Original Research Article

An analysis of Socio-personal characteristics of apple growers and their attitude towards apple cultivation in district Shopian of J&K

Abstract: The present study was conducted in district Shopian of Jammu and Kashmir with sample size of 180 respondents. The district Shopian was purposively selected, because of the potentiality for the development of horticulture, mainly because 90 per cent90% area of the district was under apple plantationcultivation. The data wereas collected from the three different altitudes viz- low, medium and high altitudes. Different socio-personal characteristics viz- age, experience, education, family education, family type, family size, innovative proneness were studied from different altitudes. Attitude of the apple growers was also studied and it has been revealed that most of the apple growers from all the three altitudes were having neutral attitude towards apple cultivation.

Keywords: Altitude, apple cultivation, attitude, Kashmir, Shopian.

Introduction:

Agricultural as well as horticultural sector is considered as one of the effective factor in economic development of India. Achieving food and nutritional security is possible only by making use of new technologies in farm land. Today in most parts of the world, due to limited land and water resources, increase in production and quality food is hardly possible unless need based effective techniques in production system are adopted by the farmers.In the state of Jammu and Kashmir, Kashmir valley is endowed with congenial agro-climatic conditions for a wide range of horticultural crops. The growth in area and production of horticultural crops like peach, pear, plum, and apple, is quite impressive. Jammu and Kashmir is rightly known as an apple state of India, contributing 4,200 crore to the state GDP (Anonymous, 2013).

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Apple is one of the most widely cultivated tree fruits. The apple is the fourth widely produced fruit in the world after banana, orange and grapes. India is ranked as the sixth largest world's apple producing country and second largest country in area (Deodhar*et al*,2006).As far as apple production is considered, it accounts for 51 % of total area of 2.72 lac hectares under all temperate fruits grown in this state. The annual apple production in the state is 13.73 lac. Metric tonnes (Anonymous, 2009). Average yield of apple cultivars per

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unit area of state is highest in the country ranging between 10-12 tonnes/ha, still the yield is poor as compared to 20-30 tonnes/ha grown in horticulturally advanced countries of the world. Climate and other agro-ecological factors of Kashmir are ideally suited to the cultivation of many varieties. However it has been found that the socio-economic characters of the farmers greatly affect the farming community and hence production and productivity. Patalia (1991) conducted a study on mango cultivation in Parabhani district of Maharashtra state and reported that, majority of the farmers (54.17 per cent) were cultivating mango since last ten years whereas 28.67 per cent of farmers had ten to twenty years of farming experience.Saravanakumar (1996) in his study revealed that majority (51.67%) of the mango growers never contacted Assistant Agricultural Officer, whereas, 42.50 per cent of the farmers had regular contact with village administrative officers and 50.83 per cent contacted Agricultural Officers occasionally.Kumar (1998) in his study on knowledge, adoption and economic performance of banana growers in Bangalore rural district revealed that 46 per cent of banana growers possessed less than 12.63 acres of land, 27 per cent of them possessed from 12.63 to 15.08 acres and 27 per cent possessed more than 15 acres of land. He further reported that 40.00 per cent of the banana growers had low innovative proneness.Nagoormeeran and Jayaseelan (1999) in their study in South Arcot district of Tamil Nadu state on shrimp farmers found that majority of the farmers received education upto high school (42.00%), followed by pre-university (22.00%) and middle school (16.00%). Angadi (1999) in his study in Bagalkot district of Karnataka state reported that majority (65.00%) of the pomegranate growers were in the middle age group (35 to 50 years). The farmers below 35 years of age were 18.75 per cent, while 16.25 per cent belonged to old age group.Birajdar (1999) stated that almost three fourth of total grape growers (74.88%) belonged to middle age category. Whereas, 14.37 and 11.25 per cent of farmers belonged to old age and young age categories, respectively. Raut (2006) conducted a study in Nagpur district of Maharashtra and indicated that more than half of the orange growers (53.33%) were middle aged, followed by old (30.00%) and young age (16.67%) group. Gotyal (2007) inferred that 42.50 per cent of the grape growers belonged to old age category, followed by middle age (39.00%) and young age (18.50%) group. Patil (2008) conducted a study on constraints analysis of grape exporting farmers of Nasik and Sangli districts in Maharashtra state and revealed that grape growers had been spread in all the three age groups viz., young age (36.00%), middle age (34.00%) and old age (30.00%) category. Hinge (2009) in his study stated that more than 60.00 per cent of wine grape growers belonged to middle age category. Whereas, 23.12 and 15.00 per cent belonged to old age and young age categories,

