

## Assessment of knowledge gain of trainees about scientific goat farming

P.S. TANWAR, ANJULY SHARMA<sup>1</sup> AND SURYENDRA SINGH<sup>2</sup>

Associate Director, Krishi Vigyan Kendra, Barnala

Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana-141104

Email: prahalad\_tanwar@rediffmail.com

### Abstract

The present study was conducted with aim to assess the knowledge gain of trainees about various aspects of goat farming technologies at Krishi Vigyan Kendra, Barnala. A total 155 trainees participated in goat farming training of one week duration during 2016 and 2017 were consider for the study. The data were collected before starting and on completion of the training with help of structured questionnaire consisting 15 aspects of housing, feeding, breeding, marketing and diseases. One and zero score was given for correct and incorrect response, respectively for analysis of knowledge gain. It was found that majorities (54.19%) of trainees were in middle age (26-40yrs) group and nearly 1/3<sup>rd</sup> were of young age. Majority (57.42%) were from schedule caste category followed by general (24.52%). Majority (63.0%) of trainees were either secondary (36.77%) or higher secondary (26.45%), about 1/3<sup>rd</sup> % were under metric, and only 4.5 percent were graduate. Majority (57.42%) of trainees belongs to schedule caste families and 24.52 and 18.06 % from general and other backward categories, respectively. about 8.05 were from other backward caste (OBC) category. The overall knowledge of trainees in starting of the training programme was 20.82% which reached 86.120% at the end of the training and overall knowledge gain was 65.29%. It indicates that training has positive impact on knowledge gain. Among different practices maximum knowledge gain was Quantity of mineral mixture to be fed a lactating Goat / day (88.39%, Rank 1<sup>st</sup>) and minimum gain was in knowledge of Marketing age of male kids (46.45%, Rank 14<sup>th</sup>). It is concluded that vocational training is a way of knowledge improvement and had positive impact on knowledge level and understanding of the trainees, hereby it is recommended that strengthening of extension professionals and training system has to be done for taking up more training programme to make the farmers knowledge rich, which in turn leads to adoption of scientific practices.

**Key words:** Goat farming, Knowledge gain, Vocational training

### Introduction

Livestock have been an integral component of India's agricultural and rural economy. Small ruminants provide much needed livelihood support to the landless and weaker sections and hold considerable potential for commercialization. Among the small ruminants

goats are widely distributed (Rath, 1992) and contribute a significant source of supplementary income, family nutrition to resource poor people (Kumar and Deoghare 2003). Goat farming requires low investment and having higher potential for generating income as it has high prolificacy, more than one breeding season in a year, higher milk production and capacity to bear twins and triplets. Goat farming is a emerging field of self employment and source of livelihood of poor resource farmers. Human resource is the most precious resource for any country. It is, however, not the

<sup>1</sup> Subject Matter Specialist, KVK, Barnala, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana-141104

<sup>2</sup> Subject matter Specialist, KVK, Barnala, Guru Angad Dev Veterinary and Animal Sciences University, Ludhiana-141104

numerical but the qualitative strength of the people which forges a country ahead towards progress and prosperity. It is basically the development of human resources that brings about socioeconomic or political cultural transformation of any society. One of the main ways to development of human resource is training and training is also an essential part for running an enterprise successfully and profitably. It improves the knowledge of the trainees about the improved practices, because knowledge is cognitive component of individual's mind and plays an important role in covert as well as overt behavior and individuals with a greater knowledge of technical nature of improved practices would lead to a high adoption. of correct and inadequate knowledge leads to under or over adoption of innovation which proves fatal to the farming business. Training is an integral and critical input for the human development for bringing out desirable changes in human knowledge (Biswas *et al.* 2008).

