

**PROBLEMS OF SAFFRON CULTIVATION AND THE ROLE OF
ADMINISTRATION, WITH SPECIAL REFERANCE OF
PAMPORE**

Dissertation Report

Submitted in partial fulfillment of the
Requirement for the award of the degree of
Masters of Arts in Political Science

By

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Under the guidance of

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Assistant Professor



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DECLARATION

I do here by declare that the dissertation entitled “ **PROBLEMS OF SAFFRON CULTIVATION AND THE ROLE OF ADMINISTRATION WITH SPECIAL REFREANCE OF PAMPORE**” submitted in partial fulfillment of the requirement for the award of the degree of masters is entirely my original work and all ideas and references have been duly acknowledged. It does not contain any other degree or diploma of any university.

Date.....

ISHFAQ AHMED

Regd.No.11502465

CERTIFICATE

This is to certify that Ishfaq Ahmad Dar has completed his dissertation **“PROBLEMS OF SAFFRON CULTIVATION AND THE ROLE OF ADMINISTRATION WITH SPECIAL REFREANCE OF PAMPORE”** under my guidance and supervision. To the best of my knowledge, the present work is result of his original investigation and study. No part of dissertation has been submitted for any other degree or diploma.

Date.....

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All praise in the name of almighty Allah, the most beneficent, the most merciful who guides me in the darkness and help in difficulties After Allah,

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DAR ISHFAQ

ACRONYM

HA	Hectare
IDM	integrated document management
INM	integrated nutrient management
MT	metric ton
NSM	national saffron mission
KG	kilogram
SKUAST	Sheri-Kashmir University of agriculture science and technology
WBCIS	weather based crop insurance scheme

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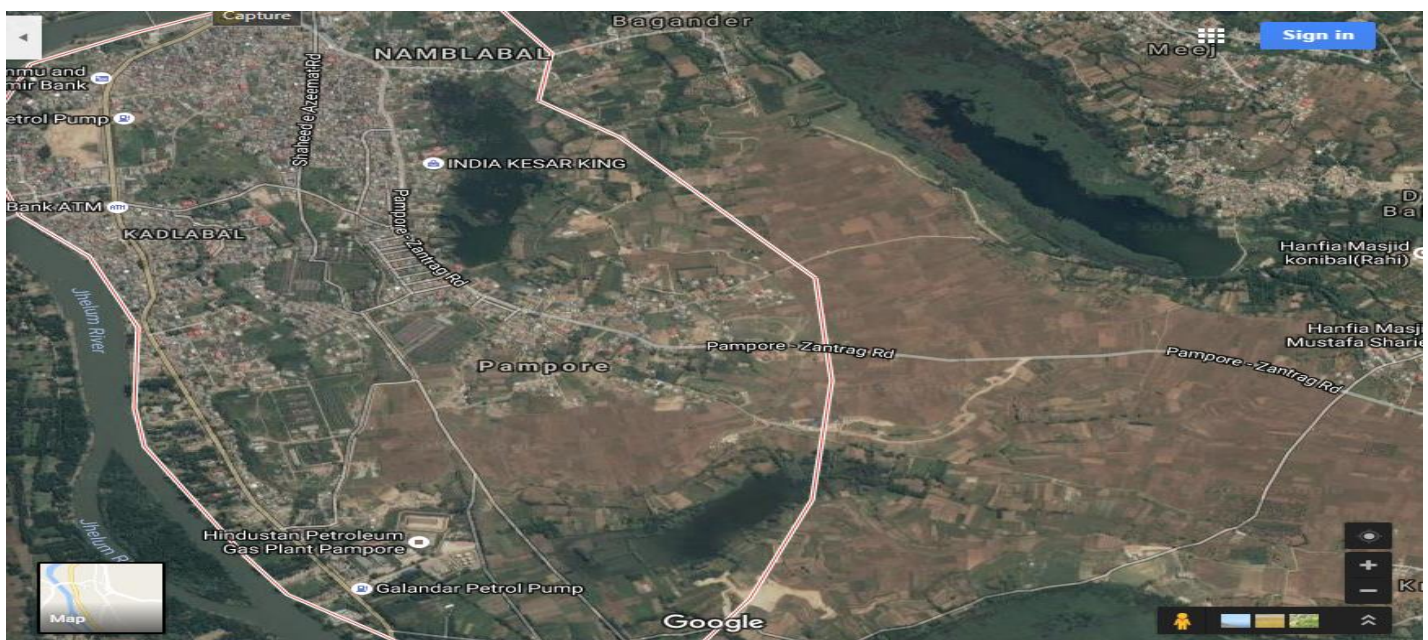
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Introduction

Saffron is the most expensive and most valuable spice in the world. It is mostly known by its good quality. It is derived from the red stigma of the plant famously known as *crocus Sativas*. It has numerous colors which are known to the customers, the red one is the most famous among all, so it is rightly known as RED GOLD. The saffron cultivation can be put forth in any part of the world and its production is accessible to everyone. Saffron price mechanism is depending on the intensive labor during the harvest. The saffron plant is attractive in its appearance and is perennial and globular corms. And its height may be from fifteen to twenty centimeter the plant has its native origin to Europe and is also grown in Mediterranean countries like Spain Austria Iran Turkey etc.¹ the species has been also grown in Indian subcontinent especially in j and k and Himachal Pradesh the saffron belongs to the family of iridaceous and commercial part of the saffron is known as stigma. The saffron has been known by many names in different states in India in Kashmiri its known as (Kong). And in Urdu its known as Zaffron. There are many factors which influence the growth of saffron. Likewise in saffron farming the kind of soil is much more important than the climate of the area where it is to be grown. It needs desirable sunlight to grow maximum Up to 12 hours the texture of the soil is most important factor for its growth and likewise it grows well in acidic to neutral and sandy soils. The optimum PH required is 6 to 8.the land for its growth should be enriched with organic matter the soil required many ploughs before [planting the corms for better growth and June to September is known as best planting season .mulching is used to con troll the weed grow and to enhance the plant capability²

Satellite view of pampore



Source Google

¹Retrieved from <http://www.rowhanisaffron.com/what-is-saffron/> as on 15.10.2016

² Retrieved from www.agrifarming.in/saffron as on 15.10.2016

The great author {sir water Laurence} wrote in his book “the valley of Kashmir” about saffron. About the cultivation of saffron and its importance he undertook a detailed study. He suggests people from different parts of Kashmir to cultivate the saffron in pampore.

It has become now an exclusive preserve of local people. In the beginning of 20th centuries saffron was sold at price of {one rupee per Tola}. At present the average earning from saffron cultivation is 30 to 40 cr. rupees³. The saffron cultivation is the second largest activity after the production of fruits in state. So it is important to introduce the new techniques to promote the saffron cultivation modern scientific techniques must be included. It is the duty of state government and agricultural scientists to develop self confidence between the saffron growers. They should take a healthy interest in their trainings and education and to encourage them. They must also guide them in using the latest techniques to make safe their produce.

saffron land of pampore

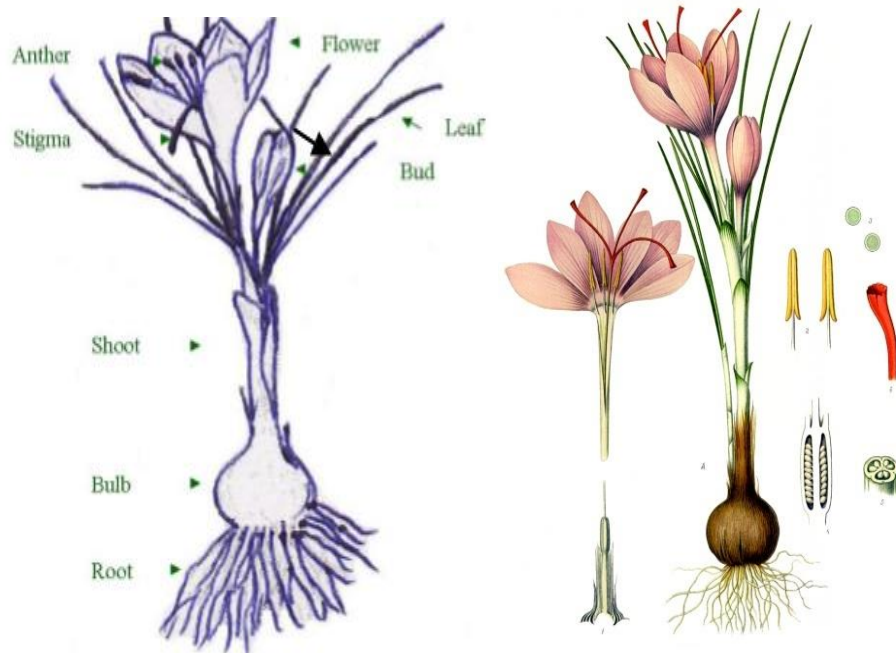


. Source Google

Saffron cultivation is a traditional art in India. 5707 hectares of land is under saffron cultivation. The annual production of saffron in India is around sixteen thousand kilograms. Jammu and Kashmir is the leading producer of saffron in India. Out of total 5707 hectares of land, 4496 hectares of land under its cultivation lies in Jammu and Kashmir.⁴ The famous worldwide for high-grade saffron is pampore which is situated at a distance of fifteen kilometers from Srinagar in Kashmir. It is also cultivated in Kishtwar of Jammu at a small scale. The average production of saffron in pampore and its neighboring areas is 2128 kilograms.

