



# A Study on the Production of Horticulture Crops in District Pulwama

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## Abstract:

Kashmir is well known for growing temperate fruit at high altitude in India. Due to awareness and assistance by horticulture department of Kashmir, fruit production is growing continuously. The study area is one among the 20 districts of UT of J&K which is called Anand of Kashmir. The district is rich in both fruit production as well as in spices. The present study is an attempt to analyze the production of horticulture crops in Pulwama district of Kashmir valley. The study is carried out to explore the area under horticulture crops, production of horticulture crops, status of study area in J&K in horticulture crop production and trend from 2007 - 08 to 2019 - 20. The study showed that area and production of horticulture crops in the district increases from 2007 - 08 to 2019 - 20. The productivity also increases from 6.11 MT/HA in 2007 - 08 to 8.25 MT/HA in 2019 - 20. The horticulture crops such as apple, walnut and almond occupies large area with high production whereas cherry, peach, apricot, plum and pear shares less area and production. The area and production under different horticulture crops in study area shows increasing trend with minor fluctuations from 2007 - 08 to 2019 - 20.

Keywords: horticulture crops, crop production, crop productivity, fruits, trend

## Introduction

The rapid growth of horticulture industry in Jammu and Kashmir is due to its favourable climate and its temperate location. The increasing production of fruit crops has changed the living standard of people. The valley of Kashmir contributes more in horticulture sector as compared to Jammu Division. Due to large production, UT of Jammu and Kashmir has been declared as 'Agri Export' Zone for Apples and Walnut. As per the official report of Directorate of Horticulture, J&K, Horticulture sector is a source of livelihood of 33 lac people and 7 lakh families are directly or indirectly depend on horticulture sector which contribute about 9 percent to J&K Gross Domestic Product (GDP).

The production of horticulture crops have not only high commercial market value but have medicinal and aesthetic value as well. It is common saying "an apple a day keeps doctor away". Presently in J&K horticulture crops have achieved a status of improving the economy, generating employment and raising the living standard of people. The Director of Horticulture J&K launched a number of schemes to increase the production of fruit crops by providing new varieties of plants having high fruit set. Fruit growers with the help of market intervention scheme facilitate with good price to mitigate middleman-ship.

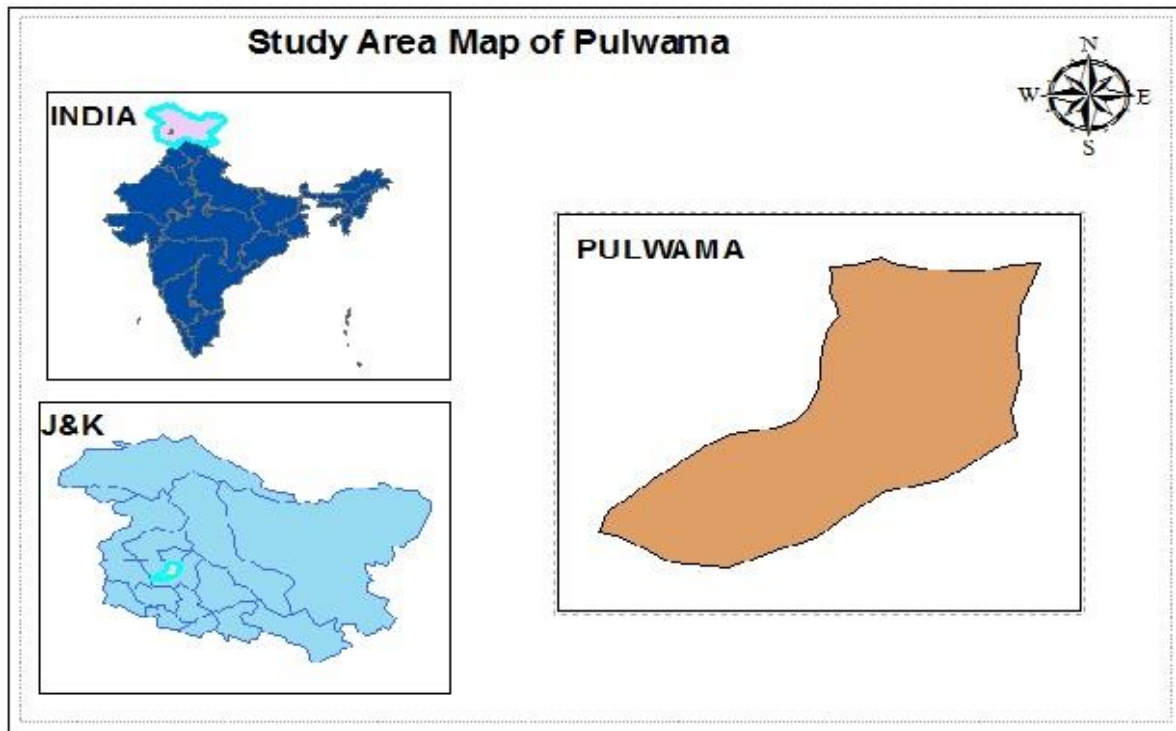
Presently, a total of 347,223 hectares (68, 64,460 kanal) of land are under fruit cultivation in Jammu and Kashmir with 230,187 (46, 03,740 kanal) hectares in Kashmir and 117,036 (23, 40,720 kanal) in Jammu region. Of this 1.76 lakh hectares are under apple cultivation alone. The vibrant fruit industry of Kashmir holds key to remedying the economic ills as well as containing the widespread joblessness in the state.

