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## Dwindling of almonds in Kashmir Valley: A Case Study of district Pulwama

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### ABSTRACT

The almond cultivation has profusely colored the serenity and tranquility of Kashmir's landscape. Kashmir almond has lived up to its reputation for being one of the choicest fruits; Kashmir has far long been considered the home of almonds. Five varieties of almonds are found in Jammu and Kashmir. The chief varieties being Makhdoon, Merced, Waris, Shalimar and California Paper Shell. However Makhdoon, Waris and Shalimar are the most popular. This variety attracts maximum consumer's attraction due to its sweetness and handsome appearance. The cultivation of almond in India is concentrated in Jammu and Kashmir, Himachal Pradesh, and Uttar Pradesh yet, Kashmir enjoys the distinction of being still hub of almond industry of the country. The production of almonds in the state is growing every year as a result the percentage share of Jammu & Kashmir in national production has also been increasing steadily; but decline during the last 3 years. It has increased from 13.47 thousand mts. in 2004-05 to 15.18 thousand mts. in 2006-07; but in the year 2010-11 it declines to 12.51 thousand mts. It has been found by us that most of the farmers (50%) are dependent on inorganic fertilizers for almond cultivation in Pulwama. However, 30% and 20% farmers are using biofertilizers and organic manure in their fields. It has been found that 88% of the almond growers sell their almonds through directly, 7% by middle man, 4% by neighbour and 1% by the help of relatives. It usually depends on the productivity of the almonds. According to the state's horticulture department, around 1.5 million tonnes of almonds are produced in Kashmir annually. The current study will raise awareness among farming community, so that they will increase the production and quality of almonds in district Pulwama.

**Keywords:** Almond Cultivation, Economics, Employment, Problems.

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### INTRODUCTION

#### A CULTURAL AND CRITICAL APPRAISAL OF ALMOND INDUSTRY

The northern most state of India, Kashmir is a valley of beauty and excellence. It is known as "The Paradise on Earth" and the people are loving and beautiful. The culture of Kashmir refers to the culture and traditions of Kashmir, a region in northern India (consisting of Jammu and Kashmir), is a diverse blend and highly influenced by northern South Asian as well as Central Asian culture. Along with its scenic beauty, Kashmir is famous for its cultural heritage; it amalgamates Muslim, Hindu, Sikh and Buddhist philosophies and has involved composite culture based on the values of humanism and tolerance. The most important part of the cultural identity of the Kashmiri people is the Kashmiri (Koshur) language. This is spoken only in the Valley of Kashmir by the Kashmiri Pandits and Kashmiri Muslims. Besides language, the Kashmiri cuisine and culture has been greatly influenced by Central Asian and Persian cultures for both communities. Cultural music and dance like *Wanvun*, *Rouf*, carpet/shawl weaving and *Koshur Sufiana* forms a very important part of Kashmiri identity. It is important to note that Kashmiri culture is predominant only in the Valley of Kashmir. Kashmiri wedding has many similarities with other Indian wedding but one should attend a Kashmiri marriage in his/her lifetime because few traditions are very unique. The first and foremost requirement in a Kashmiri wedding is the good match of horoscopes or *teknis* of the boy and the girl. After matching horoscopes they lay emphasis on the background and family status of the family of the respective match. After finalizing the alliance between the girl and the boy, the formal commitment is made between the two families which are known as

Kasamdry. After few days the close relative from paternal and maternal side from both sides exchange flower bouquets with each other. After affirmations the snacks and *kehwa* are served from the bride's side which includes milk and crispy naan along with matthi and traditional tea known as *Kahwa*, one of the main ingredients of *kahwa* is almond. The relatives are also served with *Kahwa* that is the occasion that is made with saffron, almonds, dried grapes, cardamom & Cinnamon as a mark of respect and love. When wedding date is decided, ladies on both sides sing local songs every evening till the wedding day, this ritual is known as *Wanvun*. The ladies who sing the songs of *Wanvun* are being welcomed by almonds. Almond is the great gift given to any person especially guest from bride groom during wedding. After singing all the guests are served pink salted tea known as *sheer chai*. The pre-wedding celebrations in Kashmiri matrimony involve a ritual where both the houses are cleansed completely to make it holy and this ritual is known as *Livun*. Then a married woman from groom's side or the elder one from bride side makes var for its relatives and neighbors. Var is a dish made of ghee and is garnished with lots of almonds, cardamom and other dry fruits and is served with kulchas (crispy naan). Then big celebrations start with performing the ritual of *Maanziraat* which is the Henna ceremony that takes place one (1) day before the wedding ceremony, almonds have the main importance during *mahndiraat*. Before this ceremony, *krool khanun* ritual is followed where the doors of the house of both the bride and the groom are decorated elaborately after which the bride goes for a bath and her aunt applies mehndi or henna on her palm and feet. The exchange of gifts continues during this time where the bride's mother sends 4-5 large plates filled with sweets, dry fruits especially almond, khajur, ghee and other things to the groom's house which she distributes later into their close relatives. After this, the phoolon ka gehna i.e. trousseau package is sent from the groom's side for the bride that includes a ring, wedding dress printed with design of almonds, head band quite often the hands of bride is decorated with design of almonds, flower jewelry which she wears at the time of her wedding. The production of almond in the State is confined to three districts of the valley viz, Pulwama, Budgam and Ananthnag. However, in Jammu division almond cultivation is found in a limited scale in Doda district only. In two districts of the valley namely Pulwama and Budgam, the almond cultivation is found on a large scale as these have suitable land for temperate fruits. Almond being state's main fruit has predominant position both in area under plantation and production. Apart from its profitability criteria the corporation will bring the horticulture industry of Jammu and Kashmir to an appreciable standard by the introduction of latest technological devices. This would provide export outlets for the quality fruits of Kashmir besides making them available to the local consumers in rest of the country. This step would revolutionize the economic condition of the thousands of growers who in turn may increase the employment rate in J & K. Efficient marketing needs development and adoption of suitable packaging. A scientifically developed packaging technique will go a long way in maintaining the quality of products and the goods into motion in the channel of distribution. It is a key to sales promotion which should be skillfully used by the wise businessmen to unlock the store of prosperity in the business. Marketing Channel is scattering the nature of almond markets, the choice of distribution channel has a great bearing on other elements of the marketing mix. To tap successfully and profitably it is highly essential to frame an effective and appropriate distribution network which seriously affects quality of service to the consumer and the selling cost. As such, the distribution of almond produce is a pyramid of fruit growers and consumers. Marketing cannot be conceived in the absence of an efficient transport system. A well knit transport and communication network is a strong lubricant for achieving the marketing goals. Viewed against this background, it is matter of satisfaction to note that the corporation has an ambitious plan for transporting the produce from point of production to the point of consumption. It will also prove a fruitful measure for almond growers.

