

### Union Government Announces Formation of Cotton Council of India Under Chairmanship of Shri. Suresh A. Kotak

At a meeting with stakeholders from the cotton value chain, held in New Delhi on 17th May 2022, the Hon'ble Union Minister of Textiles, Shri. Piyush Goyal, officially announced the formation of Cotton Council of India. It is indeed a matter of great pride for CAI that Shri. Suresh A. Kotak, our Past President has been appointed as the Chairman of Council of India. The Council will have representation from Textiles, Agriculture, Commerce and Finance Ministries, along with Cotton Corporation of India and Cotton Research Institutes. Shri. Kotak will ensure better coordination between cotton stakeholders.

The idea of creating Cotton Council of India representing each and every segment viz. producers, user mills, cottonseed crushers, warehouse men, input suppliers, processors, market men, cooperatives, etc. was conceptualised by Shri. Suresh A. Kotak when he was the CAI President.

The first meeting of proposed council has been scheduled on 28th May 2022.

Addressing the meeting, Shri. Goyal requested all stakeholders to resolve the issue of cotton and yarn price in the spirit of collaboration rather than

competition, without pushing government to intervene as it may have long term impact on the cotton value chain. He also asked the industry to cooperate with each other in managing the cotton supplies and ensure availability of cotton and yarn for the domestic industry.









# Harnessing The Potential of Cottonseed **Oil for Import Substitution**

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serving as a Principal Scientist (Agronomy) Priority and Head, Setting, Monitoring and Evaluation Cell at the ICAR-Central Institute for Cotton Research, Nagpur, India. He specializes in cotton crop simulation modeling, participatory and perspective land use planning, carbon sequestration and highdensity sustainable



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cotton planting systems. He is an Executive Committee member of the International Cotton Researchers Association.

In her budget proposal for 2022-23, the Hon'ble Finance Minister had stated, "To reduce our dependence on import of oilseeds, a rationalised and comprehensive scheme to increase domestic production of oilseeds will be implemented." In light of this, we analyse the present edible oil crisis and the role that cottonseed oil can play in making India selfsufficient in edible oil.

### **Global Edible Oil Scenario**

The Covid-19 pandemic triggered an economic slowdown, leading to a temporary decline in the global edible oil market to 206.4 mn tonnes in 2020 (Table 1). Palm oil, soybean oil, rapeseed oil and sunflower oil accounted for 87.4% of the total production. Experts suggest a quick turn around and the global edible oil market is likely to grow at a Compound Annual Growth Rate (CAGR) of 7.1% for the period 2021 to 2028. USDA estimates the production of vegetable/edible oil for 2021-22 as 214.8 mn tonnes against a demand of 211.8 mn tonnes. The global production of palm oil would be 76.8 mn tonnes (36% share), followed by soybean

oil at 61.7 mn tonnes (28.7 %). A marginal reduction in rapeseed/mustard oil production to 27.4 mn tonnes (12.7%) would be offset by an increase in sunflower oil production to 21.8 mn tonnes (10.1%) due to favourable crop in Eastern Europe and EU-27. However, the current Russia-Ukraine crisis is likely to disrupt the supply of sunflower oil.

### **Domestic Edible Oil Scenario**

Edible oil is an indispensable commodity in Indian cuisine. India accounts for 5.5 % of the global production and 10.8 % of global consumption of edible oil. Currently, around 11.3 million tonnes of edible oil is produced in India with rapeseed, soybean, cottonseed and groundnut contributing 64.1% to the domestic edible oil pool (Table 1).

The per capita annual consumption of edible oil increased from 3.0 kg in 1950 to 14.2 kg in 2010-11 to 19.3 kg at present owing to changing life styles, higher disposable income and growing preference for fried and processed foods. Hence, despite impressive

