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# Assessment of reproductive parameters of local pigs in rural areas of Unakoti district, Tripura

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### Abstract

This study was undertaken to provide baseline performances of local pigs' productivity of rural areas of Unakoti district of Tripura, which was previously lacking. The number of sows reared by each household was  $2.2\pm1.2$  and mostly non-descriptive. The average age at first breeding  $9.1\pm3.6$  months. Sows were  $13.1\pm3.6$  months old when they farrowed for the first time. Sows were bred at  $2.5\pm0.9$  month after weaning of piglets and breeding was done  $2.1\pm0.3$  days after onset of estrus. The average litter sized obtained was recorded as  $9.1\pm4.6$ . In conclusion, owners need to be encouraged to maximize the opportunity for reproductive performance.

Keywords: Local sow, reproductive performance, rural area, Tripura

### 1. Introduction

Smallholder pig husbandry in North eastern region of India is one of the integral sources of income particularly among rural communities. Pig has high reproductive performance with excellent prolific nature and fertilization capacity <sup>[1]</sup>. Pig is considered as the richest source of animal protein at a lower cost. There is an increased demand on pork in this region as increasing number of pork consumer and the profit gained from the sector. To the authors knowledge, no data on reproductive performance of local sows in the study areas. Therefore, the study was conducted to cater baseline information on the reproductive performance of sows in Unakoti district of Tripura.

# 2. Materials and Methods

A total of 200 households rearing pigs in random villages of Unakoti district, Tripura were selected as per pig population. A questionnaire was made based on reproductive performances of local sows and later on validated in field condition by face to face interaction. Data on reproductive parameters was gathered and analyzed by SPSS® version 17.

# 3. Results and Discussion

The number of sows reared by each household during the study was  $2.2\pm1.2$  and mostly non-descriptive. Age at first breeding is an important reproductive parameter for profitable pig farming. The average age at first breeding  $9.1\pm3.6$  months. The finding was slightly higher than reported by other  $^{[2]}$ .

Sows farrowed for the first time was recorded as  $13.1\pm3.6$  month of age, which was in agreement with the findings of early researchers <sup>[3]</sup>. Sows were bred at  $2.5\pm0.9$  month after weaning of piglets and breeding was done  $2.1\pm0.3$  days after onset of estrus as reported by previous researcher <sup>[4]</sup>. The mean number of times boars were allowed to mate sows was  $2.5\pm0.7$  per estrus after 12 hr interval.

Sources of breeding boars for farmers whose sows were bred included; boars that were borrowed from a neighbour (77%), owned personally (20%) and grouped owned boars (3%). Farmers were unable to keep boars due to cost associated as most of the households were belong to bellow poverty line (BPL) category. The usual price for breeding in rural areas of Unakoti district of Tripura was Rupees 200-500 or a weaned piglet which was paid after weaning following successful breeding depending on various conditions during the study.

In the present study, it was observed that the average litter sized obtained was found to be 9.1±4.6. Repeated use same borrowed boars leading to lower reproductive performance of sows. Similar problems reported elsewhere, for example in Nepal, problems of inbreeding and

lack of boars for breeding was common among the smallholder farmers <sup>[5]</sup>. In the study region, no report on artificial insemination was recorded for up gradation of the pig population, which was in collaboration with the findings of other <sup>[4]</sup>. The sows in this study were given limited feed and therefore likely lost body condition during lactation as feed intake had a significant effect on sows' reproductive performance <sup>[2]</sup>.

## 4. Conclusion

Considering the demand of pork in the region, immense opportunities prevail in improvement of productivity through adopting scientific interventions in routine management and health care services. Although, owners need to be encouraged for better management, breeding and feeding of their pigs to maximize the opportunity for reproductive performance.

## 5. Acknowledgement

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