

RESEARCH PAPER

Studying the trends in arrivals and prices of onion in Ahmednagar market of Maharashtra

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ABSTRACT

An attempt has been made in this study to find out the trends in arrivals and prices of onion, in two market of Ahmednagar and Rahuri. On the basis of major findings of the study, the seasonal indices of arrivals were noticed higher during the month of January to July and highest in the month of March *i.e.* 127.04, which was lower during August to September and lowest in September *i.e.* 62.10. For Rahuri market, the arrival indices were noticed higher in the month of February *i.e.* (153.10) and lower in the month of October (71.00). Regarding price indices, it was highest in the month of December (130.60) and lowest in the month of April (75.10) when the arrival of *Rabi* onion commences in the market. During November to December, prices of onion were high, indicating scope for producers to plan the storage period, accordingly. The important marketing functions in the marketing of onion are grading, packaging, storage and transportation. At the overall level, the variability in arrivals of onion was 78.26 per cent and 75.03 per cent for Ahmednagar and Rahuri markets, respectively. In the case of the variability in the prices, it was noticed to be 47.72 per cent and 35.45 per cent for 10 years period (2002-03 to 2011-12) in Ahmednagar and Rahuri market, respectively.

KEY WORDS : Onion storage, Prices of onion, Seasonal indices

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Onion (*Allium cepa* L.) is an important and indispensable item in every kitchen as condiment and vegetable. Hence, it is also called as “queen

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of kitchen”. It is used either in raw form or dehydrated form to add flavour and taste to cuisine. Since, onion has medicinal value; it is being used in some pharmaceutical preparations.

India is the second largest producer of onion in the world next only to China and accounts for 16 per cent of the world area and 12 per cent of the total production of onion in the world. In Maharashtra, total area under onion crop during year 2011-12 was 35.900 thousand hectares and the production was 1.20 million tonnes which accounted 28.50 per cent of India's total onion production. The average productivity of onion in Maharashtra was 12 tonnes per hectare during last ten years. It was 11.12 tonnes per hectare during year 2012-

13. (Source: *Agrostat.com*, 2011-2012)

Ahmednagar district stands third in order next only to Nashik and Pune. The area under onion in Ahmednagar during the year 2011-2012 was 18,480 hectares with total annual production of 2.70 lakh metric tonnes. (Source: Socio-Economic Review and District Statistical Abstract of Ahmednagar district, 2011-2012)

At present, Maharashtra state has the largest onion storage capacity of 5.0 lakh metric tonnes, which accounts for 40 per cent of India's total onion storage capacity. The other states having noticeable onion storage capacity are Gujarat, Bihar and Karnataka. Generally in Ahmednagar there are four type of storage structure found such as wooden, stone, mixed and improved type storage structure. The material used for construction of storage structure varies with the farmer's economic conditions. Onion being a semi-perishable, its storage is required to be done properly to avoid subsequent storage losses. The prices of onion are very low during post-harvest period and rise thereafter. Under such conditions, it is required to be disposed off at optimum period during which onion prices are high enough to cover storage cost and ensures normal profits. So far very few systematic efforts have been made to find out different types of local and modified storage structures, marketing pattern of onion, arrivals and prices, the exact duration of storage to fetch maximum net profit, etc.

METHODOLOGY

The object of any scientific investigation is to draw

useful conclusions in the light of objectives of the study, it is essential for the investigator to adopt appropriate methods, procedures and analysis of data during the course of research work.

In the present study, the secondary data were collected from the two selected markets *viz.*, Ahmednagar and Rahuri markets. From both Ahmednagar and Rahuri markets, 10 years data were collected for arrivals and prices of onion in the market. It was again distributed into two periods *i.e.* first 5 years data were considered as period-I and next 5 years were considered as period-II.

ANALYSIS AND DISCUSSION

The findings of the present study as well as relevant discussion have been summarized under the following heads:

Seasonal indices of arrivals and prices of onion :

Seasonal indices of arrivals and prices of onion were studied and are presented in Table 1.