Kashmir is famous in the world in various varieties of fruits due to its taste. In the valley of Kashmir number of fruit crops are grown which are famous worldwide due to sweet deliciousness, the fruits which are grown in valley are classified in two broad categories namely fresh fruits and dry fruits. Fresh fruits include Apple, Pear, Apricot, Peach, Plum, Cherry, Grapes, Litchi, Citrus, Olive, Mango, Ber, Anola, Guava, kiwi, Papaya, Strawberry, Pomegranate, Loquat, and Quince.

In recent time traditional fruit trees were converted into high density trees due to its large productivity. This trend is now grown tremendously in whole J&K. Plain area which is dominated by rice cultivation is also getting converted into high density fruit crops. This is because of huge price of high density in local as well as international markets. The rate of traditional fruits is low as compared to high density, these trees are provided through horticulture schemes and they are also available in private.

### Stud Area

Pulwama - a district of beautiful valley of Kashmir extends from  $35^{\circ} 55'$  to  $34^{\circ} 15'$  North latitude and  $35^{\circ}$  to  $15^{\circ}$  East longitude. It is surrounded by Srinagar in the north, Budgam and Poonch in the west and Anantnag and Shopian in the south and east respectively. Pulwama is situated at an altitude of 1500 to 2000 m above mean sea level. The total area of the district is 1095 Sq.kms. The district came into being in the year 1979 carved out of old district Anantnag in the larger interests of maintenance of law and order, closer supervision, more effective control and above all to ensure balanced development of the area. In district Pulwama there are eight tehsils and 11 CD blocks viz. Pulwama, Tral, Awantipora, Kakapora, Aripal, Litter, Rajpora and Pampore. Most of the region belongs to valley floor and Karewa. The valley floor has a thick soil bed, which is further enriched by continuous deposits through the river Jhelum and its tributaries. The region receives precipitation between 978 mm in Pulwama to 514mm in Tral. As per 2011 census, the population of the district is 5.7 lakh. The district has a population density of 598 inhabitants per square km. Its population growth rate over the decade 2001-2011 was 29.18%. Pulwama has a sex ratio of 913 females per thousand males and a literacy rate of 65%. Population is mostly rural and only 12.70% of it resides in towns. Muslims account, 97.53% of population followed by Sikhs 1.80%, Hindus 0.63% and others 0.04%. The main occupations engaging in the work force are cultivators, manufacturing and processing, other than house hold sectors. Cultivators account for 42.80% of working force. The total literacy rate of the district is at 65%. It is 60.70% in respect of males and 37.70% in respect of females. The district is reported to be one of the pretty spots on the earth, because of its congenial climate, innumerable spring streams, waterfalls, fragrant flowers, delicious fruits and other natural sceneries. Besides district Pulwama is famous all over the world for saffron cultivation.



## 1.2 Objectives of the Study

The main objectives of the present study are:

1. To study the production and productivity of horticulture crops in District Pulwama.
2. To find out the trend of horticulture crops in the study area.

## Methodology

The basic source of data of this study is secondary data. The secondary data is collected from Deputy Commissioner's Office Pulwama, Statistical Hand Book of District Pulwama, Economic Review of District Pulwama, Directorate of Horticulture Kashmir, census of India, Chief Horticulture Office Pulwama, J&K Horticulture Department, and J&K Horticulture Planning and Marketing Department. Arc-GIS (Version10.3) used to prepare study area map of the district.

