Haryana Vet. (June, 2016) **55 (1)**, 47-49

Research Article

IMPACT OF TRAINING ON KNOWLEDGE LEVEL OF GOAT FARMERS IN PUNJAB

J.S. HUNDAL, UDEYBIR SINGH, NAVDEEP SINGH, S.K. KANSAL and J.S. BHATTI

Department of Veterinary and Animal Husbandry Extension Education, College of Veterinary Sciences GADVASU, Ludhiana-141 004, India

Received: 03.12.2015; Accepted: 05.02.2016

ABSTRACT

To assess the farmer's knowledge towards goat farming in Punjab, 125 farmers were randomly selected and interviewed with a pre-tested interview schedule. All the farmers were imparted five days specialized training on goat farming and re-assessed their knowledge after its completion. The study revealed that 17.6%, 31.2% and 42.4% respondents were educated upto middle, matric and senior secondary level, respectively whereas 8.8% trainees were graduates. Before training, only 2.4% of the farmers belonged to high level knowledge category while 76.8% ($P<0.01$) of farmers possessed high level knowledge after training. The awareness perceived by farmers about feeding, reproduction and disease management was significantly ($P<0.05$) higher after training. About, 11.4±0.16 and 21.6±0.18 responses of farmers were found to be correct during pre- and post-training, respectively. Age and education have no significant affect on increase in correct responses regarding knowledge level of farmers about goat farming. Therefore, it may be concluded from the present study that knowledge level of farmers is low regarding goat farming practices and training is an effective tool to improve the knowledge and understanding of farmers about goat farming.

Key words: Goat farming, impact, knowledge level, Punjab, trainings

The challenges faced by our country in securing the food as well as nutritional security to fast growing population need an integrated approach for livestock farming. Among the various livestock species, goat is one of the most potential sources of meat production and efficient feed converters. To make goat farming more commercially viable option, there is a need to educate the farmers about modern and scientific methods of goat rearing through trainings. Guru Angad Dev Veterinary and Animal Sciences University (GADVASU), Ludhiana regularly organizes trainings to educate the unemployed youth, farmers and farm women of Punjab and neighboring states about scientific goat farming. Success of such trainings will be dictated by the perceived effectiveness whether these training improve farmer's knowledge about technical aspects of goat farming. Therefore, an effort has been made to study the knowledge level of farmers towards goat farming and impact of goat farming trainings on farmers.

MATERIALS AND METHODS

The present study was conducted on the farmers from different districts of Punjab who attended the specialized trainings on goat farming organized by GADVASU, Ludhiana during 2014 and 2015. A total of 125 farmers were interviewed with a pre-tested questionnaire. All the farmers were imparted five days training on goat farming through lectures, presentations, demonstrations and visits at GADVASU, Ludhiana and re-assessed their knowledge after completion of training. A set of 25 knowledgeable items containing information on different aspects of goat farming, which was obtained from book 'Goat Farming in Punjab' published by GADVASU, Ludhiana (Saini and Chandrahas, 2011) and by consultation with experts, were presented to the respondents. Respondents were categorized into three groups viz. low [total score on knowledge less than (Mean–½ S.D.)], moderate [total score on knowledge between (Mean±½S.D.)] and high [total score on knowledge more than (Mean+½S.D.)] (Chandrashekhar *et al.,* 1998) based on the mean (16.5) and standard deviation (6.2) as a measure of check. The information about independent variables viz. age and education was collected with the help of structured schedule and scales. The data were analyzed by paired 't' test/ANOVA (Snedecor and Cochran, 1994) using the software package SPSS version 16 (SPSS, 2007) and results were prepared to know the impact of training on knowledge level of goat farmers.

RESULTS AND DISCUSSION

The study revealed that 17.6%, 31.2% and 42.4% respondents were educated upto middle, matric and senior secondary level, respectively whereas 8.8% trainees were graduates. The data regarding knowledge level of farmers about goat farming (Table 1) highlighted that 71.2% farmers

*Corresponding author: drjshundal@yahoo.com

Table 1
Distribution of goat farmers based on their knowledge level

Knowledge level	Frequency (n=125)	
	Pre training (%)	Post training (%)
Low (upto 13.4 score)	89[b] (71.2%)	2[a] (1.6%)
Moderate (>13.4 to 19.5 score)	33 (26.4%)	27 (21.6%)
High (>19.6 score)	3[a] (2.4%)	96[b] (76.8%)

Figures with different superscript in a row differ significantly, P<0.01

belonged to low level knowledge category. Whereas, after attending five days training, 76.8% (P<0.01) farmers possessed high level knowledge (Table 1). It indicated that farmers' training was an effective tool to improve their knowledge. Sharma *et al.* (2014) also reported that average knowledge score of the dairy trainees increased from 4.44 to 6.32 due to training. Similarly, Ashraf *et al.* (2012) and Singh and Jadoun (2013) also reported significant improvement in the knowledge level of the participants/beneficiary group after attending the training.

