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Research Article

INFLUENCE OF THE BOAR CONTACT ON THE GROWTH PERFORMANCE OF PIGS

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ABSTRACT
The study on the influence of the boar contact on the growth performance of pigs and the feasibility and economics of rearing pigs of either sex together. Sixteen weaned Large White Yorkshire gilts, twelve weaned sows and two boars were randomly assigned to five groups as T1, T2, T3, T4 and T5 each consisting of six. Pigs T1 and T3 groups were bred at the body weight of 70-80 kg with designated boars at the time of breeding. The pigs in T5 group were bred in the first oestrus after weaning. In T2 and T4 group female pigs were reared with boar. The average fortnightly body weight for pigs in all groups increased progressively with age from four months of age to farrowing. The fortnightly body weights for pigs did not vary significantly between groups. Overall results suggest that in farming conditions group housing system can be practiced.

Key Words: *Growth, Group Housing System And Pigs*

INTRODUCTION
Pigs can thrive on highly concentrated or bulky feeds and produce high percentage of meat and fat. With today's increasing population and its ever increasing consumption of meat, swine production is gaining more importance in our economy and a leading role in agricultural income. The effect of social environment on the growth performance of pigs in tropics has not been fully assessed. Hence, the present investigation was designed and conducted to study the influence of the boar contact on the growth performance of pigs and the feasibility and economics of weaning pigs of either sex together.

MATERIALS AND METHODS
Sixteen weaned large White Yorkshire gilts, twelve sows and two boars belonging to University Pig Breeding Farm, Mannuthy, Kerala were utilized for the study. The pigs were maintained on rations which contained CP 18 % and CP 14% respectively.

The pigs were randomly assigned to five experimental groups T1, T2, T3, T4 and T5 each consisting of six. Pigs in T1 and T3 groups were bred at the body weight of 70 – 80 kg with designated boars at the time of breeding. The pigs in T5 group were bred in the first oestrus after weaning. In T2 and T4 group female pigs were reared with boar. All groups of pigs were reared under the managemental conditions prevailed at the university pig breeding farm. Body weights were recorded wherever required during morning before feeding using a platform balance with built in cage. The data were statistically analyzed as per the method described by Snedecor and Cochran (1994).

RESULTS AND DISCUSSION
Fortnightly Body Weight of Pigs
The average fortnightly body weight for pigs in all groups increased progressively with age from four months of age to farrowing. The fortnightly body weight of animals in treatment groups I, II and III did not vary significantly ($P>0.05$) (Table-1). The average daily body weight gain in groups I,II and III were 381, 297 and 358g respectively, a trend for higher growth rate in group II (gilts with boar) and least in group III (gilts with sow) is indicative of certain social environmental effect on growth rate and attainment of mature body weight. Kerr et al. (1988) reported that enrichment of environment has

enhanced the production performance and welfare of pigs, Babu and Deo (1992) observed that body weight of gilts at fortnightly interval during pregnancy for 35 desi pigs, 26 (desi ×Landrace) × (desi× Landrace) and27 (Landrace × desi) × (Landrace× desi pigs) body weight averaged 48.8 ± 1.41, 64.0 ± 2.19 and 56.07 ± 2.08 kg respectively at the start of pregnancy and 81.4 ± 1.80, 111.4 ± 2.13 and 98.7 ± 2.80 kg at the 14th week of pregnancy and is in contrast to that of Simonsen (1995) who reported that rearing environment had no significant effect on production performance of pigs. Kummer et al (2008) observed that gilts with higher growth rate and stimulated at approximately 144 days of age showed their pubertal oestrus nine days earlier and 95% of them attained puberty by 190 days . Amaral Filha et al (2009) reported that successful stimulation of puberty can be obtained through an earlier exposure to boars in higher growth rate in gilts.

Overall results suggest that in farming conditions group housing system can be practiced.

Table 1: Mean and SE of fortnightly body weight of pigs from four months of age to ten and half months

Age in fortnights	Body weight (kg) Treatment groups		
	I	**II**	**III**
1.	a	a	A
	21.0±1.225	15.2±0.860	17.4±0.812
2.	b	b	B
	28.0±1.327	19.2±1.068	23.6±1.122
3.	c	c	C
	37.8±1.594	26.5±1.628	32.0±1.549
4.	d	d	D
	45.3±2.053	32.7±1.868	38.6±2.141
5.	e	e	E
	51.3±2.234	37.6±2.477	41.5±2.110
6.	f	f	F
	56.2±3.007	44.8±2.453	47.1±1.907
7.	g	g	G
	64.3±2.998	51.4±3.043	55.8±2.493
8.	h	h	H
	69.1±2.921	59.0±2.954	60.9±1.971
9.	i	i	I
	71.5±2.665	62.6±3.411	64.9±2.839
10.	j	j	J
	74.8±2.442	66.3±3.777	68.6±2.861
11.	k	k	K
	77.5±2.302	70.5±4.062	71.4±2.799
12.	l	l	l
	83.2±2.251	78.8±4.045	77.2±2.273
13.	m	m	m
	90.3±2.463	87.4±4.383	82.5±1.949

Figure having the same superscripts are row do not vary significantly (P>0.05).

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REFERENCES

Amaral Filha WS(2009). Growth Rate and Age at Boar Exposure as Factors Influencing Gilt Puberty. *Livestock Science* **120** 1-2 (51-57).

Kerr, S G C Wood Gush, D G M , Moser, H and white more, C T (1988). Enrichment of the production environment and the enhancement of welfare through the use of the Edinburgh family pen system of pig production. *Research and Development in Agriculture* **5**(3) 171-186.

Kummer R M L Bernardi, A C Scheubel, W S Amaral Filha, Iwentz, F P Bowolozzo (2009). Reproductive Performance of gilts with similar age but with difference growth rate at the unset of puberty stimulation. *Reprod Domest Anim* **44**(2) 255 -259.

Babu,Rand Deo,S (1992). Growth pattern of swine during gestation period in crossbred and desi pigs. *Livestock Production Science* **17** 16-18

Simonsen,H B (1995). Effect of early rearing environment and tail docking on later behaviour and production in fattening pigs. *Animal Breeding Abstract* **63**:4474.

Snedecor, G W and Cochran,W G (1994). Statistical Methods Eighth edition. *The lowa state University press, Ames, Iowa 313.*