A TEST TO MEASURE THE KNOWLEDGE OF FARMERS ON SCIENTIFIC GOAT KEEPING

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Abstract

Goat keeping is a vocation that entails correct knowledge and technical skill. It is imperative that farmers have optimum knowledge about the various practices involved. Knowledge assessment requires appropriate measurement tools such a knowledge test. It was in this context that the present study on developing a knowledge test for goat farmers was undertaken. An arbitrary knowledge test to assess the knowledge of farmers about goat keeping was prepared by judges rating. The test consisted of 26 practices related to goat keeping. While administering the test, a score of 1 for each correct answer and a score of 0 for each incorrect answer may be assigned. The total of all the scores of each item will give the total score of an individual.

Key words: *Knowledge, test, goat farmers, goat keeping*

Sheep and goat rearing play an important role in the lives of small farmers by providing a subsidiary source of income. While goats may cause damage to new plantations, several studies in India have indicated no major role of these in ecological destruction. Rather, goats actually act as regenerators of vegetation through dispersal of seeds in their droppings and vegetative propagation through browsing. However, goat keeping requires specialized training and technical skill and farmers should have correct knowledge about the various practices involved. This is all the more important since there is a complex but important relationship between the knowledge about an innovation in a system and its rate of adoption. In one sense, the level of knowledge at any given time is an indication of the total amount of information about the innovation available to the average individual in the system (Rogers, 1983). Mohan *et al* (2009) reported that lack of knowledge about improved scientific goat farming was a farmer- perceived constraint in the adoption of scientific goat farming for which measures to impart knowledge was suggested as a remedial measure. English *et al* (1999) observed that enhancement of the knowledge and understanding of stock people about the improved basis of their skills and other associated factors appeared to be important in achieving substantial improvement in important performance parameters. Tanwar (2011) also observed that the main constraint among goat farmers was lack of knowledge about important aspects of feeding of goats.

A periodic assessment of the knowledge level of goat farmers is thus a prerequisite to any development programme. This requires appropriate tools such as knowledge tests. It was in this context that the present study to develop an arbitrary knowledge test to assess the knowledge of goat farmers was undertaken.

Materials and Methods

Knowledge as defined in this study included those behaviors and test situations that emphasized remembering either by recognition

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or recall of ideas, material or phenomena (Bloom et al 1956). The variable indicated the extent of knowledge possessed at the time of interview as evident from his or her responses to a set of questions scientifically prepared for the purpose. An arbitrary knowledge test to assess the knowledge of farmers about goat rearing was prepared as per the procedure of Sharma and Sohal (1987) with slight modification.

The test that was developed consisted of 26 practices related to goat rearing. Preliminary selection of practices was done after consulting subject matter specialists, key farmers who were experienced in this vocation, field veterinarians and the package of practice recommendations of Kerala Agricultural University. A total of forty practices were identified and each of these practices was written down as statements. After thorough editing on the criteria laid down by Edwards and Kilpatrick (1946) these were referred to 17 selected judges who were specialists/ veterinarians to judge the relevancy of these statements- in measuring knowledge of goat rearing- against a Likert's three point continuum *viz.* highly relevant, relevant and irrelevant with corresponding weightages of 3, 2 and 1.The scores obtained on the basis of the responses of 17 judges about a practice were added to obtain the total score of that particular practice. The total score for a practice thus obtained was divided by 17, the number of judges, to arrive at its mean score. Similarly, mean scores of all 40 practices related to goat keeping were arrived

Table 1. Final format of the Knowledge test with mean scores

Sl No	Item	Mean Score
	Name a common breed of goat found in the state ……..(C/IC)	**2.27**
	What is the floor space required for housing an adult female goats?	**2.33**
	What is the optimum male: female ratio on a goat unit?	**2.34**
	How much green grass should be fed to an adult female goat in a day?	**2.98**
	What is the age at which goats kept for meat should be sold for optimum profitability?	**2.28**
	Up to what age bucks should be used for breeding?	**2.30**
	Minimum time within which kids should be fed colostrum	**2.90**
	Maximum age up to which does can be reared profitably	**2.28**
	What is the optimum age at which young stock intended to be sold for rearing be disposed of?	**2.31**
	What should be the height of the goat pen from the ground?	**2.33**
	At what age do does show first signs of heat?	**2.52**
	The minimum age at which does can be bred?	**2.33**
	The minimum age at which bucks can initiate into breeding?	**2.36**
	Gestation period of goats	**2.28**
	How many times should be buck be allowed to be used for breeding in a day?	**2.41**
	Can young male and female goats aged 4-5 months be reared together? Y/N	**2.27**
	Can goats be fed leftovers of festive seasons such as kheer, rice? Y/N	**2.45**
	Is it advisable to breed goats that are blood related? Y/N	**2.26**
	What is the normal presentation of new born at the time of kidding?	**2.39**
	Pregnancy and lactation are periods where the goat should be well fed and cared for? Y/N	**2.47**
	Over feeding male goats and making them fat is good for ensuring good libido in bucks. Y/N	**2.36**
	Should adult bucks and does be housed separately? Y/N	**2.47**
	Buck odour is due to the buck. Y/N	**2.35**
	At what age should kids be dewormed?	**2.42**
	When should adult and pregnant goats be dewormed?	**2.34**
	When should goats be vaccinated against FMD?	**2.43**

at. Later, overall mean score of the means of all the 40 statements related to goat keeping was calculated by dividing the total of their means by the number of statements. Thus the overall mean score arrived at was 2.26. This was taken as the cutoff point and those statements with individual mean scores above this cut off point were included in the final scale. Thus ultimately 26 statements related to goat keeping were selected for the final knowledge test.

Results and Discussion

The knowledge tests can be used in farmer groups to assess their knowledge about recommended practices. While administering the tests a score of 1 for each correct answer and a score of 0 for each incorrect answer may be assigned. The total of all the scores of each item will give the total score of an individual.

References

Bloom, B., Englehart, M., Furst, E., Hill, W. and Krathwohl, D. 1956. *Taxonomy of educational objectives: The classification of educational goals. Handbook I: Cognitive domain.* Longmans Green, New York, 66p.

Edwards, A.L. and Kilpatrick, F.P. 1946. A technique for the construction of attitude scales. *J. Appl. Psycho.* **32:** 374- 384.

English, P.R., McPherson, O., Deligeorgis , S. G., Vidal, J.M., Tarocco, C., Bertancini, F. and Sterter, H. 1999. Evaluation and effects of training methodologies motivational influences and staff and enterprise development initiatives for livestock industry workers in Scotland, Greece, Spain, Italy and Norway. Farm Animal Welfare: who writes the rules? *Br. Soc. Anim. Sci.* **23:** 137-143.

Mohan, B., Sagar, R.L. and Singh, K. 2009. Factors Related to Promotion of Scientific Goat Farming. *Indian Res. J. Ext. Edu.* **9:** 47-50.

Rogers, E.M. 1983. *Diffusion of innovations.* The Free Press, 226 p.

Sharma, R.U. and Sohal, T.S. 1987. A scale for measuring adoption of dairy innovations. *Ind. J. Extn. Edn.* **22:** 68 -71.

Tanwar, P.S. 2011. Constraints Perceived by Goat Keepers in Adoption of Goat Husbandry Practices in Semi-Arid Rajasthan. *J. Commu. Mobilization and Sustain. Dev*. **6:** 108-111. ■