## RESEARCH METHODOLOGY

### STUDY AREA

The present study was carried out in Pulwama district of Kashmir Valley. Since from the creation of district Shopian, Pulwama district reduces to the geographical area of 1090 sq. km's (Provisional). It is located at 32.88° North latitude and 74.92° East longitude. The district is situated at an average height of 1630 m. (5350 ft.) above the sea level. The administrative centre of the District is situated at Pulwama, 31 kms. from Srinagar. The jurisdiction of Pulwama district reduces to 323 census villages, out of which 8 are uninhabited. As per census of 2011, the total population of the district is 5.70 lac souls, out of which 2.98 lacs are males and 2.72 lacs are females. The literacy rate in the district is 65%, 61.32% in the rural area and 68.76% in the urban areas will literacy among males and females as 75.41% and 53.81% respectively. The average literacy rate of the district is lower than the average literacy rate of the state (i.e., 68.74%) and the country (i.e., 74.04%).

### SITE SELECTION

Kashmir has won great reputation in India and is famous for almond production. The chief centre of almond production is Pulwama; however, other districts are also famous due to the variety of almonds and their contribution to this sector. The district Pulwama's almond is famous due to its taste and is more production/hectare of land as compared to other districts. Mughal road, the famous Shahrah, being developed as an alternative link between Srinagar and Jammu passes through the district.

### SELECTION OF THE TOPIC

The Pulwama district is famous for different varieties of almond production. The almond Growers of Pulwama district is currently facing different types of obstacles to grow almond that may gain foreign exchange. The removal of different types of problems may improve the socio-economic conditions of almond growers in district Pulwama. The current study will raise awareness among farming community, so that they will increase the production and quality of almonds in district Pulwama.

### HYPOTHESIS

"There is a direct link between the almond production and the overall socio-economic status of almond growers in the valley of Kashmir, particularly in district Pulwama". The living conditions of the people in the Pulwama have changed considerably during the last few years. The almond production in Pulwama district is having many constraints that if remove may give boost to almond production in Kashmir valley. The enhancement in almond production will generate a lot of employment, this will reduce unemployment crisis in Pulwama district in one hand and will generate revenue of the State on the other. Further introduction of new techniques in this sector may prove fruitful for the farming community of Pulwama district. However, the reduction in the cultivation of almonds may decrease the employment and may have cultural impact in the valley of Kashmir.

### OBJECTIVES

The study was undertaken with the following objectives:

- To study the cause of shifting of almond cultivation to apple cultivation.
- To study the current trends and value of almonds in Indian market.
- To know the opinions of marginal farmers for rejuvenation of almond industry.

### COLLECTION OF DATA

Random sampling technique was used to identify four villages of district Pulwama. From these villages family head was interviewed and pretested questionnaire was administered. The questionnaire was translated in Kashmiri language, and their responses were noted. For the present investigation 12% of the people were surveyed. The data for the study was collected by survey method. For the purpose of the study, data and other information have been collected from primary as well as secondary sources. Primary data regarding production, marketing channels and functions, cost and almond price was obtained from almond growers as well as district horticulture office. Later, primary and secondary data were pooled together for detailed analysis. Primarily 50 orchards were collected randomly from five purposively selected village's viz., Panzgam, Chakoora, Palpora (Nownagri), Koil and Payar of Pulwama district of Jammu and Kashmir.

### STATISTICAL ANALYSIS

The results obtained from the study were subjected to statistical analysis by using mean, percentage, standard error, and SPSS, were followed throughout the study to draw certain results.

### RESULTS

**Agriculture land:** The total land under agriculture is 1741 Kanals in district Pulwama, in which 45.43% of land is under irrigation. From the total agricultural land, 44.93% is under almost orchards. Due to the various problems the almond orchards has been converted into apple orchards. 53.89% of almond orchards have been converted into apple orchards.

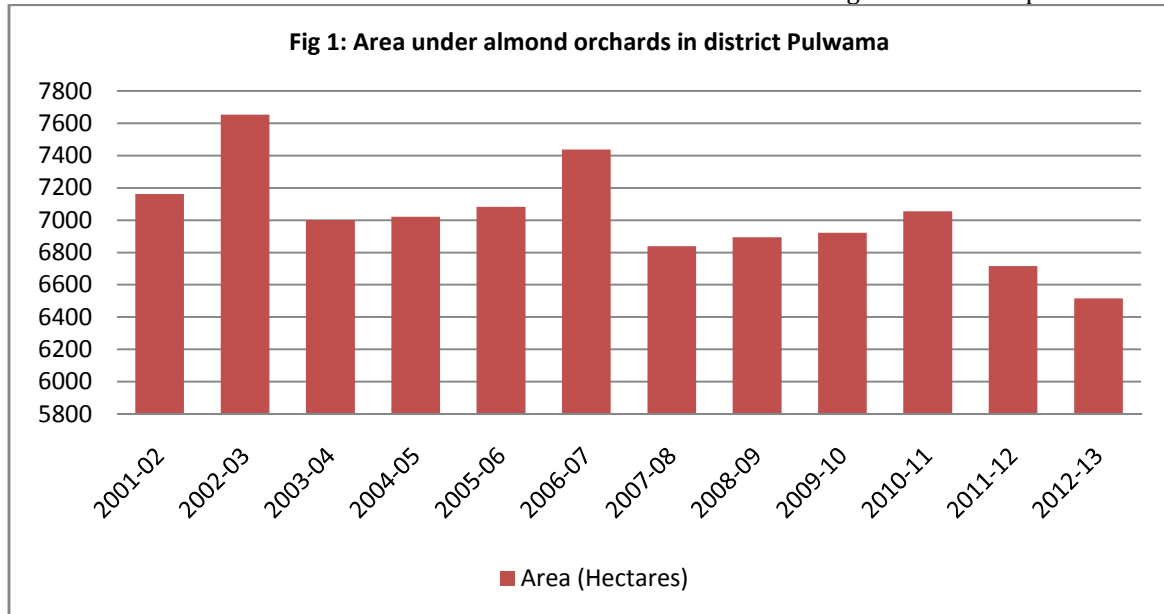
#### Land under agriculture in Jammu and Kashmir

