ANNUAL PERFORMANCE REVIEW – ALMOND

2022-2023

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1. Background

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

Traditionally in India, the demand for almonds mostly occurs during the festive season, which runs from September to January. Now, however, the growing perception among Indian consumers about nutritional and health benefits associated with almonds is driving domestic demand beyond just the festive and winter season.

Varieties of Almond Cultivated in India

Some of the commercial varieties of Almond cultivated in India. Non-Pareil, California paper shell, Merced, IXL, Shalimar, Makhdoom, Waris, Pranyaj, Other high yielding cultivars are Ne Plus Ultra, Primorskij, Peerless , Carmel, Thompson, Price, Butte, Monterey, Ruby Fritz, Sonora, padre and Le grand

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

Global Almond Scenario		
in MT (Shelled basis)	2021-22 (Oct)	2022-23(Oct)
Opening Stock	-	-
Production	16,76,220	15,15,240
Imports	9,34,879	10,23,100
Total Supply	26,11,099	25,38,340
Exports	10,05,971	10,99,300
Consumption	14,85,957	15,85,200
Ending Stocks	4,73,788	3,27,628
Source: Tree Nuts Report Oct 2022, USDA		

Indian Almond Scenario		
In MT (Shelled Basis)	2021-22 (Oct)	2022-23(Oct)
Opening Stock	37,270	37,090
Production	4,500	4,300
Imports	1,49,000	1,48,000
Total Supply	1,90,770	1,89,390
Exports	-	-
Domestic Consumption	1,52,800	1,55,000
Source: Tree Nuts Report Oct 2022, USDA		

Top 10 Major producing countries

Major Producing Countries (In MT)		
Country	2021-22 (Oct)	2022-23(Oct)
United States	13,22,220	11,79,340
Australia	1,39,000	1,40,000
European Union	1,37,500	1,05,000
China	42,000	52,000
Turkey	20,000	22,500
Other	15,500	16,400
Total	16,76,220	15,15,240
Source: Tree Nuts Report Oct 2022, USDA		

Top 10 Major consuming countries

Major Consuming Countries (In MT)		
Country	2021-22 (Oct)	2022-23(Oct)
European Union	4,10,200	3,94,000
United States	3,48,577	3,75,000
China	1,48,500	1,77,000
India	1,53,880	1,68,000
United Arab Emirates	61,200	65,000
Australia	46,000	50,000
Japan	45,800	50,000
Turkey	39,500	42,500
Korea, South	31,900	35,000
Canada	30,500	32,000
Source: Tree Nuts Report Oct 2022, USDA		

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Top 10 Major Exporting countries

Major Exporting Countries (in MT)		
Country	2021-22 (Oct)	2022-23(Oct)
United States	9,49,182	9,65,000
Australia	75,000	90,000
European Union	23,000	20,000
Turkey	17,000	17,000
Chile	6,500	6,000
Total	10,70,682	10,98,000
Source: Tree Nuts Report Oct 2022, USDA		

Top 10 Major Importing countries

Major importing Countries (in MT)		
Country	2021-22 (Oct)	2022-23(Oct)
European Union	2,93,800	3,10,000
India	1,49,000	1,60,000
China	1,06,500	1,25,000
United Arab Emirates	61,200	65,000
Japan	45,800	50,000
Turkey	37,000	40,000
Korea, South	31,900	35,000
Canada	30,500	32,000
Morocco	19,800	23,000
United Kingdom	18,400	23,000
Source: Tree Nuts Report Oct 2022, USDA		

Top 10 Major producing States in India

Almond production is concentrated in the union territories of Jammu and Kashmir and in Himachal Pradesh

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

There were no major policy changes issues which had any significant on Almond prices in India for financial year 2022-23

d) Geopolitical issues in the commodity and its impact on Indian scenario

There were no major geopolitical issues which had any significant on Almond prices in India for financial year 2022-23

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2. Trading related parameter

a) Monthly and Annual traded volume

Month	Traded volume (In Kg)
Apr-22	17,40,000
May-22	17,95,000
Jun-22	15,52,000
Jul-22	15,30,000
Aug-22	14,67,000
Sep-22	13,50,000
Oct-22	3,08,000
Nov-22	5,47,000
Dec-22	7,34,000
Jan-23	6,92,000
Feb-23	6,04,000
Mar-23	5,24,000
Total	**1,28,43,000**

b) Annual traded volume as proportion of total deliverable supply: 8.43%

- Annual Traded Volume: 1,28,43,000 Kg
- Deliverable Supply: 15,23,00,000 Kg

c) Annual traded volume as proportion of total annual production: 298.67%

- Annual Traded Volume: 1,28,43,000 Kg
- Annual Production: 43,00,000 Kg

d) Annual average Open interest as proportion of total production: 0.67%

- Annual Average OI: 29,000 Kg
- Annual Production: 43,00,000 kg

e) Annual average Open interest as proportion of total deliverable supply: 0.0190%

- Annual Average OI: 29,000 Kg
- Deliverable Supply: 15,23,00,000 Kg

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f) Monthly and Annual value of trade