	Wor	ld		India		
Oil Source	Production	% share	Major producing countries	Production	% share	
Palm oil	73.00	35.37	Indonesia, Malaysia, Thailand, Colombia, Nigeria	0.200	1.77	
Soybean oil	59.17	28.67	China, United States, Brazil, Argentina, European Union	1.710	15.12	
Rapeseed	29.16	14.13	EU-27, China, Canada, India, Japan	2.854	25.23	
Sunflower oil	19.09	9.25	Ukraine, Russian Federation, EU-27, Argentina, Turkey	0.062	0.55	
Groundnut (peanut)	6.44	3.12	China, India, Sudan, Nigeria, Myanmar	1.283	11.34	
Cottonseed oil	4.81	2.33	India, China, Brazil, Pakistan, Turkey	1.405	12.42	
Coconut oil	3.44	1.67	Philippines, Indonesia, India, Viet nam, Sri Lanka	0.474	4.19	
Olive	2.92	1.41	EU-27, Tunisia, Turkey, Morocco, Syrian Arab Republic		0.00	
Others	8.38	4.06		3.322	29.37	
Total	206.41			11.31		

Table 1: Global and Indian Edible Oil Production (million tonnes) Scenario in 2020

## Fig 1: Edible Oil Scenario in India (figures in million tonnes)



gains in production, the disproportionate rise in consumption is forcing the nation to import huge quantity of edible oil (Fig. 1).

Until the mid-1970's, India was largely selfsufficient in edible oils and the import was less than 0.1 mn tonnes/annum. Later, there was a chronic shortage of edible oil and imports surged. The Technology Mission on Oilseeds launched in 1986, helped increase production and reduce dependence on imports. In 1993-94, the imports were only 2% of the total consumption. After the signing of WTO agreement in 1994, import of edible oil was liberalised and today 55-60% of the consumption is met through imports.

### Present Edible Oil Crisis in India

India is currently the world's largest edible oil importer. The annual edible oil demand is around 24 mn tonnes and only 10-11.5 mn tonnes is produced in India and the remaining is imported. During 2020-21, despite a stagnation in consumption, India imported 13.1 mn tonnes of edible oil valued at Rs. 1.17 lakh crore. Palm oil sourced from Indonesia and Malaysia forms 60% of our imports. Other imported edible oils include, soybean oil (25%) from Argentina and Brazil and sunflower oil (12%) from Ukraine, Russia and Argentina. Unfavorable weather conditions and labour shortage in major oil seed exporting nations has spiked international oil prices and worsened the edible oil crises in India. The current Russia-Ukraine crises is also likely to cast a shadow on sunflower oil imports, at least in the short run. Indonesia's recent flip-flop on export policy of palm oil is another reason for concern. Consequently, there was an average hike of 30-35% in the price of edible oil during the quarter ended March 2022.

## Cottonseed Oil- History, Contribution to Oil Basket, Properties, Health Benefits, Etc.

Historical evidences indicate that crushed cottonseed oil was traditionally known for its medicinal value rather than culinary use. In the US, cotton seeds were considered as garbage or pollutant. Later it was used as manure or was fed to cattle. Dr. William Otto, a physician and surgeon first produced cottonseed oil in the US in 1768 for pharmaceutical use. In 1799, Charles Whiting of Massachusetts, US, received the first patent for inventing the process of oil extraction from cotton seed. In 1829, Francis Follet from Petersburg, Virginia obtained a patent for hulling of cotton seed for oil extraction. In 1833, the first cottonseed oil mill was established in Natchez, Mississippi. The oil was initially used to replace whale oil used in lighting lamps. Later, it was used as a lubricant for machinery and for the manufacture of soap. In 1911, Proctor and Gamble commercialised hydrogenated cottonseed oil Crisco (vegetable shortening that could be used in place of lard). In India, the first cottonseed oil mill was established at Navsari, Gujarat in 1914. In the 1950s, a link was established between consumption of cottonseed oil and infertility and further investigations attributed this to Gossypol present in unrefined cottonseed oil. In modern times, Gossypol is removed during the refining process. The cottonseed oil industry has made remarkable progress since then and is today a major source of edible oil globally.

Cottonseed oil has several health benefits and is preferred by the food industry due to its distinct properties. It is

- rich in antioxidant tocopherol (Vitamin E)
- has a long shelf life
- is naturally hydrogenated

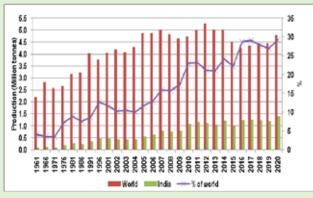
COTTON STATISTICS & NEWS

- has an ideal ratio of saturated (palmatic and stearic acid) and unsaturated (oleic, lixoleic and linoleinic) fatty acids and hence is heart healthy.
- is a preferred medium for deep frying, both for baking and salad dressing.

