Growth and performance of Apple production in Kulgam district of Jammu and Kashmir

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Abstract

Jammu and Kashmir are considered the most Apple producer state in India. Especially, in almost all districts of the Kashmir Division. This study was carried out to evaluate the growth and performance of apple production in the Kulgam District of Jammu & Kashmir. This study is based on the secondary source of data collected from the Directorate of Horticulture deportment, Jammu and Kashmir. The study covers the period from 2010-11 to 2018-19. The data has been analyzed by using descriptive statists. This study concluded that the production of Apple has increased from 1139180 mt,s in 2014-15 to 1851723 mt,s in Kashmir valley. Similarly, the production of Apple has increased from 57518 mt's in 2014-15 to 213653 mt's in Kulgam district. That results in an improvement in the standard of living in the study area. To gain more benefits from Apple cultivation Agricultural land has been converted for Horticultural purposes, like Apple production.

KEYWORDS

EVALUATE, HORTICULTURE, PERFORMANCE,

DESCRIPTIVE STATISTICS.

INTRODUCTION

Agricultural growth increase but in decreasing order is the main concern for policy-makers as some 66.6 percent of India's population depends on rural employment for a living. The current agricultural sector is neither economically nor environmentally and not technologically sustainable, which is why the agricultural output is low in India. Poor irrigation systems and road connectivity are other responsible factors for the low growth rate of production. Which in results farmers are getting more burden in producing any product in their fields. This may be the main cause, that Indian farmers are diversifying their agricultural land towards the horticultural sector. Because horticultural sector has lass need of irrigation system than

agricultural land. So, there is much needed that India should provide the basic tools and equipment to the farmers to gain more from both sectors. According to World Bank, (2011)." Encouraging policies that promote completion in agricultural marketing will ensure the farmers receive better price".

India is considered 2nd largest populous country after China; more than 1.3 billion people are surviving in the country. Nearly about 70 percent live in the rural areas, with more than 50 percent of them involved with agriculture and its various sectors as per the census 2011. India occupies 328.7 million hectares of land out of which 139 million hectares is the reported net sown area and 194.4 million hectares is the gross cropped area with a cropping intensity of 138.9 percent. The net irrigation area is 66 million hectares. According to the Food and Agriculture Organization (FAO), World Agriculture Statistics (2010)," India is the world's largest producer of fresh fruits and vegetables, milk major spices fibrous crops like jute, staples like millets and oilseeds". As for agricultural land is concerned India occupies the second-largest agricultural land after the United States of America. But still facing various problems while producing any production. As per China is concerned India has more agricultural land than China, but China produces rice and wheat 40 percent more than India. India produces only 2.4 tons per hectare, while Brazil and China with production rates are 4.7 and 3.6 tons per hectare respectively. India is considered the second-largest producer of various dry fruits Agri-textiles raw materials, tuber crops, pulses, fish eggs, coconut sugarcane, and plenty of vegetables. India is one of the five largest livestock and poultry nations in the world. (Mohd Asif 2017). Agricultural production decrease continuously in India over the last few decades. The share of agriculture in the country's GDP has fallen from 43 percent in 1970 to just 16 percent in 2011. According to the Economic Survey- 2015, growth in the share of agriculture in India's Gross Domestic Product (GDP) is just 1.1 percent. With a population, growing at the rate of nearly 2 percent per annum. Foodgrains production is rising with an annual rate of just 2.42 percent, thereby providing the intensive subsistence nature of Indian agriculture; where farmers can produce food to feed themselves and their families. The share of agriculture and allied sector in the gross value added (GVA) has declined from 18.5 percent in 2014-to 2015 at current prices. Gross Capital Formation (GCF) in agriculture and its allied sectors about GVA exhibited a declining trend from 18.5 percent in 2011-2012 to 17.4 percent in 2014- 2015 at current prices. Gross Capital Formation (GFC) in agriculture and its allied sectors about GVA exhibited a declining trend from 18.3 percent in 2011-2012 to 15.1 percent in 2012-2013(Central Statistics Office, MOSPI). So, keeping an eye on the vast population of India,

instead of focusing on just being a self-nation, as could be seen in the policies of the last few decades, rather the focus should be on the major earners of the foreign exchange for the country. And for achieving this feat, the commercialization of agriculture is a necessary step (Somoni Sengupta,2008 and Hazra,2001)

Present Indian agriculture is totally surprising from the past. in 2016, agriculture and its allied sectors like animal husbandry, forestry, and fisheries accounted for 15.4 percent of Gross Domestic Product (GDP) with about 41.49 percent of the workforce in 2020. (CIA factbook: Indian economy 2018) India occupies the first rank in the world with the highest net cropped area followed by US and China. Agriculture is demography the broadest economic sector and plays an important role in the socio-economic fabric of India. The total agricultural commodities export was US $3.50 billion from March -to June 2020. India exported $38 billion worth of agricultural products in 2013, making it the seventh-largest agricultural exporter, most of its agriculture exports serve developing and least developed nations. (United States department of agriculture 2014). Indian agricultural/horticultural and processed foods are exported to more than 120 countries, primarily to Japan, Southeast Asia, SAARC countries, the European Union, and the United States." Agriculture in Indi Agricultural Exports and food Industry in India| IBEF"