S. No	Land under agriculture and irrigation	Area	Percentage
1.	Total land under Agriculture	1741	1741
2.	Land under irrigation	791	45.43
3.	Total percentage of land that is under almond cultivation	4493.67	44.93
4.	Percentage of land has been converted into apple orchards	5389.18	53.89

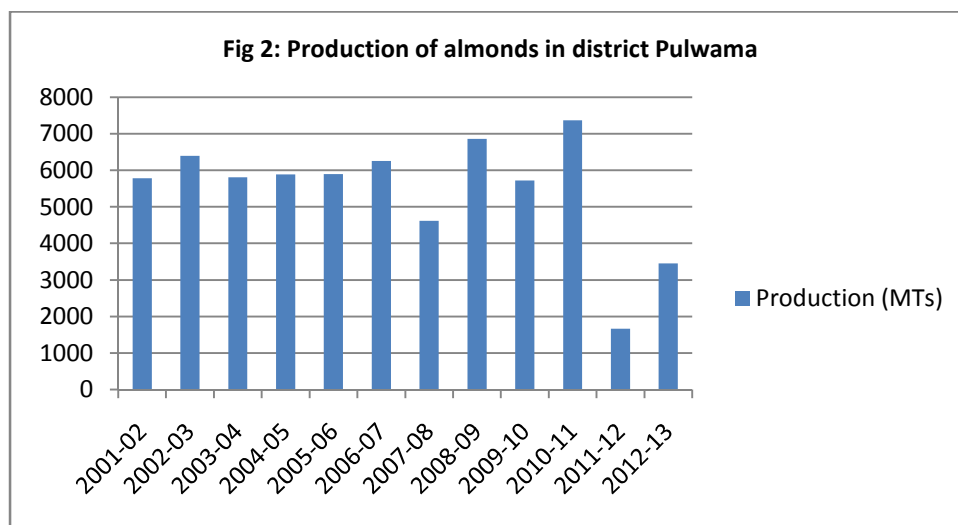
### Source: Field Work 2013

**Area of almonds:** During the year 2001-02 horticulture department has covered an area of 7162 hectares. It increased to 7055 hectares during the year 2010-11. But it declines to 6515 hectares in the

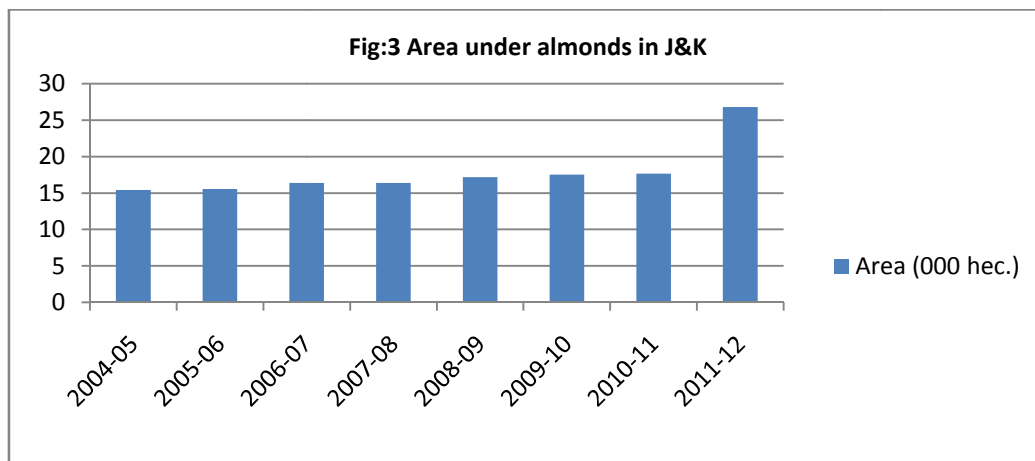
year 2012-13. Thus, we should increase the area of almonds year after year, this will increase the production of almonds and hence the Socio-economic conditions of almond growers will improve.



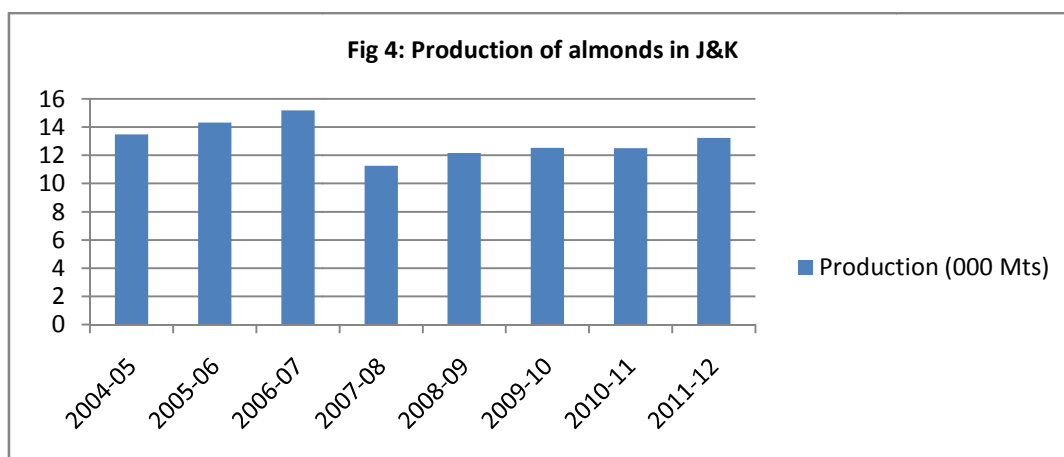
**Production of almonds:** It is clear from the figure that the production of almonds in district Pulwama is increasing at a rapid rate. The almond production in the year 2001-02 was 5780 MTs and in the year 2010-11, it reached to 7365 MTs. But during the last two years, it declines to 3453 MTs in the year 2012-13.