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respectively. Kiran (2003) in a study on technological gap and constraints in adoption of recommended practices of mango growers reported that nearly half (49.00%)of the respondents had medium experience in mango cultivation while remaining 26.00 per cent and 25.00 per cent of the respondents had low and high experience in the mango cultivation respectively. On an average the respondents had 19.28 years of experience in mango cultivation. Ramanna*et al.* (2000) revealed that 70.00 per cent of the farmers had medium level extension agency contact and 30.00 per cent of the farmers had high level extension agency contact. Lakshmisha (2000) in his study on impact of cashew demonstrators on knowledge, adoption and yield levels of farmers in Dakshina Kannada district revealed that 50 per cent of the cashew growers had medium social participation, 35 per cent of the cashew growers had high social participation and only 15 per cent of cashew growers had low social participation. Borkar*et al*. (2000) conducted a study on characteristics of farmers influencing their knowledge about use of bio fertilizers and observed that majority (58.67%) of the farmers had knowledge about the use of bio fertilizers to a moderate level followed by 22.67 per cent of them had high level of knowledge and 18.66 per cent of them had low level of knowledge. Palaniswamy and Sriram (2001) in their study found that majority of the farmers (84.35%) had medium level of extension agency contact, followed by 5.45 and 10.20 per cent of the farmers with low and high level of extension agency contact, respectively. Babanna (2002) in his study on arecanut growers in Shimoga district reported that 32.5 per cent of the arecanut growers had high social participation followed by 40 per cent of the growers having medium level and only 27.5 per cent of the growers had low social participation level.Bhople and Borkar (2002) in their study on biofertilizers farmer attitude and adoption observed that majority of the farmers (84.00%) belonged to moderate level of knowledge about different kinds of bio-fertilizers and their associated practices, about one tenth of them were adequately equipped with the knowledge about bio fertilizers and appeared in high knowledge category.Vedamurthy (2002) in his study on the management of areca gardens and marketing pattern preferred by the arecanut farmers of Shimoga district in Karnataka reported that equal per cent (28.66%) of the arecanut growers are large and small arecanut farmers~~. twenty four~~, 24% ~~per cent~~ of the respondents are medium land holding farmers and 18.66 per cent of the farmers are marginal land holders. Sunilkumar (2004) revealed that 40.83 per cent of the farmers belonged to medium extension contact category, followed by 30.00 and 29.16 per cent who belonged to high and low categories of extension contact, in Belgaum district of Karnataka state, respectively.Govinda and Narayana (2006) inferred that considerable percentage of Thompson Seedless grape growers (46.00%) belonged to medium

innovative proneness category. While, a little more than 50.00 per cent of Bangalore Blue grape growers (52.00%) belonged to high innovative proneness category. Saleem*et al* (2010) reported that the actual yield of fruit produced at the farmers' fields is considerably less than that of potential yield of the fruit. One of the major factors causing this huge yield gap was the lack of knowledge, skill and attitude of fruit growers regarding the modern production technology. This deficiency on the part of the fruit growers can be overcome by comprehensive training and extension program for farmers concerning modern fruit production techniques. Ejolle*et al*. (2010) stated training needs of farmers as skill, knowledge and attitude an individual requires in order to overcome the problems as well as to avoid creating problem situation. It is clear that training of the farmers is an essential resource, which will direct knowledge and skill towards crop production.