³ Retrieved from www.agropedia.iitk.ac.in/content/saffroncultivation as on 18.10.2016

⁴ Retrieved from <http://agropedia.iitk.ac.in/content/saffron-cultivation-jammu-kashmir> as on 18.10.2016



Source: agropedia.com

Kashmir is also known as valley of flowers there are many varieties of flowers in Kashmir in which saffron has much more valuable as per its historical background saffron cultivation has been started three or four centuries back in Spain and Arabia then the cultivation of saffron also supersede in other parts of Asia like India Sweden and Iran now saffron cultivation has become a great commercial activity it is also known as **(golden zest)** in Indian agriculture.⁵

.The saffron farming is so valuable and precious that more than one hundred fifty flowers are needed to collect one gram of saffron. The saffron cultivation has lost a little bit market shares and it has enhanced the unemployment in the region. Due to the course of time the soil fertility has been lost due to excessive use of fertilizers and less availability of water. The government has taken many initiatives to increases the production and enhances the quality and production of the saffron. At the same instance the saffron cultivation is suffering from many diseases. The three more dreadful diseases which are commonly known are fusarium, rhizoctonia, crocorum and violent root rot is also found in the saffron farming. To control these dreadful diseases formers are using enormous and quality measures and pesticides to control these diseases. the horticulture department along with the senior most scientists and professionals are taking many initiatives to control the dreadful diseases ,to enhance the crop quality and quantity ⁶

But the diseases that damage the saffron is also the big problem scientifically it is critical to make arrangement for perfect diagnosis of many diseases found in saffron crop. The common diseases found in the

⁵Retrieved from <http://www.yourarticlelibrary.com/essay/cultivation-of-saffron-in-jammu-and-kashmir-explained> as on 20.10.2016

⁶ Retrieved from www.greaterkashmir/news/gkmagzine/saffroncultivation as on 22.10.2016

saffron are {corn rot, root rot, dry rot, bacteria rot, Charchol rot, ring rot} etc. corn rot is the most dangerous among these.⁷

Few years back a survey has being conducted in Pulwama district of Kashmir regarding this problem and it was found that disease was more pronounced in certain villages. In order to control this and other diseases the experts of agriculture must be contacted and their suggestions should be put in practice the expert of {SKUAST Kashmir} can perfectly guide the saffron growers. After getting the views of experts the saffron could be protected from the damage of different diseases. Its production can also be increased this way.

In Jammu and Kashmir saffron is generally sown in august and up to September 15. Then the flowers are plucked in month of October and November .it is important to note that while harvesting of saffron flowers should not be hot-atmosphere. Hence this process is done early in the morning. From the sun rise to 10am in the day is consider the best time for plucking the flowers and after the harvesting flowers are kept for five days for drying. Later they are kept in airy container {mud pots} so that the quality of flowers does not get damaged. These days solar driers also used for this purpose. It takes seven to eight hours for drying.⁸

Government initiatives for saffron production.

(i) The National Saffron Mission

The national saffron mission is announced by **Dr. Manmohan Singh** he is announced it during his visit to Jammu and Kashmir. And in year 2010-11the national saffron mission is introduced by union agriculture which is really making impact and under this mission the farmers of saffron cultivation were given a subsidy of (Rs.**2,64,000** per acre) which is given by the way of technical and material support for recreation and modification of saffron crop.⁹ So far out of 3765 hectares of saffron land 1876 hectares of saffron land has been rejuvenated. And the 90% of total saffron production is come out from pampore uplands which are locally called (**wудар**). The total amount of this mission is 371.18 crore rupees in which the 286.06 crores as the center government shares and the 85.12 crores rupees as farmers share which is totally executed in four years to revive the production of saffron in the state Jammu and Kashmir and in this mission everything is covered regarding the saffron like (drip irrigation), (mechanization), (research), and (marketing support) to come out from the crises. From the total amount of the 39.43 crores is being utilized during the year and the main objectives of this mission is to improvement in the production and the quality of saffron and the support which is given by the government. And like irrigation facility which is through tube wells and sprinkles which is better for crop production and for the improvement in the

⁷ Retrieved from www.webmd.com/vitamins-supplements/ingredientmono-844-saffron as on 23.10.2016

⁸ Retrieved from <http://www.yourarticlelibrary.com/essay/cultivation-of-saffron-in-jammu-and-kashmir-explained> as on 26.10.2016

⁹ Retrieved from www.thehindu.com/news/national/...national-saffron-mission.../article7825001 as on 28.10.2016

production of saffron 253 tube wells would be setup and the quality control lab is established in pampore at a cost of Rs 8.90 crores which ensures quality testing of saffron and also marketing and the NSM is also develop the appropriate organized body between growers and traders. And it is expecting that after the completion of the saffron mission the income presently which is comes from the state is 236.55 crores it will increase to 4642.50 crores.¹⁰ The saffron mission is one of the great important imitative taken by the government the government put forth many steps to enhance the market availability of the saffron. The government restricted the imported saffron especially from Iran exporters because it was less expensive then the native saffron it leads the availability of market of the native saffron and directly impact the state economy.¹¹

Govt. gives a helping hand to saffron growers of Kashmir due to the recent floods. Kashmirie saffron growers face many problems of production and also by erratic weather but with the help of insurance and relief scheme the govt. helping him out from this disastrous slump. The saffron growers of Jammu and Kashmir have got a helping hand by introducing the weather based crop insurance scheme by the government from the year 2015.and at least 16000 families which is around 200 villages that are involving in the producing saffron. And throughout India its only the state Jammu and Kashmir where the saffron is grown and it is highly valued spice, but by the floods of 2014and the erratic rain in Kashmir which is responsible for the 75% shortfall in saffron production but besides it government announces the insurance scheme and it provides the greater relief and according to the government orders the formers whose production has been damaged due to erotic wheatear that all are entitled to relief funds and in these funds the formers who lost 33%of their crops due to the erratic rainfall and other natural disaster will also entitled for relief. And the scheme of crop insurance was supposed to start from sep. 2014 but by the floods which is worst in six decades effectively stalled the implementation of this scheme and now it got implementation in 2014 and the formers of Jammu and Kashmir have got the compensated for 70%of the crops which they lost in the erratic rainfalls. And the peoples of Jammu and Kashmir are happy that the crops are insured and all the peoples are deposit the premium of the insurance.

(ii) The insurance scheme.

Altaf Andrabi, the joint director of agriculture in the Jammu and Kashmir says that the main reason of reducing income of formers are the various weather factors which is responsible for the crop failure in recent years. And he told that in this scheme the crops would by covered for dry spells and heavy rainfall or insufficient and if it happens the department would share 50% of its premium and the other 50% formers have to pay insurance companies

¹⁰ Retrieved from www.greaterkashmir.com/news/gk-magazine/saffron-mission-facts.../127389 as on 02.11.2016

¹¹ Retrieved from www.gktoday.in/rs-373-crore-to-be-spent-till-2014-under-national-saffron-mission/ as on 03.11.2016

According to this scheme the one hectare of land which is saffron cultivated would be insured against (Rs 200,000) and the 12% of the insured sum would be paid for the premium.¹²

Major problems facing saffron production in Kashmir.

1] Non availability of good quality corms.

