

Feasibility of the Fenugreek Futures Contract

by Kotha Mani Bharat, Bogadi Chandana Yasoda & M. Balakrishnan

Abstract

Fenugreek is a spice crop and medicinal herb. India is the largest producer of Fenugreek and considerable amount of the produce is consumed internally. Within India, Rajasthan and Madhya Pradesh accounts for its largest area and production. Currently spices like turmeric, chilli, coriander, cumin, etc. are trading through online platform due to which there is a transparency in prices. The present study discusses the feasibility inclusion of Fenugreek in Futures contract and trade perspective in India and also highlights the need to launch in Futures. The standard operating terms like Tick size, Basis center, cultivation practices, Grades etc. were also discussed. Fenugreek is not traded globally in any of the international commodity exchanges. It provides ample scope to start future contracts in India. Thus the prices determined here will act as the global reference price. The study will be beneficial to all the stakeholders throughout the value chain.

Keywords

Commodity Markets, Basis Center, Tick Size, Spices, Futures Contracts, Fenugreek.

Ayaz Ahmed, CEO of a leading online commodity exchange platform was on a visit to local mandi (trading hub or a market place, generally for agricultural produce). He observed that in commodities like wheat and pulses farmers get enough returns due to Minimum Support Price. However, when he saw the trading of fenugreek, he noticed that the farmers could not even recover the cost of cultivation. He found that there is a huge difference between the price at mandi and consumer market. Subsequently, he visited major market places of fenugreek in Rajasthan and Madhya Pradesh. He observed that traders formed cartels and held the commodity due to which farmers were unable to get good price for their crop. Farmers had no option other than selling their produce to the traders in the mandi. Fundamentally there were gaps in present system. He realized that there is need for a mechanism which is transparent and thus helps in price discovery. The thought of assessing the potential of introducing fenugreek in futures platform seemed interesting to Mr. Ahmed. In his opinion, if fenugreek could be introduced as futures commodity, it could break the traders' cartel and act as a risk management tool for fenugreek farmers.

Fenugreek: Production and Cultivation in India

Fenugreek is an ancient spice that has been used since the times of the Bronze Age. It is today cultivated widely in India, Argentina, Egypt and Mediterranean countries. It is consumed both fresh (culinary herb) and dried (seeds that feature most commonly in South Asian Cuisine). There are two forms of fenugreek—common methi and Champa methi (Exhibit 1).

The major fenugreek producing countries are India, Argentina, Egypt and Mediterranean countries (i.e. Southern France, Morocco, and Lebanon). Egypt, Yemen, and U.A.E are the largest importer of fenugreek from India. One fourth of the total production is being exported every year. Fenugreek export reached a height of Rs 65.94 crores for volume of 10,500 tonnes compared to Rs 27.26 crores for 5,922 tonnes of the first quarter of FY 2014-15, registering an increase of 142 per cent regarding value (Business Standard, September 29 2015).

India is the largest producer of fenugreek with Rajasthan, Madhya Pradesh, Gujarat and Uttarakhand being major producers (Exhibit 3). Arrivals in market begins during the month of March and continues till April. The major assembling markets for fenugreek seeds in India are Bundi, Kota, Ramganj, Jaipur, Bikaner, Nokha, Nimbahera and Rani in the state of Rajasthan; Unjha, Gondal and Amreli in the state of Gujarat; and Mandsaur, Jaora and Neemuch are the other major assembling markets in the state of Madhya Pradesh.

Climate: It is cultivated both in tropics and temperate regions. It is a cool season crop which can tolerate warm weather. It tolerates frost and freezing weather. It requires low to moderate rainfall.

Soil: Clayey loams are better suited to plant fenugreek. It is tolerant to salinity problem soils. Land has to be ploughed 3-4 times by preparing uniform beds. It is usually sown in the second fortnight of October. Seeds should be broadcasted over beds and rake in rainfed conditions. In irrigated conditions beds of 200 cm wide 500 – 700 cm length are prepared. Seeds are dibbled in lines at 30 x 60 cm spacing. Seed rate is: 30-35 kg for rain fed crop, 12- 15 kg for irrigated crop. The seed germinate in 34 days and complete in 7 – 10 days.

Irrigation: The crop is grown in rain fed heavy moisture retentive soils. The crop requires 3-6 rounds of irrigations. First irrigation is given after sowing seeds. Second irrigation is given after first cutting of leaves. Afterwards irrigation is done at 7 – 10 days' intervals.

