

Training Needs of Bee Keepers in Haryana

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ABSTRACT

Honey has offered great promise to some of the most undernourished areas of the world. Bees benefit the plants not only increasing their yield, but also improve crop quality. Since beekeeping does not compete for inputs with other farming processes or crop, it is an ideal programme for integration. Keeping the importance of Bee-Keeping a study was undertaken to find out the training needs of bee-keepers. The study highlighted that majority of the respondents belonged to middle to young age group, medium to high level of family education, socio-economic status, innovativeness and risk bearing capacity. The results also showed that majority of respondents had low to medium level of extension contact and land holding, respectively. In respect to training needs of beekeepers in different areas, it was found highest in protection of bee pests, diseases and other hazards followed by the business of bees, bee-hive products and their extraction, processing, and medicinal values and essential operations.

Key words: *Innovativeness; Beekeepers; Training needs;*

Beekeeping developed as an economic activity in many countries during the past two-three centuries. In the United States of America, Europe and other developed countries in North America valuable contributions to the art and science of beekeeping had been made by beekeepers and agricultural scientists to make beekeeping an important component of agriculture. With the invention of the movable frame hive in 1851 by Fr.L.L.Langstroth in the USA, beekeeping established itself in several countries as a commercial enterprise, which, besides providing valuable nutritive and medicinal items of importance to making, benefited agricultural and horticultural development in these countries. Modern beekeeping in India can however be traced to the beginning of nineteenth century. After independence, village industries boards were established at state level to promote cottage industries including beekeeping for coordination between the state boards. In 1980, need was felt by the ICAR for multi-locational research and All India-Co-ordinated Project on Honey Bee Research and Training (AICRP) was started. The species of true honeybees viz., *A. cerana*, *A. dorsata*, *A. florea* are indigenous to India and *A. mellifera* (exotic

species) is now established in the country and serving the commercial beekeeping in many states. Beekeeping is appropriate technology because it is very low scale and requires little money to begin with. Bees and beekeeping also contribute to the uplift of rural masses by way of employment generation and as a subsidiary occupation to supplement their income. The rural youth in the country is facing critical problem of unemployment. More than 26per cent of the total population of the country is living below the poverty line. Therefore, efforts must be made to raise the economic and social status of the weaker sections of the rural societies, who are below the subsistence level. Apiculture has great potential for self-help of the rural people of the country. It provides the employment, new sources of income generation, food and nutritional security and improves rural economy. The most important factors in the development of the beekeeping industry are considered to be climatic conditions, training, extension, and research, improved methods of management, queen rearing, pest and disease control, improved honey harvesting, processing, and control use of pesticides. In this modern age, training of beekeeping

is considered as one of the most important non-monetary inputs in all the aspects of development programmes. This fact applies to agriculture sector too. The importance of training in beekeeping practices as an indispensable instrument for rapid transfer of scientific beekeeping technology and a way to modernize the traditional beekeeping and the economic condition of beekeepers. Keeping in view the importance of bee keeping, the present study were undertaken to identify the training needs of beekeepers.

METHODOLOGY

This study was conducted in Haryana state comprising 20 districts. The majority of respondents were involved in Bee-Keeping in the districts of Karnal, Kurukshetra, Yamunanagar, Ambala and Panchkula. Therefore, the sample for the study was selected from the Kurukshetra and Yamunanagar districts using purposive sampling technique because these two districts covered maximum number of beekeepers. A district-wise list of beekeepers was prepared and from the list so prepared, sixty respondents from each district were selected randomly. Thus, in turn, one hundred and twenty respondents constituted the sample for the study. The data were collected with the personal interview technique and suitable statistical techniques were used for analysis of collected data.

RESULTS AND DISCUSSION

Profile of the beekeepers : The distribution of respondents based on their socio-economic and socio-psychological traits have been presented in Table 1 and discussed as follows:

Age : Data in Table 1 revealed that 50 per cent of the respondents belonged to middle age group(36-50 years) followed by young age group(21-35 years) to the extent of 30 per cent. The remaining 20 per cent of respondents belonged to old age group. The data shows that majority of the respondent (80 %) were young to middle age group which made this venture successful.

Family education : The data in Table 1 revealed that most of the respondents fall into low to medium family education i.e. 38 per cent belonged to low level of family education and 42. per cent belonged to medium level of family education. The remaining 20 per cent belonged to high level of family education. It reveals

Table 1. Profile of beekeepers (N= 120)

S. No.	Personality traits	Category	Score range	No.	%
1.	Age	Young	21 – 35 yrs	36	30.00
		Middle	36 – 50 yrs	60	50.00
		Old	51 – 65 yrs	24	20.00
2.	Family education	Low	0 – 11	45	38.00
		Medium	12 – 24	51	42.00
		High	25 – 36	24	20.00
3.	Land holding	Landless	-	24	20.00
		Small	<2 acre	49	41.00
		Medium	3– 7 acre	33	27.00
4.	SE Status	Large	>7 acre	14	12.00
		Low	10 – 19	44	37.00
		Medium	20 – 28	51	43.00
5.	Mass media exposure	High	29 – 37	25	20.00
		Low	0 – 6	42	35.00
		Medium	7 – 12	49	41.00
6.	Risk bearing capacity	High	13 – 18	29	24.00
		Low	6 – 13	40	33.00
		Medium	14 – 22	51	43.00
7.	Extension contact	High	23 – 30	29	24.00
		Low	0 – 16	51	43.00
		Medium	17 – 32	48	40.00
8.	Innovat-iveness	High	33 – 48	21	17.00
		Low	6 – 7	35	29.00
		Medium	8 – 10	58	48.00
		High	11 – 12	27	23.00

that constant efforts were required to be made to promote family education in the rural areas.

