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Socio-economic Attributes and Training Needs of Apple Growers of Kashmir Valley

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ABSTRACT

The study is based on the inferences of 142 sampled participants collected during Extension Education Week Celebrations of the University and revealed an increasing trend in the land use pattern for fruit cultivation. Among the sampled population 42.3 percent considered fruit cultivation as their main activity followed by crop production, vegetable cultivation and other agricultural activities respectively. In temperate fruit cultivation, almost all have preferred apple cultivation for obvious reasons of somewhat better shelf Iife and marketing than the other fruits. To boost the apple production at farmer's level and make viable and income generating activity, training needs were assessed, ranked and categorized as per the perceptions of the growers for future programmes and successful ventures. The most essential group of training needs in apple cultivation perceived by the growers were about apple cultivars/varieties, plant protection (lPM), manuring and Fertilization (INM), marketing of fruits, pruning and training, pre-harvest drops and availability of quality inputs respectively than other aspects, The highest total score of 361 with mean score of 2.54 was obtained for the apple cultivars I varieties and lowest total score of 192 with 1.35 mean score for apple orchard layout. The 'Essential' group of training needs obtained at total score of 313 with 2.20 mean score.

Temperate fruit cultivation has a long history in the valley and a major source of income and sustenance to a large part of the population in Jammu & Kashmir state. Among all fruits, apple alone occupies an area of about 1.10 lakh ha (41.51 percent) out of 2.65 lakh ha of total fruit area of the state. Similarly, the apple production is 1103417 m tones (80.48 percent) out of 1373574 m tones of total fruit production in the state (Anonymous, 2006). Even more than 70 percent of apple production of the country is reported from Kashmir. This reveals that the increase in apple production is mainly due to the increase in the area and not by a substantial increase on per unit basis. The productivity per unit area has not improved beyond 10-12 m tones/ha which is too low when compared to apple growing countries of the world. This clearly indicates that apple growers either not follow scientific recommendations and technologies in full or our programmes and trainings are not need based. Thus, to make our programmes and trainings more meaningful and contributively, the noble idea of conducting a study on training needs of apple growers under valley conditions was taken in the Extension Education Week long celebrations of the University. Accordingly, the study was planned with following objectives:

- To identify the socio-economic characteristics of apple growers/orchardists of Kashmir Valley.
- To identify the training needs of apple growers /orchardists of Kashmir Valley.

METHODOLOGY

The study was conducted for all the six districts of Kashmir Valley namely Srinagar, Budgam, Pulwama, Anantnag, Baramulla and Kupwara during the extension education week celebrations of SKUAT-K in the last year. Though hundreds of farmers / growers attended the

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celebrations but 142 fruit growers in proportionate to each district were selected as sample for this study. The responses were collected through a well pre-prepared and pre- tested interview schedule. The interview schedule contained 20 main areas / aspects of apple cultivation identified in consultation with horticultural scientists/ experts and a few progressive orchardists on a three point continuum of 'Most Essential', 'Essential' and 'Least Essential' with a score of 3, 2 and 1 respectively to assess the training needs. The completion of onerous task of interviewing in the stipulated time was possible only with the assistance of scientists from Directorate of Extension Education.

After calculating the total scores and mean scores of each area / aspect on the index, the rank values were assigned and for preference training in a particular area/ aspect categorized on the below mentioned scale of mean score basis:

i) Most Essential = 2.25 - 3.00

ii) Essential = 1.50 - 2.24 and

iii) Least Essential = 0.75 - 1.49

In this way, the collected data was processed, tabulated, analysed and used for drawing the inferences of the study.

RESULTS AND DISCUSSION

The analysis of the foregoing study with respect to attributes and training needs of the apple growers / orchardists are discussed in detail as under:

1.Characteristics of the Apple growers (Respondents)

The analysis revealed that 142 sampled growers / farmers of the present study were representing all six districts of Kashmir valley from 48 different villages of 16 C.D. Blocks. Most of the growers (40.8 percent) were in the age group of 35-49 years. Early 37.3 percent were illiterate and primary education level was prominent in 23.9 percent among the literate classes. The family size of 7-10 members in about 55 percent sampled growers indicated presence of joint family structure in the valley.

More than half of the sample having an annual income up to Rupees 50,000 and about 80 percent of sample were either marginal or small farmers having a land holding of less than a hectare. Land use for fruit cultivation showing an increasing trend. The details with regards to all socio-economic characteristics of the sample are presented in table 1.