Manuring: The crop is commonly grown on residual fertility. Farm Yard Manure @ 10-15 tonnes per hectare may be incorporated in the last ploughing. Top dress with Nitrogen one month after sowing and after each cutting @10-15 kg per hectare. For grain crop 20 kg Nitrogen, 40 kg P₂O₅ and 20 kg K₂O are applied as basal dose. Depending upon growth 10-15 kg Nitrogen per ha may be applied after one month.

Inter-cultivation: Hoeing and weeding is done during the early stages of plant growth.

Maturity Indices: The fenugreek plant is uprooted when the pods are partially dried. Plant start drying, pods are partially dried. Uproot the plants.. It is then Dried in the sun on threshing floor for 2-3 days. Pods are threshed. Seeds are separated by winnowing, cleaned and sun dried and then are stored in gunny bags lines with white alkathene paper.

Yield: Leaf yield is 700-800 kg per hectare. Grain yield is 750 to 800 kg per hectare under rain fed conditions. 1200 to 1300 kg per hectare under irrigated condition.

Uses: Both seed and leaves of fenugreek are widely used as a culinary spice to enhance the taste. It is used as a preservative in pickles. Fenugreek is also used in pharmaceuticals industry as it is having medical properties like antioxidant, carminative, demulcent, expectorant, Laxative. It is used as a green fodder and hay for cattle. Fenugreek seed are also used for lactating cattle.

Parametres for Assessing Fenugreek Futures Market

Commodities are the raw materials that are used to create products which are consumed in everyday life. Throughout history, commodities have played a major role in shaping the global political economy. Commodity markets have occupied a key role in the economic growth and progress of countries all over the world. Commodity markets are broadly divided into spot(physical) and derivatives (such as futures, options and swaps). The spot market involves buying and selling of commodities in cash with immediate delivery. On the other hand, a commodity can be sold or bought via derivatives contract as well. A futures contract is a pre-determined and standardized contract to buy or sell commodities for a price and for a certain date in the future.

India's first organized futures market was the 'Bombay Cotton Trade Association Ltd. which was set up in 1875. In independent India, the Forward Contracts (Regulation) Act was enacted in 1952 to regulate the commodity trading in forward and futures contracts. In the late 1960s, severe droughts forced many farmers to default on forward contracts. This, coupled with abusive market practices by some traders, led to increase in commodity prices, and the Indian government suspended forward trading in several commodities such as jute, edible oil seeds and cotton. For almost three decades, the futures trading was at a standstill, till India began liberalizing its economy in 1991. In the post-liberalization period, largely on the advice of World Bank, United Nations Conference on Trade and Development (UNCTAD) and the recommendations of Kabra Committee Report, the Indian government lifted the ban on commodity futures trading in 2003. However, it is important to note that the Kabra Committee's recommendation not to allow futures trading in wheat, pulses, non-basmati rice, sugar, coffee, tea and other food products was not accepted by the government. At present Futures contracts are regulated by Securities and Exchange Board of India (SEBI). Commodities like bajra, chana, maize, cotton, turmeric, chilli, etc. are presently traded in Futures platform.

Only certain types of commodities can be the considered for futures trading. The shelf life, price volatility and the state of the commodity (processed or unprocessed) determines whether it can be used in futures contract or not. There is a minimum price movement (upwards or downwards) that can take place for futures of an underlying commodity. This is known as a tick. The supply and demand of a commodity is also an important factor for futures contract. There is also a restriction on number of contracts one can hold. This regulation makes

sure that no single investor can manipulate the market of a commodity. Under normal storage conditions, the shelf life of processed fenugreek is more than one year. Hence, it is easy to launch it in futures contract.

Fenugreek Futures Contract

Fenugreek is not traded globally in any international markets including Chicago Board of Trade (CBOT). This provides very good opportunity to start future contracts in India to fill the void. India, being the largest market in the world for fenugreek and the top producer-cum-consumer of the product, will serve as global market through this futures markets and the price determined here will act as the global reference price for this product which will stem wide fluctuations seen in the recent times.

