# Growth In Production And Productivity Of Horticultural Fruits In Jammu And Kashmir

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Abstract: Jammu & Kashmir is well known for its horticulture produce both in India and abroad. The state offer good scope for cultivation of all types of horticulture crops covering a variety of temperate fruits like apple, almond, walnut, apricot, pear, peach, plum etc. From the last few years, production and productivity of horticulture fruits has increased manifold and results in huge amounts of dispatches from the state. This paper emphasised the growth in production and productivity of both fresh and dry fruits in J&K. The study shows that there is a positive growth both in production and productivity of fresh and dry fruits in J&K. The total production (fresh and dry fruits) which was just 10.97 lakh MTs in 2001-02 has increased to 24.93 lakh MTs in 2015-2016, and similarly the productivity per hector has also increased from 4.95 lakh MTs to 7.38 lakh MTs.

Keywords: Production, Productivity, Fresh, Dry.

#### I. INTRODUCTION

Agriculture is the backbone of Indian economy. Agriculture provides livelihood to over 68% of rural population and agriculture exports constitute one fifth of total exports (GOI 2011). Horticulture is known as the main component of Agriculture, having a good share in the economy of the country. The distinct agro-climatic conditions and rich bio-diversity enables India to produce a wide variety of horticultural crops. India is now the second largest producer of fruits and vegetables in the world and is the leader in several horticultural crops, namely Mango, Banana, Papaya, Cashew nut, Areca nut, Potato and Okra (CSO, GOI 2011).

Jammu and Kashmir is a Northern State in India which consists of three divisions: Jammu, Kashmir valley and Ladakh, and is further divided into 22 districts. More than 65% of the population of the state is dependent on agriculture and allied agro-vocations contributing 36.3% of net domestic product (Anonymous 2006). The favorable agro climatic conditions, fertile soil, are ideally suited for cultivation of fruit and vegetables in the state. The horticulture sector helps in providing better alternatives for diversification and generating additional employment for the people. There are around 6 lakh families comprising of about 30 lakh people which are directly or indirectly associated with horticulture. Horticulture development is one of the thrust areas in agriculture and a number of programmes have been implemented in the past, resulting in the generation of higher incomes in the rural areas, thereby improving the quality of life in villages. An income of 4100 crore has been generated from fruit production during 2011-12 which includes an amount of 495 crore from dry fruits. (Economic Survey J&K 2012-13).

The major fruits grown in the state are apple, mango, walnut, almond, pear, cherry, apricot, peach, plum etc Apple production is major cultivation in the state. From past one and half decade production and area under apple cultivation has substantially increased due to high value of apple production. Production has increased from 1151.7 thousand M.T to 1373 thousand M.T and also the share of State in the national production of apple has increased from 63.5% to 77.2% in 2010 (National Horticulture Board, 2011). The horticulture industry also serves as a great advantage to the state due to its monopoly on walnuts, almonds, pears, cherries, hazelnuts, pecan nuts, strawberries and kiwi fruits. Jammu and Kashmir is the major producer of apple and walnuts in India, 77 percent of apple and 90 percent of walnut production in India belongs

to Jammu and Kashmir and percentage share of state in India's total production as well as productivity is showing an increasing trend and the state has been declared as the "Agri. Export zone for Apples and Walnuts."

### II. REVIEW OF LITERATURE

Viswannathan and Satyasai (1997) had analyzed production trends in fruits and vegetables. The study reveals that fruits and vegetables occupied a share of only 0.58% of gross cropped area in 1952-53 which was increased to 2.29% in 1992-93. The value of output from fruits and vegetables had shown a growth rate of 5.76% per annum between 1960-61 and 1992-93. The highest growth rate was found in potato which was 7.28% per annum. The study also revealed that the flow of refinance to plantation and horticulture sector had grown at 10.92% per annum during 1982-83 to 1995-96. The study further showed that the credit support for fruits and vegetables processing units by commercial banks had more than doubled between 1990 and 1994.

Weinberger and Thomas (2005) has estimated that the horticulture sector enabled rural poor to escape from poverty through production and exchange of non- staple crops by increasing employment, brings commercialization of rural sector.

Mittal and Fellow (2007) has reported that the Indian horticulture sector is constrained by low productivity, high cost of production, huge post-harvest losses, inefficient supply chain and poor market intelligence.

Reshi et al (2010) assessed the potentials of horticulture and problems faced by this sector. The study reveals that the horticulture is the main sector and provides, directly or indirectly, employment to a hollowing number of some 30 lakh people, but still it has not been provided industrial status, owing to ignorance from government side, lack of infrastructure and proper marketing channels and research and development.

Nawaz et al (2013) evaluated that the fruit trees in Rajouri district of Jammu and Kashmir are facing host of problems and inadequacies such as undulating topography, varying climatic and soil conditions, scanty cultivable land, and serious soil erosion. On the other hand they are exposed to the ravages of pests and diseases. With the intensification of agricultural production practices and evolution of high yielding varieties and types of various fruit crops, the resurgence of the pests has out broken massively. Besides pests of known identity some new races of flies, beetles, and caterpillars are becoming new menace. They rob a measurable and considerable portion of the farmer's profit. As per estimate about 20 percent of the total loss to the crops is attributed to the insect's pests alone. Therefore proper management of the pest is crucial to harvest good crop.