**Materials and Methods**

The present study was conducted with aim to assess the knowledge gain of trainees about improved goat farming technologies, at Krishi Vigyan Kendra, Barnala. During 2016 and 2017 three training programmes were conducted on goat farming by KVK and a total 155 farmers, farm women and rural youth were participated , thus data were collected from 155 respondents. A structural questionnaire was prepared by a team of experts about goat farming technologies having 15 questions on different aspects of housing, breeding, feeding, marketing and disease of goat. Trainees participated in one week training were considered only for the study. The questionnaire used before and after the training for the study having similar questions. The data were collected two time before starting the training and after completion of the training with help of same questionnaire. For analysis of the Knowledge level and gain in knowledge -1 score for correct response and -0 score for incorrect response was given. Data were analyzed, tabulated, and knowledge level and knowledge gain was calculated by following formula.

$$\text{Knowledge (\%)} = \frac{\text{Score obtained}}{\text{Possible obtainable score}} \times 100$$

$$\text{Knowledge Gain \%} = \frac{\text{Score obtained after training} - \text{Score obtained before training}}{\text{Total possible obtainable score}} \times 100$$

$$\text{Overall Knowledge} = \frac{\text{Total score obtained on all aspects}}{\text{Total possible obtainable score in all aspects}} \times 100$$

**Results and Discussion**

*Socio-personal characteristics*

Socio-personal characteristics of the trainees of goat farming training depicted in Table 1 revealed that Majority (54.19%) of respondents attended goat farming training were between 26-40 years of age (Middle age group) followed by young age (34.84%) and old age (17.42%).

Table 1: Socio-personal characteristics of the trainees

S.No.	Characteristics	Frequency	Percentage
1	Age group		
	Young (upto 25 years)	54	34.84
	Middle age (26-40)	84	54.19
	Old age (>40)	27	17.42
2	Education		
	Illiterate	17	10.97
	Primary	21	13.55
	Middle	32	20.65
	Secondary	57p	36.77
	Higher Secondary	41	26.45
	Graduation	7	4.52
3	Category		
	General	38	24.52
	Schedule caste	89	57.42
	Others	28	18.06

Among total respondent's majority (63.0%) were either secondary (36.77%) or higher secondary (26.45%), about 1/3<sup>rd</sup> were under metric, and 4.5 percent were graduate. It clearly indicate that educate rural youth is interested to learn about subsidiary occupation for enhancing their income.

Majority of trainees were belonging to schedule caste families (57.42%) followed by general (24.52%) and other categories (18.06%).

*Knowledge level*

The overall knowledge of trainees for selected practices before starting the training was 20.82%, which reached up to 86.11% after completion training and thus overall knowledge gain was 65.29% of different aspects of goat farming training (Table 2). It clearly indicates that training is a way of knowledge improvement and had positive impact on respondent's

Table 2: Knowledge gain of trainees about Goat farming

N=155

S.No.	Particular	Score obtained		Knowledge%		Rank as per Knowledge Gain
		Before Trg.	After Trg.	Before Trg.	After Trg.	
1	Knowledge of breeds of goat	75	155	48.39	100	12
2	Proper housing for goats	41	123	26.45	79.35	11
3	Gestation period of goat	49	155	31.61	100	7
4	Age of castration of male goat kids	32	112	20.65	72.26	12
5	Best method of castration for male goats	38	132	24.52	85.16	9
6	Length of Oestrus period	25	102	16.13	65.81	13
7	Best method of milking	29	144	18.71	92.93	5
8	Feed requirement of a lactating goat/day	21	151	13.55	97.42	2
9	Frequency of deworming in a year to goats	47	137	30.32	88.39	10
10	Proper record maintenance for goat	15	114	9.68	73.55	8
11	Balance feeding for goats	12	141	7.74	90.97	3
12	Marketing age of male kids	57	129	36.77	83.23	14
13	Quantity of mineral mixture to be fed a lactating Goat / day	18	155	11.61	100	1
14	Knowledge of Vaccination schedule	11	135	7.10	87.10	4
15	Most common disease in goats	14	117	9.03	75.48	6
	<b>Overall</b>	484	2002	20.82	86.11	-