India is divided into 28 states and 9 union territories, each state, and union territory has its specialization in production. E.g., West Bengal's land is considered the batter producing for rice. Assam is producing tea plants etc. Similarly, Jammu and Kashmir are very rich in producing fresh and dry fruits. Like apples, and walnuts. Almond, pear, apricots, etc. This study is based on "Economics of Horticultural Crop Cultivation of Jammu and Kashmir" because more than the two-third population of Jammu and Kashmir is dependent on Agriculture and Horticulture. The horticulture sector plays a vital role for the people of Jammu and Kashmir in growing up in the last two decades.

The state of Jammu and Kashmir is considered the northern part of India. It lies between the latitude of 32º-17' and 36º-58'North and longitude of 73º-26'and 80º-30'East. The state was divided into three divisions Jammu, Kashmir, and Ladakh. But on 05 august 2019 state of Jammu and Kashmir was divided into two union territories of India Jammu Kashmir and Ladakh. The total area of Jammu and Kashmir is 2.22 lakh. sq. km, which also includes those parts which are under the control of Pakistan and China. Among the total area of Jammu and Kashmir, 46 % of the land is under India, 35 % of the land is under Pakistan, and the remaining 19 % of the land is under China. A major portion of the state is hilly and highest from the sea level which varies between 1000 feet and 2800 feet. (Gupta, N.S and Singh, Amarjit). The Southwest of the state is considered the plain area, three sides are bounded by mountains, but the remaining side of the southwest is adjacent to the great plains of India.

Jammu & Kashmir is famous for producing various varieties of fresh and dry fruits, like Apple, Pear, Walnut, Almonds charry, plum, etc. the production of Apple is a famous and important production of the state. Producing Apple production is not only full fill the basic needs of himself but also for others, as it provides seasonal employment to others also. During this seasonal employment, the non-growers of apples also gain too much to full fill their basic needs throughout the year. For the last one and half decades, the agricultural land of Jammu & Kashmir has been diversified into the horticultural sector. Because of so many reasons, the horticultural sector uplifts the living standard of people, less required irrigation supply than the agriculture sector (paddy) and employment generation, etc. The horticulture sector is considered the most important and vibrant sector of Jammu & Kashmir's economy. Nearly about 70 to 80 percent of the population directly or indirectly depends on this sector.

Zahoor Ahmad (2014), estimates the one-year cost and return from matured apple orchards and also examines the apple production and its input-output in the study region. Both the primary and secondary data have been used. For primary data face to face, interview schedules were used by selecting randomly 6 villages in all districts of south Kashmir, two apple growers of each village were selected to carry out an assessment. The secondary data was taken from 2004-05 to 2010-11 from the department of horticulture and directorate of economics and statistics J & K state. A T-Test was used to find out the result. This study shows that in the past decade the production of apples in south Kashmir has increased, but productivity per hector

shows a decreasing trend, which is a series problem mainly in the districts of Anantnag and Kulgam from 2009-to 10.

Nawaz Ahmad et al (2013), in their study, tries to find out problems faced by growers in cultivating the horticultural crop in the Rajouri district of Jammu & Kashmir. The farmers in the study area face the issues like Topography, Climatic conditions, scanty cultivable land, soil erosion, etc. similarly, some pest diseases affect the crops badly, which resists producing high-quality output and reduces the margin of growers. To get rid of these pest diseases the growers use some pesticides in their production fields. Almost 20 % of total loss is attributed to insect pests alone.

Tariq Ahmad et al, (2014), examine to find out the production and productivity of apples in the Kashmir valley and also try to find out the compound growth rate and trends of apple production in the valley. Secondary data have been used from 2004-05 to 2009-10 from the Department of Horticulture, Srinagar Government of Jammu & Kashmir. This study shows that more than half percentage of the population is engaged in the cultivation of apples directly or indirectly in the state. There is much required for the improvement of this sector, and marketing and transportation improvement are much required to develop this crop. It has been found that farmers face numerous problems like marketing, storage facilities, good quality pesticides, and irrigation which contributes a lot to low production.it has been suggested that if these facilities are provided in good manure, productivity could be enhanced just like in China.

S.A. Wani. et al, (2017), A survey was conducted by the authors to evaluate the inherent fertility status and study the effect of available nutrients on yield and quality parameters of pear fruit selected from twenty-four representative pear growing orchards in three established physiographic altitudes in district Pulwama during 2014-15.