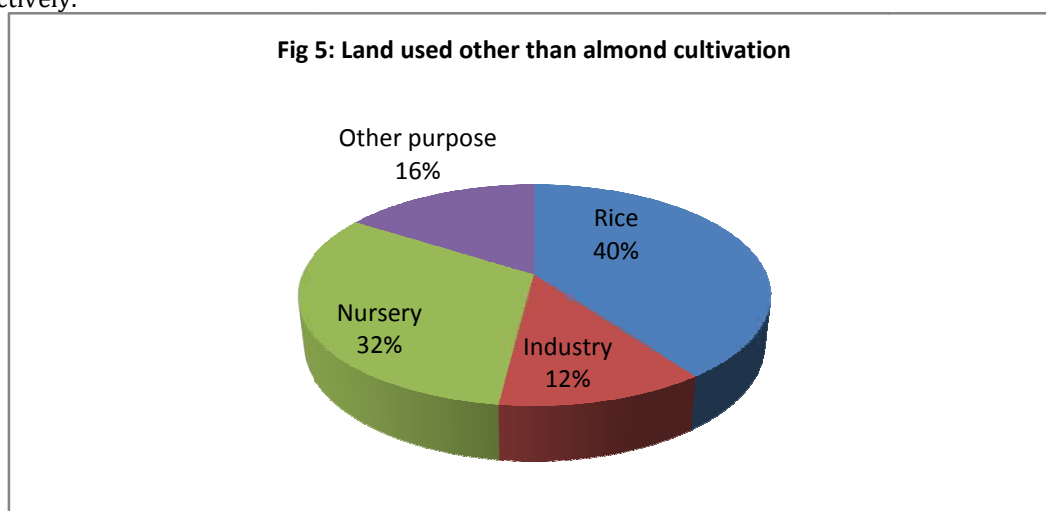
**Area of almonds:** During the year 2004-05, the total area under almonds was 15.43 thousand hectares. It increased to 26.79 thousand hectares in the year 2011-12. Thus, increase in the area of almonds year after year increases the production of almonds and hence the socio-economic conditions of almond growers will improve.



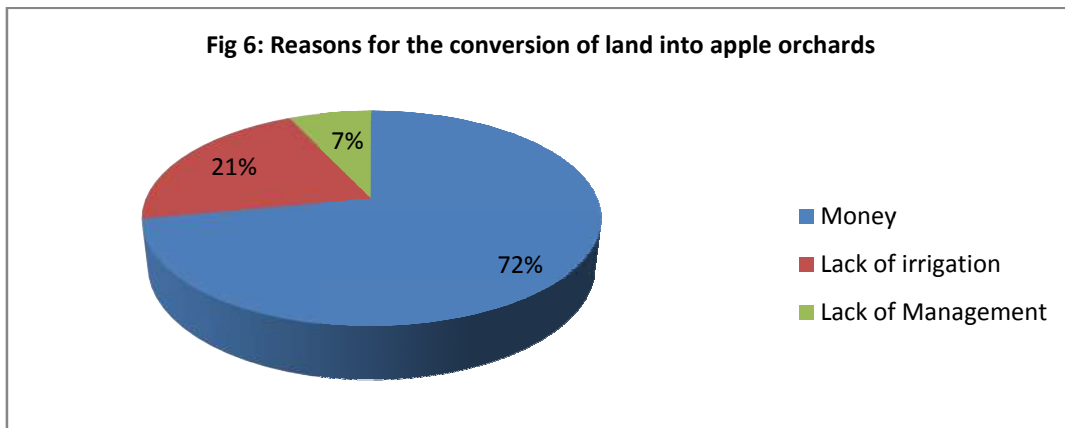
**Production of almonds:** It is clearly shown in the figure that the production of almonds in J&K is increasing at a fast rate. The almond production in J&K in the year 2004-05 was 13.47 thousand Mts. it increased to 13.24 thousand Mts. in the year 2011-12.



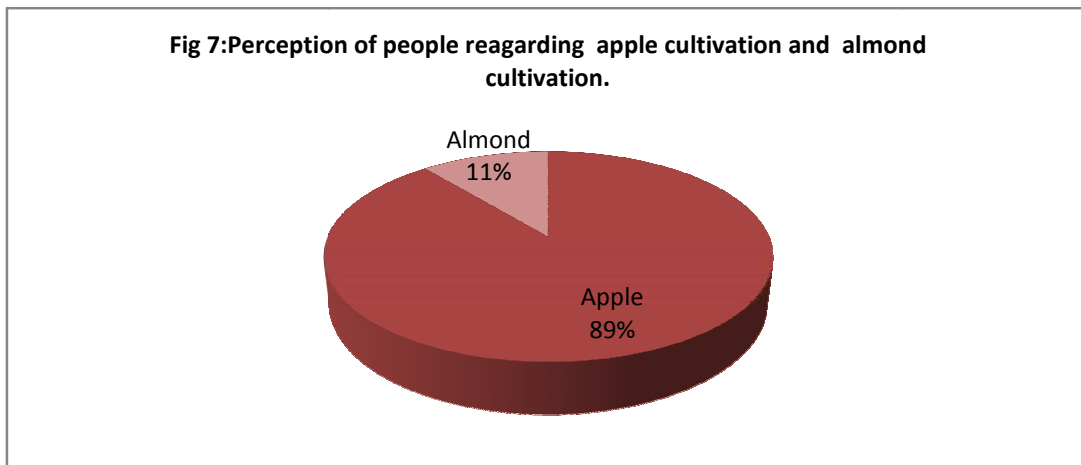
**Land Usage:** It has been found that the farmer used their land for various purposes other than almond orchards. 40%, 32%, 12% and 16% of land has been used for rice, Nursery, Industry and other purposes respectively.



