

## **Assessment of knowledge gain about Pig farming through vocational training programmes**

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### **Abstract**

*The present study was conducted with aim to assess the knowledge gain of trainees about various aspects of pig farming technologies at Krishi Vigyan Kendra, Barnala. A total 214 trainees participated in pig 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 13 aspects of feeding, breeding, marketing and diseases. One and zero score was assigned for correct and incorrect response, respectively for analysis of knowledge gain. It was found that majorities (52.0%) of trainees were in middle age (26-40yrs) group and nearly 1/3<sup>rd</sup> was of young age. Majority were from general category followed by schedule caste (33.64%). About 64% trainees were either secondary (31%) or higher secondary (33.0%) level of education. The overall knowledge of trainees in starting of the training programme was 20.52% which reached 94.43.0% at the end of the training and overall knowledge gain was 73.90%. It indicates that training has positive impact on knowledge gain. Among different practices maximum knowledge gain was in knowledge of breeds of swine (87.38%, Rank 1<sup>st</sup>) and minimum gain was in knowledge of oestrus period of sow (60.28%, Rank 13<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:** Pig farming, Knowledge gain, Vocational training

### **Introduction**

The economics of rural India is depends on agriculture and agriculture based enterprises. In present scenario pig 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 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 farm 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. Lack 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

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assess the knowledge gain of trainees about scientific pig farming technologies at Krishi Vigyan Kendra, Barnala. During 2016 and 2017 four training programmes were conducted on pig farming by KVK and a total 214 farmers, farm women and rural youth were participated, thus data were collected from 214 respondents. A structural questionnaire was prepared by a team of experts about pig farming technologies having 13 questions on different aspects of breeding, feeding, marketing and disease of swine. 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 times 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 pig farming training depicted in Table-1 revealed that Majority (52.34%) of respondents attended pig farming training were between 26-40 years of age (Middle age) followed by young age (32.71%) and old age (15%). Among total respondents majority (64.0%) were either secondary (31%) or higher secondary (33%), about 30% were under metric, and 15.0 percent were graduate. Majority (58.41%) of trainees belongs to were general, 33.64% from schedule caste and about 8.05 were from other backward caste (OBC) category.

### *Knowledge level*

The overall knowledge of trainees for selected practices before starting the training was 20.52%, which reached upto 94.43% after completion training and thus overall knowledge gain was 73.90% of

Table 1: Socio-personal characteristics of the trainees

S.No.	Characteristics	Frequency	Percentage
1	Age		
	Young (upto 25 years)	70	32.71
	Middle age (26-40)	112	52.34
	Old age (>40)	32	14.95
2	Education		
	Illiterate	11	5.14
	Primary	14	6.45
	Middle	40	18.69
	Secondary	66	30.84
	Higher Secondary	65	33.37
	Graduation	18	14.41
3	Category		
	General	125	58.41
	Schedule caste	72	33.64
	others	17	7.94

different aspects of pig farming training (Table 2). It clearly indicates that training is a way of knowledge improvement and had positive impact on respondent's knowledge level and understanding about pig farming. These findings are accordance with Ashraf et al., (2012) who reported significant ( $P < 0.01$ ) improvement in the knowledge level of the participants after training. Senthilkumar 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 farmers 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 respondents have little knowledge which ranged from 7.0-35.0% among different practices and after training remarkable change was observed in knowledge level ranged from 79.0- 100% and it was reached cent-percent in few identified practices namely gestation period of sow, frequency of deworming in pigs in a year and marketing age of pigs. Maximum knowledge gain was found in knowledge of breeds of swine (87.38%) and ranked 1<sup>st</sup> followed by quantity of feed required for a lactating sow in day (82.71% and ranked 2<sup>nd</sup>), quantity of mineral mixture to be fed a lactating sow/day (78.04%, rank 3<sup>rd</sup>), marketing age of pigs (77.57%, rank 4<sup>th</sup>), common disease in piglets due to nutrient

Table 2: Knowledge gain of trainees about Pig farming

N=214

S.No.	Particular	Score obtained		Knowledge%		Knowledge gain %	Rank as per Knowledge Gain
		Before Trg.	After Trg.	Before Trg.	After Trg.		
1	Knowledge of breeds of swine	24	211	11.21	98.60	87.38	I
2	Gestation period of sow	65	214	30.37	100	69.63	X
3	Age of castration of piglets	32	190	14.95	88.79	73.83	VIII
4	Feed requirement of a lactating sow/day	32	209	14.95	97.66	82.71	II
5	Frequency of deworming in a year in pigs	53	214	24.77	100	75.23	VI
6	Age at which deworming may start first time in piglets	66	210	30.84	98.13	67.29	XI
7	Marketing age of pigs	48	214	22.43	100	77.57	IV
8	Quantity of mineral mixture to be fed a lactating sow/ day	37	204	17.29	95.33	78.04	III
9	Best method of castration in pigs	16	171	7.48	79.91	72.43	IX
10	Weight of piglets at time of birth	48	188	22.43	87.85	65.42	XII
11	Knowledge of Vaccination schedule	32	192	14.95	89.72	74.77	VII
12	Oestrus period of a sow	75	204	35.05	95.33	60.28	XIII
13	Common disease in piglets due to nutrient deficiency.	43	206	20.09	96.26	76.17	V
	<b>Overall</b>	571	2627	20.52	94.43	73.90	-

deficiency (77.57%, rank 5<sup>th</sup>), frequency of deworming in a year in pigs (75.23%, rank 6<sup>th</sup>), knowledge of Vaccination schedule (74.77% rank 7<sup>th</sup>), age of castration of piglets (73.83% rank 8<sup>th</sup>), best method of castration in pigs (72.43% rank 9<sup>th</sup>), gestation period of sow (69.63%, rank 10<sup>th</sup>), age at which deworming may start first time in piglets (67.29%, rank 11<sup>th</sup>), weight of piglets at time of birth (65.42%, rank 12<sup>th</sup>) and oestrus period of a sow (60.28%, rank 13<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 pig 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.

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