/ Demand of Edible Oils
2009-10	259.6	248.81	79.45	74.64	154.09
2010-11	272.2	324.79	97.82	72.42	170.24
2011-12	264.4	297.98	89.57	99.45	189.00
2012-13	263.34	294.66**	89.90	16.41 (Nov.12 to Dec. 12)	

Source : * Ministry of Agriculture

** Directorate General of Commercial Intelligence & Statistics
(Ministry of Commerce)

*** Based on 2nd Advance Estimate (declared by Ministry of Agriculture on 08.02.2013)

(c) & (d) The import of edible oil is under Open General Licence (CGL), most of the import is directly done by refining industries. However in order to augment domestic availability and to keep the price under control, Central Public Sector Undertakings (CPSUs) are importing edible oils under the Scheme for distribution of subsidised imported edible oils limited to 10 lakh tons per annum for distribution through PDS. States bear the cost of oil, transportation and packaging, over which subsidy of Rs. 15/- per kg is given by the Central Government.

Lok Sabha Unstarred Question No. 1206 - Answered on 5th March 2013

Import Duty on Crude Edible Oils

Shri Kishnbhai V. Patel, Shri Pradeep Majhi

Will the Minister of Agriculture be pleased to state :

- (a) whether there is any proposal to increase the import duty on crude edible oil in the country;
- (b) if so, the details thereof;

-
- (c) whether the price payable to farmers for fresh fruit bunches of oil palm is likely to increase after imposition of import duty on crude edible oil;
- (d) if so, the details thereof;
- (e) whether the Government has assessed the impact of increase in import duty on the said oil in the domestic market; and
- (f) if so, the details and the outcome thereof

Answer

Minister of State in the Ministry of Agriculture and Food Processing Industries.
Shri Tariq Anwar

(a) & (b) : Presently there is no such proposal.

(c) & (d) : Yes, Madam, Price payable to farmers for fresh fruit bunches of oil palm is linked with landed price of imported crude palm oil which is impacted by the level of import duty.

(e) & (f) : Yes, Madam, The import duty of 2.5% on crude edible oils which has been imposed since 23rd January 2013 is likely to increase domestic prices by Rs. 1.11 per kg.

Rajya Sabha Unstarred Question No. 666 - Answered on 4th March 2013

Gap Between Demand and Supply of Edible Oils

Shri Palvai Govardhan Reddy :

Will the Minister of Consumer Affairs, Food and Public Distribution be pleased to state :

- (a) whether it is a fact that there is more than 50 per cent gap between demand and supply of edible oils in the country.
- (b) whether it is also fact that this gap has been going up since 1990, in spite of various measures being taken by Government;
- (c) if so, the reasons behind (a) and (b) above; and
- (d) how the Ministry is planning to bridge the gap ?

Answer

Minister of State (Independent Charge) for Consumer Affairs, Food & Public Distribution
(Prof. K. V. Thomas)

(a) Yes, Sir, There is gap of about 50% between demand and supply of edible oils in the country.

(b) The gap between demand and supply in 1990-91 was 8.88%, in 2000-01 it was 43.17% and in 2011-12 it further increased to 48.36%.

(c) & (d) : The consumption of edible oils in the country has been increasing steadily due to increasing population and increase in purchasing power whereas the production of oilseeds is not increasing as compared to demand. At present to bridge this gap, import of edible oils has been kept under Open General Licence (OGL) and import duty on crude and refined edible oils is maintained at 2.5% and 7.5% respectively. In order to enhance the production and productivity of oilseeds, Government is implementing a Centrally Sponsored Integrated Scheme on Oilseeds, Pulses, Oil Palm and Maize (ISOPOM) through Department of Agriculture in major oilseeds and oil palm growing States.

In order to augment domestic availability and to keep the prices under control, Central Public Sector Undertakings (CPSUs) are importing edible oils under the Scheme for distribution of subsidised imported edible oils limited to 10 lakh tons per annum for distribution through PDS. States bear the cost of oil, transportation and packaging, over which subsidy of Rs. 15/- per Kg is given by the Central Government.

Prof. D. K. Bhattacharyya

M. Sc., (Tech), Ph. D
Emeritus Fellow (AICTE)
Ex-Ghosh Professor of Applied Chemistry

DEPARTMENT OF CHEMICAL TECHNOLOGY
University Colleges of Science & Technology
University of Calcutta
92, Acharya Prafulla Chandra Road
Kolkata - 700 009
Phone : 2350 8386/6396/6387/1857/1014/9937
2352 0051/0052
Gram : SCIENCE Fax : 91-033-351 9755
E-mail : dkb_oiltech@yahoo.com

A REVIEW

The book entitled “A treatise on Analysis of Food, Fats and Oils” is an example of unique competence and contribution of the authors, S. K. Roy, N. K. Pramanik and A. R. Sen.

The book is the first of its kind in India. It covers the traditional and modern analytical methods for the characterization and quality of fats, oils as well as other food items.

The authors are well reputed and qualified and they have applied their collective wisdom and expertise in including and presenting more appropriately and meticulously the analytical methods.

The book can also be viewed as a rarer type as it deals with the statutory and industrial aspects of fats, oils and their products, and pollution control in vegetable oil industry.

In fact these aspects are of extreme use and importance to those concerned with these issues.

The book is already well received by the readers and users in the academic and industrial circles throughout India because of the highly relevant and beneficial methodologies and basic-cum technological information. The book will be recognised in due course of time as one of the top quality analytical books in the area of food, fats and oils.