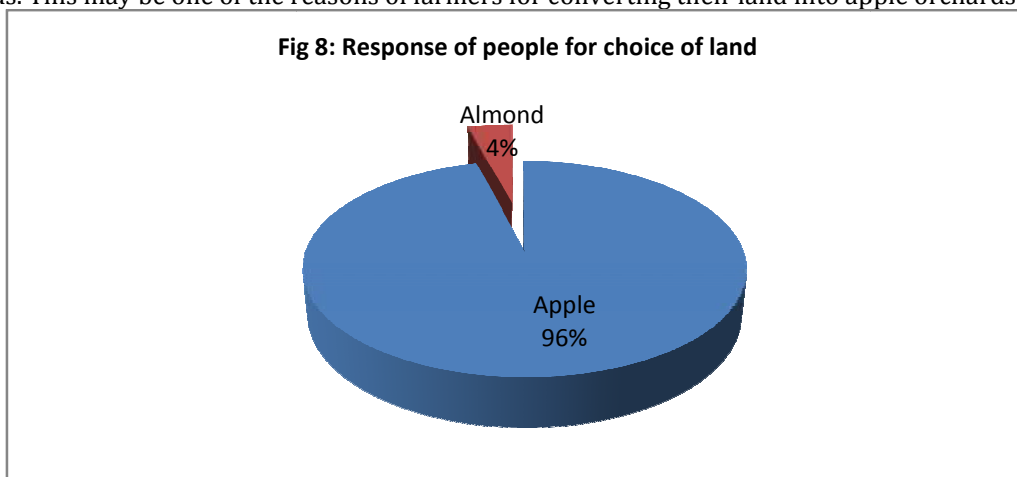
**Reasons for Conversion:** The almond growers face various problems due to which they have shifted their almond orchards into apple orchards. 72% of almond growers shifted their land due to money, 21% of almond growers due to lack of irrigation and 7% of almond growers due to lack of management.



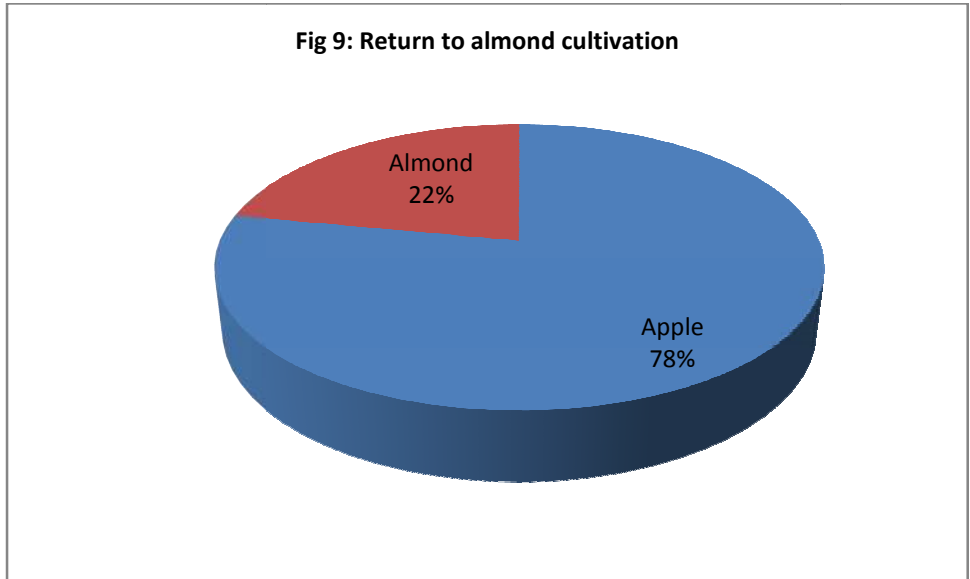
**Apple in relation to Almond Cultivation:** It has been found that 89% of apple growers said that apple orchards are better than almond orchards because they get better price in the national market of apples than almonds.



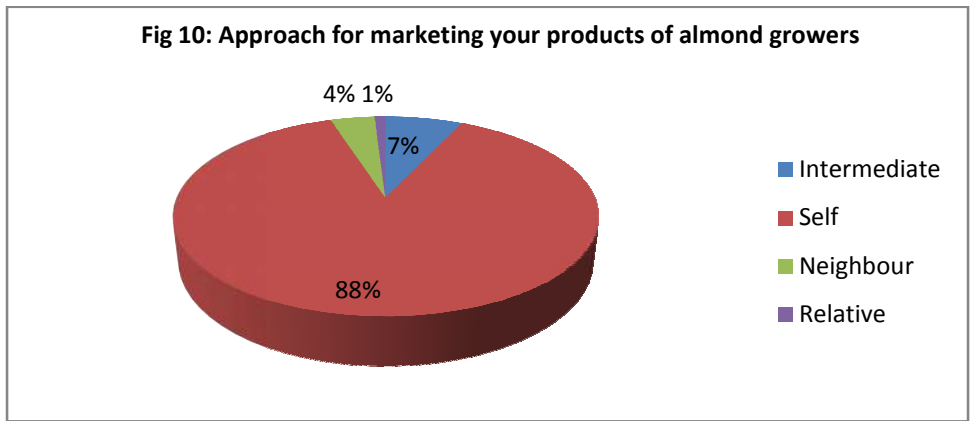
**Choice of Land:** About 96% of farmers said that their land is best suited for the cultivation of apple orchards. This may be one of the reasons of farmers for converting their land into apple orchards.



