

# ASSESSMENT OF APPLE PRODUCTION AND MARKETTING PROBLEMS IN KASHMIR VALLEY

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*Agriculture is the mainstay of Indian economy and Horticulture is a crucial Component, there of Apple production is the main occupation in the Kashmir Valley (India) and it constitutes 90% of total fruit crop in the valley. The study is an effort to assess the potential and problem faced by this sector. This sector involving about half a million house holds and play a key role in rural economy of the state with an average yearly turn over of Rs 750 cores, still it has not provided industrial status. The improvement in the production is quite important but marketing has also an equal importance to develop a commercial crop, which is purely produced to sell in the market. Though there have been multidimensional efforts to increase the production of apple in the State, but marketing has not received proper attention, also ignorance from government side, lack of infrastructure, research and development leads to negative effects. Study high lights the dimensions of supply chain management of apples in the Kashmir Valley.*

**Keywords:** Apple Production, Kashmir Valley, Marketing, Supply Chain Management

## INTRODUCTION

The state of Jammu and Kashmir Comprising of temperature, cold arid and hilly areas is located in the North-Western region of the country and faces more complex problems in agriculture development then that of plains due to extreme agro-climatic conations, topographic situation and numerous other factors, Diversification towards horticulture crops from past some decades proves positive compare to agriculture crops. More than 65% of the population is dependent on agriculture and allied agro-vocations contributing only 36.3% of net domestic product (Anonymous 2006). Apple (*Malus Borkh*) is considered as one of the most important and widely grown fruit in temperate zones of the world with regard to its acreage, production, economic returns, high nutritive value and popularity. Apple tree is small and deciduous reaching 3 to 12 meter (9.0 to 39 feet)<sup>1</sup> tall with broad often densely twiggy crown blossoms are produced in spring, simultaneously with budding of leaves .The fruit matures in autumn and is typically 5 to 9 cms (2 to 3.5 inches) in diameter enriched with nutrients, the apple is the fourth widely produced fruit in the world after Banana, Orange and grapes. Indian apple production averaged nearly 1.4 million making it the sixth largest apple producer in the world<sup>2</sup>. Its area is estimated to be the second largest in the world,<sup>3</sup> in Asia it is the second largest producer. This fruit grows in the temperate climate to meet these conditions. Nearly all of the Indian Apples are grown in three mountainous states of North India, Himachal Pradesh, Jammu and Kashmir and Uttaranchal where they are typically grown at an altitude of 4000 to 11000 feet. Jammu and Kashmir and Himachal Pradesh have roughly equal area planted to apple, but J&K has the highest average field and accounts 67% of total<sup>4</sup> apple production and 50% of it's export in the country hence a substantial foreign exchange earner and important for economic growth. Productivity is much higher than national average of 6.86 tons/ha. It is also compares well with the world average of 10.82 tons /ha, or China 9.93 tons/ha, which is world's highest producer of Apple. India Annually exports apple worth of Rs 400 million (Nearly US \$ 10 million) out of which Rs 200 million of apples comes from Jammu and Kashmir North region (Kashmir) and Provides job opportunity to 1.2 million people directly, indirectly. The fruit culture in Kashmir Valley dates back to the times of king Nara (1000BC) king Lalitaditya (700

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AD) and Harsha (1089 AD)<sup>5</sup> This Sector occupies an important position in the farming system of the state and has assumed great important during the last few decades. In Horticulture sector the largest area of 43.53% is occupied by apple out of total area under fruit and 65.46% out of fresh fruit area<sup>6</sup>. There by making it the largest contributor to the State GDP among the Horticulture produce.

