

Study of Price Trends of Arhar (Tur) Daal with special reference to Akola District Markets

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Abstract: The Arhar (Tur) Daal is the staple food in India for different cuisines and India is considered one of top exporters in world. The commodity price defines the consumption of Arhar in India. In last five years the prices of Arhar had shown tremendous changes it soared to highest as well as fallen to lowest. This study had made an attempt to analyse these trends as we have considered last five years from 2014 to 2018. The year 2015 has shown highest price as compared to rest years.

Keywords: Arhar Daal, Trend Analysis, Akola

Introduction:

Pigeon pea (*Cajanus cajan* (L.) Millsp.), commonly known as red gram or tur or Arhar, is a very old crop of this country. After gram, Arhar is the second most important pulse crop in the country. It is mainly eaten in the form of split pulse as 'dal'. Seeds of Arhar are also rich in iron, iodine, essential amino acids like lycine, threonine, cystine and arginine etc. More than 80% of tur production comes from 6 states of Maharashtra, MP, Karnataka, UP, Gujarat and Jharkhand. Dry whole seed and dehulled and split seed (dhal) are used for cooking various dishes. Besides its use as a food crop, there are also forage, fodder, fuel and medicine uses. The crushed dry seeds are fed to animals, while the green leaves form a quality fodder. In rural areas, dry stems of pigeon pea are used for fuel, thatching, basket-making, etc. The plants are also used to culture lac insects. Pigeonpea has a deep root system which helps it to withstand drought, and is grown on mountain slopes to bind the soil and reduce soil erosion. Due to its deep root system, pigeon pea offers little competition to associated crops and is therefore extensively used in intercropping systems with cereals, such as millets, sorghum and maize; it also provides a good means to improve fertility in fallows. In a cropping season, the plants fix about 40 kg/ha atmospheric nitrogen and add valuable organic matter to the soil through fallen leaves. Its roots help in releasing soil-bound phosphorus to make it available for plant growth. Pigeonpea seed protein content (on average approximately 21%) compares well with that of other important grain legumes. Owing to several unique characteristics and benefits, pigeonpea has become an ideal crop for sustainable agricultural systems in rainfed areas. Because of the large temporal variation (90–300 days) for maturity, four major durations for pigeonpea varieties exist: extra short (mature in <100 days), short (100–120 days), medium (140–180 days) and long duration (>200 days). Each group is suited to a particular agro-ecosystem, which is defined by altitude, temperatures, latitude and day length. Invariably, the traditional pigeonpea cultivars and landraces are long duration types and grown as intercrops with other earlier maturing cereals and legumes.

Climatic condition for pigeon pea cultivation:

Pigeon Pea is predominantly a crop of tropical areas mainly cultivated in semi-arid regions of India. Pigeonpea can be grown with a temperature ranging from 26°C to 30°C in the rainy season (June to October) and 17°C to 22°C in the post rainy (November to March) season. Pigeon pea is very sensitive to low radiation at pod development, therefore flowering during the monsoon and cloudy weather, leads to poor pod formation.

Yield:

With use of improved technology of agronomic practices pigeon pea may yield about 25-30 q/ha from irrigated condition and 15-20 q/ha from un-irrigated condition. (depending upon maturity group of variety and climate) and 50 - 60 q/ha of sticks for fuel, as well.

Objective of study:

The primary objective of this study to analyse the price of Arhar Daal in Akola District of last five years. This Study will also make an attempt to predict the future prices of Arhar in different markets of Akola.