Firstly the saffron plant is being triploid and it feels to set the seed so it is propagated through the corms of saffron and it is essential for the well developed and disease free corms are the essential component for the well and sustainable production of saffron and the sorting of corms are done by the weighting and size of the corms and it is very important for higher productivity of saffron and the small size corm do not have that potential in which it can produce flowers. In the first year and it is variable for the corm that it is weight ranges between 1 and 20g {behnia et al 1999}.if the corms weight is around 2gram do not flowers and if its weight is up to 8gram it have very limited potential while the corms more than 10g have that much capacity for to flower in same year and it necessary for the higher yield. And when we see about the Kashmir the diameter of the corm is greater than 2cm and 10gram in weight which is recommending for sowing and due to shortage of standard corms then the formers prefer to plant the substandard corms which is smaller in size and also in weight and when the formers uses that kind of substandard corms repeatedly every year the production of saffron is grossly compromised mostly in Kashmir and even when the standard seed corms become available and the formers dig out their field for the planting corms the price of the corms are at high which is nearly {20000 to 40000}per quintal and by this high price the corms which becomes unaffordable for small scale formers.

2] Poor soil fertility

The saffron grower growing the saffron every year but without nutrients, through organic manures or we can say chemical fertilizers which has reduced the fertility of saffron fields in Kashmir and the soil becomes deficient in micro nutrients and same as the size and vigor of corms produced which is reduced in every season. And which is directly affecting on crop stands and the potentate all of the plant for flowering.

¹² Retrieved from www.dailyexcelrior.com/nationalmissiononsaffron as on 06.11.2016

retrieved from www.agrifarming.in/saffron_farming/pib.nic.in/newsite/efeature.aspx?relid=68825 as on 07.11.2016

3] Poor weed management

In Kashmir the growth of saffron is started around October November and after that it lasts until April and for this much time fields of saffron remains vacant because of inactive phase which is from April to September and this long time gap provides an open space for weeds in the fields of saffron which spreads over and entire fields without any interference that can be encountered in presence of crops the saffron plants are short with the narrow and upright foliage and it offers the little competition with the weeds¹³, and the major weeds which are found in saffron fields in Kashmir are:

- 1) Papavar Rhoal
- 2) Tulipa Stellata
- 3) Poa Bulbosa
- 4) Chuspora Tanella
- 5) Erodicem Crcutariam
- 6) Lepidium Virginicum
- 7) Filago Arvense
- 8) Chenopodium Album

Among others and with the presence of these kinds of weeds and in which no any weed management practices are done by saffron growers but except harvesting some weeds as fodder by farmer women in the month of may and in august the cattle grazing are done by formers in the month of august and in the other hand in spring controlled weeds with is in the large amount but without any harm to saffron and the weed infested fields are also become a place for rodents where they can breeding too and is also the one bad hygiene of fields and mostly during in the critical stage of growth.¹⁴

4] Poor post harvesting handling

There are very much data available that points us to diverse quality of saffron in Kashmir state with various traders and here are very few conforming norms which is set by the Indian standard institute (ISI 5453) and for the Indian saffron (data not shown) and the main reason for this diversity of quality is poor post-harvest handling and storage. Kashmir saffron's quality evaluation has been confirmed by its intrinsic top quality of its coloring pigment and the post harvest traditionally processing is responsible for the poor quality. And according to the (NEHVI et-al 2007c) in Kashmiri saffron there is high percentage of crocin which is near

¹³ retrieved from [www.researchgate.net/.../232607443_Saffron_\(Crocus_sativus_Kashmirianus\)_Cultivati...](http://www.researchgate.net/.../232607443_Saffron_(Crocus_sativus_Kashmirianus)_Cultivati...) As on 10.11.2016

¹⁴ Retrieved from www.greaterkashmir.com/news/gk.../saffron-cultivation-in-kashmir... as on 10.11.2016

about (14 to 17 %) in its fresh stigma's. however the formers traditionally practice for harvesting the flowers and separating stigmas from flowers then drying and after that packing of stigmas and then storing and marketing which brings down. The content of crocin from 14 - 17% to (9 - 11.5%) and for such kind of purpose awareness programs is needed to improving this kind of harvesting handling and educating formers and it is must to give them knowledge benefits of packing flowers of its right stage and also separating stigma in the shortest possible time and also educate them popularizing the use of various types of solar dryers, branding and quality evaluation.

4] Urbanization and pollution

The original saffron fields in pampore are mostly located on the national highway which is connecting Srinagar {capital of Jammu and Kashmir} to the whole country. it is nearly 20km away from the main city and thus due to the highly developed township the price of the land is too high in Srinagar and with this is the reason that land brokers try to the construct the business firms in the saffron fields and with this construction of the various business plants air pollution caused by heavy traffic in the saffron belt pampore and recently the mercury accumulation in the in the field of saffron which is closely to cement factories it has been reported by Jan Mohd bhat. And with the high rate of fossil fuels and highly increased mining which is burning by these cement factories have been pointed as the main sources of pollution.¹⁵

LITERATURE REVIEW

ABDULLAV FIKRAT I. (2001):¹⁶ Author says in this article that actually the author is working in the experimental biology and medicine so according to the author since cancer becomes the most common cause of death in all over the world and the much more possibility which rapidly available natural substances from various vegetables, herbs, plants and also the spices may be also the beneficial for the prevention of cancer. Saffron is the flower which is actually used in various spices ,drugs in medicines and food colorants and author says that the growing body of research has the demonstrated that the saffron extracts itself and the main constituents which is in it likely and the Carotenoids posses chemo preventive properties which against the cancer.

¹⁵ Retrieved from [www.academia.edu/.../Saffron Crocus sativus Kashmirianus Cultivation in Kashmir](http://www.academia.edu/.../Saffron_Crocus_sativus_Kashmirianus_Cultivation_in_Kashmir) as on 13.11.2016

¹⁶ Retrieved from <http://ebm.sagepub.com/content/227/1/20.short> as on 13.11.2016

MOGHADDARI MOHAMMAD SHARIF (2010):¹⁷ Author summarize that saffron is originally comes from Greece and Mediterranean region and the reputation of saffron growly is about 2500 years ago .author says that according to many researches who are believed that the origin of saffron is comes from Iran throughout the world it is considered that the Iran is the one of the largest producer of saffron and the total production of saffron is nearly 90% which is produced in Iran Author says in stigma of the saffron there are various varieties of chemical components which are present in it like minerals, carbohydrates ,vitamins, like thiamine and riboflavin ,color pigments like lycopene , crocin , carotene and aromatic terpenic essence called safranial and many flavoring substance like picrocrocin . the most influential chemical is the coloring of saffron is crocin (C₄₄ H₆₄ O₂₄) and according to the author may be the saffron is the substitute of chemical medicines and there are some medical properties which are present in saffron like helps digestion, activates the sexual desire, strengths the stomach, fights tumor, strengths memory power, improves concentration, fights depression controls blood pressure disorder, cures iron deficiency (Anemia in girls) and also helps improve heart condition and it is successfully proud through animals in many experiments which are performed in laboratory that saffron is also helpful in cancer treatment.

GEENEN RACHEL, (2012):¹⁸ According to the author the saffron plant is the quiet and interesting plant which has its importance and it is also the precious spice for thousands of years and also continues. Author says that because of the richness of its color, flavor, scent and also the time spent harvesting saffron is famous throughout the world and its significance never lose because of its cultural economy and also for the scientific purpose, and according to the author it takes near about 75000 saffron flowers to makes a single pound of saffron spice, and it costs up to \$315/oz to \$5040/lb. and cultural economy through saffron is like that the elderly women are usually given the job for removing the stigmas from the saffron flower because it is the very strenuous job, and it is because still there is no any machine which will remove or we can say which will work on the place of elder women because till know no any machine made which can separate the tree delicate stigmas from the saffron flower.

REZA GOHARI AHMAD (2012) :¹⁹ Author says that the saffron is the most expensive and valuable medicinal food product because of its major importance in the agriculture economy and the dried stigmas which is extracting from the plant (Crocus Sativas) are processing to produce the saffron as a well known and valuable spice which have various importance in perfumery, cosmetics and pharmaceuticals and also in

¹⁷ Retrieved from <http://www.academicjournals.org/journal/JMPR/article/F6F1E8115978> as on 13.11.2016

¹⁸ Retrieved from https://bioweb.uwlax.edu/bio203/s2012/geenen_rach/facts.htm as on 14.11.2016

¹⁹ Retrieved from <http://www.phcogrev.com/article.asp?issn=0973-7847;year=2013;volume=7;issue=13;spage=61;epage=66> as on 15.11.2016

textile dye producing industries and author says that recently the pharmacological activity of the saffron has increases its importance throughout the world and according the author the annual production of saffron is estimated 300 tons per year throughout world in which the 76% of total is produced by Iran and now it is also necessary to quality conservation of saffron needs to certify in international trade market from the artificial production or defraud.