Month	Value Of trade (In Crores)
Apr-22	71.72
May-22	68.90
Jun-22	55.49
Jul-22	57.41
Aug-22	54.91
Sep-22	50.82
Oct-22	11.45
Nov-22	18.84
Dec-22	24.51
Jan-23	22.95
Feb-23	20.21
Mar-23	19.86
Total	**477.07**

g) Monthly and Annual quantity of delivery

Month	Quantity of Delivery (In Kg)
Apr-22	-
May-22	10,000
Jun-22	2,000
Jul-22	-
Aug-22	-
Sep-22	2,000
Oct-22	-
Nov-22	-
Dec-22	-
Jan-23	-
Feb-23	-
Mar-23	-
Total	**14,000**

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h) Monthly and Annual value of delivery

Month	Value of Delivery (In Rs.)
Apr-22	-
May-22	37,69,000
Jun-22	6,87,800
Jul-22	-
Aug-22	-
Sep-22	7,57,600
Oct-22	-
Nov-22	-
Dec-22	-
Jan-23	-
Feb-23	-
Mar-23	-
Total	**52,14,400**

i) Monthly and Annual Average Open Interest (OI)

Month	Average Monthly OI (In Kg)
Apr-22	6,000
May-22	16,000
Jun-22	38,000
Jul-22	85,000
Aug-22	71,000
Sep-22	40,000
Oct-22	7,000
Nov-22	12,000
Dec-22	13,000
Jan-23	21,000
Feb-23	19,000
Mar-23	21,000

Annual Average OI = 29,000 kg

j) Annual average volume to open interest ratio: 172.41%

- Average of Traded Volume = 50,000
- Average of Open Interest = 29,000

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

- Unique Members = 12
- Unique Clients = 27

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

- Not Available

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

- Not Available

n) Algorithmic trading as percentage of total trading

- Nil

o) Delivery defaults

- Number of instances = Nil
- Quantity involved = Nil
- Value involved = Nil

3. Price movements

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

- The correlation between Exchange futures and Exchange Spot Prices is 0.9971
- The ratio of Standard Deviation for the same period was 1.05

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

- Not applicable

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

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

Commodity	Max of Daily Futures Price Volatility %	Min of Daily Futures Price Volatility %	Max of Daily Spot Price Volatility %	Min of Daily Spot Price Volatility %
Almond	5.73%	-3.39%	5.22%	-2.73%

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.

Instances of Backwardation - Nil

Instances of Contango – Nil

4. Other's 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.

Hedge Effectiveness for FY 22-23

Commodity	Hedge Efficiency
Almond	99.42%

Note: Hedging efficiency is the 'R Square' value of the regression equation between BSE futures prices and BSE polled spot prices during the financial year.

Basis Risk for FY 22-23

Commodity	Unit	Average Return of Basis (Unit)	Standard deviation
Almond	Rs/Kg	0.22	8.60

Note: Basis Risk is computed as the Standard deviation of daily normal return in Basis, which is excess of Spot over Futures price.

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

Name of State	Name of the physical markets	Market Reach of Exchange delivery centers
Maharashtra	Mumbai, Nagpur	Basis Center - Navi Mumbai
Delhi	Delhi	No Delivery Centre
Rajasthan	Jaipur	No Delivery Centre
Karnataka	Bangalore	No Delivery Centre
Madhya Pradesh	Indore	No Delivery Centre

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. BSE has its Delivery Centre Ex-Navi Mumbai APMC
- Region-wise open interest is not available.

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

Sr.No	Program Type	Location	No of participants
1	Almond Event	Delhi	100
2	Seminar on BSE Almond Inshell Futures Contract	Webinar	25
3	Almond Event	Mumbai	100
4	Tool to Manage Price Risk and as Investment Avenue: Almond Futures	Webinar	65
5	ALMOND Futures: Tool to Manage Price Risk and as Investment Avenue	Webinar	45

BSE had organised more than 5 webinars exclusively for Almond. Business team also had one to one meeting to create awareness among various value chain participants at the delivery centre Vashi. Additionally the team also visited Delhi , Pune , Bangalore ,Ahmedabad for one to one meeting.

BSE also organized awareness session in association with IMC Chamber of Commerce and Industry for Almond futures contract. Stakeholders and importers were educated on how to use the exchange platform for hedging their price risk through the exchange platform.

Exchange organised series of awareness session in association with Investor Protection Fund and National skill Foundation of India (NSFI) for Commodity Derivatives Segment.

Further , BSE was recognised as the Best and Brightest Innovations in the Derivatives Industry at the FOW International Awards 2022 at London Europe. BSE received the Most Innovative Contract of the Year for launching Almond in Shell Futures Contract.

Exchange organised series of awareness session in association with Investor Protection Fund and National skill Foundation of India (NSFI) for Commodity Derivatives Segment. The topic for discussion included the following :

- Introduction to Commodity Exchange
- Introduction to Aggregation Principles

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

We propose to have the following to improve effectiveness in the contract.

- Awareness sessions at Delivery Centres , various other potential centres, and regions.
- Product Specific Seminars/Webinars .