Research Methodology:

The present study was conducted in the state of Jammu and Kashmir comprising extreme sector of Himalaya's and occupies a central geographical location in the Asian continent. A multistage sampling procedure was adopted for the selection of districts, tehsils, villages and sample respondents. Kashmir valley consists of 10 districts namely Anantnag, Kulgam, Pulwama, Shopian, Srinagar, Bandipora, Baramulla, Budgam, Ganderbal and Kupwara. ~~Among these, district Shopian was selected purposively.~~ District Shopian was purpos~~iv~~ely selected because of the potential~~ity~~ for the development of horticulture, mainly because 90 per cent area of the district was under apple plantation and prevailing agro climatic situations were very good for cultivation of horticultural crops especially fruit crops and apple in particular. The study was conducted in three ~~types of~~ altitudes viz. high altitude, mid altitude and low altitude in the form of strata which were purposively selected. Each strata consisted of three villages which were randomly selected. Accordingly a sample size of twenty farmers from each village was selected randomly, thus making a sample size of sixty respondents from each strata. A sample size of 180 respondents from all the three strata's was included in the study based on the total respondents engaged with apple cultivation.The mean and standard deviation of all the respondents' were computed for classifying them in different categories.

Socio-personal characters:

1. Age

The data presented in the table 1 reveals that in low altitude, 35 per cent of the apple growers were middle aged in the age group of 29-56 years, followed by 33.44 per cent, who were old (above 56 years) and 31.66 per cent of the apple growers were young, who belonged

to the age group of 18 to 28 years. It indicates that in the lower altitude, majority of the apple growers (35%) were middle aged, in the age group of 29-56 years. While in mid altitude, 41.66 per cent of apple growers were middle aged , in the age group of 29-56, followed by young (30 per cent) belonging to the age group of 18-28 years and 28.44 per cent of the old aged apple growers (above 56 years). It indicates that in the mid altitude, majority of the apple growers (41.66%) were middle aged in the age group of 29-56. In case of high altitude, the data reveals that 50 per cent of the apple growers were middle aged in the age group of 29-56 years, followed by 26.66 per cent, who were old aged above 56 years and 23.44 per cent of the apple growers were young in the age group of 18 to 28 years. So it is evident that majority of the apple growers (50%) were middle aged in the age group of 29-56 years as shown in ~~(fig~~ Fig 3~~)~~.

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2. Experience

The data presented in the table 2 reveals that in low altitude, majority 43.44 per cent of the apple growers were having low experience upto 10 years regarding apple cultivation, followed by 31.66 per cent, who had high experience greater than 31 years and 25 per cent of the apple growers were having medium experience in the range of 11-30 years. It indicates that in the low altitude, majority of the apple growers (43.44%) were having low experience regarding apple cultivation. While in case of mid altitude 40 per cent of the apple growers were having low experience upto 10 years of apple cultivation, followed by 35 per cent, who had medium level of experience in the range of 11-30 years and 25 per cent of the apple growers, were having high experience more than 31 years. It indicates that in the mid altitude, majority of the apple growers (40%) were having low experience regarding apple cultivation. In high altitude 43.33 per cent of the apple growers were having low experience upto 10 years regarding apple cultivation, followed by 38.33 per cent, who had medium experience in the range of 11-30 years and 18.33 per cent of the apple growers were having high experience more than 31 years in apple cultivation. It indicates that in all the three altitudes, majority of the apple growers were having low experience regarding apple cultivation as shown in ~~(~~Fig 4~~)~~.

3. Education

The data presented in the table 3 reveals that in low altitude majority of the apple growers 21.66 per cent were illiterate, followed by 16.66 per cent of apple growers, who had their education up to matric and graduate, 15 per cent of apple growers, had their education up to twelfth, 13.33 per cent of apple growers, had their education up to primary, 10 per cent of the apple growers, had their education up to middle, and 6.66 per cent of the apple growers

were above graduate. In mid altitude majority of the apple growers 31.66 per cent were illiterate, followed by 16.66 per cent of the apple growers, had their education up to middle, 13.33 per cent of apple growers, had their education up to twelfth and graduate 11.66 per cent of apple growers, had their education up to primary and matric, and 1.66 per cent of the apple growers were above graduate. In case of high altitude majority of the apple growers 40 per cent were illiterate, followed by 20 per cent of the apple growers, who had their education up to middle, 16.66 per cent of apple growers, had their education up to matric, 15 per cent of apple growers, had their education up to twelfth, 08.33 per cent of apple growers, who had their education up to primary, however none of the apple growers was graduate as shown in F(~~f~~ig 5~~)~~.