### **Cottonseed Oil Scenario**

As per reports of Indian Central Oilseeds Committee, during 1954-55, around 56,687 tonnes of cotton seeds were crushed to produce 6934 tonnes of crude cottonseed oil. During this period, less than 5% of the cotton seed produced in India was crushed for oil extraction whereas it was around 89% in the US. Time series data on global and Indian cottonseed oil production is depicted in Fig 2. During the last 60 years, the cottonseed oil production in India witnessed a 16-fold increase from 0.09 mn tonnes in 1961

Fig. 2: Global and Indian Cottonseed Oil Production (million tonnes)



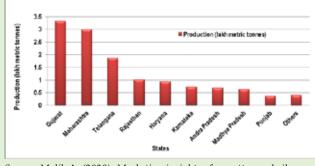
Data source: https://www.fao.org/faostat/en/#data/QCL

to 1.41 mn tonnes in 2020 at a CAGR of 4.7 %. During the same period the global cottonseed oil increased 2.20 mn tonnes to 4.81 mn tonnes at a CAGR of 1.3 %.

Today, India (1.38 mn tonnes) is the largest cottonseed oil producer followed by China (1.37 mn tonnes), Brazil (0.656 mn tonnes) and Pakistan (0.392 mn tonnes). Together these countries account 74.1 % of the global cottonseed oil production (Year of Estimate: 2021 Source: https://www.indexmundi.com/agriculture/ commodity=cottonseed-oil&graph=production)

Cottonseed oil accounts for only 2.3% of the total global vegetable oil production. However, in India it is the third largest contributor (12.4%) to the domestic edible oil production pool, superseded only by rapeseed / mustard (25.2%)

### Fig. 3: Cottonseed Oil Production in Different States of India (2020-21)



Source: Malik A. (2020). Marketing insights of on cottonseed oil. SEA-AICOSCA cotton seed conclave 2020 (Webinar). http://seaofindia.com/downloads/Mallick.pdf

and soybean (15.12%). The current (2020) global market for cottonseed oil is estimated at 3.7 billion USD and it is expected to grow at a CAGR of 1.9% to reach 4.2 billion USD in 2027.

Gujarat, Maharashtra, Telangana, Rajasthan and Haryana are the main cottonseed oil producing states, together accounting for 78% of the total production (Fig 3). Most of the oil produced is used for edible purpose primarily for Vanaspati and as refined cooking oil and around 5% is diverted for manufacture of soap. Around half the cottonseed oil produced is consumed in Gujarat. The market share of cottonseed oil is 74% of all oils consumed in Gujarat. Refined cottonseed oil is also gaining popularity in Maharashtra and Andhra Pradesh. It is the most preferred oil by the organised food industry due to its unique frying properties.

## Avenues To Increase Cottonseed Oil Production

About 95% of the cotton seed is traditionally processed wherein the whole ginned seed is directly crushed without delinting and dehulling. Consequently, the recovery of oil is low, only 11-12%. The oil recovered is also dark coloured and low in quality. Approximately 7-8 lakh tonnes of oil is lost per annum due to inefficient processing.

Lint is the primary product of ginning and cottonseed is a secondary or by-product. Hence, proper care is not taken at ginneries during handling and storage of ginned seeds. It is stored in the open, exposed to vagaries of nature and often gets infected by fungus during storage. Ginneries must be sensitised to take care of cotton seeds as a co-product and not a by-product. Cotton seeds should be scientifically processed for oil extraction. This involves delinting of seeds to separate linters, decortications to separate hull and kernel. Oil is then extracted from the kernel using mechanical expeller wherein the recovery is around 16% or through solvent (hexane) extraction where the recovery is 18%. The crude oil is refined to remove free fatty acids and gossypol.

