

Performance of Onion in Maharashtra

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Abstract—Onion is an important fresh vegetable consume all over the world India rank first in world covering 21 per cent of the world area and second position in term of production. India's share was 19.90 per cent in total production in World. Maharashtra state contributes nearly 30 per cent of the total production of onion in India and rank first in production. Keeping in view the importance of this crop, the present study has been undertaken to find out the performance of Onion in Maharashtra. The time series data on area, production and productivity in Maharashtra(1994-95 to 2013-14) has been utilized. The data on monthly wholesale prices and arrivals were collected from major APMC'S . In this study simple statistical tools adopted. The study revealed that the compound growth rate of onion in terms of productivity ia (1.50 %) during study period even though the area under the cultivation of onion crop and its production was positive. The arrival of onion was highest during December-January whereas the prices may go high during August to December during Kharif and Rabi season in all selected markets.

Keywords: Growth rate, Onion Production and productivity.

1. INTRODUCTION

Onion is an important fresh vegetable consume all over the world India rank first in world covering 21 per cent of the world area and second position in term of production after china Immanuelraj and et al (2014). India's share was 19.90 per cent in total production in World. *The Major Onion producing states area Maharashtra, Karnataka, Madhya Pradesh, Gujarat, Bihar, Andhra Pradesh, Rajasthan, Haryana and Tamil Nadu. Maharashtra ranks first in Onion production with a share of 27.72%.* There is a lot of demand of Indian Onion in the world, the country has exported 14,82,498.58 MT of fresh onion to the world for the worth of Rs. 3,169.63 crores during the year 2013-14. *Major Export Destinations (2013-14) are Bangladesh, Malaysia, Sri Lanka, United Arab Emirates, Indonesia, Pakistan and Singapore.*

Maharashtra State is rank first in production of onion at compare to other States of India. Maharashtra State contributes nearly 30% of the total production of onion in India. In the year 2012-2013, Onion Production was 16.54 lakh tones out of which 47.63 lakh tones from Maharashtra,

25.23 lakh tones from Karnataka, 21.50 lakh tones from M.P. and 15.14 lakh tones from Andhra Pradesh. Onion grown in Maharashtra State has unique features of their quality taste and own shelf life of onion. Nashik district is famous for onion growing and marketing of onion all over the country. "The Lasalgaon-(APMC) Market is leading for onion wholesale market. There are 20 licensed traders in Lasalgaon APMC which trade around in 5 lakh tones onion with around Rs. 50 crores annually. It is also observed that is the present figures of production onion production in 2012-2013 is 16.54 lakh tones our domestic requirement of onion is 120 lakh tones and export is 18 lakh tones per year. Average loss of onion is 10% that is 16 lakh so we have sufficient production of onion. In this paper attempt has been made to examine the trends, seasonality and price spread of onion in Maharashtra with following specific objective.

1. To estimate the growth rates and trends in the area, production and yield of onion in India
2. To analyze the time series data relating to market arrivals and prices of onion in selected markets across the country

2. METHODOLOGY

To study the price behavior of onion the secondary data on Area, Production and productivity, market arrivals and prices, were collected from the website of National Horticultural Board database and AGMARKNET. Monthly wholesale process and arrivals for major APMC's were collected from January 1994-95 to December 2013-14 for Nagpur, Lasalgaon and Pimpalgaon which are major markets for onion in Maharashtra. In addition primary data from wholesaler, retailer and consumer at Lasalgaon market was collected through personal interviews during December 2013. Analytical tools the trends in area, production and productivity was estimated using exponential model, for this the study period was divided into two sub period i.e 1994-95 to 2003-04 (Period I), 2004-05 to 2013-14 (Period II) and 1994-95 to 2013-14 (Overall period)

$$Y=a.b^t$$

Where,

Y= Area, Production & productivity.

a=intervals

b= price behavior

t= time variable

$$CGR= ((\text{Analog}(\log b)-1)*100$$

Seasonal Indices of arrivals and prices

Seasonal indices of arrival and price were calculated by using following formula

$$SI= (\text{Average of Month average}/\text{monthly average})*100$$

3. RESULTS & DISCUSSION

The performance of Onion

The compound growth rate of Area, Production & Productivity of Onion was work out & presented in table 1

Table 1: Compound Growth rate of Area, Production and Productivity of onion in Maharashtra

Particulars	Period I (1994-95 to 2003-04)	Period II (2004-05 to 2013-14)	Overall Period (1994-95 to 2013-14)
Area	6.37	10.54	9.93
Production	7.60	11.74	11.65
Productivity	1.49	1.08	1.50

The table shows that the area under onion crop was increase more 10.54 per cent during 2004-05 to 2013-14 (Period II) as compared to 6.37 per cent in 1994-95 to 2003-04 (Period I). At overall it was increased by 9.93 per cent during study period. The overall compound growth rate of onion in terms of production was 11.74 per cent. The production of Onion was increased highest in 2004-05 to 2013-14 in period II i.e. 11.74 per cent as compared to period I 7.60 per cent. The compound growth rate of productivity shows inverse picture to that of area and production of Onion. It shows that the productivity of onion was more 1.49 per cent in Period I as compared to Period II i.e. 1.08.

Seasonality in Arrivals and prices of onion in major markets in Maharashtra

Depending on the production of onion, seasonality in arrivals and prices occurs regularly. The changes in arrivals may occur due to rise or fall in production, poor storage, keeping in view the seasonality of arrivals and prices were analyzed for selected major markets and result were presented in table no. 2

Table 2: Seasonal Indices of Arrivals and prices of Onion in Maharashtra

SI Month	PRICES			ARRIVAL		
	PIMPALGAON	LASALGAON	NAGPUR	PIMPALGAON	LASALGAON	NAGPUR
Jan	94.81867	102.5604	106.5482	128.7011	154.2317	113.1804
Feb	79.72071	75.78139	89.81073	107.4361	131.339	99.846
Mar	60.57538	62.86018	72.72778	83.07904	100.1108	97.61358
Apr	56.93371	54.24907	56.99211	115.4546	101.4298	108.9146
May	58.93325	55.29477	53.79662	146.8189	112.3933	132.9116
Jun	78.89965	77.02714	76.21691	100.3957	92.36188	106.9775
Jul	87.12222	83.04043	85.29784	102.9711	96.88697	79.68705
Aug	121.4718	114.6898	124.9193	90.68002	85.82609	71.38742
Sep	131.7392	131.5819	129.486	77.54029	74.51711	70.53385
Oct	154.5314	150.0212	144.7208	60.86638	66.78413	82.5383
Nov	155.3844	157.3949	136.4059	63.41104	57.88594	108.1701
Dec	119.8697	135.4989	123.0778	122.6457	126.2333	128.2396

It is observed from the table that the trends in arrivals and prices at Lasalagon market revealed that, arrivals were higher during December-February (126.63-131.33) and during April-May (101.42 to 112.39). The highest arrival during this month is mainly due to harvesting crop during *Rabi* and *Kharif* season respectively. The prices in Lasalgaon market steadily increases from August (114.68) and continued up to January (102.56). Similarly trends were noticed for Pimpalgaon and Nagpur market in Maharashtra. In these markets, the increase in the arrivals of onion led to decline in the price and thus situation was in conformity with the law of demand.

4. CONCLUSION

The Area & Production was increased over the study period by 9.93 & 11.65 percent respectively. In all selected market the arrival of onion was highest from December to January and the highest prices was observed August to December

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