4. Family Education

It is evident from the data presented in the table 4 that in low altitude majority of the apple growers 40 per cent were having high level of family education, followed by 31.66 per cent of apple growers, who were having medium level of family education and 28.44 per cent of the apple growers were having low level of family education. Where as in case of mid altitude, majority of the apple growers 41.66 per cent were having medium level of family education, followed by 33.44 per cent of apple growers, who were having low level of family education and 25 per cent of the apple growers were having high level of family education. In high altitude majority 40 per cent of the apple growers were having low level of family education, followed by 36.66 per cent of apple growers, who were having medium level of family education and 23.44 per cent of the apple growers were having high level of family education as shown in F(~~f~~ig 6~~)~~.

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5. Family type

The data presented in the table 5 reveals that in low altitude, maximum 61.66 per cent of the apple growers belonged to nuclear family, followed by 28.44 per cent of the apple growers, who belonged to joint family and minimum of 10 per cent of the apple growers belonged to extended family. While as in case of mid altitude, 41.66 per cent of the apple growers belonged to nuclear family, followed by 40 per cent of the apple growers, who belonged to joint family and 11 per cent of the apple growers belonged to extended family. In case of high altitude, 50 per cent of the apple growers belonged to joint family, followed by 26.66 per cent of the apple growers, who belonged to extended family and least 23.44 per cent of the apple growers belonged to nuclear family.

6. Family size

It is evident from the data presented in the table 6 that in low altitude, maximum 60 per cent of the apple growers were having small family size, upto 5 members, followed by 30 per cent of the apple growers, who were having medium family size of five-ten members and minimum of 10 per cent of the apple growers were having large family size, of more than ten members. In mid altitude, maximum 38.44 per cent of the apple growers were having small family size, upto 5 members, followed by 35 per cent of the apple growers, who were having medium family size, of five to ten members and minimum of 26.66 per cent of the apple growers were having large family size, with family members above ten. In contrast to high altitude, maximum 63.44 per cent of the apple growers were having medium family size, of 5-10 members, followed by 21.66 per cent of the apple growers, who were having small family size, up to five members, and minimum of 15 per cent of the apple growers were having large family size, of more than ten members.

7. Land holding

The data presented in the table 7 reveals that in low altitude, 36.66 per cent of the apple growers were marginal farmers having their land holdings below one hectare, followed by 33.44 per cent of the apple growers, who were in small category, having their land holdings above one hectare but less than two hectares, while as 30 per cent of the apple growers belonged to medium category, having their land holdings above two hectares but less than four hectares. In case of mid altitude, 45 per cent of the apple growers belonged to marginal category having their land holdings below one hectare, followed by 36.66 per cent of the apple growers, who belonged to small category, having their land holdings above one hectare but less than two hectares, while as minimum of 18.44 per cent of the apple growers belonged to medium category, having their land holdings above two hectare but less than four hectares. While as in case of high altitude, 56.66 per cent of the apple growers were of marginal category having their land holdings below one hectare, followed by 28.33 per cent of the apple growers, who belonged to small family, having their land holdings above one hectare but less than two hectares, while as minimum of 15 per cent of the apple growers belonged to medium family, having their land holdings above two hectares but less than four hectares.

8. Social participation

The data presented in the table 8 reveals that in low altitude, 81.66 per cent of the apple growers were members of no organization, followed by 18.44 per cent of the apple growers, who were member of one organization only. In case of mid altitude, 86.66 per cent

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of the apple growers were members of no organization, followed by 13.44 per cent of the apple growers, who were member of one organization. IWhere as in case of high altitude, maximum of 96.66 per cent of the apple growers were members of no organization, followed by 3.44 per cent of the apple growers, who were member of one organization.

