



COTTON PERFORMANCE REVIEW 2023-2024

FOREWORD TO THE COTTON PERFORMANCE REVIEW

The Cotton Performance Report (PR) is the outcome of the SEBI circular SEBI/HO/CDMRD/DNPMP/CIR/P/2020/21 dated February 04, 2020 directing all recognized Stock Exchanges offering commodity derivatives segment to create a 'Performance review of the commodity derivatives contracts'. The PR, based on SEBI directive, has to be uploaded on the Exchange website by June 30, 2024 after consultation with the respective Product Advisory Committee (PAC).

Following the above directive, the Agri - Product Management Team (PMT) at the Exchange has created PRs for all the listed Agri products. These have since been prepared in consultation with the respective Commodity/Commodity Complex PACs.

The Cotton Performance Report highlights the important aspects of the trade like the domestic and international supply, import and export statistics, etc. There is also extensive information on the volume, turnover, open interest, deliveries of Cotton on the Exchange, along with the price correlations with spot markets, international market and hedging efficiency to help the market participants get an empirical understanding of the performance of the Cotton contract on the Exchange.

Acknowledgement

We have been ably guided by the MCX Cotton Complex PAC members in improving the content of the report and we are extremely thankful to them. We hope to keep improvising the report going forward.

1. Background

a. Brief about the commodity such as sample picture, lifecycle and various varieties/grade of the commodity found in India.

Brief about Cotton

Cotton is a natural fiber and one of the most important textile fibers. Cotton is classified based on staple, grade and character of each bale-staple refers to the fibre length; grade ranges from coarse to premium and is a function of colour, brightness, and purity; and character refers to the fibre's strength and uniformity.

India is the only country which grows all four species of cotton G. Arboreum & G. Herbaceum (Asian cotton), G. Barbadense (Egyptian cotton) and G. Hirsutum (American Upland cotton). G. Hirsutum represents 90% of the hybrid cotton production in India and all the current Bt cotton hybrids are G. Hirsutuim.

It is a heavily traded agricultural commodity with a number of countries involved in exporting or importing cotton. India is the second largest cotton producing and 4th largest exporting country in the world.

Sample picture



Life cycle

Cotton is grown in India in three zones with different sowing and harvesting periods during the season from October-September.

North Zone	Central Zone	South Zone			
Punjab, Haryana, Rajasthan	Gujarat, Maharashtra,	Telangana, Andhra Pradesh,			
	Madhya Pradesh	Tamil Nadu, Karnataka			
	Sowing				
April, May	June, July	July, August, September			
	Harvesting				
September, October	October, November,	December, January, February			
	December				
Staple length					
Medium & Short Staple	Medium & Long Staple	Long & Extra Long Staple			

Cotton in India is generally not stored for more than a year. This stored Cotton can be prone to deterioration in grade, colour and quality. The extent of deterioration depends on the condition and period of storage, the variety of Cotton, the atmospheric conditions like humidity, rainfall, etc., prevailing during this period, ventilation and incidence of pests in the godowns, etc.

Various varieties/grades

Major Varieties: Bengal Desi, Assam Camilla, Jaydhar, V797/G-Cot-13/ G-Cot-21, AK/Y-1(MH-MP),MCU-7,SVPR-2(TN), J-34 (RJ), Hybrid, LRA-5166/KC-2(TN), F-414/H-777, H-6/H-7/MECH/RCH-2, Shanker-6/10, Bunny/Brahma, MCU-5/Surabhi, DCH-31 and Suvin.

Grade: Color grade determined the degree of reflectance (Rd) and yellowness (+b) as established by official standards and measured by the High-Volume Instruments (HVI).

