

A Study on Inter and Intra – Year Fluctuations in Arrivals and Prices of Banana in

Y.S.R District of Andhra Pradesh

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ABSTRACT

A study was carried out in Y.S.R district of Andhra Pradesh with a view to study the inter and intra year fluctuations in market arrivals and monthly wholesale prices of banana and to study the relationship between market arrivals and prices of banana. The trend line shows that the market arrival was highest in the year 2010 with a mean of 16762 tonnes and lowest in the year 2008 with 11739 tonnes. Inter year variation in market arrivals of banana was between 7.84 and 18.00 per cent of the average annuals during the period 2008-2017. There was a clear seasonality in the pattern of arrivals of banana. The inter year coefficient of variation of prices varied between 24.60 and 51.65 per cent. The intra year variation in market prices ranged between 8.56 and 40.82 percent. The lowest price for banana was observed during may month and the highest in the month of July .

Key words: Market arrivals, wholesale prices, Inter and Intra year fluctuations

INTRODUCTION

India is the second largest fruit producer in the world, after China and one of the centres of origin of fruits and vegetables with the total production of 88.977 million metric tonnes of fruits (NHB,2015). Developing countries produce 98% of total world banana production. India is the largest country in the world producing banana. The banana growing states in India include Tamil Nadu, Gujarat, Maharashtra, Andhra Pradesh, Karnataka, Bihar, Madhya Pradesh, and West Bengal . Maharashtra is the leading banana producing state in India. Y.S.R district ranks first in the production of banana in Rayalaseema region of Andhra Pradesh.

The study pattern of market arrivals of banana and the relationship between the quantities of market arrivals and the prices of the crop at different points of time helps us to know the extent of inter and intra year variation in them. A study was carried out in Y.S.R district of Andhra Pradesh with a view to study the inter and intra year fluctuations in market arrivals and monthly wholesale prices of banana in the district and to study the relationship between market arrivals and prices of banana.

RESEARCH METHODOLOGY

Y.S.R district of Andhra Pradesh was purposively selected because it has been a leading district in banana area and production among all others. The time series secondary data on market arrivals and wholesale prices of banana for each month from 2008 to 2017 for the Y.S.R district were collected from the Y.S.R district fruit market wholesalers, Pulivendula. The month wise 10 years total data was added to arrive at all months of total periods under study. Percentage variation for arrivals and prices for each month were also calculated.

RESULTS AND DISCUSSION

Trends in arrivals and price of banana in Pulivendula market

The variability in arrivals and prices of banana in Pulivendula market from the year 2008-2017 was analysed and furnished in **Table 1**. Results revealed that the market arrival was highest in the year 2010 with a mean of 16762 tonnes and lowest in the year 2008 (11739 tonnes).

Table 1.

Years	Arrivals		Prices	
	Mean arrival (Tonnes)	C.V. (%)	Mean arrival (Tonnes)	C.V. (%)
2008	11739	12.87	3794.16	10.63
2009	13128	14.31	5255	11.27
2010	16762	5.56	6609.16	28.14
2011	14560	14.88	11053.33	15.98
2012	11923	8.37	19287.5	140.15
2013	13205	12.57	10882.5	11.56
2014	13875	11.15	11448.33	11.87
2015	14289	8.59	12878.33	17.28
2016	14049	14.25	13650.83	10.38
2017	14716	15.85	14251.66	14.27
ACGR (%)	1.005		13.88	

However, there had been inter-year variations during the period under study. The variation was highest in the year 2017 (15.85%) and lowest in the year 2012 (8.37%). The results also indicated that market price was highest in the year 2013 with an average price of (1928.5 tonne) and lowest in the year 2008 (Rs. 3794.16 per tonne). In case of price variability also, it was seen that there were inter year price fluctuations. The variation was highest in the year 2012 (140.15%) and lowest in the year 2016(10.38 %). The price fluctuations brought a great deal of discomfiture to both poor farmers and consumers (Kumar *et al.*, 2006).