In spite of certain problems the comparative feasibility and profitability in apple production has proved to be better as compared to the other farm enterprise during the last one and a half a decades or so,<sup>7</sup> the area under apples has increased significantly and result to higher production, the production and productivity of Apple for six years are as under

**Table No.1**  
**Production & Productivity of apples in Kashmir Valley (India)**

Year	Apple cultivation (000 ha)	Growth Rate (%)	Apple Production (000MTS)	Growth rate (%)	Productivity
2004-05	107.93	100	1093.33	100	10.17
2005-06	111.88	103.65	1151.34	105.30	10.30
2006-07	119.04	106.39	1222.18	106.15	10.27
2007-08	127.88	107.35	1311.85	107.33	10.27
2008-09	133.10	104.14	1332.01	101.60	10.02
2009-10	139.3 @	104.65	1354.65 @	101.63	9.73 @

Source: - Directorate of Horticulture, planning & Marketing J&K, Agriculture Production Department J&K (@ Provisional)

Apple is cultivated and produced in almost all the ten districts of Kashmir region, with Baramullah, Shopian, Kulgam and Pulwama being the highest growers respectively. The harvest continues between August and November with Peak activity in September and October.

## MARKETING CHANNELS

Almost all apples produced in India are used for fresh consumption with limited use of processing, about 70% of the Crop is transported to and sold in India's largest whole sale fruit and vegetable market at Azadpur in Delhi followed by Mumbai, Bangalore, Abmadabad and others. There are number of Marketing channels patronized by the apple growers of which the predominate are as<sup>8</sup>

- Channel (1) : Producer- commission agent- Wholesaler - Retailer - Consumer.
- Channel (2) : Producer- Forwarding agent- Commission agent- Wholesaler- Retailer - Consumer.
- Channel (3) : Producer- Pre harvest Contractor- Commission Agent - Wholesaler - Retailer- Consumer.
- Channel (4) : Producer- Pre harvest contractor- Forwarding Agent - Wholesaler - Retailer- Consumer

The highest percentage (51.37%) of total produce is transported through Channel- (1) followed by Channel (2) (23.25%) while channel 3 & 4 account for 19.75% and 5.63% of the total produce transacted by these growers respectively.<sup>9</sup> Sale through pre- harvest Contractor is most important system of marketing. Normally the small orchardists sell their crop at flowering stage to contractor who organizes plant protection, Plucking and packing of fruit. The medium and large orchardist prefers to market their produce through 2nd and 3rd channel respectively.

The decision of diversification by a farmer is considered to be one of the major economic decisions that have strong bearing on his welfare in terms of income level and variability in returns (Heavy 1952, Joson & Bresier 2001). It has been accepted fact that the peculiar geographical conditions and inadequacy of infrastructure particularly in Kashmir region has restricted the development of agriculture product. Horticulture sector is a viable option for nearly 30 lack people who are earning their income directly or indirectly through this sector<sup>10</sup>. Still there are creation problems which hinder its growth and need special attention.

## OBJECTIVES

Looking to above facts the present study is undertaken in view of the following objectives.

1. Assessing the Potential of Apple production, its impact on the standard of living of the local people.
2. To examine the growth rate in area, and production of apple in Jammu and Kashmir.
3. To examine the marketing system prevailing in the apple trade and provide possible solution to the problems faced by this apple sector.

## RESEARCH METHODOLOGY

The J&K state is purposively selected for study purpose as it has 35.92 percent and 58.85 percent of Country's total area and production of apples respectively. So data collection was carried out both at primary and secondary level. At primary level data was collected by face to face Interview through a questionnaire during pilot survey. Random sampling was done as per the Study requirement, hence south Kashmir was chosen. Secondary data was collected from Department of horticulture J&K, various website, Sheri-Kashmir university of Agriculture Science and Technology (SKUAST) and relevant material in the form of books and journals were also consulted from the study.

## RESULTS AND DISCUSSION

The study was conducted in south Kashmir and the following problems related with cultivation, harvesting, post-harvesting, marketing and other levels are analyzed as:

1. The main reason of mismatch in supply and demand of apples is the lack of Cold and conditional atmosphere storage in the valley and it does not possess a single cold storage for apple preservation by the government, according to figures available 4,00000 tons of apples are ruined by the Scab every year,<sup>11</sup> other diseases like alter aria, red might and powdery mildew spoil the crop.
2. Apple Scab disease, outbreak of premature leaf fall and infestation of red spider mite have declined the quantity as well as quality of the fruit.
3. Price risk is faced by growers and contractors, since there is no guarantee of increasing trend in the market price of the fruit as it fluctuates. There is no support from government

in the home market and perishability of product also becomes proximate cause of dwindled price.