Land holding : The study revealed that 41 per cent of respondents possessed small land holding and 27 per cent had medium size land holding followed by 20 per cent were landless. The remaining 12 percent of respondents possessed large land holding. It shows that majority of respondents (68%) were having small and medium land holding. It implies that this venture is adoptable for small landholding respondents.

Socio-economic status : Socio-economic analysis of the data indicated that 43 percent of respondents belonged to medium level of socio-economic status followed by 37 per cent from low level of socio-economic status. The remaining 20 per cent of respondents belonged to high level of socio-economic status. It establishes that respondents with medium level of socio economic status were comparatively higher than the other categories.

Mass media exposure : Data revealed that 41 per cent of the respondents had medium level of exposure to mass media and 35 per cent had low level. The remaining 24 per cent of respondents had high level of mass media exposure. It shows that respondents had good exposure to the different mass media and thus, they can adopt this profession successfully.

Risk bearing capacity : It was observed that 43 per cent of respondents had medium level of risk bearing capacity and 33 per cent had low level. The remaining 24 per cent of respondents had high level of risk bearing capacity. This predicts that a majority of respondents (67%) have medium to high level of risk bearing capacity. Therefore, there is more scope to launch new beekeeping development programmes among beekeepers.

Extension contact : The data presented in Table 1 revealed that 43 per cent had low level of extension contact and 40 percent had medium level. The remaining 17 per cent of respondents had high level of extension contact. It reveals that majority of respondents (83%) have low to medium level of extension contact. This implies that there is a greater need for beekeepers to contact extension officials / beekeeping experts.

Innovativeness : It was found that 48 per cent of

respondents had medium level of innovativeness and 29 per cent had low level. Only 23 per cent of the respondents had high level of innovativeness. It predicts that a significant majority of respondent (71%) have medium to high level of innovativeness. This implies that beekeepers with more innovative outlook have a capacity of taking the risk in opting the latest beekeeping technology if available to them.

Training needs of beekeepers : Training is the critical input for human resource development. It plays an important role in initiating and accelerating human behaviour. Training being a tool for making interventions at the level of human resource is increasingly becoming crucial for development in almost all fields with growing satisfaction in technology. In order to make any training more meaningful and contributing, it is imperative on the part of organizer, to identify the training needs of the trainees. The training needs of beekeepers were identified on the basis of training needs percentage with respect to scientific beekeeping practices. The main idea behind training is to develop adequate working knowledge level of beekeeping, the area in which there is requirement of training were identified on the basis of training needs percentage. The training needs scores were worked out in term of percentage and accordingly,

Table 2. Training needs of beekeepers (N = 120)

S. No.	Function/activities	Category	Score	No.	Respondent (%)	Mean score	Training need (%)	Rank
1.	Selection of site and equipments	Low	3 – 4	66	55.00	4.60	51.11	IX
		Medium	5 – 7	43	35.80			
		High	8 – 9	11	9.20			
2.	Life cycle of bees and their rearing	Low	5 – 7	74	61.60	7.70	51.38	VIII
		Medium	8 – 11	27	22.50			
		High	12 – 15	19	15.90			
3.	Frequency of examination during different seasons	Low	3 – 4	57	47.50	5.03	55.92	VI
		Medium	5 – 7	44	36.60			
		High	8 – 9	19	15.90			
4.	Management of bee colonies during different seasons	Low	4 – 6	48	40.00	7.40	61.80	V
		Medium	7 – 10	41	34.20			
		High	11 – 12	31	25.80			
5.	Essential operations	Low	5 – 7	32	26.60	9.70	64.66	IV
		Medium	8 – 11	48	40.00			
		High	12 – 15	40	33.40			
6.	Bee forage and pollination	Low	3 – 4	63	52.50	4.95	55.09	VII
		Medium	5 – 7	36	30.00			
		High	8 – 9	21	17.50			

all the areas were ranked in descending order and presented in Table 2. Table 2 revealed that among different aspects of beekeeping, training requirements of beekeepers was found to be highest in protection of bee pests/diseases and other hazards (training needs 84.93 per cent and rank first) followed by the business of bees (training needs 71.35 per cent and rank second), bee-hive products and their extraction, processing and medicinal values (training needs 70.55 per cent and rank third), essential operations (training needs 64.66 per cent and rank fourth), management of bee colonies during different seasons (training needs 61.80 per cent and rank fifth), frequency of examination during different seasons (training needs 55.92 per cent and rank sixth), bee forage and pollinations (training needs percentage 55.09 and rank seventh), life cycle of bees and their rearing (training needs 51.38 per cent and rank eighth) and selection of site and equipments (training needs 51.11 per cent and rank ninth). It implies that extension workers/ experts should provide more and more training on bee pests/diseases and other hazards, the business of bees, bee-hive products and their processing and medicinal values, essential operations and management of bee colonies during different seasons.

The results of this study are in line with the findings given by *Chillar (2005)*, *Naegel (1990)* and *Singh & Singh (2004)*.

CONCLUSION

The study concludes that majority of the respondents belonged to middle to young age group, medium to high level of family education, socio-economic status, innovativeness and risk bearing capacity. The majority of respondents had low to medium level of extension contact and land holding. In respect to training needs of beekeepers in different areas, it was found highest in protection of bee pests, diseases and other hazards (84.93%) followed by the business of bees (71.35%), bee-hive products and their extraction, processing, and medicinal values (70.55%) and essential operations (64.66%). Lowest was observed in selection of site and equipment area. The extension workers/ experts should organise more and more trainings on bee pests/diseases and other hazards; the business of bees; bee-hive products and their processing and medicinal values and essential operations and management of bee colonies during different seasons.

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