

REPRODUCTIVE PERFORMANCE OF SOWS IN RURAL COMMUNITIES OF ASSAM

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ABSTRACT

The reproductive performance of breeding sows in rural households of Districts Kamrup and Darrang, Assam was assessed through a survey of 300 farmers. Average number of sows owned by each household was 2.7 ± 0.7 , average litter size at farrowing was 7.2 ± 2.8 , sows were bred 2.3 ± 1.08 month subsequent to weaning of piglets and breeding was done at 2.3 ± 1.7 day after the onset of estrus. The source of breeding boar was neighbor's household (86%), farmers' own house (12%) and community owned boar (2%). In brief, there is need to encourage and educate sow farming community to maximize the opportunity for reproductive performance.

Keywords: Assam, Reproductive performance, Rural community, Sow, Survey

Pig husbandry is an important task that caters opportunity as an income generating activity for small-scale farmers in India especially for the tribal communities of eastern states (Rangnekar, 2006). In Assam, indigenous pigs share the majority of pig population (19th Livestock census, 2012). A little information is available regarding the reproductive performance of sows reared by rural smallholding farmers. In this context, the present study was undertaken to provide baseline information on the reproductive performance of sows in rural communities of Assam.

The villages of Kamrup and Darrang districts of Assam were selected according to pig population. A questionnaire was prepared and 300 farmers were interviewed regarding the reproductive performance of breeding sows. Breeding details were obtained for sows that farrowed in the course of the study period. Data was analyzed by Microsoft excel 2010 and using established statistical procedures.

On average, the number of sows owned by each household was 2.7 ± 0.7 , which was higher than the previous reports (Mutual *et al.*, 2011). The age at

which sows farrowed for the first time was 12.5 ± 5.2 months, which was in close agreement with others (Mutual *et al.*, 2011). The survey also revealed that the sows were bred 2.3 ± 1.1 month after weaning of piglets and the breeding was done about 2.3 ± 1.7 days after the onset of estrus, with 2.3 ± 0.7 breedings per sow in one estrus.

The source of breeding boars in the present survey was neighbor's household (86%), farmers' own house (12%) and community owned boars (2%). The farmers are usually reluctant to keep breeding boars because of the associated costs (Lanada *et al.*, 2005 and Kagira *et al.*, 2010), hence only few farmers had own breeding boars in the present study. During estrus, farmers brought the breeding boar by walking or in hired vehicle to a neighboring farm that owned a sow. The service fee varied between Rs 200-1000, depending on different condition. During this study, no report on artificial insemination was encountered, as in a previous study (Ahmed *et al.*, 2016).

A decrease in the numbers of boars resulted in loss of pig breeding capacity because the average litter size at farrowing was revealed as 7.2 ± 2.8 . During the interview, farmers revealed that repeated uses of

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same boars lead to lower litter size and lower growth rate, which might be due to inbreeding. Moreover, the low litter size could be attributed to local (non defined) genotype of pigs, lesser feed provided to sows and breeding the sow once on the day of estrus.

In brief, the breeding performance of sows has a tremendous role in the upliftment of rural household communities in Assam. There is need to promote rural extension services to encourage better management and breeding of pigs.

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