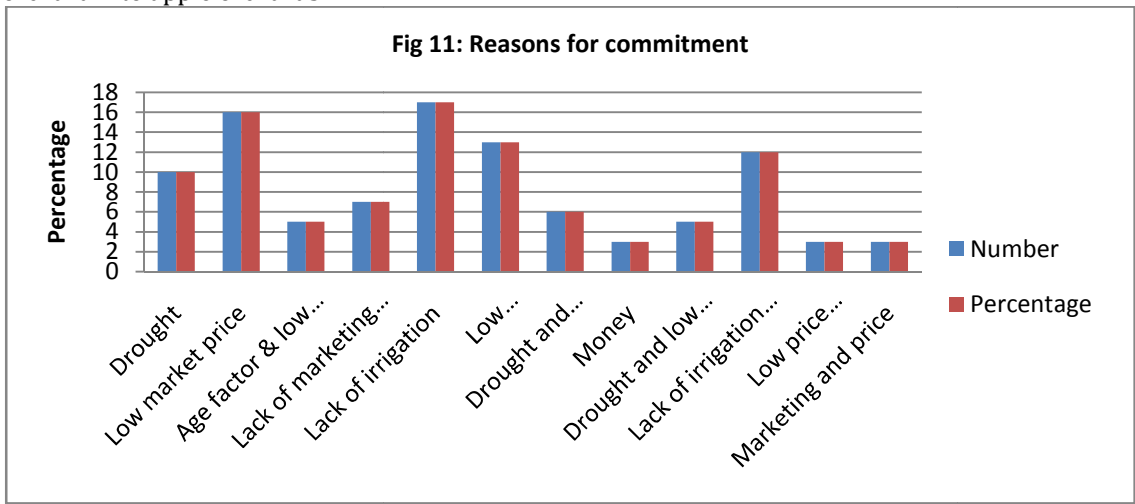
**Return to almond cultivation:** Only 22% of growers are ready to shift back from apple to almond if the govt. will provide all the facilities required for almond orchards, while the rest 78% of growers think that it takes long time for conversion of land. They now gets better price on apples in national market than almonds and the trees are grown up.



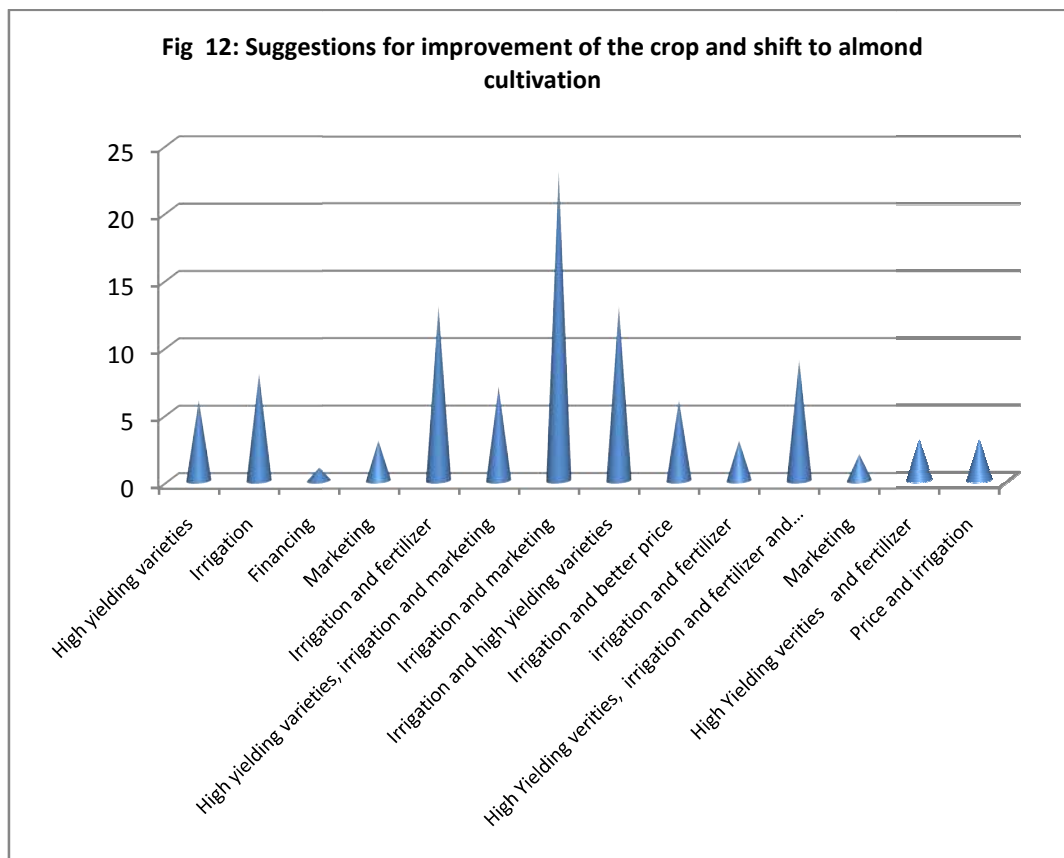
**Marketing Channels:** It has been found that 88% of the almond growers sell their almonds through directly, 7% by middleman, 4% by the neighbor and 1% through relatives.



**Reasons for commitment:** It has been found that the conversion of land has various reasons. About 17% of almond growers said that it is due to lack of irrigation, 16% of growers said that it is due to low market price of almonds, 13% of growers due to low price, irrigation and marketing problems and so on. Thus, there are various problems faced by almond growers that they get compelled to convert their almond orchard into apple orchards.



**Suggestions for shifting back:** To boost the almond orchards, farmers demanded various facilities so that they can shift back into almond orchards. About 23% of almond growers said that to get better irrigation and better marketing facilities. About 13% of almond growers demanded to get better irrigation and high-yielding varieties, 8% of almond growers to get better irrigation facilities. Thus, the almond growers face various obstacles due to which they get compelled to shift from almond to apple orchards. If they get all facilities, they definitely shift back; otherwise almonds will disappear from the list of horticulture industry. Thus, they should get all facilities to review the almond industry so that this crop will grow as it was over the years.