## Discussion

### An overview of Pulwama in Horticulture Crop Production in J&K

It is clear from table 1, that the total area under horticulture crops in the valley of Kashmir is 330958 hectares. Anantnag having largest area under horticulture crops in the UT of J&K. It covered about 31858 hectares of land area during the year 2019 – 2020. The district is followed by Baramulla, Kupwara and Pulwama with 29996, 29020 and 263124 hectares of land area. From the table the district Srinagar has lowest area of 3254 hectares under horticulture crops. In terms of production of horticulture crops in J&K UT, Baramulla is the largest fruit crop producing district as it produced 511881 metric tonnes of fruit crops. The district is followed by Kupwara, Anantnag and Shopian having horticulture crop production of 326501, 310674 and 301733 metric tonnes in the year 2019 – 2020. The district Reasi among all the districts has lowest production of 15178 metric tonnes.

Table 1, Horticulture crop producing districts in J&amp;K (2019 – 20)

District	Area (Ha)	Production (Mt)	Productivity
Srinagar	3254	30993	9.52
Ganderbal	14992	121842	8.12
Budgam	21203	185834	8.76
Baramulla	29996	511881	17.06
Bandipora	5947	53769	9.04
Kupwara	29020	326501	11.25
Anantnag	31858	310674	9.75
Kulgam	23199	233988	10.08
Shopian	26237	301733	11.50
Pulwama	26312	217163	8.25
Jammu	11595	27895	2.40
Samba	5420	12293	2.26
Kathua	16245	32363	1.99
Udhampur	11177	28060	2.51
Reasi	8319	15178	1.82
Doda	14054	28016	1.99
Kishtwar	8992	18971	2.10
Ramban	10825	19918	1.84
Rajouri	15613	38081	2.43
Poonch	16700	26004	1.55
Total	330958	2541157	7.67

Source: Directorate of Horticulture Kashmir

#### Area, Production and Productivity of Horticulture Crops in Pulwama District:

Area is one of the prime factors for production of fruit crops, good productivity of fruit crops is also influenced by its area. The land area of district Pulwama is naturally favourable for the production of fruits in the Union Territory of J&K. Table 2 depicts that with increasing area of the horticulture crops in the Pulwama district, the production has also been increasing. During the year 2007 – 08 the area under horticulture crops in Pulwama was only 17664 hectares with production of 108097 metric tonnes and productivity was 6.11. in comparison to the year 2009 – 10 the area under horticulture crops increased to 19172 hectares with production of 107854 metric tonnes and productivity decreased to 5.62 during the year 2010 – 11 the productivity of fruit crops increased to 7.25 with 19408 hectares of area and 140827 metric tonnes of production. It is only in the year 2014 – 15 that the productivity was lowest among all the years that is 4.41. From the year 2017 – 18 that a gradual but consistent rise in productivity of horticulture crops of 6.8 in 2017 – 18 to 6.93 in year 2018 – 19 and increased to 8.25 with area of 26312 hectares in the year 2019 – 20. The production of fruit crops increased to 217163 metric tonnes during the year 2019 – 20.

Table 2, Area, Production and productivity of Horticulture Crops in Pulwama

S No.	Year	Area (Ha)	Production (Mt)	Productivity
1	2007 - 08	17664	108097	6.11
2	2008 - 09	18615	104713	5.62
3	2009 - 10	19172	107854	5.62
4	2010 - 11	19408	140827	7.25
5	2011 - 12	22435	139979	6.23
6	2012 - 13	23094	110315	4.77
7	2013 - 14	17664	108097	6.11
8	2014 - 15	24701	108982	4.41
9	2015 - 16	24925	176835	7.09
10	2016 - 17	25133	173415	6.90
11	2017 - 18	25915	176364	6.80
12	2018 - 19	26146	181205	6.93
13	2019 - 20	26312	217163	8.25

Source: Directorate of Horticulture Kashmir

### Area under different Horticulture Crops in District Pulwama:

The discussion here is about the area under major horticulture crops of the district. the fruits grown in the district are shown in the table 3 below, Apple, Pear, Apricot, Peach, Plum, Cherry, Walnut and Almond etc. The two groups of horticulture crops such as fresh fruits and dry fruits are clubbed for combined treatment. Table 3, revealed that Apple has shown an increasing trend with minor fluctuations. Apple fruit covered the major portion of the area under cultivation of horticulture crops which was 7162 hectares during the year 2007 – 8 and increased to 15785 hectares during the year 2019 – 20.

Walnut is the second largest horticulture crop grown in the study region. In 2007 – 8, walnut has occupied an area of 3115 hectares which was raised steadily to 5517 hectares during the year 2019 – 20. There was no decline in the area of walnut cultivation from previous years to present. Almond the third major horticulture dry fruit crop in Pulwama has shown a drastic fall in the area. During the year 2007 – 08, almond covered an area of 3115 hectares has been increased 6466 hectares in 2014 – 15. The largest area recorded in the year 2014 – 15 and the lowest is recorded in 2019 – 20. The area under Pear, Apricot, Peach, Plum and Cherry was 410, 67, 23, 37 and 12 hectares in the year 2007 – 08. The area of Pear, Apricot, Peach, Plum and Cherry increased to 1098, 96, 73, 114 and 58 hectares in the year 2019 – 20.

