Parameters for Performance Review of Commodity

ISABGOL SEED

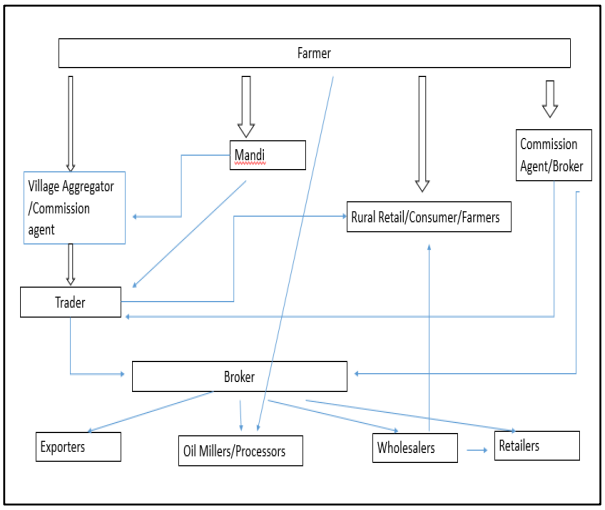
1. Background

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

Isabgol (plantago ovata forsk) is a short-stemmed commercially important medicinal annual herb that is mainly grown for its seeds. India is the top producer of these seeds and Isabgol husk. Isabgol Seed is a dietary fiber and of the most commonly used home remedies for various ailments. Isabgol husk is majorly used by pharmaceutical industry for the patients of constipation, Diarrhoea, cholesterol ,Type II Diabetes, etc. Isabgol Seed helps in improving cardiovascular health, boosting immunity, clearing skin pores, controlling blood glucose levels, etc. It is also being used in food industry especially in ice creams, biscuits and candies. Isabgol can be used in the form of Psyllium Husk, Seed, Ripe Seeds, and Powder. Isabgol is distributed in India, West Asia, Pakistan, Bangladesh, Persia, Mexico, and Mediterranean Regions.

Isabgol is planted in Rabi season in Rajasthan, Gujarat and Madhya Pradesh. Sowing normally takes place in November and December. Blooming begins two months after sowing and the crop becomes ready for harvest in February-March. In Rajasthan and India as whole typically the crop duration of Isabgol is 110 -130 days.

Crop Cycle (India)												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rabi												
		Harvesting									Sowing	

Life Cycle: Value Chain of the Commodity	Major Varieties /Grade
	Major Varieties: Major varieties are G1 (Gujarat - 1), G2 (Gujarat – 2), TS-1-10, EC-124345, Niharika, Haryana Isabgol1-5, Jawahar Isabgol-4 NCDEX Quality Parameters • Red & Immature Seed: 4.5% Max • Black, Dead & Damaged Isabgol seeds: 2% Max • Foreign matter & Organic matter – Sticks, dalkhi, Sand and silica: 2% Max • Test Weight: Weight of 100 seeds shall not weigh less than 0.17 gram and not more than 0.22 gram. • Moisture: 8.00% Basis and acceptable up to 10% with Moisture adjusted weight (MAW) of 1:1. • Gola (Isabgol seeds Kernels): 0.5% Max • Total ash, percent by mass, Max: 3 • Acid insoluble ash, percent by mass: 0.6 • Mould and yeast Count, per g, Max : 1000

	• Salmonella: Absent (in 10 g) • E. coli: Absent (in 1 g)

