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## Awareness appraisal of goat farmers of Punjab about housing practices

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### Abstract

The present study was conducted in Punjab state by randomly selecting 240 goat farmers belonging to six different agro-climatic zones (40 farmers from each zone) to assess their knowledge level about housing practices. The personal interview schedule technique was followed. Knowledge about type of housing, space requirements, separate shed, location & orientation of shed, cleaning of shed, use of disinfectants for cleaning of shed, provision of ventilation appropriate height of shed and proper drainage & slope of floors was possessed by 33.75%, 17.92%, 37.08%, 35.83%, 56.25%, 34.58%, 48.33%, 39.17% and 25.83% respectively in Punjab. In Punjab, the mean awareness about housing practices in goat farmers was 36.53%. The housing knowledge score of goat farmers was significantly different ( $P < 0.05$ ) between different agro-climatic zones of Punjab, indicating necessity of assessing knowledge first before organizing extension activity. The mean housing knowledge level was medium in Punjab. So, more knowledge enrichment campaigns regarding housing management of goats are the need of hour.

**Keywords:** Farmer, goat, housing, Punjab

### Introduction

According to 20th Indian Livestock Census 2019, the goat population in India is 148.88 million and in Punjab is 3.48 lakh (<http://dadf.gov.in/sites/default/files/Key%20Results%20BAnnexure%2018.10.2019.pdf>). Farmers and pastoralists are increasingly relying on goats as means of survival and a way of boosting their income (Peacock 2005)<sup>[4]</sup>. Goat provides meat, milk, hide, manure and wool, thereby acting as a ready to use economic asset at time of crisis among rural farmers. Even studies had indicated that people with cow's milk allergy could tolerate goat's milk (Restani 2004)<sup>[6]</sup>. Also, goat rearing has distinct economic and managerial advantages over other livestock because of less initial investment, low input requirement, shorter generation interval and ease in marketing. However, due to shrinking of resources for extensive grazing, goat enterprise has shown promise of its successful intensification and commercialization. There is great scope for rearing goats under intensive (stall-fed) system. For getting optimum production from goats, the housing management should be good. But, the comprehensive study for assessing the housing knowledge level of goat farmer in Punjab is not there. So, present study was planned to assess knowledge level of Punjab goat farmers about housing practices.

### Materials and Methods

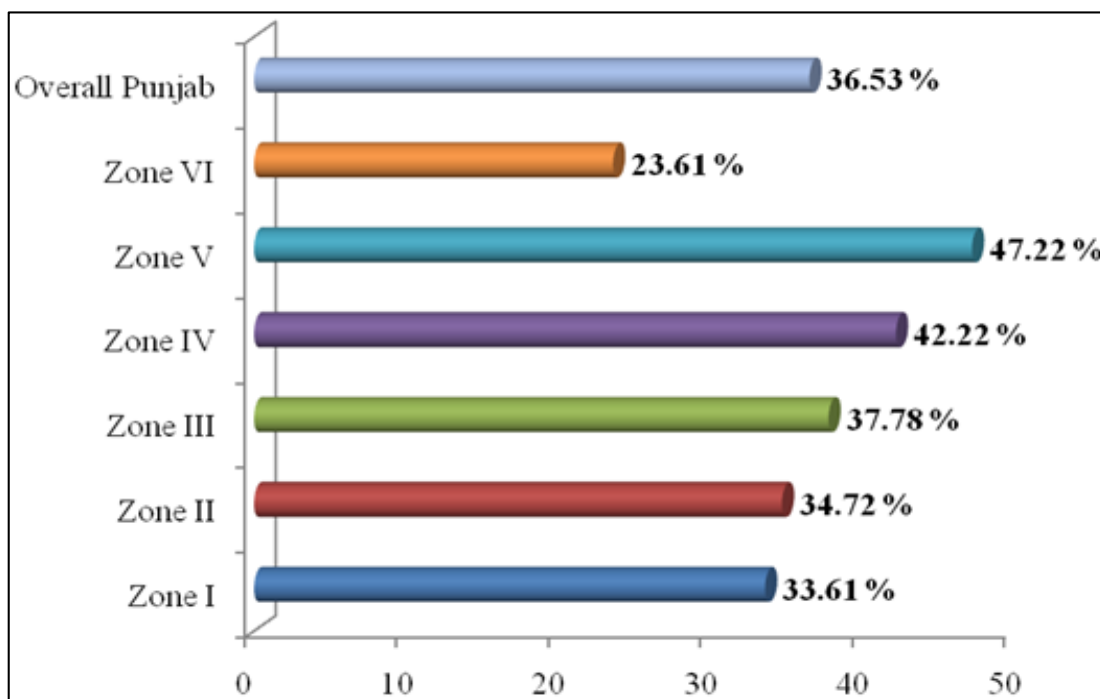
For assessing the housing knowledge level, the study was conducted in overall Punjab. On the basis of agro-climatic conditions, the Punjab state has been divided into six zones (Kingra *et al.* 2001)<sup>[2]</sup>, namely Sub mountain undulating zone (Zone I), Undulating plain zone (Zone II), Central plain zone (Zone III), Western plain zone (Zone IV), Western zone (Zone V), and Flood plain zone (Zone VI). From each agro-climatic zone, 40 goat farmers were randomly selected, thereby making the total sample size of 240 goat farmers. After consultation with concerned subject matter specialists, discussion with field extension personnel and scrutinizing relevant research articles/ literature, total nine items/questions related with housing practices were selected in final interview schedule. The goat farmers were personally interviewed by visiting their farm at field level. The data was recorded after noting expressed opinion and after observing the things physically at goat farm. Goat farmers possessing knowledge about a particular housing practice were assigned one score and those which do not possess knowledge