Literature survey:

As the Arhar Daal is agricultural commodity, we have used following research papers and reports as literature:

Research methodology:

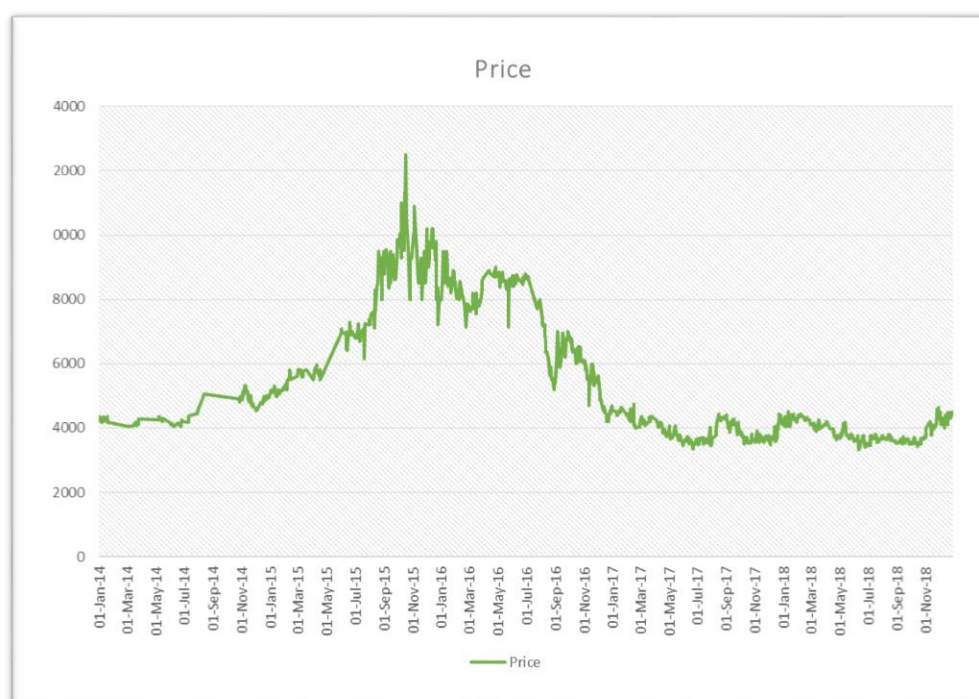
The present study is based on trend analysis and moving average techniques which helps to know the future price trend of Arhar. Trend analysis helps to predict the future price movement of the stock based on the past observed data. It gives the results between what happened in the past and what will be going to be happening in the future. It is the process to look at the current trends and predict the future trend. And this technique is used to determine the overall idea of given current trend and give out the long term trends at a particular period of time.

Limitation of study:

The prime limitation of the study is time constraint as we have only considered the prices of Year 2014 to Year 2018. As the Akola is one of the most important market in Arhar Daal trading in India, only these markets were considered for pricing.

Results:

As the data from last five years was collected and analysed, it had shown following result.



Data Source: agmarket.gov.in

This line chart shows the price trend of Arhar from 2014 to 2018. Prices were trading in a narrow channel from Jan-2014 to July-2014. Prices breakout from the channel which caused a boom in prices from 4500-12500. After touching the 12500 mark we see impulsive decline straight to 8000 forming a spike and started declining steadily to come back to 5000 levels. Now we can see that prices are trading in a channel from March 2017- Dec-2018. This indicates that there is a strong resistance level near 5500-6000 and strong support level near 3300-3000. It is necessary for prices to break the 6000 level and sustain above it for a period of time to see an advance in prices of Arhar.

