

*Short Communication*

Technological Intervention for Improving the Breeding and Production Performance of Desi Pigs

P Kumaravel[#] and G Senthilkumar

Department of Veterinary and A H Extension,
Madras Veterinary College, Chennai -600 007 (Tamil Nadu)

INTRODUCTION

Pig farming in rural villages is mainly in the hands of resource poor and economically weaker sections of society. They are mainly focussed in the rearing of native black pigs which provide them marginal income for their livelihood. Local or indigenous pigs constitute the bulk of pig population in India with poor growth rate and productivity and are reared under extensive and scavenging system and to a lesser extent in a semi-intensive system under subsistence farming, with few or no inputs (Seth et al, 2014) The desi pigs are allowed to roam freely in the villages scavenging on vegetable and human waste and are housed only during night time in the house backyard. These pigs grow at a leisure pace and attain marketing weight of 50 -60 kg at 10-12 months of age thus the productivity of these pigs is low. The expenditure incurred towards the input cost provided to these pigs is comparatively less and the return obtained through sale of desi pigs is also low.

In recent years, due to change in the consumer preference and life style, the demand for the pork and pork products is continuously increasing and has encouraged young entrepreneurs to start pig rearing on a commercial scale as an income generating activity. Therefore, Krishi Vigyan Kendra, Kattupakkam conducted an on-farm trial by providing the resource poor pig farmers with Large white Yorkshire boars for improving the breeding

performance and to enhance the productivity of desi pigs.

Materials and methods

The study was conducted in two villages of Kncheepuram district of Tamil Nadu. The data on production parameters were collected through direct observation and also through discussion with pig farmers. The farmers who were involved in desi pig rearing using desi boars for breeding for more than a decade were selected for the study. They were provided with Large white Yorkshire boars produced at Piggery unit of Post Graduate Research Institute in Animal Sciences, Kattupakkam, to cross breed the desi sows in the Technology option 1 and the data on the performance indicators were assessed. Similarly, in the Technology option 2 the existing technology of crossing of desi sows with desi boars was carried out to study the breeding and production parameters.

RESULTS AND DISCUSSION

Breeding parameters

With regard to the breeding parameters in the Technology option 1 involving cross breeding of desi sows with Large White Yorkshire boars, the mating percentage and farrowing percentage was observed as 60 and 90 per cent, respectively. The average number of piglets per farrowing was recorded as 8.2. The mating percentage and

*Corresponding Author's Email : kumaravel69@yahoo.com

[#]Professor and Head, Dept. of Veterinary and A.H. Extension, Madras Veterinary College, Chennai -600 007

Table 1 . Breeding and Production parameters of the technological options assessed.

Sr. No.	Breeding parameter	Large white Yorkshire boar	Desi boar
1.	Mating percentage	60	55
2.	Farrowing percentage	90	75
3.	Average no of piglets/ farrowing	8.2	8.4
4.	Birth weight of piglets (kg)	0.92	0.56
5.	Weaning weight (kg)	7.80	5.20
6.	B:C ratio	1.92:1	1.84:1

farrowing percentage with regard to the Technology option 2, wherein traditional pig breeding involving desi boars and sows was carried out was found to be 55 and 75 per cent, respectively, and the average number of piglets per farrowing was recorded as 8.4.

Production parameters

In Technology option 1, the birth weight of individual newborn piglets was 0.92 kg, while the weaning weight at eight weeks of age was 7.8 kg, whereas in the case of technology option 2 involving desi pigs, the birth weight and weaning weight of piglets was found to be 0.56 kg and 5.20 kg. Higher body weight was noticed in crossbred followed by Desi pigs (Gopinathan and Usha, 2011). The purebred Yorkshire sows and their crossbred litters are better than purebred Duroc and their cross breeds in terms of litter size at birth, and at weaning, (Arganosa et al, 1991). Higher body weight and average daily gain were noticed in Large White Yorkshire followed by crossbred and Desi pigs throughout the period of study. The data revealed that the breeding performance of poor productive desi pigs were improved considerably by crossing desi sows with Large White Yorkshire boars. The production performance of cross bred piglets was also significantly higher than desi piglets.

The two technological options were also compared on the economic front (BCR) with the parameters gross cost, expenditure and net returns. The results implied that the benefit cost ratio in the technology option 1, where cross breeding technology was employed using LWY boars was found to be 1.92 : 1 while the BCR in technology

option 2 involving desi boar was found to be 1.84 : 1 (Table 1).

CONCLUSION

The results revealed that with regard to the breeding parameters, the mating percentage and farrowing percentage was observed as 60 and 90 per cent, respectively and the average number of piglets per farrowing was recorded as 8.2. The birth weight and weaning weight of piglets was found to be 0.92 kg and 7.80 kg, respectively. The economic analysis of the study revealed that the benefit cost ratio for the technological intervention of cross breeding of desi pigs with Large white Yorkshire boars was higher than pure breeding of desi pigs. To improve the productivity of desi pigs and to improve pork production, cross breeding technology using Large White Yorkshire boar is recommended for large scale adoption due to the factors like easy adoption, cost effectiveness and improved performance parameters like higher individual birth weight and weaning weight of piglets.

REFERENCES

- Arganosa V G, Gatmaitan O M, Villeta M O and Hubilla P R L (1991). The performance of pure and crossbred sows. *Asian-Australasian J Anim Sci* 4(2): 143-150.
- Gopinathan A and Usha A P (2011). Comparative evaluation of growth and carcass traits in large white Yorkshire, desi and their cross bred pigs. *Indian J Anim Res* 45(3): 203-206.
- Seth P, Chander M, Rathod P K and Bardhan D (2014). Diffusion of crossbreeding technology in piggery: A case of 'T&D' breed in Eastern region of India. *African J Agri Res* 9(3): 407-417.

Received on 30/05/2017

Accepted on 20/06/2017