Prof. D. K. Bhattacharyya

21-6-2003

Regarding availability/price enquiries may be made to :
S. K. ROY, President OTAI (EZ)
5C, Tarak Mitra Lane, Kolkata - 700 026
Phone : 24666243 / 24639721
E-mail : esskay_roy81@rediffmail.com
es.k.ray@gmail.com

BOOK REVIEW

A book entitled “Perfumery Materials, Production and Applications” has been authored by an very eminent Professor (Dr) D. K. Bhattacharyya, Emeritus Fellow (AICTE), Adjunct Professor Bengal Engineering and Science University, former President, O.T.A.I and a Scientist of National and International repute.

The book speaks for itself about his mastery and competence in the discipline of “Perfumery Materials”.

“The book demonstrates the scopes of certain specific reactions and raw materials in producing new synthetics. The enormous scopes of biotechnology involving bio-conversion processes’, with isolated enzymes and by fermentation biotechnology involving selective microorganisms has been indicated in making synthetics. The applications of natural aromatic oils in aromatherapy, food, cosmetics/toiletries, imitation perfumery and allied sector have been included.

Standardisation and evaluation of natural aromatic (essential oils and incidence of their adulteration have been elaborated in order to ascertain their quality and authenticity for sustaining the business in the industry” says Prof (Dr) R.N. Mukherjee, Former, Professor and Head, Deptt of Chemical Engg, University of Jadavpur. The book will fulfill a long felt want in the discipline of Essential Oils and will cater to the various categories of Scholars, Scientists and Technologists. The book has already been well appreciated in India and abroad, though published by the Stadium Press L.L.C., USA.

Those interested to procure a copy of this Valued book on Essential Oils may contact Professor D. K. Bhattacharyya at Phone No (033) 2461 9662.

(S. K. Roy)
Editor

BOOK REVIEW

A book entitled “Advances in Fish Processing Technology” has been authored by Dr. D. P. Sen, an executive committee member of the OTAI (EZ), Calcutta. He is highly qualified with National and International recognition.

The contents of the book are • Resources, Their Utilisation - Emerging Trends • Chemical Composition and Their Technological Significance • Fish Odours and Flavours • Fresh Fish Handling and Chill Storage • Modified Atmosphere Packaging of Seafoods • Assessment of Freshness Quality • Traditional Salted and Dried Fish Products • Proteolysed Fish Products • Minced Fish Technology • Retort Pouch Processing Technology • Surimi and Surimi-Based Products • Irradiation in Fish Processing • Antarctic Krill and its Processing • Microwave in Fish Handling and Processing • Fish Food Products • Advance in Freezing Technology • Shrimp Culture, Shrimp Feed, Melanosis and Moulting • Selected By-products from sea • W-3 Fatty Acids, Fish Oil and Fish in Health and Nutrition • Fishborne Pathogens and Depuration • Toxins, Pollutants and Contaminants • Quality Management.

The book should be useful to a wide range of readers including ichthyologists and researchers involved with the fish industry. The book has already been well appreciated among the scientific community.

**Publisher : Allied Publisher Pvt. Ltd.
New Delhi ; Price : Rs. 1800/-**

Offer by the Author on Book entitled

Advances in Fish Processing Technology
Each copy will cost Rs. 900/- (Rupees Nine Hundred only)
if directly purchased from the author

**Author's Address : Dr. D. P. Sen, E13/3 Karunamoyee
Salt Lake City, Kolkata 700 091 West Bengal**

The Author in his name will issue the receipt

Limited number of copies are available

S. K. Roy
Editor

With Best Compliments From :



A. B. POLYPACKS PVT. LTD.
A. B. POLYMERS

147, NILGANJ ROAD, KOLKATA - 700 056

Phone : 3295-7811, Fax : 2563-7494

Mobile : 98301-34594, 98300-06932

E-mail : abpolymers2008@gmail.com, abpolypacks@gmail.com



Contact Person : SANDIP DAS, CHINMAY KUMAR



Specialist in 5 layer & 3 layer polyfilm and also lamination jobs done carefully

If "health is wealth" Go for the Gold



Premium Quality Refined Rice Bran Oil

Rice Gold is produced in world class plant supplied by global giants Alfa Level & DeSmet without using caustic to retain maximum Oryzanol (which is known to increase good HDL and lower bad LDL cholesterol & triglyceride).



Balanced Fatty Acid Composition

Rice Gold contains about 18% saturated, 45% monounsaturated and 37% polyunsaturated fatty acid which is close to American Heart Association recommendation.

Re
"In view of these beneficial effects, particularly on serum cholesterol levels, recently, rice bran oil has rightly been classified as a functional food or nutraceutical. Because of its cholesterol lowering effects, it is highly recommended to patients with hyperlipidemia as well as to general public for prevention of coronary heart disease."
- Dr. T.C. Raghuram,
Dy. Director
National Institute of Nutrition.

* Source : Proceedings of 4th National Seminar on Rice Bran Oil, Kolkata, 7th July, 2001.



Rich in Micronutrients & Natural Antioxidants

Rice Gold contains Oryzanol, Tocotrienol, Tocopherol and Squalene which are known to provide many benefits for human health.



Fried Food Retains Less Oil

Lower calorie intake in fried food.

Sethia

RiceGold

REFINED RICE BRAN OIL

Health in every drop!

Switch to Healthier Life
Switch to RiceGold Rice Bran Oil!

For Good Health
Taste and Flavour
Use

Rasoi

VANASPATI

**TRUSTED MORE THAN 50 YEARS
AN IDEAL COOKING MEDIUM**

A Product of

RASOI LIMITED

20 Sir R. N. Mukherjee Road

Kolkata 700 001

Phone : 2248 9138/39/0114/0115

Fax : 91-33-22483102/1985

Gram : Rasoi

E-mail : rasoi@vsnl.com