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RABBIT A POTENTIAL MICRO LIVESTOCK FOR EASTERN HIMALAYAN REGION OF INDIA

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ABSTRACT

Performances of broiler rabbit for reproductive and productive traits were studied at Livestock Research farm, ICAR Research Complex for North-Eastern Hills region, Umiam, in India w.e.f 1991- 1993. Average litter size at birth and weaning (42 days) was 6.19 ± 0.15 and 4.81 ± 0.11 for New Zealand White, and 5.92 ± 0.16 and 4.84 ± 0.13 for Soviet Chinchilla rabbit respectively. Individual body weight at 90 days was 1628 ± 14 g and 1661 ± 13 g respectively for both the breeds ($P<0.05$). Inter-kindling period was 95.0 ± 1.7 days for New Zealand White and 96.6 ± 2.1 days for Soviet Chinchilla rabbit does. The dressing percentage without head varied also from 54.10 ± 0.31 to 55.61 ± 0.24 in favour of the Soviet Chinchilla breed ($P<0.01$)

INTRODUCTION

Animal Husbandry in North-Eastern Hills (NEH) Region of India under Eastern Himalayas is an integral and inseparable part of Agriculture as most of the people due to multifarious reasons depend on animals for their economic support. Almost every household in NEH Region keeps few pigs, Poultry and goat as a subsidiary source of income

With increasing human population pressure on available land for production of cereals, pulse, millets etc. is also increased there by leaving very little land for animal production programme. Since beef and milk production are labour intensive and land oriented, FAO (1982) had put emphasis on poultry, pig and rabbit production to meet the meat requirement by 2000 AD. Suggestion was therefore, to develop need-based technologies of production with minimum space requirement. Pork and poultry production calls for utilisation of concentrate feed, the constituent of which again compete with human beings. Therefore, efforts will have to be diverted towards exploiting small livestock that are wholly or partially away from conventional feed comprising human food item. Considering the heavy demand of meat in the region and any taboo among the local tribal people for consumption of meat, the Institute has introduced broiler rabbit for adaptability and boost up the meat production of the North-Eastern part of India.

MATERIALS AND METHODS

The present study was carried out in the livestock research farm, ICAR Research Complex for NEH Region, Umroi Road, Umiam, with two broilers breeds of rabbit viz. New Zealand White (NZW) and Soviet Chinchilla (SC) during the year 1991-1993. A total of 20 females and 5 males from each of the breed constituted the study material. They were reared in individual cages under the same managerial system. For the purpose of kindling and breeding,

hutches with nest compartment were used. In general rabbit were fed pelleted feed with protein percentage varying from 16 – 22 depending on the stages of growth and production. Young rabbits were weaned at 42 days of age. The reproduction and production parameters i.e. gestation length, litter size at birth and weaning, individual weight at 90 days, pre- and post-weaning growth, dressing percentage and produced pelt percentage were collected. The data were analysed by following RBD as per Snedecor and Cochran (1982)

RESULTS AND DISCUSSIONS

Results of production are presented in Table 1. The analysis of variance of the result indicated that there was no significant difference between the breeds for reproductive traits. But the productive traits like weight at birth, 90 days and post weaning growth and dressing percentage varied significantly in favour of the SC breed.

Table 1: Number of observations (n) and mean ± standard error of some of the reproductive and productive traits in New Zealand White and Soviet Chinchilla Rabbits

Traits	**Breed**				**Statistical Analysis**	
	New Zealand White		**Soviet Chinchilla**			
	n		***n***		***df***	**Proba.**
Litter Size at birth	*118*	6.19 ± 0.15	*118*	5.92 ± 0.16	*227*	**ns**
Litter size at weaning	*117*	4.81 ± 0.11	*113*	4.84 ± 0.13	*221*	**ns**
Litter weight at birth (g)	*118*	321.6 ± 9.2	*118*	294.28 ± 9.7	*227*	*****
Weight at weaning (g)						
Mean Individual weight	*553*	724 ± 9	*563*	727 ± 9	*1109*	**ns**
• Male	*273*	737 ± 9	*273*	740± 9	-	-
• Female	*280*	711 ± 9	*290*	732 ± 9	-	-
Pre weaning body wt gain (g/day)						
Average	*553*	14.91 ± 0.14	*563*	15.03 ± 0.14	*1109*	**ns**
• Male	*273*	15.21 ± 0.19	*273*	15.33 ± 0.20	-	-
• Female	*280*	14.61 ± 0.20	*290*	14.73 ± 0.20	-	-
Weight at 90 days(g)						
Mean individual weight	*460*	1628 ± 14	*536*	1661 ± 13	*989*	*****
• Male	*233*	1634 ± 14	*260*	1670 ± 13	-	-
• Female	*227*	1620 ± 14	*276*	1653 ± 13	-	-
Post weaning body wt gain (g/day)						
Average	*460*	19.97 ± 0.1	*536*	20.69 ± 0.14	*989*	*****
• Male	*233*	19.87 ± 0.22	*260*	20.59 ± 0.20	-	-
• Female	*227*	20.07 ± 0.22	*276*	20.79 ± 0.20	-	-
Gestation period (days)	*118*	30.90 ± 0.05	*118*	30.89 ± 0.05	*227*	**ns**
Inter kindling period (days)	*88*	95.0 ± 1.7	*88*	96.6 ± 2.1	*168*	**ns**
Dressing percentage (without head)	*30*	54.10 ± 0.31	*30*	55.61 ± 0.24	*60*	******
Percentage of pelt produced	-	11.17 ± 0.31	-	9.50 ± 0.24	-	-

ns: Non significant; *: P<0.05 ; ** : P<0.01

However, for other traits there was no significant difference between the two breeds. The results are in general conformity with the previous works of Damodor and Jatkar (1985) , Bhasin *et al* (1989), Bujarbaruah *et al* (1989) , Lahiri and Mahajan (1989) and Bujarbaruah and Das (1996), even if sometime the best breed of the 2 studied changes from one experience to the other.

The above analysis indicated that both New Zealand White and Soviet Chinchilla could thrive well as broiler rabbit in Eastern Himalayan Region of India.

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