Theoretical background

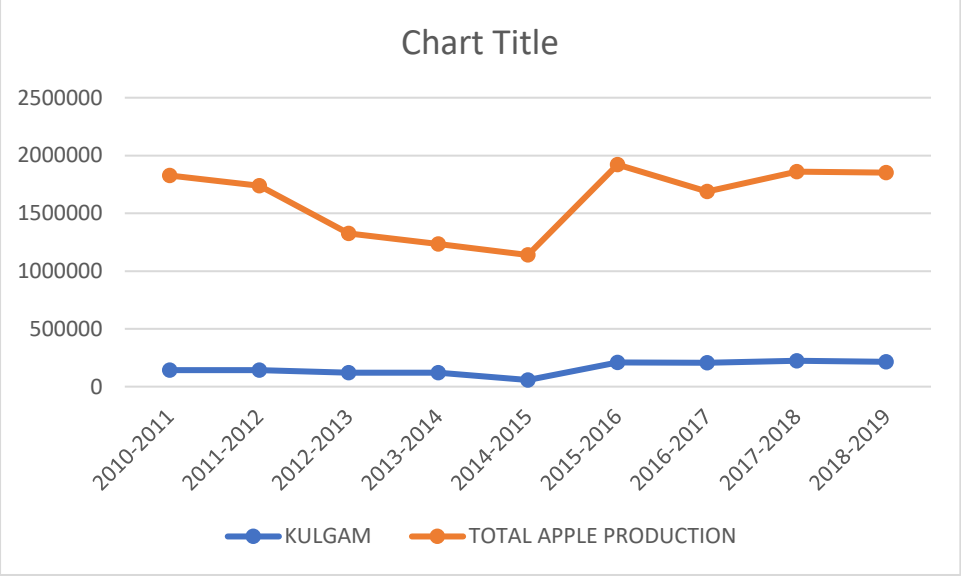
Objectives

1. To evaluate the growth and performance of apple production in Kulgam District of Jammu & Kashmir.

Methodology

The study is wholly and solely based on secondary sources of data covering the period from 2010- to 2019. The data has been collected from the directorate of horticulture in Jammu and Kashmir. The data has been analyzed by using simple descriptive statistics. The graphs are also used to show the trend of apple production in Kashmir and Kulgam from 2010- to 2019.

YEARS	APPLE PRODUCTION IN KULGAM (in MTs)	TOTAL APPLE PRODUCTION IN KASHMIR DIVISION (in Mt's)
2010-2011	143996	1826786
2011-2012	143095	1737347
2012-2013	120734	1326740
2013-2014	120008	1232960
2014-2015	57518	1139180
2015-2016	209205	1921057
2016-2017	207259	1688413
2017-2018	223893	1860463
2018-2019	213653	1851723



The above Table shows that the production of Apple decreases in the Kashmir division as well as in Kulgam district from 1826786 Mt's to 1737347 Mt's and from 143996 Mt's to 143095 Mt's from 2010-11 to 2011-12 respectively. There is a slide decrease in the production of apples during this period, because of unfavorable weather and hailstorm. Similarly, during the period of 2013-14 to 2014-15, the output of Apple production decreases in Kashmir and Kulgam districts from 1232960 Mt's to 1139180 and 120008 Mt's to 57518 Mt's respectively. Because the continuous rainfall resulted from the floods throughout the valley in 2014. From

the period 2014-15 to 2018-29 the Apple production increased in Kashmir valley and Kulgam district from 1139180 Mt's to 1851723 Mt's and 57518 Mt's to 213653 respectively. The fertilizers pesticides and fungicides have been increased in the valley. Favorable weather and high-density plants were used for the last half-decade as the result of increasing Apple production in the study area. Use of a high quantity of gibberellic acid (GA3 Plant Growth Regulator Product) in the last five years that increases the Apple production in the valley. Irrigation canals were also improved after the floods of 2014 in the Jammu and Kashmir region, Which affects positively in the production of Apple in the study area.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
VAR00002	9	57518	223893	159929.00	56790.300	3225138222.500	-.495	.717	-.682	1.400
VAR00003	9	1139180	1921057	1620518.78	302148.818	91293908318.444	-.764	.717	-1.356	1.400
Valid N (listwise)	9									

Correlations

			VAR00002	VAR00003
Spearman's rho	VAR00002	Correlation Coefficient	1.000	.900**
		Sig. (2-tailed)	.	.001
		N	9	9
	VAR00003	Correlation Coefficient	.900**	1.000
		Sig. (2-tailed)	.001	.
		N	9	9

**. Correlation is significant at the 0.01 level (2-tailed).

conclusion

Horticulture plays an important role in the development of Jammu and Kashmir. For the last two decades, agricultural land has been converted for horticultural purposes epically for Apple production. Because Apple production benefits a lot than other productions. More than 70 percent of the population of Jammu and Kashmir directly or indirectly depends on it. But unfortunately, the great flood in 2014 damaged the production of Apple, which directly effects the SGDP. The

government of India and the State Government shows the leniency in developing the horticulture sector of the state. They did not provide any subsidy to the Apple growers. The cost of Fertilizers, pesticides, and fungicides is very much, which results in 10 – 20 percent of Apple growers are not able to buy these inputs for their cultivation. That is why subsides on Agricultural and Horticultural inputs are required for the farmers.

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