The knowledge of trainees (Table 2) regarding common breeds of goat (80.8%) improved significantly (P<0.05) after training (99.2%). As balanced and economical feeding is the base of successful goat farming, the study of knowledge of farmers regarding feeding practices of goats indicated (Table 2) that only few farmers knew about weight of the new born kid, colostrum feeding, weaning age, green fodder requirement, protein content of concentrate mixture and requirement of concentrate mixture for lactating goats, use of mineral mixture and salt before training, however, after training their knowledge about these parameters improved significantly (P<0.05). Kumar *et al.* (2013) also observed highly significant difference (P<0.01) in the knowledge level of the respondents on cattle feed computation due to training. Similarly, Sharma *et al.* (2014) also reported significant (P<0.01) improvement in farmers' knowledge of feed management score (3.64 to 6.39) after attending the dairy farming training.

Age at first kidding is a good indicator of reproductive efficiency of dairy goats. About 63.2% and 48.8% of farmers knew the appropriate age of goats at first conception and breedable age of boars, respectively before training, but the knowledge level improved after training. Knowledge level of farmers regarding gestation period, number of kidding per year and number of kids per kidding also improved significantly due to training (Table 2).

Table 2
Impact of training on knowledge level of farmers regarding goat farming

S. No.	Statements	Correct responses (%)		Mean correct responses	
		Pre training	Post training	Pre training	Post training
1	Common breeds of goats	101 (80.8%)	124 (99.2%)	0.808[a]	0.992[b]
Feeding management					
3	Birth weight of kid	73 (58.4%)	125 (100%)	0.584[a]	1.00[b]
4	Weaning age	103 (82.4%)	125 (100%)	0.824[a]	1.00[b]
5	Fodder requirement of goats	30 (24.0%)	106 (84.8%)	0.240[a]	0.848[b]
6	Concentrate required for a lactating goat	84 (67.2%)	120 (96.0%)	0.672[a]	0.960[b]
7	Protein content of concentrate in lactating goat ration	40 (32.0%)	75 (60.0%)	0.320 [a]	0.600[b]
8	Recommended mineral mixture is level (%) in feed	53 (42.4%)	103 (82.4%)	0.424[a]	0.824[b]
9	Recommended salt level (%) in feed	43 (34.4%)	115 (92.0%)	0.344[a]	0.920[b]
10	Feed conversion efficiency	4 (3.2%)	42 (33.6%)	0.032[a]	0.336[b]
Reproductive management					
11	Age at first conception	79 (63.2%)	117 (93.6%)	0.632[a]	0.936[b]
12	Breedable age of boars	61 (48.8%)	121 (96.8%)	0.488[a]	0.968[b]
13	Gestation period	86 (68.8%)	122 (97.6%)	0.68[a]	0.976[b]
14	Number of kiddings per year	89 (71.2%)	120 (96.0%)	0.712[a]	0.960[b]
15	Number of kids per kidding	111 (88.8%)	125 (88.8%)	0.888[a]	1.00[b]
General and diseases management					
16	Direction and dimensions of shed	77 (61.6%)	110 (88.0%)	0.616[a]	0.880[b]
17	Space requirement	29 (23.2%)	101 (80.8%)	0.232[a]	0.81[b]
18	Cleaning of shed floor	66 (52.8%)	115 (92.0%)	0.528[a]	0.92[b]
19	Knowledge of udder hygiene	65 (52.0%)	120 (96.0%)	0.520[a]	0.96[b]
20	Deworming schedule	74 (59.2%)	114 (91.2%)	0.592[a]	0.912[b]
21	Common diseases of goats	37 (29.6%)	116 (92.8%)	0.296[a]	0928[b]
22	Vaccination schedule	4 (3.2%)	92 (73.6%)	0.032[a]	0.736[b]
23	Disease that can cause abortion in goats	4 (3.2%)	72 (57.6%)	0.032[a]	0.576[b]
24	Zoonotic diseases in goats	7 (5.6%)	91 (72.8%)	0.056[a]	0.728[b]
25	Marketing age of boars	60 (48%)	111 (88.8%)	0.480[a]	0.888[b]