about that particular practice were assigned zero score. The goat farmers having knowledge score 0-3, 4 - 6 and more than 6 were categorized in to low, medium and high knowledge categories. For analysis, simple tabular techniques and appropriate statistical methods were employed by using SPSS version 20.0.

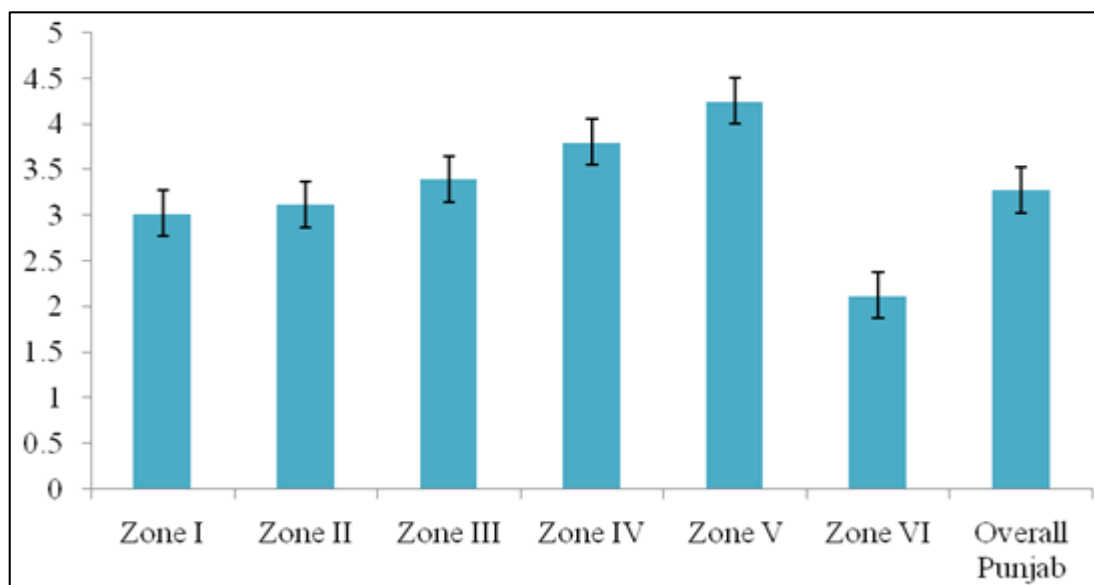
**Results and Discussion**

Table 1 represented that in Punjab, type of housing and space requirements for goats were known to 33.75% and 17.92% goat farmers respectively. Tanwar *et al.* (2008) [7] reported that in the tribal area of Udaipur district of Rajasthan, Goats were housed near dwelling, loose housing as well as open yard/under trees. Rao *et al.* (2009) [5] reported in Orrissa that for Ganjam goat, no housing of any type was ever provided for the goats, even in nights throughout the year and flocks were herded in jungles. Knowledge about requirement of separate shed and location & orientation of shed was