Currently, about 6.2 mn tonnes of lint is produced, correspondingly around 12.4 mn tonnes of cotton seed is available. Front line demonstrations across the country have repeatedly demonstrated that with the adoption of available technologies, a 20% increase in productivity is achievable. At constant area, this translates to 7.44 mn tonnes of lint and 14.88 mn tonnes of cotton seeds per annum. If the entire quantity of scientifically processed, even with a moderate oil recovery of 16%, 2.38 m tonnes of cottonseed oil could be produced. This is 0.975 mn tonnes more than the current production. However, to realise this:-

a) Concentrated efforts are needed to enhance productivity by disseminating improved production technologies.

b) Ginneries must be modernised and sensitised to handle and store ginned cotton seeds scientifically.

c) Cotton seed processing plants should be incentivised and economically supported to produce all the value-added products viz – linter, hull, cottonseed oil, cake. Currently, the scientific processing is not economical for standalone oil crushing units. This industry is highly decentralised and fragmented. Scientific oil interaction is often not economically attractive for small entrepreneurs.

Interventions to boost the cotton production and processing sector will go a long way in boosting cottonseed oil production, reduce our dependence on imported edible oil and make Bharat 'Atmanirbhar' in edible oil.

(The views expressed in this column are of the authors and not that of Cotton Association of India)

# Envisioning the Cotton Revolution in India

(....Contd. from Issue No. 7 dated 17 May 2022)

Dr. Siddhartha Rajagopal is currently working as the Executive Director of The Cotton Textiles Export Promotion Council (TEXPROCIL). Having majored in Political Science with specialization in international economic relations and obtained a Doctorate in Strategy and Operations Management, Dr. Rajagopal has vast experience of over 3 decades in matters relating to International trade in textiles and

clothing. During the course of his

sector, he has been a member of



Dr. Siddhartha Rajagopal Executive Director, The Cotton Textiles career in the textile and clothing Export Promotion Council [TEXPROCIL] visits of trade delegations and

and has been actively associated with consultations/negotiations bilateral with the USA, European Union and the WTO. Dr. Rajagopal has also been instrumental in defending India's trade restrictive interest against and conceiving export measures promotion schemes and market development strategies for the garment and textile sector. He has organized

> India's participation in several international trade fairs and has had the opportunity to travel

several Government delegations/negotiating groups

The comparative data on exports of Indian cotton textile items to the world is shown here:

India's Cotton Textile Exports to the World (Value in USD Million)									
FY	Cotton Madeups	Cotton Fabrics	Cotton Yarn	Raw Cotton	Cotton Textiles				
2001-02	126	843	1,342	48	2,360				
2020-21	3,957	2,005	2,806	1,897	10,665				
CAGR 2001-02 to 2020-21	20%	5%	5%	33%	9%				

Cotton being the king of all eco-friendly fibres, India has been encouraging cotton through various schemes including technology mission on cotton, minimum support price, export benefits, etc. Cotton sector (agriculture, ginning/pressing and trade) alone provides employment to 40 million people in the country and has been a significant contributor to the country's growth in exports.

Government of India has been rendering support to the cotton textile sector through initiatives such as:

- Minimum Support Price to sustain the area under cotton and maintain fair average quality
- Encouraging the consuming mills to increase farm participation through contract farming
- Promoting specialty cotton such as organic cotton, ELS cotton, naturally coloured cotton

extensively the world over.

Making available the low-cost financing schemes for purchase of farm equipment, better quality seeds, eco-friendly pesticides and organic manures/fertilizers has enabled the farmers in most of the areas to double their net income, apart from addressing a greater level of cotton contamination and pest infestation problems at farm level.

The Ministry of Textiles is also in the process of formulating a New Textiles Policy with a vision to develop a competitive textile sector in India which is modern, sustainable and inclusive with special focus on fibre neutrality, by developing non-woven textiles, MMFs, technical textiles along with the continued promotion of natural fibres across the country.

#### Increase Share of Value-Added Exports

Cotton as sustainable fibre ends up being spun, woven, and finally transformed into value-added products. Each strain of cotton has its own unique property and history. Choosing a specific variety, allows a new USP being added to the end-use products, and improves the associated value.

Cotton varieties, popular across the globe including Pima (Peru and Australia), Supima (America), Giza and Egyptian (Egypt), Sea Island (South Carolina), Upland (Mexico), Zimbabwe and CmiA (Africa) are increasingly being demanded for their specific properties - tensile strength, staple length and end-finishing (fine or coarse).

