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Present Status of Saffron Industry in Jammu and Kashmir

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Abstract:

Saffron is an important cash crop of Jammu and Kashmir that has been grown since ages. It is one of the costliest and high valued spices of the world. Saffron is cultivated on the well drained karewa soils of Jammu and Kashmir which is locally known as Wudur. It has always played a significant role in the Kashmiri cuisine traditional, cultural, religious functions in the State. However due to many constraints in the saffron cultivation, growers in the State has shifted to the other horticultural crops that has showed a declining trend in production and productivity of saffron. Presently the area under this crop has declined from 5707 hectare in 1997 to 3674 hectare in 2015 and the production has decreased from 15.95 Metric Tons to 9.6 Metric Tons. The present paper is an attempt to show the area, production, and productivity of saffron crop in the Jammu and Kashmir. The study also analyzes many problems which hinder the growth and prosperity of the saffron industry in Jammu and Kashmir.

Key Words: Saffron, Wudur, Production, Productivity, Constraints

Introduction:

Jammu and Kashmir is well known for its saffron cultivation around the world. The quality of Saffron is determined by the yellow (style) of the flower which is intrinsically attached to red thread like portions called (stigma). Saffron is the most good-looking and exciting plant species often called 'The Golden Spice.' The colour, flavour and aroma of saffron are mostly due to crocin, picrocrocin and safranal, respectively. The famous historian of Jammu and Kashmir Kalhana mentioned in his book Rajterangani that saffron was under cultivation in Kashmir valley

even before the regime of king Lalitadatiya during 725 A.D. Abul Fazal in his book Ain-e-Akbari mentioned that the saffron fields in blossom afford a prospect that would enchant those who were most difficult to please. In spite of all these stories and beliefs, it is not clear when the saffron cultivation was started in the Kashmir Valley.

The favourable agro climatic conditions, temperate climate and Karewas are ideally suitable for saffron cultivation in the State. It is one of the important commercial activities and second largest industry after fruit production that is cultivated in the Karewas of the State. It is mostly cultivated in the districts of Pulwama, Budgam, Srinagar and Doda. The hub of this activity is district Pulwama which occupies about 86% of the total area under saffron in the whole State and out of which about 80% of the saffron area belongs to Pampora Tehsil alone. Pampore is known as the 'Saffron Town' of Kashmir located in the district Pulwama. Khunmoh, Woyan, Zewan, Balhama, Ladhoo, Sampora, Chandhara, Khrew, SharKonibal, Dussu, Hatiwara, Samboora and Lethpora are well-known saffron villages of Tehsil Pampora. A large chunk of population more than 16000 farm families of 226 villages are associated with this crop and most often it has a deep implications on their socio- economic conditions. As being a labour intensive crop it involves mostly women from first stage to the last stage of harvesting. In 2014, the state produced about 11 tons of saffron in the same year 1Kg of pure Kashmiri Keser was sold at INR 2,50,000 to 2,75,000 in the domestic market. Iran, Spain, and Greece are the leading saffron growing countries with intensive production technologies. These countries have achieved higher production and productivity than us and thus posing a big threat to our saffron industry as imports are rising every year in our country. At the global level India is reported to occupy the third place, where the entire production comes from Jammu and Kashmir State contributing 4.46 tons with average yield of around 2.0 kg per hectare. Iran is the biggest producer of saffron in the world with average production of 160 tons and average yield of 5 kg per hectare. Spain is the second largest producer of saffron producing 29.15 tons with an average yield of 6.96 kg per hectare while Jammu and Kashmir (India) occupies a 6^{th} rank interms of average productivity (Taufique et al., 2017). Presently the saffron industry in Jammu and Kashmir is facing numerous challenges i.e., middleman exploitation, competitiveness to stay in the market and lack of

irrigation. The saffron crop is perishable in nature and needs special care in their harvesting, processing and packing. There is much scope for making this crop more profitable. Sincere efforts have to be made by providing good quality planting materials, introduction of sprinkler irrigation system to enlarge the area as well as increase the production and productivity of saffron in the state. Saffron has also the potential of becoming an important source of foreign exchange and can play an important role in increasing the income and employment of Kashmir valley. From last decade saffron cultivation in the State, however has received a serious setback due to various economic, non-economic factors. As per the reports of Jammu and Kashmir Agriculture Department during the year 1997 the area under saffron cultivation in Jammu and Kashmir was 5707 hectares and it has shrunk to 3674 hectares in 2015. In the same period production has decreased from 15.95 metric tons to 9.6 metric tons and the productivity has also decreased from 2.80 kg/hectare to 2.61 kg/hectare.