possessed by 37.08% and 35.83% goat farmers only. Nandi *et al.* (2011) [3] reported that the goats were mostly housed along with residential housing (67.1%); houses were mostly Kachha type (82.63%) with earthen floor (86.47%) and straw roof (91.33%). Knowledge about cleaning of shed and use of disinfectants for cleaning of shed was possessed by 56.25% and 34.58% goat farmers respectively. 48.33%, 39.17% and 25.83% goat farmers had knowledge about provision of ventilation, appropriate height of shed and proper drainage & slope of floors respectively. The mean awareness of goat farmers about housing practices in Punjab was 36.53%. George *et al.* (2010) [1] noted that in Wayanad district of Kerala, very few farmers had correct knowledge about important aspects of breeding, housing and deworming of goats. Figure 1 represents mean awareness percentage of goat farmers about housing practices in different agro-climatic zones of Punjab.



**Fig 1:** Mean Awareness percentage of goat farmers about housing practices in different agro-climatic zones of Punjab



**Fig 2:** Housing Knowledge score (Mean ± S.E.) of goat farmers in different agro-climatic zones of Punjab

**Table 1:** Awareness percentage of goat farmers about housing practices in different agroclimatic zones of Punjab

Awareness about	Agroclimatic zone						Over all (n=240)
	I (n=40)	II (n=40)	III (n=40)	IV (n=40)	V (n=40)	VI (n=40)	
Type of housing	30.00	30.00	22.50	45.00	45.00	30.00	33.75
Space requirements	15.00	27.50	20.00	15.00	15.00	15.00	17.92
Separate shed	45.00	37.50	50.00	35.00	40.00	15.00	37.08
Location & orientation of shed	32.50	42.50	40.00	45.00	47.50	7.50	35.83
Cleaning of shed	65.00	32.50	60.00	70.00	77.50	32.50	56.25
Use of disinfectants for cleaning of shed	25.00	40.00	45.00	52.50	37.50	7.50	34.58
Provision of ventilation	42.50	32.50	45.00	52.50	62.50	55.00	48.33
Appropriate height of shed	30.00	42.50	32.50	40.00	62.50	27.50	39.17
Proper drainage & slope of floors	17.50	27.50	25.00	25.00	37.50	22.50	25.83
Mean percentage	33.61	34.72	37.78	42.22	47.22	23.61	36.53

It is clear from Table 2 and Figure 2 that housing knowledge score of goat farmers was significantly different ( $P < 0.05$ ) between different agro-climatic zones of Punjab. It indicates that knowledge possessed by goat farmers about housing practices in different agro-climatic zones is different. Highest knowledge is possessed by goat farmers belonging to Western

zone and lowest knowledge is possessed by goat farmers belonging to flood plain zones. The housing knowledge level of different zones was low to medium. For overall Punjab, the mean housing knowledge level was medium. So, more knowledge enrichment programmes regarding housing management should be organized for goat farmers.

**Table 2:** Housing Knowledge score of goat farmers in different agro-climatic zones of Punjab

Agro-climatic zone	Housing Knowledge score (Mean $\pm$ S.E.)	Housing Knowledge level
Sub mountain undulating (n=40)	3.02 <sup>bc</sup> $\pm$ 0.38	Medium
Undulating plain (n=40)	3.12 <sup>bc</sup> $\pm$ 0.36	Medium
Central plain (n=40)	3.40 <sup>ab</sup> $\pm$ 0.38	Medium
Western plain (n=40)	3.80 <sup>ab</sup> $\pm$ 0.40	Medium
Western (n=40)	4.25 <sup>a</sup> $\pm$ 0.39	Medium
Flood plain (n=40)	2.12 <sup>c</sup> $\pm$ 0.26	Low
Over all (n=240)	3.28 $\pm$ 0.15	Medium

(Values with different superscript differ significantly at  $P < 0.05$ )

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