Cotton is classified in five different groups of staple lengths of fibers. India has the advantage of growing all species of cotton i.e. from short staple 20 mm & below, medium staple (20.5 to 24.5 mm), medium long (25.0 to 27.0 mm), long (27.5 to 32.0 mm) and extra-long staple cottons (32.5 mm and above).

b. Commodity fundamentals and balance sheet as per the following format (to be prepared based on publicly available information on best effort basis):

Cotton Fundamentals

- Demand and supply scenario and inventory levels
- Weather, pests, diseases and other risk factors associated with agricultural crops.
- Government policies on Imports- Exports, Kapas MSP, Tariff & Non-tariff barriers including taxes, quota.
- Cotton yarn prices in different markets across the country
- Economic conditions e.g. recession, inflation
- Trend in other fast-growing economies
- Geo-political factors Global and India
- Prices ruling in the international markets.
- Forex rates

Global Cotton Balance Sheet

Global	202		2023-24		
Scenario	Lakh MT	Lakh Bales of 170 Kg each)	Lakh MT	Lakh Bales of 170 Kg each)	
Opening Stocks	162.21	954.18	175.09	1029.94	
Production	253.23	1489.59	247.26	1454.47	
Consumption	243.12	1430.12	246.81	1451.82	
Closing Stocks	175.09	1029.94	175.22	1030.71	

Source - USDA

Domestic Cotton Balance Sheet

	202	2-23 (P)*	2023-24 (P)*	
Indian Scenario	Lakh MT	Lakh Bales of 170 Kg each)	Lakh MT	Lakh Bales of 170 Kg each)
Opening Stocks	6.71	39.48	10.40	61.16
Production	57.22	336.60	54.93	323.11
Imports	2.48	14.60	2.04	12.00
Total Supply	66.42	390.68	67.37	396.27
Exports	2.70	15.89	4.59	27.00
Domestic Consumption	53.32	313.63	53.89	317.00
Closing Stocks	10.40	61.16	8.89	52.27

Source- As estimated by Committee on Cotton Production and Consumption (COCPC), P-Provisional.

Top 10 Major	2022-23		2023-24	
Producing Countries	Lakh MT	Lakh Bales of 170 Kg each)	Lakh MT	Lakh Bales of 170 Kg each)
China	66.84	393.18	59.87	352.18
India	57.26	336.82	56.61	333.00
Brazil	25.52	150.12	31.72	186.59
USA	31.5	185.29	26.27	154.53
Pakistan	8.49	49.94	14.59	85.82
Australia	12.63	74.29	10.89	64.06
Turkey	10.67	62.76	6.97	41.00
Uzbekistan	6.75	39.71	6.31	37.12
Argentina	2.83	16.65	3.48	20.47
Mali	2.72	16.00	2.83	16.65

Source – USDA

Top 10 Major	2022-23		2023-24	
Consuming Countries	Lakh MT	Lakh Bales of 170 Kg each)	Lakh MT	Lakh Bales of 170 Kg each)
China	81.65	480.29	83.82	493.06
India	52.25	307.35	53.78	316.35
Pakistan	18.94	111.41	20.25	119.12
Bangladesh	16.76	98.59	16.76	98.59
Turkey	16.33	96.06	14.59	85.82
Vietnam	14.04	82.59	14.81	87.12
Brazil	6.78	39.88	6.97	41.00
Uzbekistan	7.18	42.24	6.31	37.12
Indonesia	4.79	28.18	4.03	23.71
USA	4.79	28.18	3.92	23.06

Source – USDA

Top 10 Major	2	022-23	2023-24	
Exporting Countries	Lakh MT	Lakh Bales of 170 Kg each)	Lakh MT	Lakh Bales of 170 Kg each)
USA	27.79	163.47	26.78	157.53
Brazil	14.49	85.24	26.34	154.94
Australia	13.47	79.24	13.06	76.82
India	2.39	14.06	4.57	26.88
Mali	1.63	9.59	2.50	14.71
Benin	2.39	14.06	2.29	13.47
Greece	2.90	17.06	1.74	10.24
Turkey	1.09	6.41	3.05	17.94
Cameroon	1.31	7.71	1.36	8.00
Sudan	1.20	7.06	1.14	6.71