## DISCUSSION

The **Jammu and Kashmir Economy** depends mostly on traditional form of occupation. Unaffected and unaltered by modern day industrial developments and changing times, the indigenous traditional occupations of **farming, animal husbandry and horticulture** forms the backbone of the economy of the state of Jammu and Kashmir. A state affected by continued violence and insurgency, the economy of Jammu and Kashmir is an undeveloped one. However in the recent years, the government of Jammu and Kashmir has taken several significant steps to strengthen the financial condition of the state and improve the standard of living of the indigenous local inhabitants.

The other important economic activity of Jammu and Kashmir is horticulture. Horticulture is one of the budding industries of the state that earns large revenue. The favorable weather helps in the production of many kinds of fruits. The state government of Jammu and Kashmir has turned its attention to the various infrastructural amenities of the region. Roads, power, health, primary education and water supply are some of the important areas that need the urgent attention of the state government so that almond production will get boost in the State.

It has been found that 88% of the almond growers sell their almonds through directly, 7% by middle man, 4% by neighbour and 1% by the help of relatives. It usually depends on the productivity of the almonds. According to the state's horticulture department, around 1.5 million tonnes of almonds are produced in Kashmir annually.

The production of almonds in the state is growing every year as a result the percentage share of Jammu & Kashmir in national production has also been increasing steadily; but decline during the last 3 years. It has increased from 13.47 thousand mts. In 2004-05 to 15.18 thousand mts. in 2006-07; but in the year 2010-11



it declines to 12.51 thousand mts. It has been found by us that most of the farmers (50%) are dependent on inorganic fertilizers for almond cultivation in Pulwama. However, 30 % and 20% farmers are using biofertilizers and organic manure in their fields.

The different varieties of almonds grown here include Shalimar, Makhdoom, Waris, and Merced. Experts also feel that these varieties of almonds would help in business revival. Scientists at Sher-e-Kashmir Agricultural University here claim to have developed these varieties, are resistant to diseases. However, the newly developed varieties have not been introduced in the market yet.

According to estimates, around 60% tonnes of almond are ruined every year in the valley. There are many reasons for this. Diseases like insects, fungal pathogens, plant viruses and bacteria are spoiling the crop and growers are unable to do much to stem the rot. Farmers allege that spurious fungicides, pesticides and fertilizer are being supplied to them at exorbitant rates.

The operation of present marketing system of almond trade in the State warrants a total restructure. It should be carried on in accordance with the modern marketing concepts in order to be commercially viable and profitable to the grower, besides being useful to the consumer. This calls for immediate plan of action for putting the marketing system on sound footing.

The Pulwama district is famous for different varieties of almond production. The almond growers of the district are currently facing different types of obstacles to grow almonds that may gain foreign exchange. The removal of different types of problems may improve the socio-economic conditions of almond growers in Pulwama. The current study will raise awareness among farming community, so that they will increase the productivity and quality of almonds in district Pulwama.

To conclude, the dwindling of almonds in the Kashmir valley may change the scenario of the almond growers in the valley. The immediate effect of the dwindling of these trees from the map of Kashmir may change the structure of the horticulture industry of the valley. This may also reduce the employment structure and GDP of the valley of Kashmir. However, it is not possible that all the farmers may shift towards the apple industry, few may have different things in their mind viz, converting their land into small scale industrial sector may cause other types of related problems in the area. It is very important to mention over here that dwindling of almonds field in the valley may also change the landscape of the area. This will also have effect on the cultural diversity as mentioned in the earlier chapters.

#### **SUGGESTIONS:**

The socio-economic conditions of the almond growers in district Pulwama will be increased if the quality of the almond will be improved, this in turn will raise the quantity of almond production and hence remove all the problems that farming community is currently facing. The following suggestions have to be followed to raise the socio-economic conditions of almond growers in district Pulwama:

##### **1. Enhancement of Grading and Quality Control Act**

Grading and quality control Act should be executed which should include establishment of grade specification and enforcement of grading programs, operation of inspection systems and control laboratories. At the same time, grading should be carried out in accordance with the best mechanical devices. To ensure, properly graded and quality fruit to the export markets, state grade and quality certification must be required for exports of fruits from the state. Various laboratories must be established at various production centers in the state which should analyze the sample drawn from all shipments of fruits destined for export. Upon such analysis a certificate must be issued to the exporter indicating a certificate must be issued to the exporter indicating the grade of fruit product and a detailed analysis of the product. Each almond packet must contain label indicating such analysis. Each exporter must be charged with a nominal fee for such services in order to make it self-supporting scheme.

The fruit producers and traders must be educated about the practical value of regulations in order to make successful enforcement of such programs possible.

##### **2. Economic Packing System**

An economic packing system for almond should be developed and made easily available for marginal growers of the State. The following particulars should be marked on fruit box so that consumer knows what he buys, howmuch he buys and so on.

- a. Kind and variety of almond ;
- b. Grading mark and
- c. Net weight when packed.

##### **3. Establishment of Horticulture Marketing Training Institute**

A Horticulture Marketing Training Institute should be established for training and education of personnel engaged in various activities of marketing viz., packing, grading, standardization etc.

#### **4. Improved Marketing Channel**

Efforts should be made to ignore the influence of commission and forwarding agents on almond trade and to establish such a distribution system of fruit as would ensure direct sale to the consumer. This type of marketing channel will be remunerative.

#### **5. Improvement in Transport Facility**

If the almond industry is to be properly developed from all angles, the available transport facilities of every mode have to be improved and expanded suitably. In this context the State Government should adopt the following measures:

- a) Top priority for the construction of all weather feeder roads in almond producing areas for facilitating the movement of almond produce ;
- b) Introduction of the railway transport system within the valley which will reduce the time element from Sopore to Jammu and save time and money to a greater extent ;
- c) Redesigning of load carriers so as to dispense with the existing practice of packing the almond in wooden boxes ;
- d) Liberalization in the issue of licenses to cooperative marketing societies ; and
- e) Advancing loans to marketing societies for purchase of load carriers for transport of almond produce.

