ANNUAL PERFORMANCE REVIEW – ALMOND

2021-2022

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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)	2020-21	2021-22 (Oct)
Opening Stock	-	-
Production	17,61,131	16,15,905
Imports	9,62,809	9,91,500
Total Supply	27,23,940	26,07,405
Exports	10,70,682	10,98,000
Consumption	15,61,913	15,80,352
Ending Stocks	3,61,417	2,90,470
Source: Tree Nuts Report Oct 2021,USDA		

Indian Almond Scenario		
In MT (Shelled Basis)	2020-21	2021-22 (Oct)
Opening Stock	30,650	37,470
Production	4,500	4,500
Imports	1,59,100	1,30,000
Total Supply	1,63,600	1,34,500
Exports	-	-
Domestic Consumption	1,56,780	1,40,200
Source: USDA Tree Nuts Annual - 2021 - India		

Top 10 Major producing countries

Major Producing Countries (In MT)		
Country	2020-21	2021-22 (Oct)
United States	14,12,940	12,70,060
European Union	1,27,000	1,45,000
Australia	1,45,191	1,23,645
China	45,000	45,000
Turkey	16,500	18,000
Other	14,500	14,200
Total	17,61,131	16,15,905
Source: Tree Nuts Report Oct 2021,USDA		

Top 10 Major consuming countries

Major Consuming Countries (In MT)		
Country	2020-21	2021-22 (Oct)
European Union	4,20,091	4,18,645
United States	4,01,892	3,90,907
China	1,55,000	1,65,000
India	1,56,780	1,40,200
United Arab Emirates	56,200	60,000
Japan	42,000	46,000
Turkey	38,800	40,000
Australia	35,900	38,000
Canada	31,100	33,000
Korea, South	32,100	30,800
Source: Tree Nuts Report Oct 2021,USDA		

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Top 10 Major Exporting countries

Major Exporting Countries (in MT)		
Country	2020-21	2021-22 (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 2021,USDA		

Top 10 Major Importing countries

Major Exporting Countries (in MT)		
Country	2020-21	2021-22 (Oct)
European Union	2,97,900	3,15,000
India	1,59,100	1,30,000
China	1,10,000	1,20,000
United Arab Emirates	56,200	60,000
Japan	38,800	40,000
Korea, South	35,900	38,000
Canada	31,100	33,000
Morocco	25,300	30,000
Turkey	32,600	30,000
United Kingdom	23,100	24,000
Source: Tree Nuts Report Oct 2021,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 2021-22

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 2021-22

2. Trading related parameter

a) Monthly and Annual traded volume

Month	Traded volume (In Kg)
Apr-21	23,46,000
May-21	24,65,000
Jun-21	27,52,000
Jul-21	25,50,000
Aug-21	15,27,000
Sep-21	14,39,000
Oct-21	22,81,000
Nov-21	24,15,000
Dec-21	32,25,000
Jan-22	35,75,000
Feb-22	20,19,000
Mar-22	19,81,000
Total	**2,85,75,000**

b) Annual traded volume as proportion of total deliverable supply: 21.24%

- Annual Traded Volume: 2,85,75,000 Kg
- Deliverable Supply: 13,45,00,000 Kg

c) Annual traded volume as proportion of total annual production: 635 %

- Annual Traded Volume: 2,85,75,000 Kg
- Annual Production: 45,00,000 Kg

d) Annual average Open interest as proportion of total production: 0.16%

- Annual Average OI: 7,000 Kg
- Annual Production: 45,00,000 kg

e) Annual average Open interest as proportion of total deliverable supply: 0.0052%

- Annual Average OI: 7,000 Kg
- Deliverable Supply: 13,45,00,000 Kg

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f) Monthly and Annual value of trade

Month	Value Of trade (In Crores)
Apr-21	77.80
May-21	83.19
Jun-21	101.35
Jul-21	107.21
Aug-21	77.41
Sep-21	70.92
Oct-21	93.23
Nov-21	86.90
Dec-21	115.22
Jan-22	122.45
Feb-22	68.98
Mar-22	73.89
Total	**1078.57**

g) Monthly and Annual quantity of delivery

Month	Quantity of Delivery (In Kg)
Apr-21	27,000
May-21	-
Jun-21	31,000
Jul-21	37,000
Aug-21	7,000
Sep-21	6,000
Oct-21	-
Nov-21	-
Dec-21	-
Jan-22	-
Feb-22	-
Mar-22	-
Total	**1,08,000**

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h) Monthly and Annual value of delivery

Month	Value of Delivery (In Rs.)
Apr-21	90,50,400
May-21	-
Jun-21	1,14,97,900
Jul-21	1,63,98,400
Aug-21	40,25,700
Sep-21	29,21,000
Oct-21	-
Nov-21	-
Dec-21	-
Jan-22	-
Feb-22	-
Mar-22	-
Total	**43,38,93,400**

i) Monthly and Annual Average Open Interest (OI)

Month	Average Monthly OI (In Kg)
Apr-21	12,000
May-21	2,000
Jun-21	25,000
Jul-21	24,000
Aug-21	8,000
Sep-21	5,000
Oct-21	2,000
Nov-21	1,000
Dec-21	2,000
Jan-22	2,000
Feb-22	2,000
Mar-22	6,000

Annual Average OI = 7000 kg

j) Annual average volume to open interest ratio: 1,642.86%

- Average of Traded Volume = 1,15,000
- Average of Open Interest = 7,000

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

- Unique Members = 10
- Unique Clients = 17

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 = 1
- Quantity involved = 4000
- Value involved = 17,72,800

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 0.9847
- The ratio of Standard Deviation for the same period was 0.90

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	7.19%	-6.19%	13.13%	-13.10%

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 - 14

Instances of Contango – 1

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 21-22

Commodity	Hedge Efficiency
Almond	97.24%

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 21-22

Commodity	Unit	Average Return of Basis (Unit)	Standard deviation
Almond	Rs/Kg	-0.65	7

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.

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

Sr. No.	Program Type	Location	Participants
1	Hedging Opportunities with Almond Futures Contract At BSE	Webinar	90
2	Discussion On Almond Futures Contract	Webinar	45
3	Almond Product Advisory Committee Meeting	Webinar	22
4	ALMOND Futures: Tool to Manage Price Risk and as Investment Avenue	Webinar	90
5	Imperial Merchants Pvt Ltd	Delhi	Traders Meet
6	Central Golden State Inc	Delhi	Traders Meet
7	New Rise International	Delhi	Traders Meet
8	Balraj Kumar Vinod Kumar	Delhi	Traders Meet
9	B S & Sons	Delhi	Traders Meet
10	Vaishali Trading	Delhi	Traders Meet
11	Ramesh Kumar Huf	Delhi	Traders Meet
12	Anish Mittal	Delhi	Traders Meet
13	A.D. Enterprises	Delhi	Traders Meet
14	California Agri Nuts	Delhi	Traders Meet
14	Diwan Agro Foods	Delhi	Traders Meet

BSE has organized more than 15 webinars exclusively for its almond futures contract where participation from various parts of globe was seen. 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. In addition to the above, business team regularly visits the delivery centre in Navi Mumbai to create awareness amongst traders.

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

- BSE is the world's only exchange to trade in Almond Futures Contract
- Almond Futures Contract achieved a landmark by delivering a total of 147MT of Inshell Almonds since the month of launch June 2020.
- Further to improve market participation BSE has conducted
    - Extensive one to one meeting with the market participants.
    - Awareness Programme in major trading centres as well as remote location.
    - Identifying value chain Participants.

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