SULTAN AARABU AHMAD (2013):²⁰ Author emphasizes that the color of saffron is virtually running riot of the pampore which is located in Jammu and Kashmir in Indian administrated and author says that in the town of pampore the millions of saffron flowers are bloom and according to the author the India is the fourth biggest producer of saffron and its spice is used in all over the world and in India the Kashmir is the prime producer of saffron and in Kashmir the pampore accounts for 80% of the producer of saffron and according to the author when harvest season arrives the pampore is once again living up to its reputation which is given by the exporters that is saffron town. And hundreds of men women children have descended and pluck the saffron flower and like carpeting the floor and the kashmirie saffron is known as the edge when it comes to its aroma and it makes it the costliest and it is also called the (red gold) and the peoples are feels like festival when the saffron is harvested.

SCIOLINO EI AINE (2015):²¹ Author analyze that the saffron is an ancient medical plant and author also emphasize that it is the most valuable and expensive of spices also it had magical and addictive power and saffron is also used by the Great Alexander is to heal wounds of the battle and according to author many Iranians say that if the saffron is its pure form it works as an antioxidant and antidepressant and also a weapon against the cancer and degeneration of eyes. and according to author the saffron is worth its weight in gold because it is so labor intensive and very difficult to cultivate and harvest and at last the author said that according to “ Mr. Thiercelin said” (the saffron is much more expensive than cocaine) so after all of that we pretty much stopped talking about saffron.

RAFEED SAJAD (2015):²² according to the author the pampore is known as the saffron town of Kashmir. And pampore is also well known for its high grade and precious spice. And the blossoming of the saffron is the indicator of the winter in Kashmir. And in this winter season the vast fields are turning into the purple canvas and the saffron flowers are blooms for a week or more than one week around early November which is

²⁰Retrieved from <http://www.aljazeera.com/indepth/inpictures/2013/11/pictures-saffron-blooms-kashmir-2013112512178309440.html> as on 16.11.2016

²¹Retrieved from <http://www.nytimes.com/2015/12/30/dining/saffron-iran.html> as on 16.11.2016

²²Retrieved from <http://www.natgeotraveller.in/now-blooming-saffron-harvesting-in-kashmir/> as on 18.11.2016

plucked after the sun rises and with its three stamens the saffron flower is picked up carefully by hands and dried its saffron threads. And mostly this spice is used in extensively medicines. And also in beauty products, food preparation and many other things the labor intensive process is makes the saffron world's expensive spice. And often it is compared with the gold. And in the harvesting of the saffron every family member is involved for the collecting of the flowers and wrapping into the cotton sheet and taking into the home and after it the stigma of the flower is separated before it dried. But the total land of the pampore which is cultivated for saffron is declining day by day because of nonstop able residential constructions

ARORA SHILPA (2016):²³ Author emphasizes the various benefits of saffron and also gives us list of many ways to serve culinary treasure .author says the saffron is a small member of lily family and also says that it is the most expensive spice throughout the world and it is commercially produced in Spain, Greece, Iran, morocco, Kashmir and Italy and according to the author the most important producer of saffron is Iran both in terms of volume and quality. The benefits and properties of saffron which is highly casted spice are in India:

Protects against cancer: according to the author it contains dark orange and crocin which is responsible for its golden color and according to the researchers of Mexico who have been studying about saffron and discovered that saffron and its active components shows the ability of malignant cells to inhabit in humans and it is not effects on normal cells (the immune cells which are helpful to destroy cancer cells)

Saffron promotes memory retention: author says in Japan the saffron is used for the treatment of many diseases and Parkinson's disease is one of them and this disease is related to memory loss and inflammation.

Delayed puberty: author says in under developed girls saffron plays an important role in an overall stimulant effect. A pinch of saffron mixed with the glass of milk and it is very useful for desired effects and stimulates hormones.

Protection against cold: saffron is the very effective stimulant tonic to treat fever and cold .a pinch of saffron mixed with milk and applied over forehead and quickly it effects on the body and relives cold. And with these benefits which are mentioned above shows us the importance of saffron.

²³Retrieved from <http://food.ndtv.com/health/7-health-benefits-of-saffron-the-priceless-spice-1263525> as on 18.11.2016

SABA (2016):²⁴ Author says that in Hindi the saffron is called as kesar and it is also the popular and expensive spice. And its taste is good and it is also good for use in food as refreshment and also used for making beverages it has unique color, flavor, and by its other unique properties and medical characteristics that makes it famous throughout the world. Actually the saffron is belongs to the iridaceous family and it is the native of south European regions and in these regions the saffron is cultivated and use of it on daily basis. And the other regional names of saffron are: KESAR in Punjabi, JAFFRAN in Bengali, KESARI in kannada, kumkumma poo in tamil, kum kum puuu in Pune, and it have many health benefits because it is used in chemical compounds and these chemical compounds are beneficial for providing medicinal benefits saffron uses are as under: disease prevention, volatile oil, the active components, the therapeutic applications, antidepressant, the digestive properties, cell repair and formation, blood pressure, heart disease, blood cells production, diet control, weight loss, mental health, sexual health, saffron benefits for skin, and also for radiant skin, fairer skin, it is the treatment for dull skin, it improves face texture, very useful for dry skin, heal wounds and scars and also its benefits for hair.

SHETTY PRASHASTI (2016):²⁵ According to the author Hyderabadi dessert is a famous for its richness from saffron milk and dry fruits. saffron flower is the lovely spice which is mostly uses for adding colors in food and according to the author the name saffron is originally derived from Latin word (*safranum*) and also some people are believed that the name of the saffron is drawn from the Arabic word *zafaran* that means yellow and it is also very valued spice and according to the author the pigments of the saffron have been found in 50000 year old prehistorical places which are in north west Iran. And after that the Sumerians also used the wild growing saffron in their remedies. And the saffron is mostly used in dyes, body baths medicines and perfumes and according to the author the thread of saffron were scattered across the beds of the newlyweds on their first wedding night and also offered the hot milk glass with the pinch of saffron powder in it. and according to the modern researchers he have discovered that it is an active anti-mutagenic, antioxidant and sex stimulant and the color of the Indian national flag on the upper band is deep saffron.

²⁴Retrieved from <http://www.stylecraze.com/articles/amazing-benefits-of-saffron/> as on 20.11.2016

²⁵ Retrieved from <http://recipes.timesofindia.com/articles/food-facts/10-interesting-facts-about-saffron/articleshow/48542235.cms> as on 22.11.2016

RESEARCH METHODOLOGY

The Present Study is about assessing the problems of saffron cultivation. The research is based on both primary and secondary method of research which will use to find out the accurate results. The primary data will be administered through a questionnaire. The secondary data will be collected from various internet sources, published newspapers, magazines and journals.

EXPECTED OUTCOME

The Study will reveal the main problems in the saffron cultivation and the problem faced by cultivators. Moreover it will also evaluate the role of administration.

HYPOTHESIS

- Government is encouraging the production of saffron cultivation in pampore.
- Cultivation of saffron is considered as a profitable occupation amongst the people of pampore.
- Saffron cultivators are facing problems in the production and marketing of saffron.
- There is satisfactory administrative/ financial arrangements are available in pampore.
- Saffron cultivators of pampore are aware about the provision of saffron cultivation.
- Cultivators of saffron in pampore are highly benefited from the national saffron mission started by government of India

SCOPE OF STUDY

Through this research an attempt is made to make understand the main problems of saffron cultivation in pampore and also the relation between the cultivators and the government .what government is doing presently for saffron cultivators. And which initiatives already taken by the government for the cultivation of saffron .the study will also assess the perception of peoples of pampore and their views about the role of government in cultivation of saffron.

