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WEANING TO ESTRUS INTERVAL OF SOWS REARED UNDER FIELD CONDITION OF AIZAWL

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ABSTRACT

A total of 29 sows (14 LWY, 7 HS and 9 BB) sows were studied for a period of 11 months under the field condition of Aizawl district, Mizoram. The average weaning to estrus interval (WEI) of sows was found to be 13.52±3.35 days. The WEI in Large White Yorkshire, Hampshire and Burmese Black was found to be 17.43±6.24, 7.67±0.49 and 12.00±5.21 days respectively. However, there was non-significant difference among the three breeds i.e Large White Yorkshire (LWY), Hampshire (HS) and Burmese Black (BB).

Key words : Weaning to estrus interval, sows, field condition.

In order to maximize reproductive efficiency, it is important to minimize the WEI of the sow. Aizawl is the capital of Mizoram and is having the highest pig population among the eight district. Three breeds commonly reared in the field condition of Aizawl are Large White Yorkshire, Hampshire and Burmese Black breed. However, lack of technical knowledge led to minimum reproductive efficiency. The weaning to estrus interval indicates the reproductive efficiency of the sow. WEI occurs 4 to 10 days after weaning in 85 to 90 percent of sows[2] and a slightly shorter period (4-8 days) was also reported[1]**.** The earlier the post-weaning heat, the more piglets produced by the sow during its lifetime. The present study is undertaken in order to improve the reproductive efficiency of sows reared under the field condition of Aizawl.

Study was conducted on 29 sows (Large White Yorkshire, Hampshire and Burmese Black breed) reared under field condition in Aizawl district of Mizoram. Animals were randomly selected from different farmers in and around Aizawl district. The data of 14 LWY (Large White Yorkshire), 7 HS (Hampshire) and 9 BB (Burmese Black) sows were studied from July 2009 till May 2010 i.e 11 months. Piglets were weaned at 8 weeks (56 days) from the day of birth. Immediately from the day of weaning the piglets, the sows were visually inspected for estrus which was recorded based on the behavioural manifestation observed in sows. The sows were further put into back pressure test and external signs of heat were noted. The data were analyzed using methods described by Snedecor and Cochran (1989).

The WEI of Large White Yorkshire, Hampshire and Burmese Black were observed to be 17.43±6.24 days, 7.67±0.49 days and 12.00±5.21 days respectively. The average value of WEI among the three breeds was 13.52±3.35 days. In contrary to the present findings, a lower value of WEI was reported by [1,2]. Breed variation occurs on the WEI but were found to be non-significant. The present finding was supported by the observation reported by [4].

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The Large White Yorkshire in the present study had a higher WEI (17.43±6.24 days). In support to the present observation, a higher value of WEI was reported[7,8]. However, in contrary to the present finding, a lower values were also reported by other workers [4, 10,13].

In Hampshire sows, the observed WEI (7.67±0.49 days) was in agreement to some worker[11] but close to the observation in crossbred piglets fed de-oiled rice bran based diet[5]. The present WEI of 12.00±5.21 days in Burmese Black was in agreement with the work done on a sow fed on low plane of diet[14]. However close observations were reported in 50%Hampshire x 50%Assam Local[6] and in Large White born during winter and summer[3].

The higher WEI in Large White Yorkshire may be due to higher lactational weight loss which was also observed during the study. This might be affecting the physiological system and reduce the reproductive efficiency. Only few farmers of Aizawl used minerals mixture, vitamins etc. while majority could not afford to do so[9]. Deficiency of vitamins and minerals in some sows might be reducing the reproductive efficiency causing fluctuation in the WEI.

The average WEI of the three breeds of sows was 13.52±3.35 days and there was non-significant difference among the three breeds. There was fluctuation in WEI between different sows and breeds because all farmers cannot afford to supply high plane of diet. By using mineral supplement, proper housing, concentrate feeding, the post weaning heat can be reduced which may increase the reproductive efficiency of sows reared under field condition of Aizawl.

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