9. Media exposure

The data presented in the table 9 reveals that in low altitude, 60 per cent of the apple growers were having high level of media exposure, followed by 26.66 per cent of the apple growers, who were having medium level of media exposure, and 13.44 per cent of the apple growers, and were having lowhigh level of media exposure.In case of mid altitude, 36.66 per cent of the apple growers were having medium level of media exposure, followed by 33.44 per cent of the apple growers, who were having low level of media exposure, and 30 per cent of the apple growers, and were having high level of media exposure. IWhere as in case of high altitude, 41.66 per cent of the apple growers were having low level of media exposure, followed by 35 per cent of the apple growers, who were having medium level of media exposure, and 23.44 per cent of the apple growers, and were having high level of media exposure.

10. Innovative proneness

It is evident from the data presented in the table 10 that in low altitude, 38.33 per cent of the apple growers were having medium level of innovation proneness, followed by 33.33 per cent of the apple growers, who were having low level of innovation proneness and 28.44 per cent of the apple growers were having high level of innovation proneness. While in mid altitude, 40 per cent of the apple growers were having low level of innovation proneness, followed by 38.44 per cent of the apple growers, who were having medium level of innovation proneness and 21.66 per cent of the apple growers were having high level of innovation proneness. In case of high altitude, 65 per cent of the apple growers were having low level of innovation proneness, followed by 28.44 per cent of the apple growers, who were having medium level of innovation proneness and 06.66 per cent of the apple growers were having high level of innovation proneness (figFig. 7).

11. Extension contact

The data presented in the table 11 reveals that in low altitude, 60 per cent of the apple growers were having low extension contact, followed by 25 per cent of the apple growers, who were having high extension contact and 15 per cent of the apple growers were having medium extension contact. Where as in case of mid altitude, 68.44 per cent of the apple growers were having low extension contact, followed by 16.66 per cent of the apple growers,

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who were having medium extension contact and 15 per cent of the apple growers were having high extension contact. In case of high altitude, 75 per cent of the apple growers were having low extension contact, followed by 18.44 per cent of the apple growers, who were having medium extension contact and 6.66 per cent of the apple growers were having high extension contact. It indicates that in all ~~the~~ three altitude areas farmers were having low level of extension contact which is indicative of big extension gap.

II. Attitude of farmers towards apple cultivation

The data presented in table 12 reveals that in lower altitude 50 per cent of apple growers had neutral attitude towards apple cultivation, followed by 35 per cent of the apple growers, who had favourable attitude towards apple cultivation and 15 per cent had less favourable attitude towards apple cultivation. ~~Where as in~~In case of middle altitude 41.66 per cent of apple growers had neutral attitude towards apple cultivation, followed by 30 per cent of the apple growers, who had less favourable attitude towards apple cultivation and 28.44 per cent had favourable attitude towards apple cultivation ~~It is evident from the data that in~~In case of upper altitude 40 per cent of apple growers had neutral attitude towards apple cultivation, followed by 33.44 per cent of the apple growers, who had less favourable attitude towards apple cultivation and 26.66 per cent had favourable attitude towards apple cultivation. It indicates that in all ~~the~~ three altitudes i.e. lower altitude, middle altitude and higher altitude, majority of the farmers were having neutral attitude towards apple cultivation.

Table - 1 Distribution of apple growers according to their age, (N=180)

Age group	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Young(18-28)	19	31.66	18	(30)	14	(23.44)
Middle(29-56)	21	35	25	(41.66)	30	(50)
Old(>56)	20	33.44	17	(28.44)	16	(26.66)
Mean ± S.D	42.49 ± 13.90		44.81 ± 16.08		48.08 ± 15.98	
Observed range	18-72		22-75		18-90	

Table - 2 Distribution of apple growers according to their experience, (N=180)

Experience	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Low (Upto 10 years)	26	43.44	24	40	26	43.44
Medium (11-30 years)	15	25	21	35	23	38.33

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High(>30)	19	31.66	15	25	11	18.33
Mean ± S.D	20.1 ± 10.13		21.30 ± 11.07		22.68 ± 10.79	
Observed range	07-40		05-44		04-50	

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296 **Table - 3 Distribution of apple growers according to their education,** (N=180)

Education	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Illiterate	13	21.66	19	31.66	24	40
Primary	08	13.33	07	11.66	05	8.33
Middle	06	10	10	16.66	12	20
Matric	10	16.66	07	11.66	10	16.66
10+2	09	15	08	13.33	09	15
Graduate	10	16.66	08	13.33	00	00
Above graduate	04	6.66	01	1.66	00	00