Source – USDA

Top 10 Major	20)22-23	2023-24		
Importing Countries	Lakh MT	Lakh Bales of 170 Kg each)	Lakh MT	Lakh Bales of 170 Kg each)	
China	13.57	79.82	32.22	189.53	
Bangladesh	15.24	89.65	16.11	94.76	
Vietnam	14.09	82.88	14.81	87.12	
Turkey	9.12	53.65	8.06	47.41	
Pakistan	9.80	57.65	6.10	35.88	
Indonesia	3.62	21.29	4.14	24.35	
India	3.76	22.12	2.18	12.82	
Malaysia	1.09	6.41	1.58	9.29	
Mexico	2.07	12.18	1.31	7.71	
Iran	0.98	5.76	1.14	6.71	

Source – USDA

Top 10 Major Producing	2022	2022-23 (P)*		2023-24 (P)*	
States in India	Lakh MT	Lakh Bales of 170 Kg each)	Lakh MT	Lakh Bales of 170 Kg each)	
Gujarat	14.95	87.95	15.24	89.65	
Maharashtra	14.14	83.16	14.01	82.43	
Telangana	9.77	57.45	8.18	48.12	
Rajasthan	4.72	27.74	4.66	27.43	
Madhya Pradesh	2.44	14.33	3.05	17.97	
Karnataka	4.37	25.68	2.88	16.93	
Haryana	1.70	10.01	2.47	14.50	
Andhra Pradesh	2.62	15.41	1.97	11.58	
Odisha	1.20	7.05	1.26	7.44	
Punjab	0.75	4.44	0.83	4.89	
Others	0.57	3.38	0.37	2.17	
All India	57.23	336.60	54.92	323.11	

Source- As estimated by Committee on Cotton Production and Consumption (COCPC), P-Provisional.

c. Major changes in the policies governing trade in the spot markets of the commodity.

Government of India has increased the Minimum Support Price (MSP) of kharif crops for the Marketing Year 2023-24. Cotton MSP has increased to Rs 6620 (+8.9%) per quintal for medium staple and Rs 7020 (+10%) per quintal for long staple cotton as compared to price for medium staple at Rs 6080 per quintal and Rs 6380 per quintal for long staple during the marketing year 2022-23. Source: Ministry of Agriculture & Farmers Welfare, pib.gov.in, dated 07 June, 2023. Link: https://pib.gov.in/PressReleasePage.aspx?PRID=1930443.

Government of India has waved import duty of cotton of staple length exceeding 32.0 mm with notification number 10/2024-Customs Dated 19-February-2024 with effect from 24th February 2024. https://caionline.in/uploads/cards/doc/ELS_Import_Duty.pdf

The Government of India has launched PM Mega Integrated Textile Region and Apparel (PM MITRA) Parks Scheme to develop world class infrastructure including plug and play facility with an outlay of Rs. 4445 crores for a period up-to 2027-28. PM MITRA Parks Scheme are inspired by the 5F vision of Hon'ble Prime Minister - Farm to Fibre to Factory to Fashion to Foreign. Nearly Rs. 70,000 crore investment and 20 lakhs employment generation is envisaged. Parks will offer an opportunity to create an integrated textiles value chain right from spinning, weaving, processing/dyeing and printing to garment manufacturing at a single location. World-class industrial infrastructure would attract cutting edge technology and boost FDI and local investment in the sector. Kasturi Cotton Bharat programme of Ministry of Textiles is a first of its kind branding, traceability and certification exercise carried out jointly by the Government of India, Trade Bodies and Industry to promote Indian Cotton. Stakeholders across the supply chain including farmers, Ginning Units, Spinning Mills, Processing Houses, Weaving Units, Garmenting Units, Home Textile manufacturers and even Retailers and Brands will be involved in a collaborative effort to promote and enhance the value of Indian Cotton across the domestic and overseas markets. To