4. Post-harvest management of crops is very important for ensuring better results to the farmers. Packing and Grading is one of the components of post harvest management. We have observed that quality deterioration is fast if packing and grading is not arranged scientifically.
5. It is also observed that valley fruit growers lack regulated market and cooperative marketing societies. Due to the non regulated system of marketing, growers are at the mercy of middle man, various malpractices such as deduction of more charges, Payment by installment, quoting of lower prices than actual, deduction of undue charges etc. are generally Seen followed by these middle men. Moreover the farmers consent is not being taken before selling the produce.
6. The annual turnover of fruit industry is around Rs 2000 crore in case of apple and five lack families are involved in horticulture activities directly and indirectly involving 30 lack farmers, although the major contribution in terms of income and employment comes from this sector, yet it is not getting the status of an industry.
7. The fragmented, small and marginal holdings with little or no irrigation facilities and there is no existence of organized and planned irrigation infrastructure for the orchards when 70% orchards are un-irrigated. Other issues and constraints which were observed are as:
  - Less market accessibility due to poor communication/road links.
  - Value addition and apple processing in Jammu and Kashmir State at local level, is totally absent compared to Himichal Pradesh.
  - Poor integration of domestic markets with those of national markets and there is no public private partnership.

## SUGGESTIONS

The state of Jammu and Kashmir is predominantly agriculture in nature and Horticulture is an important part of agriculture besides revenue earnings Horticulture industry has tremendous potential to help in reducing the Unemployment in the state. Taking to above figures into consideration if appropriate steps are taken at various levels of production by the Stakeholders there will definitely be a positive trend in both production and the corresponding revenue. The various suggestions are:-

- The Govt. should take measures to Control the spurious fungicides/pesticides prevailing in the market, and should open tiny research centers at district level so that proper care can be taken of pre-mature leaf fall and infestation of red spider mite by organizing class room training programs and giving suggestion, guidelines to the apple cultivators so that problems can be tracked.
- Proper branding is now becoming very important for selling Agriculture/Horticulture produce. Apples from Kashmir are known as quality and taste, generally it has been seen that many other states sell their apples after branding them as Kashmiri apple. There is need to brand Kashmiri apple in such a manner that the originality of fruit is traced from Kashmir region. This will help to get better returns and will also avoid the Kashmiri name being misused by the any other state for selling their produce.
- The state government should revive the fruit growers Cooperative marketing societies and

activate the Horticulture department as well as JKHPMC in order to provide better marketing facilities and also to eliminate the role of middle man.

- Local mandies need to be established at tehsil level in order to make the direct sale by apple growers with minimum expenditure.
- The market infrastructure in terms of cold storage should be created in the state, in order to avoid the market risk and also to strike a balance between demand and supply.
- Since the market rate of apple fluctuates, there should be a minimum price fixed (Per K.G or per box) by the government so that growers will at least be sure of the minimum returns as is done in other states.
- Since this Sector is one of the major foreign exchange earners of the state it should be given status of an industry so that special attention can be diverted to it. Provisions should be made for more exports. The apple in the regions should be uplifted on the lines of SEZS.
- The procedure of financing should be made easy and convenient for the farmers in order to make it Popular among the apple growers.
- There is need for the provision of crop insurance in the case of natural calamities like droughts, hail storm or other natured disasters.

## CONCLUSIONS

The problem are complex and ranged from agronomic aspects to pests and diseases management, post-harvest handling, marketing and financing .For promotional of the crop, there is a need of creation and strength of such agency which would address these problems in twelfth five year plan and train the manpower for handling these constraints coming in the way of gigantic job and full potential exploration of this core sector of the economy of the state. Hence if attention is given upon the suggestions proved in the study, there will definitely be a positive change in the situation which will not only improve the standard of living of the dependent population but of the state as a whole.

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