



Growth Rate of Area, Production and Productivity of Onion Crop in Andhra Pradesh

KEYWORDS

Growth rate, Onion, Production and Productivity.

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ABSTRACT India occupied second position in term of production of onion in the world. During 2010-11, India's share was 19.90 percent in total onion production in the world. During the 2009-10, Andhra Pradesh occupied 3rd place in terms of area, production and 1st place in terms of productivity in India. Keeping in view the importance of this crop, the present study has been undertaken to find out the growth rate of area, production and productivity of onion crop in Andhra Pradesh. Time series data on onion crop area, production and Productivity in Andhra Pradesh (1992-93 to 2011-12) has been utilized for the present study. In this study the simple statistical tools adopted. It was observed that the compound annual growth rate of onion in terms of productivity is negative (-1.84%) during the 2007-08 to 2011-12 period, even though the area under the cultivation of Onion crop and its production was positive.

Introduction:

Onion crop is one of the vegetable and commercial crop. Vegetables are playing a key role in horticulture sector in Andhra Pradesh. It is a very important vegetable crop in Andhra Pradesh. Onion crop is sown in rabi and kharif seasons, most of the farmers cultivate onion crop in Kharif season in Andhra Pradesh. Onion crop is cultivation in Rayalaseema (Kurnool, Chittoor, Kadapa, Anantapur), Coastal Andhra (Nellore) and Telangana (Medak, Mahabubnagar, Nizamabada, Karimanagar, Rangareddy, Warangal, Khammam and Nalgonda). The major production of districts are Kurnool, Medak, Mahabubnagar, Nizamabada, kadapa, Rangareddy and Anantapur. Onion crop cultivation period starts from June to December in state. In state there are some varieties of Onion crops, there are Ballaried, Pusared, Rampured, Nasikred, White onion, JA small onion, agrifound dark red, agrifound light red and N-53.

Onion consumption increases in the State. The production of onion and its supply has a great impact on prices as the demand for onion is never curtailed despite the rise in prices and this is clearly evidence from the price hike in September and October in 2013.

The contribution of horticulture sector is increasing to agriculture sector and total Gross State Domestic Product (GSDP) in Andhra Pradesh. On the basis of 2006-07 prices, in the 1999-2000 the horticulture sector 15.96 percentage contributed to total agriculture sector. It has increased to 22.49 percent in 2006-07.

According to UN Food & Agriculture Organization (FAO) India's production (dry) of onion 13,372,100 metric tonnes in 2012. The total world production of onion was 74,250,809 in 2012. Globally India ranks second in terms of production next to China.

Objective of the Study: To study the growth rate of area, production and productivity of onion crop in Andhra Pradesh.

Methodology:

The study was based on secondary data collected from various journals, books, magazines and Directorate of Economics Statistics at Galance-2006 and 2012 Government of Andhra Pradesh. To fulfill the objective of the study the simple percentage, annual growth rate and compound annual growth rate and other statistical tools was adopted.

Results and Analysis:

Table: 1

Descriptive Statistic of Onion crop in Andhra Pradesh (1992-93 to 2011-12)

Onion Crop	Minimum value	Maximum Value	Mean
Area	18845	56991	31639.5
Production	152044	999749	542901.2
Productivity	8063	20758	16815.95

Source: APDES at Glance-2012

In the above table 1 shows that descriptive statistics of Onion crop in Andhra Pradesh. During the 1955-56, the area under the onion crop was 18653 hectares. The area increased to 56991 hectares in 2011-12. The production of onion increased from 1722038 tonnes to 999749 tonnes in 1955-56 and 2011-12 respectively

The area under the Onion Crop minimum is 18845 hectares and maximum is 56991 hectares, with the mean of area 31639.5 hectares in Andhra Pradesh. The production of Onion is minimum 152044 tonnes and maximum 999749 tonnes, with the mean of production 542901.2 tonnes in Andhra Pradesh. The productivity (yield) of Onion is minimum 8063 and maximum 20758, with the mean of 16815.95 (kgs/hectares) in Andhra Pradesh.

Table: 2 Annual growth rate of Area, Production and Productivity

of Onion crop in Andhra Pradesh (1992-93 to 2011-12)

Year	Area	Production	Yield
1992-93	-	-	-
1993-94	6.13	173.05	157.45
1994-95	4.37	-24.23	-27.40
1995-96	15.14	18.74	3.13
1996-97	13.03	-1.21	-12.60
1997-98	-22.19	-11.04	14.33
1998-99	46.94	45.68	-0.86
1999-2000	12.75	9.32	-3.23
2000-01	-13.45	2.63	18.81

2001-02	5.01	4.28	-0.73
2002-03	-14.76	-26.25	-13.44
2003-04	7.08	25.90	17.56
2004-05	17.58	16.16	-1.20
2005-06	6.53	15.39	8.31
2006-07	-14.69	-16.78	-2.45
2007-08	20.36	20.86	1.21
2008-09	8.29	4.04	-4.68
2009-2010	-9.63	-2.82	7.54
2010-2011	18.70	21.53	2.38
2011-12	31.32	16.18	-11.53

Source: APDES at Glance

In the above table 2 shows that Annual growth rate of area, production and productivity of Onion in Andhra Pradesh. The percentage of area under the onion crop was highest recorded 46.94 percent in 1998-99. The annual growth rate of area increased from 6.13 to 31.32 percent (from 1993-94 to 2011-12). The annual growth rate of production was highest recorded (173.05 percent) in 1993-94. The negative growth rate of production of Onion crop was 26.25 percent in 2002-03. The productivity of Onion crop was highest recorded (157.45 percent) in 1993-94. In the 2011-12 the productivity of Onion crop was negative that is -11.53, even though area was increased.