Table 3, Area (Ha) under different horticulture crops in Pulwama, (2007 – 08) to (2019 – 20)

Year	Apple	Pear	Apricot	Peach	Plum	Cherry	Walnut	Almond	Others
2007 - 08	7162	410	67	23	37	12	3115	3115	0
2008 - 09	7593	421	80	22	41	15	3284	7158	1
2009 - 10	7821	434	82	23	41	15	3382.52	7372.74	1
2010 - 11	7977	442	84	23	42	16	3450	7373	1
2011 - 12	10913	662	79	39	52	38	4096	6315	241
2012 - 13	11425	687	87	43	59	45	4221	6515	12
2013 - 14	11925	721	89	51	63	52	4270	6488	6
2014 - 15	12798	764	92	60	73	58	4381	6466	9
2015 - 16	14143	943	113	76	97	65	4813	4668	7
2016 - 17	14290	960	113	76	99	65	4849	4668	13
2017 - 18	15387	1083	106	67	148	60	5406	3631	27
2018 - 19	15574	1083	108	67	151	63	5515	3559	27
2019 - 20	15785	1098	96	73	114	58	5517	3540	31

## Production of different Horticulture Crops in District Pulwama:

It is crystal clear from the table 4 that the production of Apple fruits was 93959 metric tonnes in the year 2007 – 08. The production in Apple is gradually increasing in the district with some fluctuations. In 2019 – 20 production reaches 172112 metric tonnes which is highest during 13 years of study. The year 2012 – 13 registered lowest production. The second most horticulture crop walnut occupies a position of considerable value in the production as well as economy of the district. In terms of production, walnut has been 7051 metric tonnes during 2007 – 08 and reached 27736 metric tonnes in 2019 – 20 with rise and fall in the intervening periods. Almond production level since 2007 – 08 did not rise so much as compared to apple and walnut. The production of almond was 462 metric tonnes in 2007 – 08 and increases only up to 6537 metric tonnes in 2019 – 20. This crop shows an unusual trend among the major crops of district Pulwama.

During the year 2007 – 08 the pear production was 1188 metric tonnes which shows a rising trend. The fruit crop has a downward spiral for 2 years. The pear crop production increases seven times in 2019 – 20 since 2007 – 08. The other horticulture crops such as Apricot, Peach, Plum and Cherry have registered great variations since previous years. The production of these fruit crops decreasing drastically in the last few years.

Table 4, Production (Mt) of different horticulture crops in Pulwama, (2007–08) to (2019-20)

Year	Apple	Pear	Apricot	Peach	Plum	Cherry	Walnut	Almond	Others
2007 - 08	93959	1188	986	73	167	52	7051	4621	0
2008 - 09	90732	1261	1070	54	117	55	6379	5045	0
2009 - 10	93454	1299	1102	56	121	57	6570	5196	0
2010 - 11	126163	1364	1157	58	127	59	6702	5196	0
2011 - 12	114854	3559	647	159	281	247	16927	1542	1763
2012 - 13	85095	3435	696	187	295	270	16884	3453	0
2013 - 14	87090	3940	657	277	322	356	13779	3867	32
2014 - 15	90182	4876	644	420	511	406	7728	4152	63
2015 - 16	145800	8033	892	517	824	352	16844	3548	25
2016 - 17	139288	8640	900	657	891	558	18184	4180	117
2017 - 18	136389	8016	566	331	1049	311	25068	4511	123
2018 - 19	138467	8691	592	354	1115	380	26282	5244	80
2019 - 20	172112	8532	589	444	840	336	27736	6537	37

Source:

## Conclusion

Horticulture sector is growing year after year in Pulwama district of J&K. The district is well known in the production of fruit crops in valley of Kashmir. It achieves a fourth rank in area and sixth rank in production among the twenty districts of UT of Jammu and Kashmir. Among the horticulture crops, Apple occupies a first rank in terms of area and production. Walnut and Almond achieve second and third rank. There are certain horticulture crops having a declining trend in terms of area and production. The fluctuations are due to increasing the area under Apple and Walnut horticulture crops. The better utilization of land area for increasing the crop production requires promotion of modern technologies, financial support to growers, high density plants, and fertilizers. The other measure such as new varieties of plants, crop insurance and availability of fruit markets helps to increase the production of horticulture crops in the district.

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