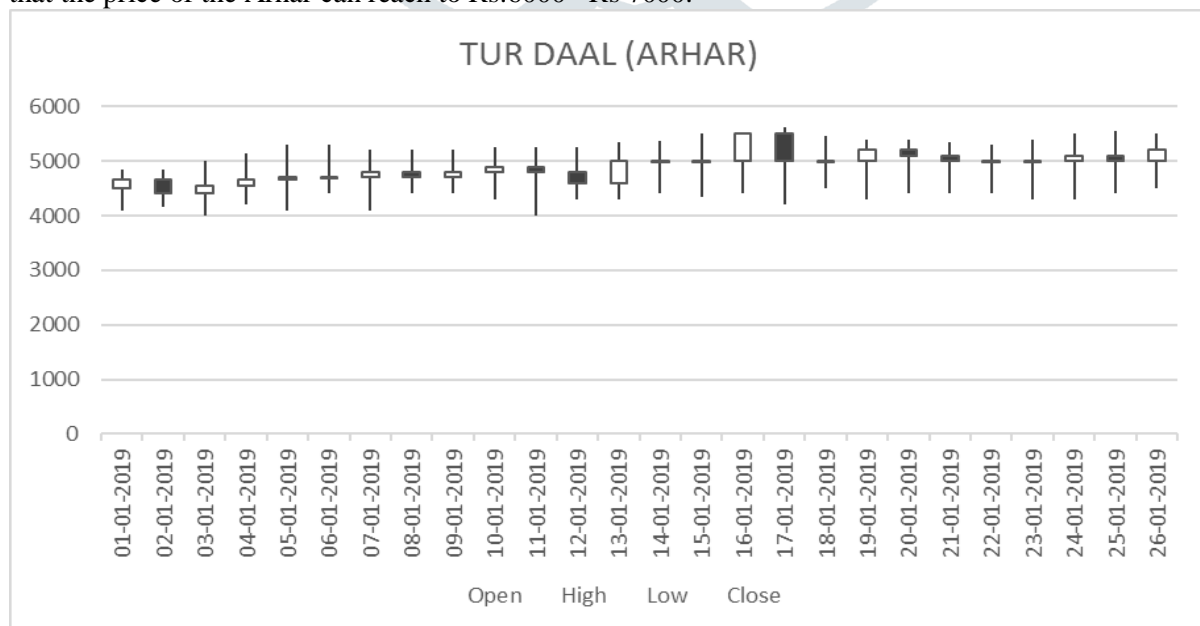


Data Source: agmarket.gov.in

Interpretation: Candlestick chart of Arhar prices from Jan 2014 to Dec 2018 defines Open, Close, High and low on monthly timeframe. Volatility during Jan 2014 to Oct 2014 was low which caused prices to trade in a narrow channel forming a resistance near 5500 and support near 3800. After breaking the 5800 levels we had seen an impulsive advance to 8100 and again a decline back to 5000 levels forming a Spike formation which indicates a strong resistance near 8100. After that we have seen a consistent growth in prices and respecting resistance near 8100 on July 2015 and Aug 2015. After breaking the 8100 level in Sept 2015 we have seen an impulsive up-move straight to 13500. Prices respect the 13500 level and falls again forming a spike formation.

Conclusion:

From the price trend scenario, the conclusion can be made is as the price when it reached at highest level and there on the price started declining so there is resistance of Rs.4500 which is high price in the year 2018 and support of Rs. 3300 so unless and until the price of Arhar didn't break the resistance price(Rs.4500) the price won't to increase but in year 2019, candle-stick graph shown that the price of Arhar reached the level of Rs. 4500 and broke the resistance price and increased; so it can be concluded that the price of the Arhar can reach to Rs.6000 –Rs 7000.



Data Source: agmarket.gov.in

Recommendation:

The price of the Arhar had increased in 2015-2016 is due to the drought situation. There is mismatch in demand and supply of Arhar as there was more demand for Arhar but supply was less and the seller started stocking Arhar so that they will sell more when the price reaches to highest level. The possible reason to increased price may be due to rigidity in the supply chain management. The mismanagement by the State government in buying Arhar Daal may also had increase the price.

BIBLIOGRAPHY:

1. Hari D. Upadhyaya, C.L. Laxmipathi Gowda, in Genetic and Genomic Resources of Grain Legume Improvement, 2013.
2. A Complete Guide in The Future Market by Jack D. Schwager and Mark Etzkorn.
3. H. A. Haus, K. Tamura, L. E. Nelson, E. P. Ippen, "Stretched-pulse additive pulse mode-locking in fiber ring lasers: Theory and experiment", IEEE J. Quantum Electron., vol. 31, pp. 591-598, 1995.
4. <https://www.thehindu.com/news/cities/mumbai/news/Why-pulses-rates-skyrocketed/>
5. <https://www.dailypioneer.com/2018/india/msp-hike-to-make-pulses-costly>
6. <http://vikaspedia.in/agriculture/crop-production/package-of-practices/pulses/pigeon-pea>.