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298 **Table - 4 Distribution of apple growers according to their family education,** (N=180)

Family education	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Low	17	28.44	20	33.44	24	40
Medium	19	31.66	25	41.66	22	36.66
High	24	40	15	25	14	23.44
Mean ± S.D	2.52± 1.02		2.25 ± 0.87		1.95±0.94	
Observed range	0.42-5.28		0.4-3.62		0.2-3.85	

299

300

301 **Table - 5 Distribution of apple growers according to their family type,** (N=180)

Family type	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Nuclear	37	(61.66)	25	(41.66)	14	(23.44)
Joint	17	(28.44)	24	(40)	30	(50)
Extended	06	10)	11	(18.44)	16	(26.66)

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303 **Table - 6 Distribution of apple growers according to their family size,** (N=180)

Family size	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Small (Upto 5 members)	36	60	23	38.44	13	21.66
Medium (5-10 members)	18	30	21	35	38	63.44
Large (More than 10 Members)	06	10	16	26.66	09	15

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Comment [G16]: What are the table and the text for all unclear pa

Comment [G17]: You mean up 5 members belongs to the next cat

Table - 7 Distribution of apple growers according to their land holding, (N=180)

Land holding	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Marginal (Less than 1 ha)	22	36.66	27	45	34	56.66
Small (1-2 ha)	20	33.44	22	36.66	17	28.33
Medium (2-4 ha)	18	30	11	18.44	09	15

Comment [G18]: Again someb where does he belong?

Table - 8: Distribution of apple growers according to their social participation, (N=180)

Social Participation	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Member of no organization	49	81.66	52	86.66	58	96.66
Member of one organization	11	18.44	08	13.44	02	3.44
Member of more than one organization	00	00	00	00	00	00
Organization office bearer	00	00	00	00	00	00
Wide Public Leader	00	00	00	00	00	00

Table - 9 Distribution of apple growers according to their media exposure, (N=180)

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Extent of Media exposure	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Low	8	13.44	20	33.44	25	41.66
Medium	16	26.66	22	36.66	21	35
High	36	60.00	18	30	14	23.44
Mean ± S.D	8.36±3.04		6.91±3.62		6.13±3.04	
Observed range	01-12		0-12		0-12	

Comment [G20]: The mean of

Table- 10 Distribution of apple growers according to their innovative proneness, (N=180)

Extent of Innovative Proneness	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Low	20	33.33	24	40	39	65
Medium	23	38.33	23	38.44	17	28.44
High	17	28.44	13	21.66	04	6.66
Mean ± S.D	8.06±4.76		7.48±4.27		4.56±4.01	

Comment [G21]: The mean of unit?

Observed range	0.4-16	0.6-16	0.4-16

Table - 11 Distribution of apple growers according to their extension contact, (N=180)

Level of Extension contact	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Low	36	60.00	41	68.44	45	75
Medium	09	15.00	10	16.66	11	18.44
High	15	25.00	09	15.00	04	6.66
Mean ± S.D	7.11±5.08		6.41±5.51		5.15±4.86	
Observed range	0-16		0-16		0-16	

Comment [G22]: The mean of

Table - 12: Attitude of farmers towards apple cultivation, (N=180)

Category	Altitude					
	Low n_1=60		Mid n_2=60		High n_3=60	
	No.	%	No.	%	No.	%
Favourable	21	35	17	28.33	16	26.66
Neutral	30	50	25	41.66	24	40
Less favourable	09	15	18	30	20	33.44
Mean±S.D	39.85±21.76		39.41±19.55		38.36±17.36	

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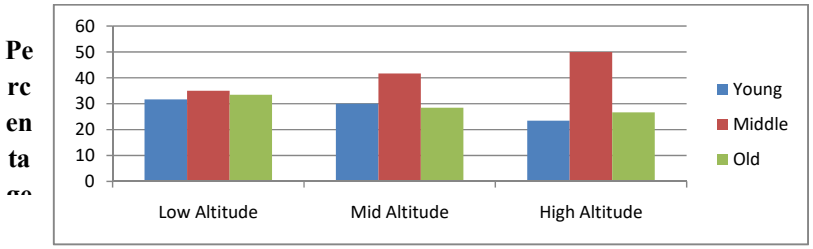

Fig 3 : Comparison of age of farmers in selected altitudes in the study area.