encourage the Trade and Industry to work on the principle of self-regulation by owning complete responsibility of Traceability, Certification and Branding of Kasturi Cotton Bharat, MoU has been signed between CCI on behalf of Govt. of India, Ministry of Textiles and TEXPROCIL. The Ministry of Textiles is driving this initiative in a mission-oriented approach, allocating budgetary support in alignment with Rs.15 crores contribution from Trade & Industry Bodies. Spanning three years from 2022-23 to 2024-25, this collaborative effort anticipates a positive impact on the entire Indian Textile Industry, fostering an elevated global perception and value for Indian Cotton. Source: pib.gov.in, 21 December 2023. Link: https://pib.gov.in/PressReleasePage.aspx?PRID=1989149

d. Geo-political issues in the commodity and its impact on Indian scenario.

There is no major geo-political issues and its impact on Indian scenario of Cotton.

2. Trading related parameters

a. Monthly and Annual traded volume (quantity in appropriate units)

Month	Traded Quantity
	(MT)
APR'23	26,537
MAY'23	18,564
JUN'23	28,118
JUL'23	11,373
AUG'23	13,549
SEP'23	3,791
OCT'23	3,485
NOV'23	8,789
DEC'23	5,270
JAN'24	15,878
FEB'24	26,163
MAR'24	25,381
2023-24	1,86,898

b. Annual traded volume as proportion of total deliverable supply (quantity in appropriate units)

2023-24	Unit	Annual Traded Volume	Deliverable Supply	
2025-24	MT	1,86,898	67,36,590	
	Lakh Bales of 170 Kg	11	396	
Annual traded volume as proportion of deliverable supply		2.77%		

c. Annual trade volume as proportion of total annual production (quantity in appropriate units)

	Unit	Annual Traded Volume	Production
2023-24	MT	1,86,898	54,92,870
	Lakh Bales of 170 Kg	11	323
Annual traded volume as proportion of production		3.40%	

d. Annual average Open interest as proportion of total production

	Unit	Annual Average OI	Production
2023-24	MT	5346	54,92,870
	Lakh Bales of 170 Kg	0.31	323
Annual daily average OI as proportion of production		0.10%	

e. Annual average Open interest as proportion of total deliverable supply

2023-24	Unit	Annual Average OI	Deliverable Supply
	MT	5346	67,36,590
	Lakh Bales of 170 Kg	0.31	396
Annual average OI as proportion of deliverable supply		0.08%	

f. Monthly and Annual value of trade (in Rs. Crores)

Month	Volume
	(Rs. Cr)
APR'23	473.05
MAY'23	314.99
JUN'23	456.56
JUL'23	185.98
AUG'23	228.42
SEP'23	65.21
OCT'23	58.13
NOV'23	142.52
DEC'23	84.28
JAN'24	253.79
FEB'24	450.68
MAR'24	445.07
2023-24	3,158.68

g. Monthly and Annual quantity of delivery (in appropriate units)

Month	Delivery (MT)
APR'23	2423.50
JUN'23	2304.03
AUG'23	3174.44
NOV'23	563.21
JAN'24	1262.95
MAR'24	1536.02
2023-24	11264.15

h. Monthly and Annual value of delivery (Rs. Crore)

Month	Delivery Settled Amount
APR'23	42.12
JUN'23	35.46
AUG'23	53.31
NOV'23	8.93
JAN'24	19.85
MAR'24	25.85
2023-24	185.52

i. Monthly and Annual Average Open Interest (OI) (in appropriate units)

Month	Average OI (MT)
APR'23	5784.47
MAY'23	6347.65
JUN'23	7908.09
JUL'23	6501.29
AUG'23	5639.36
SEP'23	1716.19
OCT'23	2099.10
NOV'23	2722.96
DEC'23	3298.85
JAN'24	4741.45
FEB'24	7824.86
MAR'24	9764.80
2023-24	5345.60

j. Annual Average volume to open interest ratio

	Unit	Average Traded Volume	Average OI
2023-24	MT	732.93	5345.6
	Lakh Bales of 170 Kg	0.04	0.31
Annual average volume to open interest ratio	1:	3.71%	

k. Total number of unique members and clients who have traded during the financial year