OBJECTIVES OF STUDY

- To find out the views of peoples of pampore about the problems in saffron cultivation.
- To find out whether the people of pampore wants to follow a traditional methods or scientific methods for saffron cultivation.
- To Evaluate the Implementation of National Saffron Mission in Pampore.
- To examine the impacts of developmental activities which are carried by government to promote saffron cultivation

TIMELINE

Chapters

Time period

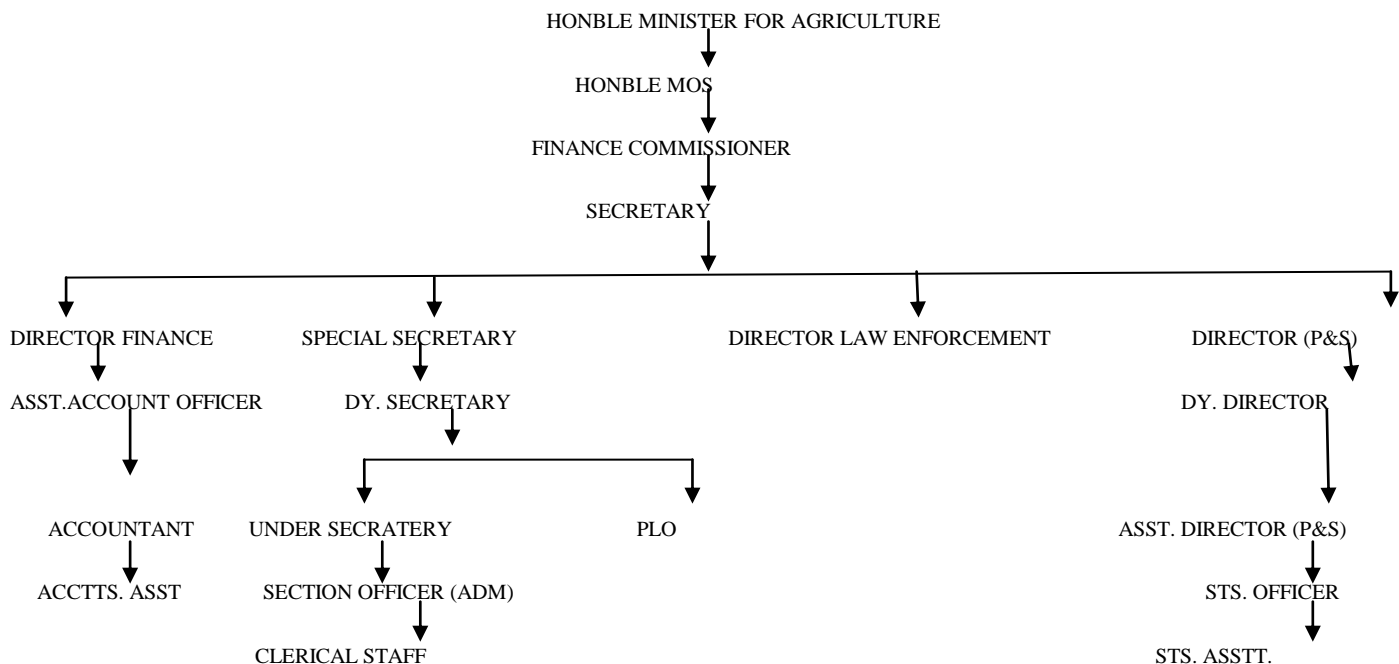
INTRODUCTION	20 DAYS OF NOVEMBER
CHAPTER -2	
COLLECTION OF DATA AND DATA ANALYSIS	MARCH AND APRIL
CONCLUSION	MAY

Chapter 2

ORGANISATION AND ROLE OF ADMINISTRATION FOR SAFFRON CULTIVATION IN JAMMU AND KASHMIR

Introduction to agriculture sector of Jammu Kashmir

Agriculture is the predominant sector of economy in Jammu and Kashmir and it supports about 80 per cent of its population. The state Jammu and Kashmir is originally divided into three agro-climatic zone that are Jammu, Kashmir and ladakh and every zone has its own specific climatic conditions for the crop production. Government takes many initiatives to boost the agriculture production like increasing storage capacity and developing high quality seeds and other benefits.²⁶ Though Centre provide all assistance in producing the world’s top most saffron in Kashmir .it was said by union minister for agriculture Radha Mohan Singh when he laid foundation stone of Rs 24.54 crore saffron park project in Dussu pampore. With states minister for agriculture Ghulam Hassan Mir, Member of Parliament Ghulam Nabi Ratnipora, minister of state for agriculture Nazir Ahmad khan and also Zahoor Ahmad Mir MLA pampore. But state also has a very prominent role to play production of saffron in the valley. The department of agriculture Kashmir also plays a significant role in this regard. And for this production state divides the agriculture department in hierarchical form the chart is given below shows us the actual figure of agriculture department in Kashmir.



Organization chart: source jkapd.nic.in

²⁶ <http://jkapd.nic.in/>

Governmental Initiatives taken under national saffron mission

The saffron park was developed by union ministry of agriculture and national horticulture board under the national saffron mission which was started in 2010. and after the completion of its period the mission again has been extended for 6 years and during which the amount of 400.11 crore will be spent on saffron in Kashmir under this mission. And after addressing and gathering the union agriculture minister said that Jammu and Kashmir has the proud privilege of producing the top most quality of saffron which is famous for its flavor and color all over the world. he said that union govt. is determined to provide all type assistance for the saffron growers in producing world's top most quality of saffron from Kashmir. And also said that union govt. will provide all efforts and provide assistance to develop . The main aim and objective of this mission is to double the production of saffron from 2.5 kg's per ha to over 5kgs per ha By adopting its proper technology.²⁷ And that technology will help in improving soil healthy and providing irrigation facility for its crops and also develops its marketing and its quality based prices of saffron.

And the union minister also said that these facilities will be provided in next three years to the formers of the country so that they cannot face any problem in producing quality production.

The union minister said that during its implementation a large number of local youths will get job opportunities

The following components of the saffron mission which are for the economic revival of Jammu and Kashmir sector:

- Improving soil health by INM and IDM practices.
- Rejuvenation/replanting of existing Saffron area for improving Productivity of saffron.
- Standardization of quality corm production in all public nurseries
- Strengthening the Irrigation System for saffron fields
- Mechanization.
- Enhancing product quality through improved post-harvest handling and other steps.
- Establishment of Weather Station
- Transfer of Technologies for improvement.
- Infrastructure Development
- Quality testing and marketing mechanism.
- Delineation of package of practices for Saffron.
- Enhancement of Research and Extension capabilities.

²⁷ <http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/asia-and-the-pacific/saffron-heritage-of-kashmir/en/>

- Dissemination of weather forecasts, market alerts, etc through SMS and other sources
- Market intervention through e-trading and establishment of Electronic auction Centre
- Grading, packing and branding.

The main crux of the saffron mission plan:

- Initial corm treatment with recommended fungicides to control corm rot disease. and other harmful chemicals
- Plantation of graded corms at Seed Rate of 50 quintals per hectare on raised beds with planting geometry of 20x10 cm for around five lakh corms per hectare with a planting cycle of 4 to 5 years or according to the capability of field.
- irrigation in September and October for pre flowering when there are no rains followed by post flowering irrigation in November to ensure yield gain by 40% or more
- Integrated Nutrient Management (INM) in saffron fields using manure in the shape of farm yard manure.
- Picking one or two day old flowers in early morning hours and separation of stigma within 4 to 5 hours of picking for better quality.
- Traditional sun drying to be replaced by drying in solar or hot air dryers which can help us to increase in saffron recovery and improving quality by 60%.
- Establishment of Grading and Packing Centre and Saffron Park for Quality Control certification.²⁸

²⁸ <http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/asia-and-the-pacific/saffron-heritage-of-kashmir/en/>
<http://www.greaterkashmir.com/news/gk-magazine/saffron-mission-facts-and-figures/127389.html>

The production trends of saffron cultivation.

Year	Area (Ha.)	Production (MTs)	Yield Rate (Kg/ha.)
1997	5707	15.95	2.8
1998	4161	12.88	3.13
1999	2880	7.65	2.27
2000	2742	3.59	1.88
2001	3075	0.3	1.57
2002	2989	6.5	2.96
2003	2928	5.15	1.66
2004	2436	6.86	3.75
2005	3110	7.04	1.63
2006	3130	6.5	2.25
2007	3010	8.2	2.15
2008	3000	7.7	2.5
2009	3280	9.46	2.34
2010	3785	9.55	2.5
2011	3790	9.85	2.52
2012	3674	10	2.72
2013	3674	11.5	3.13
2014	3674	15	4.08
2015	3674	9.6	2.61

Source: J&K Agriculture Department

Insurance Scheme

Government also gives the helping hand of saffron growers, Kashmir's saffron growers suffered a disastrous slump in production due to erratic weather and floods but the government is helping out with insurance. Jammu and Kashmir state have got a helping hand with the government introducing the Weather Based Crop Insurance Scheme for them. And in first instance the crop of saffron spreads near about 3700 hectares and it shall be covered under this scheme. And this scheme was disclosed at a joint meeting of various

representatives of many insurance companies and also agricultural departmental functionaries which is held under the