Table: 3
Compound Annual Growth rates of Area, Production and Productivity of Onion crop in Andhra Pradesh (1992-93 to 2011-12)

Years	Area	Production	Yield
1992-93 to 1996-97	9.57	24.81	13.93
1997-98 to 2001-02	10.77	14.26	3.14
2002-03 to 2006-07	3.43	8.86	5.25
2007-08 to 2011-12	11.13	9.31	-1.84
1992-93 to 2011-12	6	10.42	4.18

Source: APDES at Glance

In the above table 3 shows that Compound annual growth rate of area, production and productivity of onion crop in Andhra Pradesh. The overall compound annual growth rate of Onion in terms of area was 6 percent. The area under the Onion crop was highest recorded 11.13 percent in the 2007-08 to 2011-12 period followed by 1997-98 to 2001-02 period was 10.77 percent, 1992-93 to 1996-97 period was 9.57 and 2002-03 to 2006-07 period was 3.43 percent. The overall compound annual growth rate of Onion in terms of production was 10.42 percent. The production of Onion was highest recorded 24.81 percent in the 1992-93 to 1996-97 period followed by 1997-98 to 2001-02 period was 14.26 percent, 2007-08 to 2011-12 period was 9.31 percent and 2002-03 to 2006-07 period was 8.86 percent. The overall compound annual growth rate of Onion in terms of productivity was 4.18 percent. The productivity of Onion was highest recorded 13.93 percent in the 1992-93 to 1996-97 period followed by 2002-03 to 2006-07 period was 5.25 percent, 1997-98 to 2001-02 period was 3.14 percent. However the compound growth rate of onion in terms of Productivity was negative (-1.84 percent) during the 2007-08 to 2011-12 period.

Table: 4
Area under the cultivation of Onion in Major States in India (in 2009-10)

Year	ALL INDIA	States	Area (in 000 hct)	Rank
2009-10	756	Andhra Pradesh	37	3
		Karnataka	141	2
		Maharashtra	200	1
		Tamil Nadu	35	4

Source: APDES at Glance

In the above table 4 shows that Area under the cultivation of Onion in Major states in India. The 756000 hectares under the cultivation of Onion crop in India. Maharashtra occupied 1st rank in term of Area under the cultivation of Onion crop in India followed by Karnataka and Andhra Pradesh and Tamil Nadu. Andhra Pradesh occupied 3rd rank which covers 37000 hectares. Out of 100 percent of area, 4.89 percent of area under the cultivation of onion crop in Andhra Pradesh.

Table: 5
Production of Onion in Major States in India (in 2009-10)

Year	ALL INDIA	States	Production (in 000 tns)	Rank
2009-10	12160	Andhra Pradesh	708	3
		Karnataka	2266	2
		Maharashtra	3146	1
		Tamil Nadu	340	4

Source: APDES at Glance

In the above table 5 shows that Production of Onion in Major states in India. In India the total production of Onion is 1216000 tonnes in 2009-10. Maharashtra occupied 1st rank in term of production of Onion in India followed by Karnataka and Andhra Pradesh and Tamil Nadu. Andhra Pradesh occupied 3rd rank which production 708000 tonnes. Out of 100 percent, 5.82 percent of onion production in Andhra Pradesh.

Table: 6
Productivity of Onion in Major States in India (in 2009-10)

Year	ALL INDIA	States	Productivity (kgs/hct)	Rank
2009-10	16079	Andhra Pradesh	19367	1
		Karnataka	16038	2
		Maharashtra	15730	3
		Tamil Nadu	9623	4

Source: APDES at Glance-2012

In the above table 6 shows that Productivity of Onion in Major states in India. During the 2009-10, the Productivity of Onion was 16079 (kgs/hect) in India. Andhra Pradesh occupied 1st rank in term of productivity of Onion in India followed by Karnataka and Maharashtra and Tamil Nadu. During the 2009-10, Andhra Pradesh onion's productivity was highest (19367) compared with major states in India.

Conclusion:

The study stated that there were fluctuations in the annual growth rate of area, production and productivity of Onion crop in Andhra Pradesh. The compound annual growth rate of Onions is positive in terms of area and production and negative in terms of productivity. The area under the cultiva-

tion of Onion crop and production of onion increased from 1992-93 to 2001-12, but the productivity was declined in 2011-12 year. There is a urgent need to enhance area and production of onion crop in Andhra Pradesh through enlarge skill to farmers, development of HYV seeds and new technology. Not only increase the area and production but also increase the productivity of onion crop due to increases population in the state and raise demand for onions in the Andhra Pradesh.

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