Commodity	Unique Members	Unique Client
COTTON	76	498

Note: Client count (including proprietary) traded during the period April 2023 to March 2024.

l. Ratio of open interest by FPOs/farmers/Hedge/VCP positions to total open interest (Annual average as well as maximum daily value)

Average				Maximum Ope	en Interest		
Daily Average	Unit	FPOs/ Farmers/ VCPs/ Hedgers		% FPOs/ Farmers/ VCPs/ Hedgers		FPOs/ Farmers/ VCPs/ Hedgers	
Open Interest		Long	Short	Long	Short	Long	Short
15,247.18	Candy	3,939.78	4,081.70	22.22	32.99	10,272.00	720.00

Note: Details are provided based on daily disclosure on the Exchange website for the period April 2023 to March 2024 in line with SEBI circular no SEBI/HO/CDMRD/DNPMP/CIR/P/2019/08 Dated January 04, 2019 Based on the data provided by the members from time to time pertaining to Farmers/ FPOs, VCPs/ Hedgers.

m. Number of unique FPOs/farmers and VCPs/hedgers who traded in the financial year. Based on the classification provided by the members as on March 31, 2024 for clients traded during FY 2023-24.

Commodity	Farmers/FPOs	Value Chain Participants (VCPs)/Hedgers
COTTON	-	-

n. Algorithmic trading as percentage of total trading

2023-24	Algorithmic trading as % of total trading	
COTTON	4.63	

o. Delivery defaults

Number of instances	Quantity involved (MT)	Value involved (Rs. Crs)
2	34.13	0.58

3. Price movements

a. Comparison, correlation and ratio of standard deviation of Exchange futures price visà-vis international futures price (wherever relevant comparable are available).

Correlation between MCX Cotton futures prices and ICE futures	
prices in 2023-24	0.45
Standard Deviation of MCX Cotton futures prices in 2023-24	0.81
Standard Deviation of ICE Cotton futures prices in 2023-24	1.56
Ratio of Standard Deviation of MCX Cotton futures prices to ICE prices in 2023-24	0.52

b. Comparison, correlation and ratio of standard deviation of Exchange futures price visà-vis international spot price (wherever relevant comparable are available) and domestic spot price (exchange polled price).

The international spot prices (ICE) data for cotton could not be obtained.

c. Correlation between exchange futures & domestic spot prices along with ratio of standard deviation.

Correlation between MCX Cotton futures prices and spot prices in 2023-24	0.93
Standard deviation of MCX Cotton futures prices in 2023-24	0.81
Standard deviation of MCX Cotton spot prices in 2023-24	0.59
Ratio of Standard deviation of MCX Cotton futures prices to spot prices in 2023-24	1.37

d. Correlation between international futures & international spot prices along with ratio of standard deviation (wherever relevant comparable are available).

The international spot prices (ICE) data for cotton could not be obtained.

e. Comparison of Exchange polled price and mandi price (in case of agricultural commodities) / other relevant price (in case non-agricultural commodities) at basis centre.

The local mandi prices for cotton could not be obtained.

f. Maximum & Minimum value of daily futures price volatility and spot price volatility along with disclosure of methodology adopted for computing the volatility.

	Maximum Daily Volatility (%)	Minimum Daily Volatility (%)
MCX Futures price	1.12	0.43
MCX Spot price	0.99	0.28

Note: Above details are based on near month contract volatility and for the period 1-Apr-23 to 31-Mar-24. Methodology adopted for computing the volatility is Exponential Weighted Moving Average (EWMA).

g. Number of times the futures contract was in backwardation/contango by more than 4% for the near month contract in the period under review.

Five (5) times the futures contract was in backwardation/contango by more than 4% for the near month contract in 2023-24.