Figures with different superscripts in a row differ significantly, P<0.05

The awareness of farmers regarding direction and dimensions of shed (62 vs 88%), space requirement of goats, cleaning of shed floor, udder hygiene measures, common diseases of goats, vaccination schedule, deworming schedule and abortion causing diseases were significantly (P<0.05) higher after training. Only 5.6% farmers were aware about zoonotic diseases before training that improved significantly (72.8%) after training. Biswas *et al.* (2008) also reported that there was a significant difference in knowledge of respondents on deworming and vaccination as a result of training on dairy farming.

The effect of age and education on increase in correct responses due to influence of training is given in Table 3. Age and education did not affect the perceived effectiveness of farmers during training as correct response difference among different age and education groups remained non-significant, however, a slight increase in number of correct responses was observed with age. These findings are contrary to the findings of Patil *et al.* (2009) who found a positive and significant relationship between education and correct responses of the farmers.

Critical study of data revealed that 11.4±0.16 and 21.6±0.18 responses of farmers were correct during pre- and post training period, respectively which may be due to the effect of training on their knowledge level. Vidya *et al.* (2010) also reported pre- and post- exposure mean scores of 7.98 and 14.91, respectively. Noor and Doha (2011) also concluded that training had positive impact to the farmer's perception and performance. The reason for higher knowledge of the trained respondents might be due to appropriateness of the covered subject matter, practical training environment experienced experts and exposure visit to model goat farms. Higher interest of trainees and availing of opportunity to discuss their doubts with subject matter specialists may be another possible reason for their improved knowledge level.

Table 3
Effect of age and education on change in knowledge level due to training

Parameter		Number of trainees (n=125)	Increase in correct responses	Significance (P<0.05)
Age	<30 years	55	9.58	NS
	31-50 years	66	9.7	NS
	>50 years	4	10.67	NS
Education	Upto middle	22	9.31	NS
	Matriculation	39	10.18	NS
	Senior secondary	53	9.73	NS
	Graduation	11	8.38	NS

NS=Non significant i.e. P>0.05

The scientific knowledge about any enterprise is crucial for its success. The present study revealed that knowledge level of farmers towards goat farming is low and there is a significant (P<0.05) improvement in their knowledge after attending five days training on various aspects of goat rearing traditionally as well as scientifically. Hence regular need-based training programme must be offered to update farmers with latest technology and research in goat farming.

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. *International J. Agric. Appl. Sci.* **4(2)**: 86-89.

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.

Chandrashekhar, B.R., Lakshminarayan, M.T., Krishnamurthy, B. and Shivaramu, K. (1998). Rabies: factors influencing the knowledge of veterinarians. *Mysore J. Agric. Sci*. **32**: 225-28.

Kumar, R.B., Baskaran, D., Saraswathi, S., Theophilus, C. and Kumar, A. (2013). Impact of training program in adoption of cattle feed computation by farmer interest groups of Tamil Nadu. *Tamil Nadu J. Vet. Anim. Sci.* **9(4)**: 264–271.

Noor, K.B.N. and Doha, K. (2011). Investigating training impact on farmer's perception and performance. *International J. Humanities Social Sci.* **1(6)**: 145-152.

Patil, A.P., Gawande, S.H., Gobode, M.R. and Nande, M.D. (2009). Training needs of dairy farmers in Nagpur district. *Vet. World* **2(5)**: 187-190.

Saini, A.L. and Chandrahas (2011). Goat Farming in Punjab. GADVASU, Ludhiana.

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.

Singh, R. and Jadoun, Y.S. (2013). Knowledge and adoption level of animal husbandry practices among self help group women. *Vet. Pract.* **14** (Suppl. 1): 582-584.

Snedecor, G.W. and Cochran, W.G. (1994). Statistical Methods. (8th edn.) Oxford and IBH Publications, New Delhi.

SPSS. (2007). Statistical Packages for Social Sciences. Ver. 126, SPSS Inc., llinois, USA.

Vidya, P., Manivannan N.K. and Sudeep, K. (2010). The effectiveness of an educational interactivevideo-DVD on dairy health management practices in terms of knowledge gain among dairy farmers. *J. Rural Res. Policy* **5(7)**: 45-49.