The results of seasonal indices of arrivals and prices of onion indicated that for Ahmednagar market, the indices of arrivals were noticed higher during the month of January to July and highest in the month of March *i.e.* 127.04, which was lower during August to September and lowest in September *i.e.* 62.10. It indicates that the market was flooded with arrivals of onion from February to June. In the case of prices, the higher indices were noticed during April to January and highest in the month

Table 1 : Seasonal indices of arrivals and prices of onion in Ahmednagar and Rahuri markets

Sr. No.	Month	Ahmednagar		Rahuri	
		Arrival indices	Price indices	Arrival indices	Price indices
1.	October	85.80	123.40	71.00	113.80
2.	November	104.20	145.40	74.00	118.90
3.	December	108.50	183.70	112.00	130.60
4.	January	123.00	151.10	76.00	117.70
5.	February	121.30	94.80	153.10	103.90
6.	March	127.04	67.20	111.10	84.10
7.	April	112.00	45.10	80.30	75.10
8.	May	117.70	48.10	95.50	110.20
9.	June	96.00	100.70	111.10	86.30
10.	July	73.40	122.30	115.50	92.20
11.	August	68.70	90.60	104.40	97.50
12.	September	62.10	114.10	96.60	106.60
	Total	1200	1200	1200	1200

of December *i.e.* 183.70, while lower during February to April and lowest in April *i.e.* 45.10.

For Rahuri market, the arrival indices were noticed higher in the months of February *i.e.* 153.10 and lower in the month of October 71.00. Regarding price indices, it was highest in the month of December 130.60 and lowest in the month of April 75.10 when the arrival of *Rabi* onion commences in the market.

Annual compound growth rates in arrivals and prices of onion :

The annual compound growth rates of arrivals and annual prices of onion were estimated by fitting exponential type of equation and the results have been presented in Table 2. It could be revealed from the table that for Ahmednagar market, at the overall level covering

the period of 2002-03 to 2011-12, the compound growth rates of arrivals and prices were 8.60 and 4.59 per cent per annum, respectively, which turned out to be significant at 10 and 5 per cent level of significance. The significant increase in arrivals and prices of onion at the overall level in Ahmednagar market indicated that the prices and arrivals have been increased annually by 8.60 and 4.59 per cent, respectively. The compound growth rates of arrivals and prices during period-I (2002-03 to 2006-07) were 20.60 and 13.57 per cent, respectively. However, the compound growth rates of arrivals for the second period (2007-08 to 2011-12) were 17.33 and 5.36 per cent, respectively. It indicated that arrivals of onion in Ahmednagar market remained more or less stable. In Rahuri market at the overall level, the growth rates in arrivals and prices were 20.44 and 4.13 per cent per

Table 2 : Period wise compound growth rates in arrivals and prices

Sr. No.	Arrivals / prices	Compound growth rate (%)	
		Ahmednagar	Rahuri
1.	Arrivals		
	Period-I (2002-03 to 2006-07)	20.60*	20.30*
	Period-II (2007-08 to 2011-12)	17.33*	18.96*
	Overall (2002-03 to 2011-12)	8.60**	20.44*
2.	Prices		
	Period-I(2002-03 to 2006-07)	13.57*	-10.24 NS
	Period-II(2007-08 to 2011-12)	5.36**	2.02**
	Overall(2002-03 to 2011-12)	4.59*	4.13*

*, ** and *** indicate significance of values at P=0.10, 0.05 and 0.01, respectively

NS = Non-significance

Table 3: Arithmetic mean and co-efficient of variation for arrivals and prices of onion in Ahmednagar and Rahuri markets (2002-03 to 2011-12)

Sr. No.	Month	Ahmednagar				Rahuri			
		Arrival		Price		Arrival		Price	
		A.M (qtl)	C.V (%)	A.M (qtl)	C.V. (%)	A.M (qtl)	C.V. (%)	A.M (qtl)	C.V. (%)
1.	October	145414	57.08	850.25	42.86	84341	48.23	656.35	35.99
2.	November	176662	51.78	1001.50	53.74	88551	50.77	683.50	39.80
3.	December	184063	50.25	1265.50	82.23	133713	87.03	753.50	56.64
4.	January	208588	35.70	1041.00	92.77	90684	68.58	678.86	51.10
5.	February	205717	50.34	653.50	51.75	182023	145.76	599.00	31.98
6.	March	216085	45.51	463.00	41.55	132297	111.98	485.00	33.18
7.	April	189972	48.55	310.95	29.80	98973	72.48	436.00	26.40
8.	May	199510	47.33	336.00	33.92	113223	79.89	422.00	25.15
9.	June	163734	45.34	445.50	30.67	132113	61.42	497.50	26.05
10.	July	124459	50.82	491.00	27.75	137656	64.39	531.95	25.31
11.	August	116438	46.46	624.00	39.11	123592	51.24	562.50	31.74
12.	September	105255	58.02	786.50	46.53	114232	58.64	615.00	42.19
	Total	169572.4	48.26	688.72	47.72	119283	75.03	518.43	35.45