The Government has recently allowed dutyfree imports of cotton for a limited period to ensure that the value addition in textiles remains unabated and share of value-added exports can be increased further.

Efforts are also being undertaken in India to strengthen the Unique Selling Proposition (USP) of popular varieties like Shankar-6, DCH and develop capabilities in production of Extra Long Staple Cotton.

#### Branding Indian Cotton

Government of India, has launched India's premium cotton termed "Kasturi Cotton". This will help textile manufacturers and exporters get better price realisation for the products in the international markets. The Kasturi Cotton brand will represent parameters like whiteness, brightness, softness, purity, lustre and uniqueness. Also, it would enable the Indian cotton value chain to improve quality and emerge as one of the best in the world.

### Focus on Organic Cotton

With 51% share, India is the largest producer of organic cotton in the world. Apparel manufacturers are slowly switching a percentage of their production to organic cotton-based products following a shift in consumer demand. Organic fibres and textiles produced in India are being consumed by prestigious companies in Europe and the US, especially in women and kids wear. The country needs to focus on highlighting the sustainability aspects of cotton of Indian origin. With the increasing awareness, this segment is expected to pick up quickly and is anticipated to grow at a CAGR of 10% in coming future.

#### Improve Traceability

Considering its natural properties and popularity amongst consumers, the cotton fibre in recent times, has become associated with various social projects like 'Clean cotton' or 'Clear cotton' which are seeking to eradicate child labour and forced labour from the cotton, textile and garment sectors.

In the new era – wherein 'Consumer is the King' – terms like 'Better cotton', 'Organic cotton', 'Sustainable cotton', and the taxonomy 'Quality cotton', are increasingly seeking ways to meet environmental responsibility of the fibre. The core idea is to improve traceability to the origin of the fibre and increase circularity of its remnants.

This involves envisaging the programs dedicated to changing the way 'cotton', one of the world's most widely traded commodities, is farmed and marketed. These programs connect growers, manufacturers and consumers to develop a high-quality fibre without using toxic pesticides and herbicides in agriculture. Once marketed, modern technological means are deployed for confirming traceability to the product origin and ensuring circularity by focusing on the extent of biodegradability achieved and increased recycling practices across the entire product cycle.

### Indian Cottons - The Way Forward!

As the largest producer of cotton in the world, India has now become "a leader" in setting the prices and demand trends for cotton as well as cotton textiles worldwide. Even in India, cotton and cotton textile exports are steadily growing. However, with the increasing focus on MMF and non-cotton textiles, the country is less likely to remain a cotton surplus country for many more years.

The country has made a beginning with branded ELS cotton 'Kasturi'. However, the plantation program for increasing acreage and trial runs to improve yield per hectare should start quickly as the price of ELS cotton is seen rising.

Tracing has received a lot of attention in the context of the ban on Xinjiang cotton by the USA. For India to take advantage of the situation, the country requires to attain self-sufficiency in terms of availability of product in abundance for consumption. India cannot claim to be surplus in cotton anymore, therefore, it needs to improve yield per hectare and quality of seeds, as consumption is going up.

The best thing that can happen to cotton is that the domestic textiles industry is able to expand more to consume all our cotton for value added products. However, all growth factors and sustenance in the cotton economy are highly dependent on cotton prices in India.

The time is right for the country to recognise the contribution made by millions of smallholder cotton growers, cotton scientists, ginners, spinners, yarn manufacturers and businesses to the cottontextile value chain and the country's economic development.

With serious stakes in cotton exports, India must come forward in focusing on sustainable cotton production as there is no time to look back. The only option is to look ahead with confidence and optimism.