knowledge level and understanding about goat farming. These findings are accordance with Ashraf et al. (2012), Singh and Jadoun (2013), who reported significant improvement in the knowledge level of the participants after attending training. Senthil Kumar *et al.* (2014) who concluded that training had positive impact to the farmers' knowledge level, perception and performance. Sharma et al. (2014) observed significant improvement in farmer's knowledge after attending the training. Hundal *et al.* (2016) reported that training is an effective tool to improve the knowledge level of farmers significantly and understanding of farmers about pig farming. Belakeri *et al.* (2017) training had positive impact on knowledge gain among the farmers. At initiation of the training the range of knowledge of the respondents was 7.74- 48.39% among different practices of goat farming and after training remarkable change was observed in knowledge level ranged from 65.0- 100% and it was reached cent-percent in few identified practices namely Knowledge of breeds of goat, Gestation period of goat and Quantity of mineral mixture to be fed a lactating Goat / day. Maximum knowledge gain was found in knowledge of quantity of mineral mixture to be fed a

lactating Goat / day (88.39%) and ranked 1<sup>st</sup> followed by feed requirement for a lactating goat/day (83.87% and ranked 2<sup>nd</sup>), balance feeding for goats (83.23%, rank 3<sup>rd</sup>), knowledge of Vaccination schedule (80.0%, rank 4<sup>th</sup>), best method of milking (74.19%, rank 5<sup>th</sup>), most common disease in goats (66.45%, rank 6<sup>th</sup>), gestation period of goat (68.39% rank 7<sup>th</sup>), proper record maintenance for goat (63.87% rank 8<sup>th</sup>), best method of castration for male goats (60.65% rank 9<sup>th</sup>), frequency of deworming in a year to goats (58.06%, rank 10<sup>th</sup>), proper housing for goats (52.90%, rank 11<sup>th</sup>), knowledge of breeds of goat and age of castration of male goat kids (51.61%, rank 12<sup>th</sup>), length of Oestrus period (46.87%, rank 13<sup>th</sup>) and marketing age of male kids (46.45%, rank 14<sup>th</sup>). Higher knowledge of the trainees after training might be due to the relevance of the subject matter covered, the discussion made with experts and with other experienced trainees, practical orientation, exposure visit at established goat farms and training atmosphere in which farmers were exposed to information with different teaching methods like lectures, group discussion, demonstration, skill teaching etc using suitable teaching aids like power point presentation, posters and printing materials etc.

## References

- Ashraf, E.; Hayat, Z.; Khan, M.Z.U.; Samiullah, Atif, M.A. and Haider, M.S. (2012). Impact of dairy farm management training workshop on the knowledge level of participants. *Int. J. Agric. Appl. Sci.* 4(2): 86-89.
- Belakeri, Pavan; Mohankumar, S.; Shankarappa, Bhajantri and Nishath C. (2017). Effectiveness of Sheep and Goat training programme in terms of knowledge gain among livestock farmers of Karnataka. *Int. J. Pure App. Bio Sci.* 5 (1): 31-34.
- Biswas, S.; Sarkar, A. and Goswami, A. (2008). Impact of KVK training on advance dairy farming practices in changing knowledge and attitude of Prani- Bandhu. *J. Dairying Foods & Home Sci.* 27(1): 43-46.
- Hundal, J.S.; Singh, Udeybir; Bhatti, J.S. and Kansal, S.K. (2016). Evaluating perceived effectiveness of specialized trainings on Pig farming. *Economic Affairs* 61(1):17-21.
- Kumar, Shalander and Deoghare, P.R. (2003). Goat production system livelihood security of rural landless households. *Indian Journal of Small Ruminants.* 9: 19-24.
- Senthilkumar, K.; Daisy, M.; Kumaravel, V. and Mohan, B. (2014). Impact of KVK training on scientific method of goat rearing and feeding management of azolla. *Int. J. of Sci, Environment and Technology.* 3: 2287-2292.
- Singh, R. and Jadoun, Y.S. (2013). Impact evaluation of training programmes on dairy farming in Punjab state. *Indian res. J. Ext. Edu.* 14(1): 105-108.
- Sharma, M.; Singh, G and Keshava (2014). Impact Evaluation of training programmes on dairy farming in Punjab State. *Indian Res. J. Ext. Edu.* 14(1): 105-108.
- Rath, N. (1992). Economics of sheep and goat in Maharashtra. *Indian Journal of Agricultural Economics* .47: 62-78.