Table: Reference Years for Commodities

Sl. No.	A	B	C
Crop Season	**Kharif**	**Kharif (Long Duration crop)**	**Rabi**
Crops	Paddy, Maize, Bajra, Guar seed, Kapas, Sesame Seed, Groundnut	Castor seed and Turmeric	Barley, Coriander, Jeera, Isabgol seed
Relevant Processed commodities	Guar gum, Cotton, Cotton seed Oil cake, Gur, Crude Sunflower Oil	Castor Oil	-
Sowing Time	July onwards	July onwards	October onwards
Harvesting Time	Oct onwards	Jan onwards	March onwards
Reference Year Financial Year 2023-24 (Apr-Mar)			
Corresponding Years			
Production Year (PY)	2023-24 (July-Sept)	2022-23 (July-June)	2022-23 (July-June)
Marketing Year (MY)	2023-24 (Oct-Sept)	2023-24 (Jan/Feb-Dec/Jan)	2023-24 (Mar/Apr - Feb/Mar)
Calendar Year (CY)	2023 (Jan-Dec)	2023 (Jan-Dec)	2023 (Jan-Dec)
Relationship b/w Various Years	Current Financial Year = Current Production Year = Current Marketing Year = Calendar Year	Current Financial Year = Previous Production Year = Current Marketing Year = Current Calendar Year	Current Financial Year = Previous Production Year = Current Marketing Year = Current Calendar Year
Example	FY 2023-24= PY 2023-24= MY 2023-24= CY 2023	FY 2023-24= PY 2022-23 = MY 2023-24 = CY 2023	FY 2023-24 = PY 2022-23 = MY 2023-24 = CY 2023

Note: Coffee is a plantation crop; hence, it is not classified under either Kharif or Rabi season in the above table.

Explanatory Notes:

- India is a vast country and various crops are sown and harvested at different point of time. However, two major crop seasons, are there i.e. Kharif & Rabi. Apart from it, Zaid/Summer season is also there.

- Crop seasons are classified based upon sowing time. Normally Kharif season sowing starts from mid-June/July and new crop arrivals begin from Oct/Nov. However, early/late sowing/harvesting also takes place. Rabi season sowing usually takes place mainly from October/November and harvesting starts from March/April. Early/late sowing/harvesting also takes place. Summer crops/Zaid crops are short duration crops mainly sown during January-March and harvested during April-June.

- "Production Year" is considered as "July to June". With the start of monsoon rains during June/July the sowing of Kharif season starts and they are harvested during Sept/Oct. From Oct onwards the sowing of Rabi season crops starts and harvesting usually takes place during March/April. Thus, a single production cycle completes between July-Sept period covering Kharif, Rabi and Zaid crops. Thus production year remains same for all season crops and the period corresponds to July-Sept.

- "Marketing Year" for each crops starts from beginning of the harvest time i.e. from start of new crop produce arrivals in the market. Thus, for Kharif crops Marketing Year is generally considered as "October to September", while for Rabi crops Marketing Year is considered as "April to March". However, Marketing Year may vary slightly for some of the crops depending upon early/late maturity/harvesting.

- For processed commodities, their production starts after the start of new season crop arrivals of their underlying crop.

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

India is the only major producer and exporter of Isabgol seed in the world. Its major importers are U.S.A, Germany and Italy.

Table - Fundamentals & Balance sheet (quantity)

(In Lakh Tonnes)

Global Scenario	Previous FY (2022-23)	Current FY (2023-24) (P)
Opening Stocks	NA	NA
Production	NA	NA
Imports	NA	NA
Total Supply	NA	NA
Exports	NA	NA
Domestic Consumption	NA	NA
Closing Stocks	NA	NA

NA: Data is not available in the public domain; P: Provisional;

(In Lakh Tonnes)

Indian Scenario	Previous FY (2022-23)	Current FY (2023-24) (P)
Opening Stocks	NA	NA
Production	2.67	2.36
Imports	0.01	0.005
Total Supply	NA	NA
Exports	0.52	0.40
Domestic Consumption	NA	NA
Closing Stocks	NA	NA

Source:
Production data is summation of Isabgol production of Madhya Pradesh, Gujarat and Rajasthan. It is sourced from Department of Horticulture of Madhya Pradesh, Directorate of Agriculture Gujarat and Department of Agriculture of Rajasthan. Production data for Rajasthan for FY 2022-23 and FY 2023-24 is not available in public domain. It is based on 3-year moving average.
Import/Export: Ministry of Commerce (HS codes 12119032 and 12119013); For MY 2023-24, import / export data is for the period April 2023 to February 2024. (P): Provisional

(In Lakh Tonnes)

Rank	Top 10 Major Producing Countries			Top 10 Major Consuming Countries		
	Country	Previous FY	Current FY	Country	Previous FY	Current FY
	NA			NA		