Chairmanship of director of agriculture Kashmir Peerzada Mushtaq and in this meeting it was decided that the Three companies shall be authorized for providing the insurance scheme and it was further disclosed that in insurance cover it shall be provided at Rs. 2 lakh per hectare and in this scheme the crop shall be covered for deficit rainfall, low temperature, high rainfall and consecutive dry spell. And under this scheme the 50% of total premium shall be borne by government under this scheme. And also it was given out that these insurance companies also install an automatic weather station at pampore for capturing the whole data on the basis of the scheme. And after this meeting the other meeting was held by director agriculture Kashmir in which he reviewed the status of kissan credit cards have been issued to the farmers of Kashmir out of which a loan amount of Rs. 566 crores have been disbursed among more than 2 lakh kissan credit card holders and with this work the director agriculture Kashmir division impressed upon the officers of district level of the department to ensure 100% coverage by the end of June 2014.²⁹

As per approval by Ministry of Agriculture, Government of India with given vide No.13015/02/2012-. And the Credit-II dated 1st November 2013 and in continuation to Govt. with is given in Order No. 220-Agri. of 2002 dated.10.07.2002, and also the crop insurance is introduced in state Jammu & Kashmir as per decision taken by the authorities in a Crop insurance meeting held by Agriculture Production Department on 21st July 2014. Same as National Crop Insurance Programmed the Rashtriya Fasal Bima Karakorum–Weather Based Crop Insurance Scheme (WBCIS) is also operated in J&K State during 2014-15 as per given guidelines and also operational modalities fixed by Ministry of Agriculture. Letter No. 13015/02/2012-Credit-II dated 4th of February, 2014. And the second scheme shall be operated in the state of Jammu and Kashmir and the following conditions/directives:

- I. **Coverage of crops:** the coverage of crops for Jammu are paddy basmati and rice which are also in samba and Kuthua districts and for the Pulwama district saffron crops shall be covered for insurance on pilot basis.
- II. **Coverage of farmers:** in this part of scheme all farmers including small and marginal whether it is women schedule caste schedule tribe share cropper's tenant farmers. Which are growing notified crops in notified areas are eligible and these all are cover under this scheme.
- III. **Risk covered;** in this part the {adverse whether incidence} leading to crop loss and it would be covered under this scheme for {paddy and basmati-rice}: excess rainfall temperature fluctuation and consecutive dry days. And for {saffron crop}: deficit rainfall excess rainfall decrease in day temperature and excess in day temperature.³⁰

²⁹ <https://www.thethirdpole.net/2015/05/07/government-gives-kashmir-saffron-growers-a-helping-hand/>

³⁰ <https://kashmirobsrver.net/2017/business/govt-announces-insurance-scheme-crops-assets-public-importance-13702>

Here are implementing agencies and areas of operation.

S.NO	CROP	IMPLEMENTING	DISTRICT	TARGET AREA
1	paddy/ basmati rice	HDFC-ERGO GIC Ltd.	Jammu Satwar/Marh/Bhalwal/Akhnoor/Khour/R.s.pura/ Bisnah.	5000 Hectare
2	paddy/ basmati rice	ICICI Lombard, GIC, Ltd.	Samba Vijaypur/Samba Khthua: Hiranagar/Kathua/Ghagwal	5000 Hectare
3	Saffron crop	Agriculture Insurance Company of India Ltd.	Zantarg,khrew,wuyam-a wuyan-b sharshali-a Sharshali-b konibal-a konibal-b chandhara and namblabal circles of pulwama district.	500 Hectare
4	Saffron crop	HDFC-ERGO GIC Ltd.	Jawbehara,léthpora-a,léthpora-blethpora-c, samboora,drangbal,kadlabal and parigam circles of pulwama district	500 hectare

Source: J&K Agriculture Department

Conclusion

Farmers distant themselves from the saffron cultivation, because the production was reduced due to some climatic conditions. The government took numerous initiatives to catch the attention of the people for cultivation and to increase the saffron production in Kashmir, the marked initiatives are: Weather Based Crop Insurance Scheme and national saffron mission plan. As in case of weather based crop insurance scheme government covers the losses due to natural climatic disasters like flood, drought, dry weather, excess of rainfall. Under national saffron mission plan government aims to double the saffron production and the government avail numerous facilities to the farmers like: good quality of corms, Improving soil health by INM and IDM practices, Strengthening the Irrigation System for saffron fields i.e. water pumps, water sheds, Quality testing and marketing mechanism.

CHAPTER 3

PERCEPTION OF PEOPLE ON THE PROBLEMS OF SAFFRON CULTIVATION AND THE ROLE OF ADMINISTRATION

Q. no 1 How much land you have under saffron cultivation?

Table no.1

Number of respondent	1-5 Kanals	5-10 Kanals	10-15 Kanals	More than 15 Kanals
120	35	25	18	42
Percentage	29	20	15	35

Explanation: The majority people have more than fifteen Kanals of saffron land because when the question asked to the respondents how much land you have under saffron cultivation out of 120 respondents 35% have more than 15 Kanals 15% have 10 to 15 Kanals 20% have 5 to 10 Kanals 29% have 1 to 5 Kanals so majority people have to a great extent land under saffron cultivation.

Q. no 2 Do you want to sell your saffron land because it is no more profitable?

Table no. 1.1

Number of respondent	Strongly agree	Disagree	Partially agree	Neutral
120	22	86	3	11
Percentage	18	71	2	9

Explanation: when the question asked to the respondents do you want to sell your saffron land because it is no more profitable out of 120 respondents 18% are strongly agree 71% are disagree 2% are partially agree and 9% are neutral for selling their saffron land. so the majority people are disagree with the question asked.

Q no. 3 After the national saffron mission there is rise in the production of saffron in pampore?

Table no. 1.2

Number of respondent	Strongly agree	Disagree	Partially agree	Neutral
120	50	35	18	17
Percentage	41	29	15	14

Explanation: when the question asked to the respondents after the national saffron mission there is rise in the production of saffron in pampore and out of 120 respondents 41% respondents are strongly agree 29% are disagree 15% are partially agree and 14% are neutral. So there is a majority of the people which have strongly agreed to the asked question regarding the saffron production after the national saffron mission.

Qno.4 Traditional methods of saffron cultivation are more suitable in the valley?

Table 1.3

Number of respondent	Strongly agree	Disagree	Partially agree	Neutral
120	45	17	36	22
Percentage	37	14	30	18

Explanation: when the question asked to the respondents traditional methods of saffron cultivation are more suitable in the valley and out of 120 respondents 37% are strongly agree 14% are disagree 30% are partially agree and 18% are neutral so that we can say more peoples of valley are strongly agree with the traditional methods.

Q no.5 would you like to adopt scientific methods introduce by government for cultivating saffron?

Table 1.4

Number of respondent	Strongly agree	Disagree	Partially agree	Neutral
120	50	27	27	16
Percentage	41	22	22	13

Explanation: when the question asked to the respondents would you like to adopt scientific methods introduce by government for cultivating saffron and out of 120 respondents 41% are strongly agree 22% are disagree 22% are partially agree and 13% are neutral. Therefore majority people would like to adopt scientific methods for saffron cultivation providing by the government.

Q no.6 Do you want your next generation to take your occupation of cultivating saffron?

Table 1.5

Number of respondent	Strongly agree	Disagree	Partially agree	Neutral
120	53	24	25	18
Percentage	44	20	20	15

Explanation: when the question asked to the respondents do you want your next generation to take your occupation of cultivating saffron and out of 120 respondents 44% are strongly agree 20% are disagree 20 % are partially agree and 15% are neutral so that we can say the more people Wants to take this occupation for next generation.

Q no.7 Do you think the major problem facing saffron production is non availability of good quality corms?

Table 1.6

Number of respondent	Strongly agree	Disagree	Partially agree	neutral
120	48	13	30	29
Percentage	40	10	25	24

Explanation: when the question asked to the respondents do you think the major problem facing saffron production is non availability of good quality corms and 40% out of 120 respondents are strongly agree 10 % disagree 25% are partially agree and 24% are neutral so that according to this question more people are strongly agree about the major problems which are facing by non availability of good quality corms.

Q no. 8 did you apply for insurance scheme which is introduced by administration for saffron cultivation?

Table 1.7

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	41	38	20	21
Percentage	34	31	16	17

Explanation: 34% are strongly agree out of 120 respondents when the question asked did you apply for insurance scheme which is introduced by administration for saffron cultivation 31% are disagree 16% are partially agree and 17% are neutral. Therefore, most of the people among cultivators of saffron have already applied for the insurance scheme.

