

RESEARCH ARTICLE

STUDY OF ONION MARKET ARRIVAL AND PRICE PATTERN IN SOLAPUR DISTRICT

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ABSTRACT

Onion is vital ingredient of Indian cooking. Its test, flavor enhance test of food. This is the reason why onion is important crop. In recent years onion production in Solapur have been increased. Farmers showing interest in cultivating onion crop. In Solapur district farmers cultivates Red onion and white onion prominently in Kharif and rabbi season. Red onion cultivation is high throughout the district. Farmers get benefits by cultivating onion but sometimes situation becomes opposite and Onion cultivators could not get even minimum output. In above context efforts are taken to understand pattern of market arrival and price fluctuation to overcome the economic loss by cultivating onion in Solapur district.

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INTRODUCTION

The principal onion growing districts in Maharashtra state are Nashik, Ahmednagar, Pune, Solapur, Osmanabad, Jalgaon, Satara, etc. Nashik books bulk of the total onion production in state (Kambale and Tiwari, 2019). The fluctuations in onion prices resonate deeply with producers and consumers, influencing their interests. Moreover, onion prices possess far-reaching consequences due to their substantial role in diets across socioeconomic categories and their significance as a key ingredient in various Indian dishes (Devi *et al.*, 2023). The variation in the output of the onion leads to wild fluctuations in their prices, exposing the Vegetable growers to more risk as compare to the growers of other crops. The lack of intelligence about the potential markets and the pattern of market arrivals and prices in important regional and national markets further add to the woes of the farmers (Darekar *et al.*, 2015). Among the vegetables, onion is one such vegetable which is catching the attention of all stakeholders as it is an invariable part of dietary system of every household in the country. It also plays an important role in earning foreign exchange due to increased exports in the recent decades, owing to increased production and higher demand in the international market (Gummagolmath *et al.*, 2020). The high price volatility is a major challenge for farmers, mainly caused by fluctuations in production and supply. This instability in prices often reduces farmer's income and negatively impacts consumers as well (Vasanthi *et al.*, 2024).

MATERIAL AND METHODS

From January 2015 to December 2024, time series data on onion prices and arrivals were gathered from the <https://agmarknet.gov.in> website for the study in question. To tabulate and analyse the data,

Microsoft Excel was used. Using secondary data on wholesale price and arrival, coefficient of variance and seasonal indices were computed to provide insight into the pricing, arrival, and seasonal price trends of onions in the domestic market. Additionally, a graphical analysis is performed to enhance the data interpretation and comprehension.

Coefficient of variance of prices = $\frac{SD}{Mean} * 100$

Standard deviation uses the following formula:

$$\sqrt{\frac{\sum (x - \bar{x})^2}{(n-1)}}$$

Where x is the sample mean average (value1, value2,) and n is the sample size.

The seasonal pricing and arrival index was computed by

SI for price = $\frac{\text{Average monthly commodity price during a certain period of time}}{\text{Average annual price over a given duration}} * 100$

SI for arrival = $\frac{\text{Average monthly commodity arrival during a certain period of time}}{\text{Average annual price over a given duration}} * 100$

Average annual price over a given duration

RESULTS AND DISCUSSION

Table 1. Average arrival of Onion in Solapur market

Month	Average arrival of onion	CV	SI of arrival
Jan	76,076	25.36	177
Feb	65,709	41.41	153
Mar	54,690	57.44	127
Apr	40,052	52.83	93
May	35,384	40.76	82
Jun	23,338	23.17	54
Jul	19,398	39.01	45
Aug	20,237	44.73	47
Sep	23,960	49.00	56
Oct	39,501	59.79	92
Nov	49,043	47.59	114
Dec	69,881	25.54	162

Table 2. Average wholesale price for Onion in Solapur market

Month	Average wholesale price for onion	CV	SI of price
Jan	1,337	49.04	107.83
Feb	1,137	60.45	91.76
Mar	788	39.03	63.60
Apr	640	37.91	51.66
May	699	51.22	56.38
Jun	941	58.14	75.91
Jul	1,056	61.42	85.19
Aug	1,408	69.20	113.58
Sep	1,610	63.32	129.87
Oct	1,661	38.34	134.02
Nov	1,879	44.54	151.56
Dec	1,718	54.80	138.59

