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ANIMAL GENETIC RESOURCES OF MIZORAM

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Livestock production in Mizoram is primarily in the hands of the small holders. Livestock farming is an important element in mixed farming system prevailed in the state because of high preference of meat in people's diets. Nearly 90 per cent of the rural households keep at least one species livestock. The state has a total number of 359704 livestock and 2047810 poultry. The rural areas and urban areas of Mizoram has 224264 and 135440 livestock respectively while the poultry population of rural and urban areas is 1310814 and 736996(20th livestock census, Govt. of India). There are less number of registered breeds in Mizoram. Animals are mainly reared on extensive management system.

Bovine

The total bovine population in the state is 51767 out of which cattle population is 45701 and buffalo 2109 while Mithun population is 3957(20th livestock census, Govt. of India). Majority of the livestock 32709 cattle heads (71.57%), 3912 Mithun heads (98.86%) and 1813 buffalo heads (85.96%) are reared by rural people.

Cattle and Buffalo

There is no registered indigenous cattle breed in the state and all indigenous cattle are known as Desi. The Desi cattle are small in size and have cylindrical type body. The body colour varies brown (85%), black (11%) and grey (4%). The cattle have well-built and compact body with strong legs.

Production and reproduction parameters

The birth weight of Mizo cattle varies from 10-15kg. The average adult body weight of cow and bullock weigh about 169 kg and 200 kg respectively. The daily milk yield ranges from 1.5 to 3.5 kg and lactation length varies from 150-210 days (average 178 days). The age at first calving, dry period, service period, calving interval are 1160 days (28 to 42 months), 132 days (120-150 days), 121 days (90-120 days) and 638 days (12-24 months), respectively. The herd life is 15-20 years and number of calving during life time 8-10 calvings. Milking is usually done once in a day and also milking time is irregular which may be the reason for low productivity. Furthermore, low milk productivity in the cows may be because very less number of farmers are keeping cattle for milk production and they mostly prefer Mithun and cattle crosses because of better productivity in terms of milk, draft and beef.

Rearing of buffalo is not popular in the state. Majority of buffaloes are swamp buffaloes and few Murrah buffaloes reared by the farmers (Govt. of Mizoram, 2007).

Mithun

Mithun husbandry plays a significant role in the socio-economic life of Mizo-society since time immemorial. Keeping Mithun is considered as sign of prosperity in the tribal community of the state and also used for marriage gift and sacrificial purposes in cultural practices. The strain of Mithun reared in the state is as Mizoram Mithun. According to 20th livestock census the population of Mithun in Mizoram is only 3957 which is the lowest among North-East

States. Conservation of this holy animal and uplifting the population is the major challenge before the state government.

Mithun has a very compact muscular body with a 'V' shaped head with broad and distinct frontal bone. The coat colour around head is usually black with greyish fore head or white fore head and white face. The predominant body colour in Mizoram Mithun is jet black, however, white patches coat colour also seen to some extent.

Adult Mithun weighs approximately 400–500 kg (Tamhan et al. 1977) and can reach up to 567 kg (Bhusan 1993). If the animals are fed well can grow up to 300 to 600 g per day. Mithun is considered as holy animal by the tribal community and sacrificed for meat only on the occasions of important social rituals and festivals. Mithun meat has high demand among the consumers and considered as more tender and superior over the meat from any other species apart from pork (Mandal et al., 2014). Mithun is a poly-estrous animal. The estrus cycle is 19-24 days interval and mostly shows silent estrous without bellowing and expressing standing heat period of 4-16 hours. The gestation period ranges from 290-320 days. The age at puberty varies from 18-24 months and age at first calving range is 35-40 months. The service period and inter-calving period is 50-100 days and 400 days, respectively.

Pig

Pig is the most commonly reared livestock by the Mizo community. The total population of pigs in Mizoram is 0.29 million (20th livestock census) with an increase of 19.26% from previous census (19th livestock census). Zovawk is a national registered pig breed found in Mizoram. It is reared by Mizo community for pork and manure. Animals are black with white spot on forehead, white patches on belly and white boots. The pigs have erect ears, concave snout, pot belly, concave top line and long bristles on mid-line.

Production and reproduction parameters

Average body weight is 54kg in males and 59 kg in females. The average body weight is 54-60 kg. The average age at first fertile service, average age at first farrowing, gestation period, average litter size at birth was 323.75 ± 9.90 days, 437.75 ± 9.41 days, 113.63 ± 0.53 days, 7.13 ± 1.18 respectively (Hmar et al., 2010; Kalita et al., 2018). Besides Zovawk pig, few exotic breeds are also available like Hampshire, Large White Yorkshire and Landrace which are used for up gradation of indigenous nondescript pigs.

Poultry

Local indigenous chickens are reared for dual purpose mainly under free range scavenging conditions using kitchen leftover, crop residues, worms, insect, grass and grains as feed materials. Chicks get hatched by natural hatching at home using bamboo made brooders.

Productive performance of local chicken

Several research workers have reported the production performance of the locally reared chicken. The average age of hen at first laying was 7.5 months and average age at sexual maturity was 7-8 months. The average hatchability was 60-70 % and egg weight ranges from 35 to 40 gm. The average number of egg production was 72/hen/annum. The average body weight at 12 months was 1.5-2 kg (Deka et al. 2003).

One more local bird called Sikhar is one of the deshi/local type of chicken reared in extensive backyard system of rearing in different parts the state. Being an indigenous bird, it can survive and produce with irregular supply of feed and water with inadequate healthcare facilities. Shikhar bird is being reared for catching Red Jungle Fowl from the forests during the months

from March to June as part of game or for consumptions as the meat is highly demanded than the commercial broilers. Adult Sikhar birds are sold at very expensive prices as high as Rs. 3000/- for every pair of a cock and a hen in spite of the low production performance of the birds.

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