.**Objectives:**

- To know the area, production and productivity of saffron crop in the Jammu and Kashmir.
- To access the various problems faced by the saffron growers in the Jammu and Kashmir.

Methodology:

The study is based on the secondary data. The data is collected and analyzed from the time period between 1997-2015. Data is collected from Directorate of Horticulture Kashmir, Directorate of Horticulture Planning and marketing Kashmir, Spice Board of India, National Horticulture Database, Directorate of Economics and Statistics J&K. Many books, newspapers, magazines, journals and websites have also been used for the study.

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Table 1.1: Area, Production and Productivity of saffron in Jammu and Kashmir

Year	Area (Hectares)	Production Metric Tons	Yield (Kg/Ha.)
1997-98	5707	15.95	2.8
1998-99	4161	12.88	3.13
1999-2000	2880	7.65	2.27
2000-01	2742	3.59	1.88
2001-02	3075	0.3	1.57
2002-03	2989	6.5	2.96
2003-04	2928	5.15	1.66
2004-05	2436	6.86	3.75
2005-06	3110	7.04	1.63
2006-07	3130	6.5	2.25
2007-08	3010	8.2	2.15
2008-09	3000	7.7	2.5
2009-10	3280	9.46	2.34
2010-11	3785	9.55	2.5
2011-12	3790	9.85	2.52
2012-13	3674	10	2.72
2013-14	3674	11.5	3.13
2014-15	3674	15	4.08
2015-16	3674	9.6	2.61

Source: Jammu and Kashmir Agriculture Department

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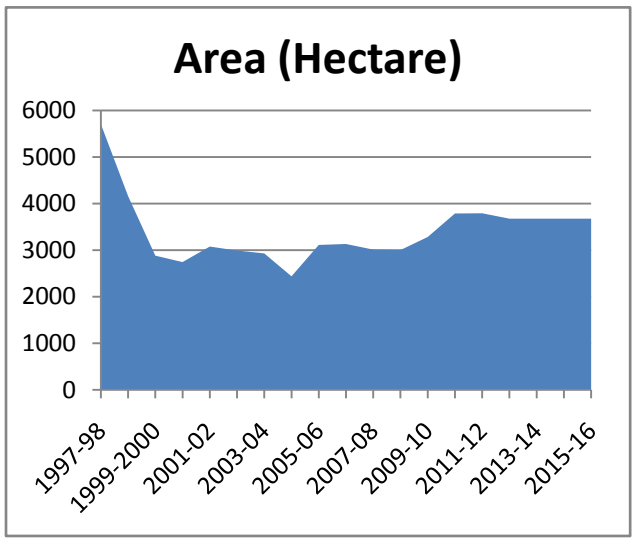

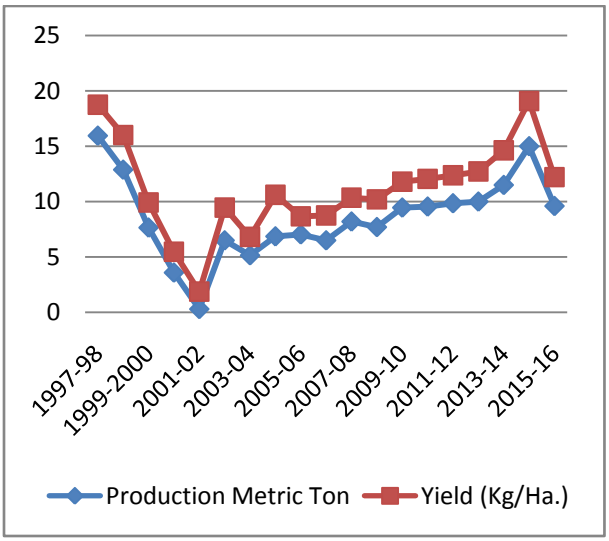

The analysis of the figures showed that from last one or two decades the land area and production of saffron in Jammu and Kashmir has reduced due to encroachment of local people. The present area under this crop has reduced to 3674 hectares in 2015 from 5707 in 1997 hectares. In the same period production has declined from 15.95 metric tons to 9.6 metric tons and the productivity per hectare has shown a little fluctuation that has a reduced from 2.80 to 2.61 (Taufique et al., 2017).