Qno.9. Do you think corruption is the main reason for the lower production of saffron in pampore?

Table 1.8

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	39	29	22	30
Percentage	32	24	18	25

Explanation: when the question asked to the respondents do you think corruption is the main reason for the lower production of saffron 32% are strongly agree out of 120 respondents 24%

are disagree 18% are partially agree and 25% are neutral so we can say yes it is the main reason for lower production.

Q no.10 Are you satisfied with the saffron mission which is introduced by administration?

Table 1.9

Number of respondent	yes	No
120	76	44
Percentage	63	36

Explanation: 63% respondents are satisfied and remain 36% are not satisfied with the saffron mission which is introduced by administration.

Qno.11 Could the world's most expensive spice [kesar] is the main reason for economic prosperity in pampore

Table .2

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	74	24	11	11
Percentage	61	20	9	9

Explanation: when the question asked to the respondent about economic prosperity 61% are strongly agree 20% are disagree 9% are partially agree and 9% are neutral about kesar is the main reason for this.

Q no.12 the major reason for the decline of saffron production in pampore is failure of government to support farmers?

Table 2.1

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	37	45	30	8
Percentage	30	37	25	6

Explanation: 37% people are disagree with this question when I ask them that the failure of government is the main reason for the decline of saffron production and 30% are agree 25% are partially agree and 6% are neutral.

Q no.13 Do you think administration is clueless for the better production of saffron?

Table 2.2

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	49	25	23	23
Percentage	40	20	19	19

Explanation: when the question asked to the respondents do you think administration is clueless for the better production of saffron 40% are strongly agree with this question 20% are disagree 19% are partially agree and 19% are neutral.

Q no 14 Do you think Iranian saffron makes inroads into Kashmiri saffron?

Table 2.3

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	41	34	21	24
Percentage	54	18	17	10

Explanation: when the question asked to the respondents do you think Iranian saffron inroads into Kashmiri saffron 54% are strongly agree out of 120 respondents 18% are disagree 17% are partially agree and 10% are neutral so that we can say yes it inroads in Kashmiri saffron.

Q no.15 Do you think saffron rhizome rot is the serious problem of saffron cultivation?

Table 2.4

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	44	26	32	18
Percentage	36	21	26	15

Explanation: when the question asked to the respondents do you think saffron rhizome rot is the serious problem of saffron cultivation 36% are strongly agree 21% disagree 26% are partially agree and 15% are neutral .so that we can say yes it is the serious problem .

Q no 16. Do you think mechanized planting, weeding/hoeing are good initiatives taken by administration for saffron production?

Table 2.5

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	45	29	28	18
Percentage	37	24	23	15

Explanation: 37% are strongly agree 24% are disagree 23%partially 15%neutral when the question asked to the respondent which is above mentioned so that we can say yes these are good initiatives taken by administration.

Q no 17. Do you think the excessive rainfall effects on saffron cultivation?

Table 2.6

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	54	25	19	22
Percentage	45	20	15	18

Explanation: when the question asked to the respondents do you think excessive rainfall effects on saffron cultivation 45% are strongly agree 20% are disagree 15% are partially agree and 18% are neutral so that we can say yes cultivation effects because of excessive rainfall.

Q no 18. Saffron cultivation is the main source of income for the people of pampore?

Table 2.7

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	50	26	26	18
Percentage	41	21	21	15

Explanation: 41% are strongly agree out of 120 respondents 21% are disagree 21% are partially agree and 15% are neutral so that we can say yes the more people are strongly agree with this question .

Q no 19 Do you think we should cultivate more and more saffron in future?

Table 2.8

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	57	30	27	6
Percentage	47	25	22	5

Explanation: 47% of people have strongly agreed above asked question. 25% disagree completely. 22% partially agree and 5% are neutral. Therefore, most of the people supports the question positively.

Q no 20 Are you satisfied with the export policies of government for saffron and it is protecting farmer's interest?

Table 2.9

Number of respondent	Strongly agree	disagree	Partially agree	Neutral
120	41	52	14	13
Percentage	34	43	11	10

Explanation: 34% people strongly agreed, 43% disagree, 11% partially agree and 10% favors neutral response. Therefore most of the people are disagree with the question.

Q no 21 Are you taking benefit from any of the government scheme {saffron mission, insurance scheme}?

Table 3

Number of respondent	Yes	No
120	47	73
Percentage	39	61

Explanation: when the question asked to the respondents 61% are disagree and only 39% are agree therefore we can yes most of the people are disagree with the question.

CHAPTER 4

HYPOTHESIS: It is an idea or theory that is not proven but that leads to further study or discussion.

Hypothesis 1: Government is encouraging the production of saffron cultivation in pampore.

Hypothesis Testing:

Table.1.4: : when the question asked to the respondents would you like to adopt scientific methods introduce by government for cultivating saffron and out of 120 respondents 41% are strongly agree 22% are disagree 22% are partially agree and 13% are neutral. Therefore majority people would like to adopt scientific methods for saffron cultivation providing by the government.

Table.1.7: 34% are strongly agree out of 120 respondents when the question asked did you apply for insurance scheme which is introduced by administration for saffron cultivation 31% are disagree 16% are partially agree and 17% are neutral. Therefore, most of the people among cultivators of saffron have already applied for the insurance scheme.

Table.1.9: 63% respondents are satisfied and remain 36% are not satisfied with the saffron mission which is introduced by administration.

Table 2.1: 37% people are disagree with this question when I ask them that the failure of government is the main reason for the decline of saffron production and 30% are agree 25% are partially agree and 6% are neutral.

Table 2.2: when the question asked to the respondents do you think administration is clueless for the better production of saffron 40% are strongly agree with this question 20% are disagree 19% are partially agree and 19% are neutral.

Table 2.5: 37% are strongly agree 24% are disagree 23% partially 15% neutral when the question asked to the respondent which is above mentioned so that we can say yes these are good initiatives taken by administration.

Table 2.9: 34% people strongly agreed, 43% disagree, 11% partially agree and 10% favors neutral response. Therefore most of the people are disagree with the question.

Table 3: when the question asked to the respondents 61% are disagree and only 39% are agree therefore we can say most of the people are disagree with the question

Conclusion: After the analysis, it can be concluded that state government is providing enough encouragement to farmers for saffron production. Hence the hypothesis stands proved

Hypothesis 2: Cultivation of saffron is considered as a profitable occupation amongst the people of pampore

Hypothesis Testing:

Table 1.1: when the question asked to the respondents do you want to sell your saffron land because it is no more profitable out of 120 respondents 18% are strongly agree 71% are disagree 2% are partially agree and 9% are neutral for selling their saffron land. so the majority people are disagree with the question asked.

Table 1.5: when the question asked to the respondents do you want your next generation to take your occupation of cultivating saffron and out of 120 respondents 44% are strongly agree 20% are disagree 20% are partially agree and 15% are neutral so that we can say the more people want to take this occupation for next generation.

Table 2: when the question asked to the respondent about economic prosperity 61% are strongly agree 20% are disagree 9% are partially agree and 9% are neutral about kesar is the main reason for this.

Table 2.7: 41% are strongly agree out of 120 respondents 21% are disagree 21% are partially agree and 15% are neutral so that we can say yes the more people are strongly agree with this question .

Table 2.8: 47% of people has strongly agreed above asked question. 25% disagree completely. 22% partially agree and 5% are neutral. Therefore, most of the people support the question positively.

Conclusion: After the analysis, it can be concluded that saffron is considered as profitable occupation among the people of pampore. Hence the hypothesis stands proved

Hypothesis 3: Saffron cultivators are facing problems in the production and marketing of saffron.

Hypothesis Testing:

Table 1.6: when the question asked to the respondents do you think the major problem facing saffron production is non availability of good quality corms and 40% out of 120 respondents are strongly agree 10 % disagree 25% are partially agree and 24% are neutral so that according to this question more people are strongly agree about the major problems which are facing by non availability of good quality corms.

Table 2.3: when the question asked to the respondents do you think Iranian saffron inroads into Kashmiri saffron 54% are strongly agree out of 120 respondents 18% are disagree 17% are partially agree and 10% are neutral so that we can say yes it inroads in Kashmiri saffron.

Table 2.4: when the question asked to the respondents do you think saffron rhizome rot is the serious problem of saffron cultivation 36% are strongly agree 21% disagree 26% are partially agree and 15% are neutral .so that we can say yes it is the serious problem .