Shazia and Sarafraz (2014) has analyzed that the horticulture industry in Kashmir is one of the pivotal pillars of its economy; there has been huge impact on it, in terms of its reduced production and in appropriate marketing due to conflict.

#### III. METHODOLOGY & OBJECTIVES

The study has evaluated the growth in production, and productivity of both fresh and dry fruits in J&K. The present study is analytical and empirical in nature, based on secondary data sources for a period of 16 years from 2001 to 2016. The secondary sources has been collected from the Economic Survey of Jammu and Kashmir; Directorate of Horticulture Govt. J&K; Magazines; Journals and other agencies related to Department of Horticulture.

Years	Area	Production	Productivity
	(Hectares)	(M.Tonnes)	Per Hectare
2001-02	221512	1097208	4.95
2002-03	231727	1146586	4.94
2003-04	242546	1273813	5.25
2004-05	258311	1331861	5.16
2005-06	268284	1412992	5.27
2006-07	283085	1504101	5.31
2007-08	295141	1636203	5.55
2008-09	305621	1689848	5.53
2009-10	314881	1712409	5.44
2010-11	325072	2221990	6.83
2011-12	342791	2161169	6.32
2012-13	346981	1742142	5.03
2013-14	355093	2073947	5.84
2014-15	359087	1542676	4.29
2015-16	337677	2493999	7.38

Source: Directorate of Horticulture, Government of J&K

*Table 1: Area, Production and Productivity of Fruits in J&K* The table 1 shows that there is a positive growth both in production and productivity of horticulture fruits in J&K. During the year 2001-02 the production was 10.97 lakh MTs and has increased to 24.93 lakh MTs in 2015-16, and in the same period the productivity per hector has increased to 7.38 lakh Mts from 4.95 lakh MTs.

Year	Area	Production	Productivity
	(Hectares)	(Metric Tons)	Per Hectare
2001-02	142225	1000887	7.04
2002-03	148483	1045747	7.06
2003-04	157585	1165788	7.42
2004-05	167568	1217604	7.28
2005-06	175096	1289296	7.36
2006-07	184716	1373759	7.46
2007-08	196136	1477920	7.54
2008-09	203320	1529912	7.53
2009-10	209457	1534682	7.33
2010-11	217054	2045555	9.42
2011-12	240185	1949173	8.12
2012-13	236780	1524593	6.45
2013-14	242695	1841199	7.60
2014-15	246070	1344551	5.46
2015-16	241182	2217584	9.20

Source: Directorate of Horticulture, Government of J&K Table 2: Area, Production and Productivity of Fresh fruits

The table 2 shows that from last one decade area, production and productivity of fresh fruits has increased manifold. The area which was just 142225 hectares in 2001-2002 has increased to 241182 hectares in 2015-2016. In the same period there is large increment in both production and

productivity of fresh fruits, production has increased to 2217584 metric tons from 1000887 metric tons and the productivity has increased to 9.20 metric tons from 7.04 metric tons.

Year	Area (Hectares)	Production	Productivity
		(Metric Tons)	Per Hectare
2001-02	79364	96321	1.21
2002-03	83244	100840	1.21
2003-04	84961	108025	1.28
2004-05	90743	114257	1.26
2005-06	93188	123696	1.32
2006-07	98369	130342	1.32
2007-08	99005	158283	1.59
2008-09	102301	159936	1.55
2009-10	105424	177728	1.68
2010-11	108017	176435	1.76
2011-12	102606	211996	2.06
2012-13	110443	217549	1.97
2013-14	112398	232748	2.07
2014-15	113017	198123	1.75
2015-16	96495	276415	2.87

Source: Directorate of Horticulture, Government of J&K Table 3: Area, Production and Productivity of dry fruits

The table 3 presents that area, production and productivity of dry fruits has also increased. During 2001-2002 the area under dry fruits was 79364 hectares and which raised to 113017 hectares in 2015-2016. In the same period the production has increased to 198123 metric tons from 96321 metric tons and the productivity has raised to 1.75 metric tons from 1.21 metric tons.

## IV. CONCLUSION AND SUGGESTIONS

The study reveals that horticulture sector is the main contributing industry in the Jammu and Kashmir economy. Due to higher return of both fresh and dry fruits, people shift their land towards horticulture fruits. The data shows that there is great improvement in the area, production and productivity of fruits in J&k. During 2015-2016 the area under horticulture fruits has increased to 337677 hectares and the production and productivity has also increased to 2493999 metric tons and 7.38 tons respectively. The presence of cold storage and transportation facilities, presence of skilled labour, availability of credit facilities, availability of good market, adequate use of organic manure and the availability of new quality plant material are the main reasons for the growth of horticulture sector in Jammu and Kashmir.

Jammu and Kashmir State is predominantly agriculture in nature and has a vast potential to produce horticulture fruits which have high value demand and attractive markets both in India and abroad. Horticulture industry is a labour intensive technique and thus has a tremendous potential to help in reducing the Unemployment in the state. But yet in Jammu & Kashmir state there is very backwardness in horticulture sectors. So various appropriate steps and initiatives are needed by the state Government to educate and enable the farmers to change their techniques of production. Proper marketing, better transportation, adequate storage facilities and various schemes should be given to the fruit growers in the state, which will help them to increase both fruit production and the corresponding revenue.

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