The results revealed that highest mean score of 2.54 was obtained for apple cultivars/ varieties followed by plant protection (IPM), manuring and fertilization (INM), marketing of fruits, pruning and training, pre-harvest drops (flower and fruit) and quality input availability respectively. All these area/aspects of apple cultivation were perceived as 'Most Essential' by the growers

The second category of training needs perceived as 'Essential' on the score basis were apple nursery management, grading and packing of fruits, rejuvenation of orchards, processing technologies, storing of fruits, organic fruit cultivation, propagation techniques and land preparation

Table 1: Socio-economic characteristics of Apple growers (N=142)

Sr.No.	Characteristics/Parameters	Category	Frequency	Percentage
1.	Age (in years)	20-34	30	21.1
		35-49	58	40.8
		50-64	33	23.2
		65 & above	21	14.9
2.	Education (Level of attainment)	Illiterate	53	37.3
		Primary	34	23.9
		Middle	21	14.8
		High School	18	12.8
		Intermediate	11	07.7
		Graduate and above	05	03.5
3.	Family size (No. of members)	Upto 3	03	02.1
		4-6	44	31.0
		7-10	78	54.9
		11 and more	17	12.0

Contd.....

4.	Income (Rs per annum)	Upto Rs 24000	15	10.6
		25000-50000	62	43.7
		51000-75000	19	13.4
		76000-1 lakh	26	18.3
		Above 1 lakh	20	14.0
5.	Land Holding (In Kanals)	Upto 10	57	40.1
		11-15	40	28.2
		16-20	16	11.3
		21 and above	29	20.4
6.	Land use trend (Major activity)	Growing of field crops	51	35.9
		Vegetable growing	27	19.0
		Fruit cultivation	60	42.3
		Other allied activities	64	07.8

* 1 Kanal = 0.05 ha.

II. Training needs of Apple growers

The level and perception about all the 20 areas/aspects of apple cultivation by the sampled farmers/orchardist are presented in Table 2.

Table-2: Training needs of Apple growers in Kashmir valley

S. . No	Area/ Activity/Aspect of Apple cultivation	Level of Training Needs			Total score	Mean score	Rank value	Category of preferences
		Most Essential	Essential	Least Essential				
1	Selection of land	14	32	96	202	1.42	XIX	III
2	Orchard layout	12	26	104	192	1.35	XX	III
3	Nursery management	68	35	39	313	2.20	VIII	II
4	Apple cultivars/ varieties	85	49	08	361	2.54	I	I
5	Land preparation and planting	48	26	68	264	1.86	XV	II
6	Manuring and fertilization (INM)	82	48	12	354	2.49	III	I
7	Irrigation and Drainage	25	19	98	211	1.49	XVI	III
8	Plant protection (IPM)	83	50	09	358	2.52	Ⅱ	I
9	Pruning and training	72	60	10	346	2.44	V	I
10	Propagation techniques	38	54	50	272	1.92	XIV	II
I 1	Rejuvenation of old orchards	67	31	44	307	2.16	X	II
12	Intercultural operations	26	10	106	204	1.44	XVIII	III
13	Pre-harvest drops	78	44	20	342	2.41	VI	I
14	Organic fruit cultivation	44	56	42	286	2.01	XIII	II
15	Harvesting of fruits	24	18	100	208	1.46	XVII	III
16	Storage of fruits	58	32	52	290	2.04	XII	II
17	Grading and packing of fruits	67	32	43	308	2.17	IX	II
18	Processing technologies	62	36	44	302	2.13	XI	II
19	Marketing of fruits	82	45	15	351	2.47	IV	I
20	Quality input availability	70	58	14	340	2.39	VII	I

and planting respectively. In this category highest mean score of 2.20 was obtained for apple nursery management and lowest mean score of 1.86 for land preparation and planting aspects.

The other areas/aspects of apple cultivation where training needs are perceived as 'Least Essential' or not needed include irrigation and drainage, harvesting of fruits, intercultural operations, selection of land and orchard Iayout respectively. The mean scores obtained for these areas / aspects ranged from 1.49 to 1.35.

All above analysis reveals that a complete package of recommendations and technologies related to apple cultivation focusing on the 'Most Essential' areas / aspects with timely quality input availability and sound marketing infrastructure would boost the production and productivity in the valley.

CONCLUSION

It can be concluded from foregoing results and discussions that apple growers/orchardists have selected only seven as 'Most Essential' out of twenty main areas/aspects of apple cultivation under valley conditions. Thus, any programmes or training on apple cultivation should necessarily focus on such important aspects viz. apple cultivars/ varieties, integrated pest management. Integrated nutrient management, marketing, pruning and training, pre-harvest drop of fruits and availability of quality inputs respectively. Moreover, vertical expansion of apple production can be achieved through these technological interventions more rapidly and effectively than the others.

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