Rank	Top 10 Major Exporting Countries			Top 10 Major Importing Countries		
	Country	Previous FY	Current FY	Country	Previous FY	Current FY

	NA	NA

NA: Not Available. Data is not available in public domain. As per market feedback, India is considered as the largest producer and exporter of Isabgol in the world

(In Lakh Tonnes)

Top 10 Major producing states in India			
Rank	States	Previous FY (2022-23)	Current FY (2023-24) (P)
1	Madhya Pradesh	0.16	0.16
2	Gujarat	0.11	0.06
3	Rajasthan	2.40	2.14
	Total	2.67	2.36

Source: Production data is summation of Isabgol production of Madhya Pradesh, Gujarat and Rajasthan. It is sourced from Department of Horticulture of Madhya Pradesh, Directorate of Agriculture Gujarat and Department of Agriculture of Rajasthan. Production data for Rajasthan for FY 2022-23 and FY 2023-24 is not available in public domain. It is based on 3-year moving average.
The share of other states (except for top 3 states) in total domestic production is negligible. P: Provisional

c. Major changes in the polices governing trade in the spot markets of the commodity (FY 2023-24)

Date	Major Policies Governing Trade and related Changes
NA	NA

d. Geo political issues in the commodity and its impact on Indian scenario (FY 2023-24)

Date	Event	Key Details	Key Implications/Impact
	No specific Geo-political issues were seen during review period		

2. Trading related Parameter

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

Month	Year	Symbol	Traded volume (MT)
Apr	2023	ISABGOL	735
May	2023	ISABGOL	735
June	2023	ISABGOL	411
July	2023	ISABGOL	183
August	2023	ISABGOL	15
September	2023	ISABGOL	12
October	2023	ISABGOL	-
November	2023	ISABGOL	-
December	2023	ISABGOL	-
January	2024	ISABGOL	-
February	2024	ISABGOL	-
March	2024	ISABGOL	-
Annual Traded Volume (MT) (April'23 to March'24)			**2,091**

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

Symbol	Traded Volume (MT)	Deliverable Supply(MT)	Proportion
ISABGOL	2,091.00	236,000	-

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

Symbol	Traded volume (MT)	Production(MT)	Proportion
ISABGOL	2,091	236,000	-

d. Annual average Open interest as proportion of total production

Symbol	Average Open Interest (MT)	Production(MT)	Proportion
ISABGOL	39.63	236,000	-

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

Symbol	Average Open Interest (MT)	Deliverable supply(MT)	Proportion
ISABGOL	39.63	236,000	-

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

Month	Year	Symbol	Traded value (in Rs. Crores)
April	2023	ISABGOL	18.38
May	2023	ISABGOL	18.00
June	2023	ISABGOL	9.65
July	2023	ISABGOL	4.85
August	2023	ISABGOL	0.41
September	2023	ISABGOL	0.32
October	2023	ISABGOL	-
November	2023	ISABGOL	-
December	2023	ISABGOL	-
January	2024	ISABGOL	-
February	2024	ISABGOL	-
March	2024	ISABGOL	-
Annual Traded Volume (in Rs Crores) (April'23 to March'24)			**51.60**

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

Expiry Month	Year	Symbol	Total Delivery (in MT)
May	2023	ISABGOL	51
June	2023	ISABGOL	39
July	2023	ISABGOL	93
August	2023	ISABGOL	9
September	2023	ISABGOL	3
October	2023	ISABGOL	6
Annual value of delivery (in MT) (April'23 to March'24)			**201**

h. Monthly and Annual value of delivery (in Rs. Crores)

Expiry Month	Year	Symbol	Total Delivery Value (in Cr)
May	2023	ISABGOL	1.26
June	2023	ISABGOL	0.96
July	2023	ISABGOL	2.51
August	2023	ISABGOL	0.24

September	2023	ISABGOL	0.08
October	2023	ISABGOL	0.15
Annual value of delivery (in Crores) (April'23 to March'24)			**5.20**