The supply chain of Fenugreek is quite complex (Exhibit 4) because there is no direct connection between the processor/exporters. Similarly farmers or collecting agents never know to whom the product is sent and at the same time the processors are unable to trace the origin. At present the processors and exporters are dependent on traders for commodity but once it is launched fenugreek in Futures contract the processors and traders can directly trade on Futures platform which will eliminate the intermediaries and will create transparency in trading

Fenugreek is mainly grown in Rajasthan and Madhya Pradesh. Over the past few decades, Rajasthan stands first in area and production contributing around 65% of total production. Major markets are Kota, Itawa, Bundi, and Bikaner. Kota Mandi is leading regarding market arrivals. Neemuch, Mandsaur, and Jaora are vital assembling markets in Madhya Pradesh (Exhibit 5). Since Fenugreek, can be stored at normal temperature for more than one year there is no hindrance with the shelf life, but finding a *Basis Center* is the key aspect. In case of production, Kota *mandi* should be a basis centre, but the prices are not determined in that *mandi*. The main constraint is that for daily prices in Rajasthan *mandis* are highly dependent on daily prices reports from Madhya Pradesh. In Madhya Pradesh Neemuch, Mandsaur and Jaora *mandis* are the trading centers. Each *mandi* has its importance regarding quality, arrivals, etc., Neemuch *mandi* is a trading hub for spices and masala items. Almost 140 commodities are traded in this *mandi*. Mandsaur *mandi* has the highest arrivals for past three years. Superior quality Fenugreek is traded in Jaora *mandi*. Quality concern is another critical factor is in this commodity. At *mandi* level there are 3-4 grades of

fenugreek which are traded. There is a prices variation between one grade to another.

The present tick size of this commodity Re.1 at *mandi* level and over the period of years there is slight change in the prices of commodity but in the year 2014-15 there is significantly increase in prices (Exhibit 6). Since long time the prices of Fenugreek were nearly constant but from past two years the prices are fluctuating. Through Futures Contract we can mitigate the risk of price variations. It creates a scope to launch Fenugreek in Futures Contract which will serve as a reference price for other country participants.

Foreseeing the benefits of Fenugreek Futures Mr. Ayaz Ahmed is wondering if Fenugreek can be launched with one of the above Mandis as a basis center.

Fenugreek Futures Contract could allow individuals and businesses to protect their positions against price fluctuations. For the buyer, it offers protection from future price upturns and for the seller, it offers protection from price falls and helps in forecasting prices accurately. Fenugreek futures trading could create a global marketplace by bringing together consumers, producers and speculators from various countries. It could act as an enabler for buyers and sellers in different countries and help them protect themselves against price fluctuations because the contract can be completed without physical delivery of the goods. Farmers become conscious through the price signals produced by the futures markets even though they may not directly participate in the futures market. These signals also help him in fine tuning his marketing strategy after the harvest. Empowered with the price information the farmer can avoid excess sale immediately after the harvest and is also able to bargain for better prices in the *mandi*.

India is a commodity based economy, with more than 60 % of the total population engaged in primary sector directly or indirectly. Major industries of the economy like sugar, textile, metal, energy, etc. are based on various commodities. Hitherto, owing to attractive financial returns, this sector was a good spot for good returns besides hedging against inflation. After gaining considerable popularity, the major commodity exchanges in India started future contracts in various commodities, which had good potential to manage the risk that could arise due to high volatility in prices. Farmers could have better price realization through futures platform and, could plan as per the market situation. Spices like turmeric, chili, coriander, cumin are also traded through online trading platforms and have transparency in prices. Fenugreek is a popular spice and a medicinal herb. India is

the largest producer of fenugreek, but substantial amount is consumed within the country. In recent times, due to increase in health consciousness, there is also change in fenugreek consumption pattern which has effected in significant increase in fenugreekcultivation. Mr. Ayaz Ahmed, realized that presently fenugreek is not traded in any of the online exchange platforms; and wanted to study its scope to be included in futures contract.

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Appendix

Exhibit 1. Difference Between Common Methi and Champa Methi

S No	Common Methi	Champa methi
1	Quick growing	Slow growing
2	Characterized with erect shoots	Shoots remain rosette appearance specially when plants are in vegetative condition
3	Reaches to a height of 40-70 cm	Reaches < 40 cm
4	Commonly cultivated	Rarely cultivated
5	Light to dark green leaves	Possess dark green leaves

Source: Spices Board India

Exhibit 3. Area, Production and Productivity of Fenugreek in India

Years	Area (In ' 000 Hectare)	Production (In ' 000 MT)	Productivity (In MT/Hect-are)
2008-09	74.5	97.5	1.3
2009-10	72.0	89.0	1.2
2010-11	94.8	127.9	1.3
2011-12	96.3	121.8	1.3
2012-13	93.1	112.9	1.2
2013-14	65.9	89.6	1.4
2014-15	123.4	130.8	1.1