The market arrivals of banana and their coefficient of variation during the different months of the period under study (Table.2) revealed that inter year variation in market arrivals of banana was between 7.84 and 18.00 per cent of the average annuals during the period 2008-2018. The variation in market arrivals was directly related with the annual production of banana in district. The intra year coefficient of variation in the market arrivals of banana was between 6.31 and 12.47 percentage of total arrivals during 2008-2017. The lowest market arrivals of banana were recorded during 2008 which 9480 tonnes while the maximum arrivals 18570 tonnes were recorded during 2018. There was a clear seasonality in the pattern of arrivals of banana.

PRICE BEHAVIOUR OF BANANA

The wholesale prices of banana and the percentage variation in different months of the period under the study (Table.3) revealed that the coefficient of variation varied between 24.60 and 51.65 per cent of the overall average of the prices during 2008 to 2017. Price of a crop vary much from every year but fluctuated during different months of the same year. It could be seen that intra year variation in market prices ranged between 8.56 and 17.75 per cent. The lowest price for banana was observed in May and the highest in the month of July.

CONCLUSION

This study examined the scenario of arrivals and prices of banana in Pulivendula market during last 10 years. The findings also showed that there has been inter- year variations in market arrivals and prices of banana in Pulivendula market but both had positive growth rates. The study has confirmed that there existed a definite seasonal pattern in the market arrivals of banana.

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Table 2. Inter and intra year variation market arrivals(tonnes) of banana

Months	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Inter year variation (%)
January	9480	10800	18030	11403	12460	11480	14633	15300	15930	15220	13473	17.42
February	11240	12860	16080	15490	11420	16240	16434	14180	15080	18570	14759	12.65
March	10280	10980	15580	14612	12106	13800	14504	13930	11030	13080	12990	11.64
April	11290	11206	16550	13415	11340	12470	13120	13460	10480	15520	12885	11.85
May	10400	10900	17280	12815	10890	11480	12740	15289	17600	16430	13582	18
June	13840	16280	16570	17410	13410	15860	14480	16417	14160	11240	14966	10.28
July	12410	13460	17080	15660	12480	13900	16270	15890	15500	17550	15020	10.42
August	13890	12600	15220	13840	11240	13760	14720	13268	14330	15550	13841	7.22
September	10400	14280	16479	17206	12890	11890	12310	14470	13470	14660	13805	11.68
October	11480	14340	17530	12358	11380	12450	11490	12842	13400	12380	12965	9.83
November	13680	14380	18341	17885	10200	11280	13120	12450	14800	11240	13737	15.21
December	12480	15450	16412	12636	13260	13860	12680	13980	12810	15160	13872	7.84
Mean	11739	13128	16762	14560	11923	13205	13875	14289	14049	14716		
Intra Year Variation (%)	10.79	11.95	4.41	12.47	7.08	10.32	9.35	6.31	10.73	12.43		

Table 3. Inter and intra year variation market prices (Rs./tonne) of banana

Months	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Mean	Inter year variation (%)
January	4010	4980	5670	10000	12680	11540	13000	10880	14200	15860	10282	32.02
February	4360	5620	5280	9860	12500	12180	10000	9560	12260	13880	9550	28.03
March	3090	5280	4160	9140	105000	10600	10860	10790	13000	11020	18294	51.65
April	3480	5110	4380	8800	9000	9530	9930	10660	12410	12960	8626	29.92
May	3160	4260	5160	9560	9800	8240	11470	12890	13640	10650	8883	33.12
June	4080	5340	6870	11000	10000	11580	13360	15680	15060	16220	10919	31.84
July	4260	6030	10000	13680	13110	12000	12870	16730	16690	16740	12211	26.81
August	3820	6090	6580	12660	11260	10880	12230	14480	14740	15910	10865	28.16
September	3610	4970	6890	10000	12840	9470	10390	12000	13030	14230	9743	28.79
October	3940	4330	7680	12450	10630	11000	9280	12320	11820	12810	9626	27.57
November	4040	5170	6960	13880	13680	12510	12480	14350	12560	14980	11061	30.75
December	3680	5880	9680	11610	10950	11060	11510	14200	14400	15760	10873	24.6
Mean	3794.16	5255.00	6609.16	11053.33	19287.50	10882.50	11448.33	12878.33	13650.83	14251.66		
Intra year variation (%)	8.56	18.58	17.75	13.58	40.82	8.71	9.47	14.3	8.29	11.64		