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

Month	**Year**	**Symbol**	**Average Open Interest (MT)**
Apr	2023	ISABGOL	196.50
May	2023	ISABGOL	164.32
June	2023	ISABGOL	101.86
July	2023	ISABGOL	73.86
August	2023	ISABGOL	9.14
September	2023	ISABGOL	6.15
October	2023	ISABGOL	3.60
November	2023	ISABGOL	-
December	2023	ISABGOL	-
January	2024	ISABGOL	-
February	2024	ISABGOL	-
March	2024	ISABGOL	-
Annual Average OI (MT) (April'23 to March'24)			**39.46**

j. Annual average volume to open interest ratio

22.55%

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

Symbol	Member Count	Client Count
ISABGOL	41	92

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

Annual Average	18.85%
Maximum Daily Value	50.00%

m. Number of unique FPOs / farmers and VCPs/hedgers who traded in the financial year

Commodity	Count
ISABGOL	6

Commodity wise client categorization is as per category details as provided by the members.

n. Algorithmic trading as percentage of total trading

Commodity	%
ISABGOL	2.44%

o. Delivery defaults

Number of instances	0
Quantity involved	0
Value involved	0

3. Price Movement

a. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international futures price (wherever relevant comparable are available).
Not Applicable

b. Comparison, correlation and ratio of standard deviation of Exchange futures price vis-à-vis international spot price (wherever relevant comparable are available) and domestic spot price (exchange polled price).
Not Applicable

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

Correlation			
	Futures	*Spot*	*Mandi*
Futures	1		
Spot	0.708371	1	
Mandi	0.194859	0.246979	1

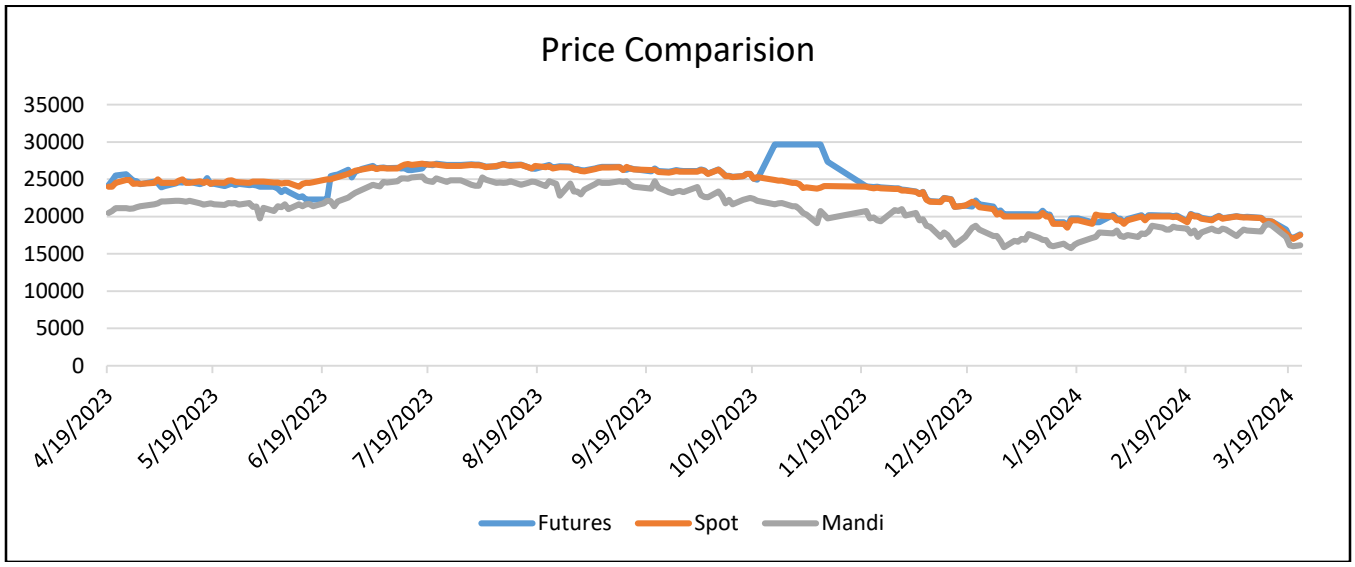
Standard Deviation			
	Futures	*Spot*	*Mandi*
Futures	1	0.91812	1.695019
Spot	1.089182	1	1.846184
Mandi	0.589964	0.541658	1

d. Correlation between international futures & international spot prices along with ratio of standard deviation (wherever relevant comparable are available).
Not Available

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.