4. Other parameters

a. Qualitative and quantitative measure for Hedge effectiveness ratio and basis Risk (Volatility of Basis) along with disclosure of methodology adopted for such calculations

Hedging Efficiency for 2023-24			
Commodity	Hedge Ratio		
Cotton	0.5291		

Note: Hedging efficiency is the value of Coefficient of Determination (R^2) obtained from regressing changes in five-day moving average of daily MCX Spot Prices on changes in five-day moving average of daily MCX Futures Prices during the period.

Commodity	Unit of Basis	Basis Risk
Cotton	Rs/Candy	2.6874

Note: Basis Risk is computed as the Standard Deviation of normal returns in Basis, which is excess of Spot over Futures price. In case Basis is zero for any day, next day's Basis return has been ignored for computing the Standard Deviation.

b. Details about major physical markets of the commodity vis-à-vis market reach in terms of availability of delivery centers (information to be provided state-wise and UT-wise)

Name of State	Name of the physical markets	Market Reach of Exchange delivery centers
Gujarat	Keshod, Bardoli, Jetpur Pavi, Gondal, Balasienor, Rajkot, Kadi, Mundra, Babra, Amreli, Sabarkantha, Visnagar, Vijapur, Halvad, Unai, Manavadar, Bevla, Mansa, Mandvi, Kutch.	Rajkot, Kadi, Mundra
Maharashtra	Nagpur, Narkhed, Nanded, Yavatmal, Jalna, Hinganghat, Wardha, Pulgaon, Akola, Amaravati, Murtizapur, Aurangabad, Sillod, Dhule, Jalgaon	Yavatmal, Jalna
Punjab	Bhatinda, Ferojpur, Sangur, Muktsar, Faridkot, Mansa	No delivery centre
Haryana	Hisar, Fatehabad, Sirsa, Bhiwani, Rohtak, Panipat, Jind, Kaithal, Gurgoan	No delivery centre
Karnataka	Bailhogal, Bellary, Bijapur, Gadaj, Haliyal, Hubli, Kottur, Jamkhand, Raichur, Ranebennur, Savadatti, Shimoga, Yellapur	No delivery centre
Madhya Pradesh	Badwani, Betul, Chindwara, Dhar, Dewas, Harda, Jhabua, Khandwa, Khargone, Ratlam, Shajapur, Dhamnod, Indore	Indore
Telangana	Adilabad, Warangal, Nirmal,	Adilabad
Andhra Pradesh	Guntur, Khammam	No delivery centre
Rajasthan	Hanumangarh, Pili Banga, Sriganga–nagar, Palampur, Sangriya, Suratgarh, Sri Vijayanagar, Shadulshakar, Rawatsar, Kherthal, Bijaynagar, Rajsighnagar.	No delivery centre
Tamil Nadu	Cuddallore, Villupuram, Vellore, Thiruvannamalai, Salem, Dharamapuri, Coimbatore, Erode, Tiruchilapalli, Thanjavur, Pudukottai, Dindigul, Madurai, Theni, Virudhanagar, Tirunelveli	No delivery centre
Orissa	Ganjam, Roygoda, Karaput, Kalahandi, Navaranpur, Bolangir, Dhenkenal,	No delivery centre

Source: Trade Estimate.

c. Details about major physical markets of the commodity and Average Open Interest for each month generated from those regions.

Details about physical markets are given above. Region-wise open interest is not available.

d. Details, such as number and target audience, of stakeholders' awareness programs carried out by the exchange.

Overall, the PMT – Agri team conducted 197 programs in the Agri segment, and the target participants were primarily the physical participants, especially, the Farmers and Farmer Producing Organisations (FPOs) associated with the commodities listed on the MCX platform.

e. Steps taken / to be undertaken to improve hedging effectiveness of the contracts as well as to improve the performance of illiquid contracts.

The exchange strives to ensure that the contract remains a healthy replica of the physical market. We do one-on-one meetings and Product Advisory Committee (PAC) meetings with the physical market participants to make modifications in the contract to make it more lucrative for physical participants to participate in the contract.

4. Any other information to be disclosed as deemed important by the exchange or as suggested by the PAC.

No other information to be disclosed.

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