Major Problems Faced by the Saffron Cultivators

There is a tremendous scope for the growth of Saffron industry in Jammu and Kashmir but there are certain problems which are proving hindrances for the growth of this industry. The major problems are:

- **Lack of Proper Irrigation Facilities:**

  Presently the saffron production and productivity in Jammu and Kashmir is persistently decreasing due to non-availability of irrigation system. Proper timing of irrigation during appropriate periods can increase production and quality of this crop. But in Jammu and Kashmir it is grown under rain fed conditions. The irrigation facilities like sprinklers have been laid but the authorities have failed to put them in proper use. Farmers are mostly dependent on September rains for an excellent flush of flowers and delayed rainfall (late

October) is not beneficial for the crop as it is accompanied with low minimum temperature leading to flower abortion. From the last several years, due to climate change the weather has become quite unpredictable. Rains are either inadequate or irregular, and thus badly affecting flowering or subsequent plant growth.

- **Marketing:**

The saffron marketing is restricted to a handful of people in Kashmir valley because a common cultivator with a very little produce cannot grade, pack, store at an individual level (Zaki et al., 2002). The cultivators of saffron are exploited by the brokers, local traders, agents etc. while selling their produce as good share of profit is taken by the these intermediaries. The major part of the saffron is sold to the brokers accounting 70.86% while 16% is sold through sub-firms and only 13 per cent is sold through other agencies. Generally by observing the involvement of these intermediaries the share of the profit is distributed as 85% to middle man and only 15% to the cultivators. Chains of middlemen and intermediaries should be eliminated and the direct link between the growers and the consumers should be maintained (Haq and Shafi, 2014).

- **Adulteration:**

Iranian saffron, which is cheap and inferior in colour, aroma, flavor and oil content, is smuggled in India in huge quantities and purchased by some dishonest traders and mixing it with the Kashmiri product. The practice is going on for several years and turnover of the spurious trade runs in crores. The adulteration of saffron by some unscrupulous elements had ruined this industry by mixing the artificial saffron with the original one to make big loss to this industry. This all has brought a bad impact to the entire saffron industry. Now even the tourists are now hesitating to buy our original saffron. There is a need to the government to keep a special eye on these dishonest traders so that the dignity of this crop can be saved.

- **Urbanization and Pollution:**

The traditional saffron belt of Pampora is only just 15km away from the Srinagar. The land brokers have been trying hard to divert saffron fields toward construction business due to the high rise in price of land in Srinagar. Due to land conversion to non productive

activities the area under this crop has reduced to 3674 hectares in 2015 from 5707 in 1997 hectares. In the same period production has declined from 15.95 metric tons to 9.6 metric tons. In Kashmir valley about 1100 kanals of saffron land have been handed over to national highway for the construction of four lane highway, two dozen cement factories, stone crushers, brick kilns that has made a big threat to this crop. In order to stop this existing and new land laws need to be made strict and sharpened to safeguard our natural resource base (Taufique et al., 2017).

- **Absence of good fertilizers and disease control pests**

The continuous use of large amount of chemical fertilizers and pesticides in order to increase the productivity of saffron has declined the soil fertility. The micronutrient and organic component contents in the soil have come down, thereby reducing the crop productivity and quality of this crop (Husaini et al, 2010). It is seen in Jammu and Kashmir that almost every year many diseases are adversely affecting the saffron cultivation and a good proportion of the produce gets reduced. Some of these diseases are Rhizoctonia crocorum, Phomacrocophila, Macrophomina phaseolina (Taufique et al., 2017), Fusarium oxysporum, F. solani, F. pallidoroseum, F. equiseti, Mucorsp, Penicilliumsp. From all these diseases, corm rot caused by F. oxysporum and F. solani has a most horrible impact on saffron in Kashmir Valley. There is a need of providing good quality fertilizers and pesticides to control these diseases (Ahmad and Sagar 2006).

Conclusion:

Jammu and Kashmir having a vast potential to cultivate a special quality of saffron throughout the world. Saffron is being mainly cultivated in the karewas of Pampore and its adjacent areas of district Pulwama. The study revealed that Kashmiri saffron presently has lost its quality and has shown big loss from the last several years. Some of the problems like lack of irrigation, adulteration, middlemen exploitation, diseases and lack of soil fertility and marketing etc. have adversely affected this industry. Therefore a mass level of government support and awareness is required to the people for the survival of this crop. In order to earn huge income from these crop new areas should be brought under this cultivation. The concerned government

departments and agencies need to encourage and involve educated unemployed youth in the rural areas of saffron growing belts to take over this venture on scientific basis. Direct link between the growers and the consumers should be maintained and chains of middlemen and intermediaries should be eliminated.

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