annum, respectively. In period I, the growth rate of arrivals was 20.30 while for prices it was non-significant *i.e.* (-10.24). For Rahuri markets, the compound growth rates of prices during period -I (2002-03 to 2006-07) were negative and non-significant indicating the declining trend in prices during that period. This might be due to the export policy of government, political instability etc.

Variability in the arrivals and prices of onion in selected markets :

The variability in the arrivals and prices of onion in Ahmednagar and Rahuri markets during 2002-03 to 2011-12 in different months were estimated by using statistical tools like arithmetic mean and co-efficient of variation and the results are presented in Table 3.

Ahmednagar market :

The low variability in arrivals and prices of onion was 48.26 and 47.72 per cent in Ahmednagar market, respectively at an overall level. The minimum variability was in the month of January 35.70 per cent for arrivals and for prices in the month of July 27.75 per cent. The maximum variability in arrivals was observed in the month of September 58.02 per cent and for prices it was observed in the month of January 92.77 per cent. The fluctuations in price were more than the arrivals of onion during the above period in Ahmednagar market.

Rahuri market :

At overall level, the variability in arrivals and prices of onion was 75.03 per cent and 35.45 per cent, respectively. The minimum variability in arrivals was observed in the month of October *i.e.* 48.23 per cent and for prices it was observed in the month of May 25.15 per cent. The maximum variability was in the month December *i.e.* 87.03 per cent for arrivals and for prices during December 56.64 per cent.

REFERENCES

- Anonymous (2003). AGRESO report on marketing of onion in Solapur district, Department of Agricultural Economics and Statistics, pp 55-63, Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahmednagar (M.S.) INDIA.
- Balappa, S.R. and Hugar, L.B. (2002). Trends and variations in arrivals and prices of vegetables in Northern Karnataka. *Indian J. Agric. Mktg.*, **16** (2) : 10-17.
- Bhor, S.E. (2003). Economics of production, storage and marketing of *Rabi* onion in Pune district. M. Sc. (Ag.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahmednagar, M.S. (INDIA).
- Chavan, A.A., Kalyankar, S.P., Shelke, R.D., Thombare, R.F. and Kapse, P.S. (2009). Study on arrivals and prices of Banana in Parbhani market of Maharashtra state. *Agric. Update*, **4** (1 and 2) : 90-92.
- Jyothi, Pushpa, Indra, T. and Velan, M. Sendhil (2004). A study on marketing of onion in Dindigul district of Tamil Nadu. *Indian J. Agric. Mktg.*, **18** (2): 98-104.
- Kulkarni, B.S., Patil, S.M. and Ramchandra, V.A. (2012). Growth trends in area production and export of onion from India. *Internat. J. Com. & Business Mgmt.*, **5** (2): 159-163.
- Kumbhar, J.S. (2000). Economics of production and marketing of rabi onion in Pune district. M.Sc. (Ag.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahmednagar (M.S.) INDIA.
- Meena, S., Singh, I.P. and Bairwa, Kailash Chand (2012). Empirical study of onion marketing channels in Rajasthan. *Internat. J. Com. & Business Mgmt.*, **5** (2) : 274-279.
- Pokharkar, V.G., Kasar, D.V., Kakad, B.S. and Yadav, D.B. (2002). Economics of marketing of *Rabi* onion in Pune district 10th National seminar, Nagpur : 11.
- Reddy, B.S., Chandrashekhar, S.M., Dikshit, A.K. and Manohar, N.S. (2012). Price trend and integration of wholesale markets for onion in Metropolis cities of India. *J. Econ. & Sustain. Develop.*, **3** (7): 120 - 125.
- Shelke, R.D. and Kalyankar, S.P. (2009). Pattern of market arrivals and prices of Okra in Parbhani district of Maharashtra. *J. Maharashtra Agric. Univ.*, **23**(3): 300 - 302.

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