#### **6. Financial Facilities to the poor Growers**

All State financial agencies should provide loans to basic and poor growers on low interest against their produce. This facility will minimize the practice of supplying interest free finance to the growers by the commission agents and then cheating them by charging abnormally high commission.

#### **7. Outright Purchases**

The concerned State agencies should emerge as big buyers of the almond produce. This system would shift the marketing risk of the produce from the basic grower to these state agencies. As a consequence growers will prefer to sell their produce to the State agencies, which will be fruitful both for growers and the State

#### **8. Establishment of Marketing Information and news Service**

Market information centers should be established which will provide the almond growers and trader's day to day knowledge and information about the happenings and trends prevailing in the various marketing centers in and outside the State. Such a facility will help the growers/traders to decide about future market strategy.

#### **9. Educating the Growers**

Adequate arrangements should be made for imparting training and education to the growers so as to equip them to face the marketing challenges. Growers should be trained in the art of bargaining, selling, price fixation and so on.

#### **10. Promotion of Cooperative Marketing**

The need of hour is to organize the growers within the fold of cooperatives. All the cooperative societies thus formed should be put under the umbrella of a federation or an apex institution. This system of marketing will increase the price, decrease in marketing cost, remove various malpractices and trade abuses, and increase bargaining power of the growers.

#### **11. Establishment of Marketing Research Centers**

The State should set up a large and full-fledged marketing research centre which will be capable of conducting extensive market surveys for exploring new markets and developing existing market both within and outside the State. Such a centre should be a signed with the role of undertakes the following tasks:

- a) Investigate the demand for new market facilities and draw up plans and specifications ;
- b) Conduct research in the marketing of important almond products with a view to developing more efficient methods and organization ;
- c) Study grades and standards that might be put into practice under grading and standardization law ;
- d) Investigate the packing and transport of almond products, recommended improvements and develop container standards ;
- e) Compile and arrange for the publication of various marketing statistics such as stocks of almonds, quality of almonds according to size, taste etc., at regular intervals and issue the latest bulletin regarding demand and other market trends ; and
- f) Compile reports of market prices and disseminate the same to the growers through radio, newspapers and other media.

In addition to this arrangements should be made to ensure that a sufficient number of promising students specialized in marketing at the advanced University level within or outside the State, and to attract them to such work when their training is complete.

### **12. Establishment of Processing Units at large scale**

The almond processing units/centers should be established at large scale in the State so that 30 percent wasted produce may be utilized in better and economical way. At the same time State should make efforts to remove various obstacles coming in the way of these centers/units.

### **13. Public Commission Agents**

State Government should circulate a list of public commission agents for disposal of produce at the export marketing centers at every harvest season. The growers should be directed to approach these agents for the sale of their produce.

### **14. Intervention of State Trading Corporation**

The State trading Corporation should take responsibility for the marketing of almond produce of the State in a big way. This may prove to be helpful marketing institutions in raising the bargaining power and income of grower, reducing marketing costs, and in reducing the influence of commission agents at export marketing centers.

### **15. Organized selling System**

To keep the growers satisfied with fruit returns, government should declare the present system of auction namely Hatha/Parda system as illegal. Efforts should be made for the elimination of this disorganized system of marketing of almond produce.

### **16. Organized Producers Organization**

The wholesale buyers at export market centers generally form organized organization and thus deprive the growers/producers of their due share in the consumer's rupee. Hence it would be fruitful that growers should also form such organization to increase their bargaining power.

### **17. Marketing fellowships**

State Government should give fellowships to young growers/traders to study marketing methods and administration in the advanced institutions of learning.

### **18. Marketing meeting and Training**

Government may recommend personnel/growers to attend specialized horticulture meetings and training course arranged to meet the marketing needs of horticulture sector.

### **19. Provision of Technical Experts**

The services of horticulture marketing specialists should be offered from other parts of the country to work for some time in a particular area, to analyze problems on this subject and make recommendations to the State in the light of current conditions.

### **20. Advertising and Publicity**

Advertising and publicity media should be expanded within and outside the country. It is strongly suggested that there should be an international campaign launched by the various concerned State agencies by creating an agency with foreign market association and organization. Attracting hoarding should be placed at key centers of the principal cities. Over and above the suggestions given in the foregoing pages, the scholar feels that attention should also be focused on removing the production defects by adopting the following measures:

#### **Layout**

Due consideration should be given to the scientific principles of orchard layout in future plantation. For the development in the layout of existing orchards, efforts should be made to develop such a system which can make possible the proper layout of them.

#### **Research Laboratories**

Horticulture Research laboratories should be established in every Tehsil of the State so that control on pests and diseases may become possible.

#### **Exhibition – cum – Demonstration centers/plots**

Classes at mass scale may be conducted by various horticulture departments and institutions in fruit growing areas, where almond growers may be informed about the latest horticulture technology. For this purpose demonstration plots should be set up in fruit producing areas.

#### **Publicity and Advertisement Campaign**

A rigorous advertisement campaign should be launched to inform growers about the proper use and relative benefits of fertilizers, so that the habit of use of fertilizers may be developed in the growers.

#### **Financial Facilities**

The rural financial lending institutions should allow the marginal growers to take loans without any mortgage so that they are able to bear various pre-harvest expenses which include purchase of medicines, fertilizers, modern implements for fruits cultivation etc.

#### **Modern Techniques of Irrigation**

To meet the present requirement of irrigation all methods of irrigation i.e., wells, ditches, storage ponds and river canals etc. should be developed and extended. Merely by extended application of one particular method of irrigation cannot meet the requirement and demands of irrigation.

#### **Crop Insurance Scheme**

To save the almond production from various pre-harvest risks/damages crop insurance scheme may be executed. These are the secret proposals for the healthy operation of the marketing system and for the economic development of almond industry. Therefore, it becomes obligatory on the part of growers and horticulture agencies as well as on the Government to go for these suggestions to correct deficiencies in the existing marketing system/operation of the almond industry. The suggestions, if implemented properly would prove a gate way to the future prosperity of the industry.

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