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					UPCOUI	NTRY SP	OT RA1	TES				(R	.s./Qtl)
Standard Descriptions with Basic Grade & Staple in Millimetres based on Upper Half Mean Length [ By law 66 (A) (a) (4) ]						Spot Rate (Upcountry) 2021-22 Crop May 2022							
Sr. No	Growth	Grade Standard	Grade		Micronaire	Gravimetric Trash	Strength /GPT	16th	17th	18th	19th	20th	21st
1	P/H/R	ICS-101	Fine	Below 22mm	5.0 - 7.0	4%	15	20021 (71200)	20302 (72200)	20724 (73700)	21006 (74700)	21062 (74900)	21062 (74900)
2	P/H/R (SG)	ICS-201	Fine		5.0 - 7.0	4.5%	15	20218 (71900)	20499 (72900)	20921 (74400)	21202 (75400)	21259 (75600)	21259 (75600)
3	GUJ	ICS-102	Fine	22mm	4.0 - 6.0	13%	20	17013 (60500)	17434 (62000)	17856 (63500)	18137 (64500)	18559 (66000)	18559 (66000)
4	KAR	ICS-103	Fine	23mm	4.0 - 5.5	4.5%	21	18419 (65500)	18700 (66500)	18981 (67500)	18981 (67500)	19122 (68000)	19122 (68000)
5	M/M (P)	ICS-104	Fine	23mm	4.5 - 7.0	4%	22	23340 (83000)	23621 (84000)	23902 (85000)	23902 (85000)	24043 (85500)	24043 (85500)
6	P/H/R (U) (SG)	ICS-202	Fine	27mm	3.5 - 4.9	4.5%	26	27417 (97500)	27698 (98500)	28120 (100000)	28120 (100000)	27839 (99000)	27839 (99000)
7	M/M(P)/ SA/TL	ICS-105	Fine	26mm	3.0 - 3.4	4%	25	23058 (82000)	23200 (82500)	23480 (83500)	23480 (83500)	23480 (83500)	23480 (83500)
8	P/H/R(U)	ICS-105	Fine		3.5 - 4.9	4%	26	_ ` /	· /	· /	28570 (101600)	· · · · · ·	· /
9	M/M(P)/ SA/TL/G	ICS-105		27mm	3.0 - 3.4	4%	25	23677 (84200)	23902 (85000)	24183 (86000)	24183 (86000)	24183 (86000)	24183 (86000)
10	M/M(P)/ SA/TL	ICS-105	Fine	27mm	3.5 - 4.9	3.5%	26	24746 (88000)	25167 (89500)	25589 (91000)	25589 (91000)	25870 (92000)	25870 (92000)
	P/H/R(U)	ICS-105	Fine	28mm	3.5 - 4.9	4%	27	28261 (100500)	28682 (102000)	29104 (103500)		28964 (103000) (	28964 (103000)
12	M/M(P)	ICS-105	Fine		3.7 - 4.5	3.5%	27	_ ` /	` '	` '	28626 (101800)	· /	
13	SA/TL/K	ICS-105	Fine		3.7 - 4.5	3.5%	27	28120 (100000)	````	````			```´´
	GUJ	ICS-105	Fine		3.7 - 4.5	3%	27	_ \ _ /	` /	· /	28401 (101000)		· /
	R(L)	ICS-105	Fine		3.7 - 4.5	3.5%	28	_ ` /			28823 (102500)		· /
	M/M(P)	ICS-105			3.7 - 4.5	3.5%	28	28823 (102500)					
	· ·	ICS-105				3%	28	28879 (102700)	(104200)	(105200)	· · · · ·	(105200) (	(105200)
	GUJ	ICS-105				3%	28	28401 (101000)	· · · · · ·		· · · · ·		
	M/M(P)	ICS-105				3.5%	29	29526 (105000)	· /	· /			
		ICS-105				3%	29	29666 (105500)					
	M/M(P)	ICS-105				3%	30	29948 (106500) 20088	30369 (108000) 30510	·			`/
	SA/TL/ K/TN/O				3.7 - 4.5	3%	30	30088 (107000) NLA	(108500)		·		. ,
	SA/TL/K/ TN/O				3.5 - 4.2	3%	31	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.)	N.A. (N.A.) 22107
	M/M(P)	ICS-107				4%	33	31635 (112500) 32760	32057 (114000) 33181		· /		`/
	K/TN	ICS-107				3.5%	34	32760 (116500) 32900		33181 (118000) 33322	·	33322 (118500) ( 33463	33322 (118500) 33463
	M/M(P) K/TN	ICS-107 ICS-107				3.5%	35	32900 (117000) 33884					
	17/111	100-107	1 IIIC	John	2.0 - 0.7	0.0 /0		(120500)					

(Note: Figures in bracket indicate prices in Rs./Candy)