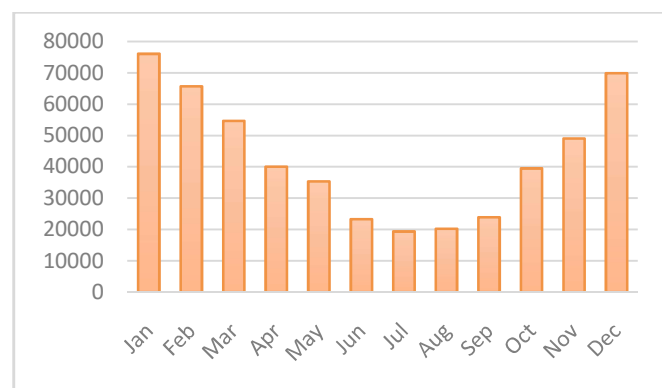


Fig. 1. Monthly Average arrival (Tonnes) of Onion in Solapur district

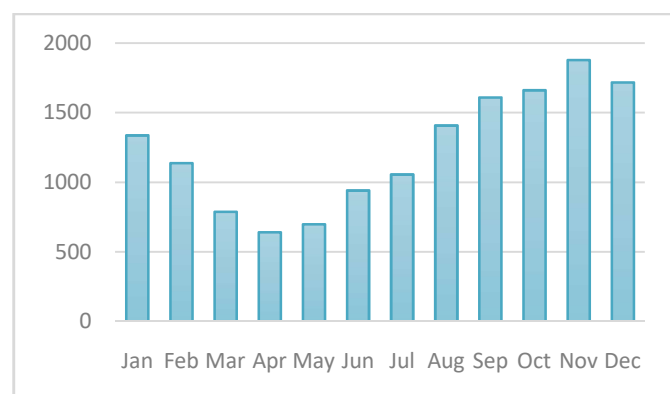


Fig. 2. Monthly Average wholesale price (Rs./Quintal) of Onion in Solapur district

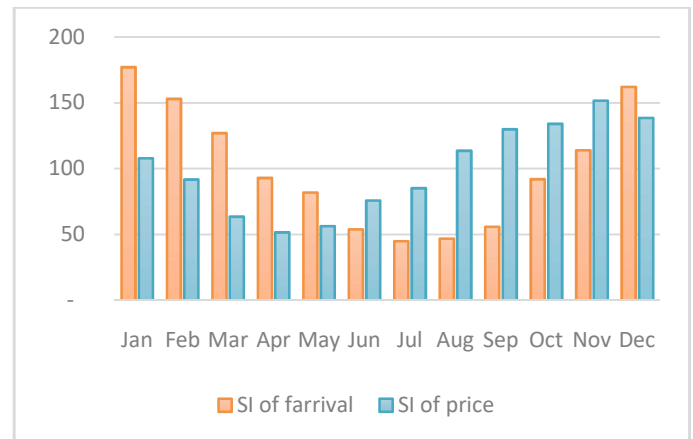


Fig. 3. Seasonal index of arrival and wholesale price of Onion in Solapur district

DISCUSSION

From Fig.1, 2 and 3 Solapur marketplaces were overrun with arrivals during the busiest months of December to February. According to a research of onion arrivals in the Solapur market from 2015 to 2024, From March to May period and onwards arrival slowly started declining in the markets. From June to September onion arrival is relatively low and stagnant. From October it start to increase. Due to the decrease in arrivals, costs are rising. Onion wholesale prices in the Solapur market begin to rise in June and continue to decline from December to May. Arrival influence the price of Onion. According to table 1 and 2 there found higher fluctuation in arrival of onion in October followed by March and April month. Similarly higher price fluctuation found in August followed by September July and February. In March, April and October month wholesale price of onion in Solapur marketplace is less variable compare to other months.

CONCLUSION

The arrival of onions affects their wholesale price in the Solapur marketplace. Solapur district onion growers should be aware of the price and arrival patterns of onions in order to prevent losses from growing them.

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