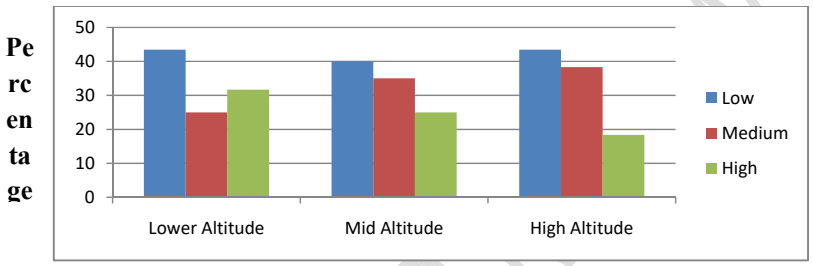

Fig. 4 : Experience of the farmers in apple cultivation in selected altitudes in the study area.

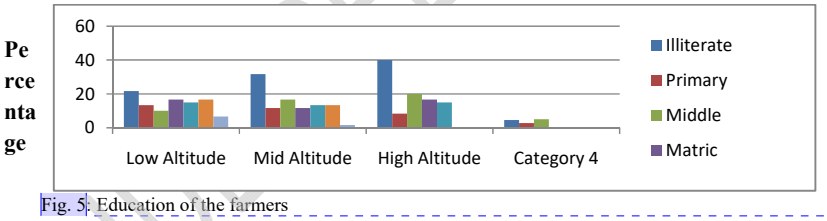

Fig. 5: Education of the farmers

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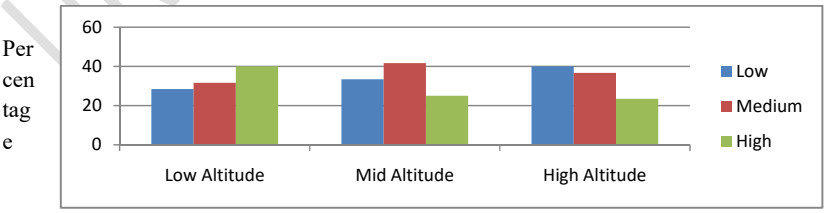

Fig. 6: Family education of the farmersof the apple growers in selected altitudes in the study area.

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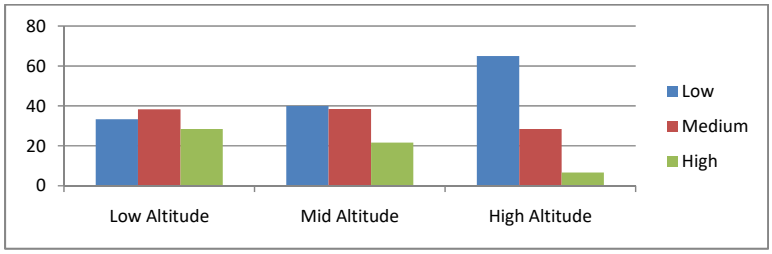

Fig. 7: Innovative Proneness of apple growers in the selected altitudes in the study area.

Conclusion:

As ~~for as a~~pple production is considered ~~which is~~ the principle fruit crop of Jammu and Kashmir ~~and~~which also provides supplementary source of income. It is the backbone of the district economy and state ~~too~~ as well. The farmers are responsive to new ideas and are willing to take up improved practices. The main purpose of this study, therefore, was to analyse the various socio-personal variables like age, experience, education level, family education status, family type, family size, land holding and socio-psychological variables like social participation, media exposure, innovation proneness and attitude of farmers towards apple cultivation. It was seen that majority of the apple growers were having neutral, followed by favourable and less favourable attitude towards apple cultivation.

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Comment [G27]: Are the apple growers or do another job? Clarify

Comment [G28]: I am not sure comments. The growers have neut not conduct extension and their in proneness is low to middle!

Comment [G29]: Again you me

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