Correlation			
	Futures	*Spot*	*Mandi*
Futures	1		
Spot	0.708371	1	
Mandi	0.194859	0.246979	1

Standard Deviation			
	Futures	*Spot*	*Mandi*
Futures	1	0.91812	1.695019
Spot	1.089182	1	1.846184
Mandi	0.589964	0.541658	1



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

	Futures		Spot	
Volatility	Month	Value	Month	Value
Max	Apr	0.025	Jan	0.026
Min	Aug	0.006	Jul	0.005

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.

Contango by more than 4% for near month contract	28
Backwardation by more than 4% for near month contract	0

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

	ISABGOL
Basis Volatility	8.59
Hedge efficiency	0.01

The methodology for hedge efficiency ratio calculation is appended as Annexure 1

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).

State	District	Availability of delivery centers
Gujarat	Unjha	Basis
	Patan	NA
	Dhanera	NA
	Mandal	NA

State	District	Availability of delivery centers
Rajasthan	Nokha	NA
	Merta	NA
	Jodhpur	ADC

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

Note – The OI for each month is classified based on the Member level. The Average OI is ongross level (Long OI + Short OI), in MT

Month	GUJARAT	RAJASTHAN	MAHARASHTRA	DELHI
Apr-23	45	72	24	10
May-23	73	115	71	29
Jun-23	52	46	80	9
Jul-23	49	15	58	15
Aug-23	2	3	7	-
Sep-23	1	-	5	-
Oct-23	-	-	4	-
Nov-23	-	-	-	-
Dec-23	-	-	-	-
Jan-24	-	-	-	-
Feb-24	-	-	-	-
Mar-24	-	-	-	-

***Note** - The OI for CP is not mapped to any State/ location and hence not considered in the above data.*

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

Following list of Awareness programme, Stakeholder engagement programme has conducted for FY 2023-24.

Sr. No.	Programme	Location	No. of Participants
1	IEP	Kochi	54
2	IEP	Patna	48
3	IEP	Purnia	33
4	IEP	Kavardha, Raipur, CG	70
5	IEP	Kolkata	40
6	IEP	Delhi	73
7	IEP	Mehsana, Gujarat	31
8	IEP	Rajkot	45
9	IEP	Delhi	30
10	IEP	Durgapur	40
11	IEP	Bhopal	40
12	IEP	Deesa	50
13	IEP	Indore	32
14	IEP	Durgapur	42
15	IEP	Indore	40
16	IEP	Varanasi	50
17	IEP	Lucknow	40
18	IEP	Sirsa	35
19	IEP	Delhi	35
20	IEP	Indore	30
21	IEP	Raigarh	38
22	IEP	Kavardha, Raipur	35
23	IEP	Ratlam	26
24	IEP	Kolkata	94
25	IEP	Ratlam	36
26	IEP	Neemuch	40
27	IEP	Delhi	41

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

- Creating an awareness about the Hedge Policy to bona fide hedger
- Awareness programme in Major trading centre's as well as remote locations to increase hedging participation from the value chain participants.
- One to one meetings with the market participants to create awareness about the new developments / new initiatives at exchange level.
- Attend the National as well as International conferences, trade meets, seminars, etc.

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

N.A

ANNEXURE I

Qualitative and quantitative measure for Hedge effectiveness ratio

Methodology

Regression analysis is carried out between near month futures returns and NCDEX polled spot prices returns of the FY 2023-24.

The R-Square value of the Regression analysis represents the "**Hedging**

Efficiency".Note: -

Date for which spot prices were not available is not used for analysis.

Weekly returns are used for performing Regression Analysis.

The method used to calculate Hedging Efficiency does not consider liquidity risk because of this reasonilliquid commodities can have high hedging efficiency.

References:

Ghosh, Ph.D, Nilanjan & Dey, Debojyoti & Moulvi, Nazir & Jain, Niteen & Sinha, Neha & Rachuri, Sarika. (2013). Hedging Efficiency—Measures and Empirical Study