Table 2.6: when the question asked to the respondents do you think excessive rainfall effects on saffron cultivation 45% are strongly agree 20% are disagree 15% are partially agree and 18% are neutral so that we can say yes cultivation effects because of excessive rainfall.

Conclusion: After the analysis, it can be concluded that Saffron cultivators are facing problems in the production and marketing of saffron. Hence the hypothesis stands proved

Hypothesis 4: There is satisfactory administrative/ financial arrangements are available in pampore.

Hypothesis Testing:

Table 1.8: when the question asked to the respondents do you think corruption is the main reason for the lower production of saffron 32% are strongly agree out of 120 respondents 24% are disagree 18% are partially agree and 25% are neutral so we can say yes it is the main reason for lower production.

Table 2.5: 37% are strongly agree 24% are disagree 23%partially 15%neutral when the question asked to the respondent which is above mentioned so that we can say yes these are good initiatives taken by administration.

Table 2.9: 34% people strongly agreed, 43% disagree, 11% partially agree and 10% favors neutral response. Therefore most of the people are disagree with the question.

Table 3: when the question asked to the respondents 61% are disagree and only 39% are agree therefore we can yes most of the people are disagree with the question.

Conclusion: majority of respondents are strongly agreed that satisfactory administrative/ financial arrangements are available. Hence the hypothesis stands proved.

Hypothesis 5: Saffron cultivators of pampore are aware about the technique of saffron cultivation.

Hypothesis Testing:

Table 1.3: when the question asked to the respondents traditional methods of saffron cultivation are more suitable in the valley and out of 120 respondents 37% are strongly agree

14% are disagree 30% are partially agree and 18% are neutral so that we can say more peoples of valley are strongly agree with the traditional methods.

Table 1.6: when the question asked to the respondents do you think the major problem facing saffron production is non availability of good quality corms and 40% out of 120 respondents are strongly agree 10 % disagree 25% are partially agree and 24% are neutral so that according to this question more people are strongly agree about the major problems which are facing by non availability of good quality corms.

Table 2.4: when the question asked to the respondents do you think saffron rhizome rot is the serious problem of saffron cultivation 36% are strongly agree 21% disagree 26% are partially agree and 15% are neutral .so that we can say yes it is the serious problem .

Table 2.6: when the question asked to the respondents do you think excessive rainfall effects on saffron cultivation 45% are strongly agree 20% are disagree 15% are partially agree and 18% are neutral so that we can say yes cultivation effects because of excessive rainfall.

Conclusion: After the analysis, it can be concluded that Saffron cultivators of pampore are aware about the technique of saffron cultivation. Hence the hypothesis stands proved.

Hypothesis 6: Cultivators of saffron in pampore are highly benefited from the national saffron mission started by government of India.

Hypothesis Testing:

Table1.2: when the question asked to the respondents after the national saffron mission there is rise in the production of saffron in pampore and out of 120 respondents 41% respondents are strongly agree 29% are disagree 15% are partially agree and 14% are neutral. So there is a majority of the people which have strongly agreed to the asked question regarding the saffron production after the national saffron mission.

Table1.3: when the question asked to the respondents traditional methods of saffron cultivation are more suitable in the valley and out of 120 respondents 37% are strongly agree 14% are

disagree 30% are partially agree and 18% are neutral so that we can say more peoples of valley are strongly agree with the traditional methods.

Table 1.8: when the question asked to the respondents do you think corruption is the main reason for the lower production of saffron 32% are strongly agree out of 120 respondents 24% are disagree 18% are partially agree and 25% are neutral so we can say yes it is the main reason for lower production.

Table1.9: 63% respondents are satisfied and remain 36% are not satisfied with the saffron mission which is introduced by administration.

Conclusion: majority of respondents are strongly agreed that saffron in pampore is highly benefited from the national saffron mission. Hence the hypothesis stands proved

CHAPTER 5

CONCLUSION AND SUGGESTION

Saffron being the most expensive and valuable spice is known as for its good quality throughout the entire globe. This valuable item is also known as red gold. The saffron is the second dominant agricultural economic activity in the state Jammu and Kashmir is the largest producer of the saffron which accounts 30 to 40 crores annual turnout. The saffron cultivation has lost a little bit market shares and it has increased the share of unemployment in the region. the cultivable land has lost its fertility due to excess use of fertilizers and less availability of water in the region in order to alleviate these issues the government has proposed many schemes to enhance and faster the production of saffron in the region. Saffron mission plan and insurance scheme are the two major initiatives which are taken by the government for the saffron cultivators of Jammu and Kashmir it is because when Kashmiri saffron growers are suffered by a disastrous slump of saffron due to the floods and the erratic weather but the government gives the helping hand to the saffron growers with an insurance scheme and other relief schemes. The insurance scheme is known as weather based crop insurance. The saffron mission plan is the another initiatives taken by the government for the maximizing production of saffron it has been sanctioned by government of India and the total cost of this scheme is 372.18 crores and its proposal is to be completed in 4 years. The main reason for introducing the saffron mission plan is to produce more saffron because the area which is under saffron cultivation has declined its production from 5707 hectares to 3715 hectares from 1996 to 2009-10. The main recommended interventions which are in this plan are initial corm treatment to control corm rot disease, the plantation of graded corms, In September the pre flowering irrigation etc.

SUGGESTIONS

- Government should create an advisory committee in the agriculture department which will give special inputs to government regarding the problems of saffron cultivation faced by saffron cultivators.
- Government should limit the import from foreign countries which will reduce the competition in the native market.
- Government should introduce new policies in their annual budgets related to the saffron production which will help and innovate the farmers to take interest in the saffron cultivation.
- Government should provide high yield variety (HYV) corn to the farmers this will increase the production of saffron in the region.
- Government should check and regulate the market mechanism of saffron, which will save the private entrepreneurs from losses and to take risk.

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Questionnaire

Problems of Saffron cultivation and the role of Administration

Name.....

Place.....

Age.....

Gender.....

Date.....

Please fill up the following information.

Instructions

Here are some statements/questions. There are four/ two possible alternatives agree, disagree, partially agree and neutral/ yes or no. You are required to choose the alternative which is applicable on you through indicating your response. As there is no right or wrong statement, please feel free to respond on all items without any kind of hesitation. Your responses will be kept confidential and will be used for research purpose only.

1. How much land you have under saffron cultivation?

-
2. Do you want to sell your saffron land because it is no more profitable?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 3. After the national saffron mission there is rise in the production of saffron in pampore?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 4. Traditional methods of saffron cultivation are more suitable in the valley?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 5. Would you like to adopt scientific methods introduced by government for cultivating saffron?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 6. Do you want your next generation to take your occupation of cultivating saffron?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 7. Do you think the major problem facing saffron production is non availability of good quality corms?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 8. Do you apply for insurance scheme which is introduced by administration for saffron cultivation?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 9. Do you think corruption is the main reason for the lower production of saffron in pampore?
 - a. Strongly agree
 - b. disagree
 - c. partially agree
 - d. neutral
 10. Are you satisfied with the saffron mission which is introduced by administration?
 - a. yes
 - b. no
 11. Could the world's most expensive spice [kesar] is the main reason for economic prosperity in pampore

a. Strongly agree b. disagree c. partially agree d. neutral

12. The major reason for the decline of saffron production in pampore is failure of government to support farmers?

a. Strongly agree b. disagree c. partially agree d. neutral

13. Do you think administration is clueless for the better production of saffron?

a. Strongly agree b. disagree c. partially agree d. neutral

14. Do you think Iranian saffron makes inroads into Kashmiri saffron?

a. Strongly agree b. disagree c. partially agree d. neutral

15. Do you think saffron rhizome rot is the serious problem of saffron cultivation?

a. Strongly agree b. disagree c. partially agree d. neutral

16. Do you think mechanized planting, weeding/hoeing are good initiatives taken by administration for saffron production?

a. Strongly agree b. disagree c. partially agree d. neutral

17. Do you think the excessive rainfall effects on saffron cultivation?

a. Strongly agree b. disagree c. partially agree d. neutral

18. Saffron cultivation is the main source of income for the people of pampore?

a. Strongly agree b. disagree c. partially agree d. neutral

19. Do you think we should cultivate more and more saffron in future?

a. Strongly agree b. disagree c. partially agree d. neutral

20. Are you satisfied with the export policies of government for saffron and it is protecting farmers interest?

a. Strongly agree b. disagree c. partially agree d. neutral

21. Are you taking benefit from any of the government scheme {saffron mission , insurance scheme}?

a. yes b. no