Source: Spices Board India

Exhibit 2. Fenugreek: Seeds and Leaves

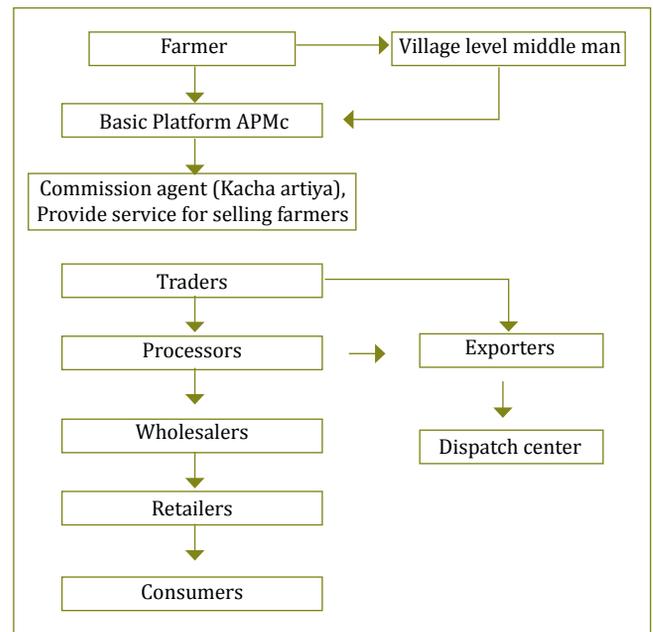
Fenugreek Seeds



Fenugreek Leaves



Exhibit 4. Supply Chain of Fenugreek



Source: Primary Research

Exhibit 5 A Market Arrivals of Madhya Pradesh (Quintals)

Market name	2011	2012	2013	2014	2015
Mandsaur	55790	107453.6	19508.4	2236.7	12429.7
Shamgarh	1398.98	5699.87	12540.56	300.47	419.41
Piplya	271.3	444.36	201.09	655.5	0
Neemuch	7744.7	13119.1	12513.2	12007.3	12881
Manasa	68.8	429.1	289.2	2067	12873
Biaora	4.05	53.02	2.01	88.02	0
Jaora	2508.86	23390.96	15449.55	9052.13	7113.4
Ratlam	102.2	496.7	146.7	34.2	306
A lot	84.9	20.9	186.89	49.97	59.89
Shujalpur	131.1	1606.45	435	268.7	303.86
Sheopurkalan	256.2	40.2	6.4	0.5	42.2
Khachrod	304.2	950.3	182.92	19.1	13.5
Mahidpur	100.36	638.54	306.64	174.02	0
Nagda	96	496.1	110.7	24.5	10.23
Ujjain	27.9	170.8	76	36.6	17

Source: Spices Board India

Exhibit 5 B Market Arrivals of Rajasthan (Quintals)

District	2010	2011	2012	2013	2014	2015
Ajmer	440	314	278	319	1729	1094
Alwar	0	0	0	0	0	0
Banswar	0	0	0	0	0	0
Baran	16781	4186	6100	5789	1195	582
Barmer	0	0	745	1	1007	1444
Bharatpur	0	0	0	0	0	0
Bhilwara	67	57	54	479	744	193
Bikaner	6763	26165	29512	24903	59726	52549
Bundi	22080	10864	12987	12645	3544	97
Chittorgarh	7458	30172	40412	27545	10980	13061
Churu	162	1700	3125	734	5413	3196
Dausa	60	47	54	1	0	1
Dholpur	0	0	0	0	0	0
Dungarpur	0	0	0	0	0	0
Hanumangarh	0	3	110	0	0	0

Jaipur	6494	7189	8059	5276	18996	11545
Jaisalmer	0	0	32	0	0	0
Jalore	0	455	10	10	0	324
Jhalwar	4019	3444	6557	25876	29225	27502
Jhunjhunu	260	1110	934	1012	569	323
Jodhpur	1449	1227	2271	3403	9334	8915
Karuli	0	0	0	0	0	0
Kota	190122	125699	203641	138506	66235	31272
Nagaur	5824	9105	8912	2471	5045	5961
Pali	1156	941	4650	8318	8096	2809
Pratapgarh	29058	0	0	0	26567	24189
Rajasamand	0	0	0	1205	0	0
Sawai Madhopur	9	774	2790	4950	708	926
Sikar	5627	6099	4021	0	8915	2715
Sirohi	0	0	0	0	0	0
Sriganganagar	50	2	0	0	0	7
Tonk	0	0	0	440	362	42
Udaipur	263	266	714	44443	453	291

Source: Spices Board India

Exhibit 6. Price Variations of Fenugreek



Sources: Indian Chamber Of Commerce And Industry

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