Doom pig – A native prolific breed of Assam

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Introduction

According to the 20th Livestock Census of Assam, pig contributes 12 % with a population of 20.99 lakhs among other livestock and the per capita meat availability in India is estimated at 10.8 kg/head/year, total meat requirement for the state is 3370 lakhs annually (Animal husbandry and dairying department ,Assam) . According to the Indian Council Of Agricultural Research the estimated population of doom pigs in 2016 was 3000 (2024) Deficit in meat consumption is calculated on the basis of the difference between availability of meat and minimum requirement as recommended by Indian Council of Medical Research (ICMR). So, there must be some utilization of meat from new breeds of animal which is healthier other than avian species for consumption to overcome the deficit. Pig rearing is an integral part of the farming system of almost all the tribal populations of the North Eastern region of India. The people of North Eastern Region (NER) are mostly non-vegetarian. The people belonging to the north eastern states viz Arunachal Pradesh, Assam, Meghalaya Mizoram, Nagaland, Sikkim and Tripura are mostly fond of pork from the time immemorial. The meat of pig can be substituted in place of beef, bufen, chevon, mutton, chicken, duck, fish as a superb source of proteins in the diet contributing to the dietary deficiencies, better taste in consumption and also employment generation in the piggery sector. So,

animal genetic resources are to be utilized and managed in such a way that their contribution can be increased towards food and nutritional security.

'Doom' a native variety of pig of Assam has been registered as a breed with accession number'India_PIG-0200_Doom_09006' by the breed Registration Committee of the Indian Council Of Agricultural Research (ICAR), New Delhi. The average litter size at birth and weaning was 6.250±0.237 and 5.025±0.210 respectively. The average litter weight at birth and weaning was 3.475± 0.114 and 30.289 ± 1.184 respectively. The average adult weight at 12 months was 64.37 ±3.26 kg while at 8 months was 41.28± 2.83 kg. The pre-weaning growth rate is 57.14±4.03 g/day. The post weaning growth rate is 193.08 ±17.22 g/day. It is the first livestock of Assam ever registered as a breed. The doom is a native variety of pig found in pure form in its breeding tract in Dhubri, Bongaigaonand some parts of Kohkrajhar district of Assam. The breed is adopted to a special management system called migratory scavenging system with minimum input from economically backward people whose main

vocation is pig rearing. They are larger in size as compared to other indigenous pigs of north east region. Over one quarter of the pigs in India (3.8 million) are found in North East Region which bear testimony of importance of pig rearing in the livelihood system of the farmers in the system. (Zaman , et al., 2014).

Salient features of Doom pig Physical characteristics: They are commonly black in colour and have a short concave snout. The adult pigs weigh between 36 kg and 50 kg . Initially they were regarded as indigenous but due to some of their unique characteristics they have been recognized as breed which distinguishes them from local or indigenous breed.

Distinguishable characters of doom pig are plenty some of which are related to morphology viz body is comparatively larger than Assam local breed and other indigenous breeds of North east region and meat of doom pig is lean. Similarly, the body coat is very tough with thick line of hair on the neck and towards the shoulders extending into the lumbar regions. They have remarkable amount of thick hair on their body which can fetch a handsome profit commercially by utilizing their body hairs as by-products by the byproduct industry for making bristlesin various type of brushes for diurnal use.

The doom pigs were initially brought in Krishi Vigyan Kendra Dudhnoi, Goalpara district in Assam for preservation of its germplasm the supplier of which was Livestock Research Station, Mandira, Kamrup,Assam. They are still reared under in-situ conservation in Krishi Vigyan Kendra , Dudhnoi , Goalpara district, Assam under the All India Coordinated Research Project on Pig.. They are found to be easily adaptable to the climatic conditions prevailing in this area and are highly disease resistant to any environmental conditions. There is also less requirement of antibiotics and other medicines for them. So, the probability of any antibiotic residues and other chemicals in doom pork is rare and free from health hazards. The meat of this breed is highly palatable and tasty as told by the consumers reported by the persons who purchased the doom pigs from here for trade purpose basically for the doom pork dishes are also sold at a higher price in hotels and restaurants for its high delicacy.

Unlike the local breeds found in Goalpara district, this breed is highly ferocious and difficult to control without adequate animal attendants. During the in-situ conservation of doom pigs the most common disease which affects them is mange as this breed is mud loving. Mud helps them to keep the ectoparasites away from them which was a deficit factor during the their in-situ conservation. Laminitis also plays an important factor for their mortality the exact etiology of which is unknown. One probable reason for this may be the injury to their limbs due to the long time confinement to concrete floor on farm. This breed is of scavenging nature which requires rearing on the ground in the near future.The doom pigs also have a poor reproductive efficiency and equally have a poor mothering ability as compared to the local breeds.

Some specific managemental practices are adopted during their conservation in the farm viz spraying water in their body during hot weather

is followed to balance their body temperature with the environment. Some supplements are also given to lactating sows. The best results have been shown by INCRELAC for enhancing milk production in the sows during lactation period. Ear tagging has been adopted by the institutional authority for identification. Castration is practiced commonly. To control these ferociouspigs, they are restrained by fastening a rope in the upper snout and pulling the rope by an animal attendant.

Research and development To conserve local germplasm, it is important to educate the farmers in those areas so that they do not cross the indigenous pigs with improved pig to get a better productive. This cross breeding will dilute the genetic makeup of indigenous breeds and they may lose their genetic identity in due course of time. So breeding the registered breed among themselves is recommended. Some innovative may be created by determining the fatty acid content and amino acid content in their meat for human use.

Constraints

The conservation of the indigenous germplasm would be difficult if the farmers are not given any incentives by the Govt as the production of this breed is poor (The growth performance is much poor than cross breed or exotic breeds) in the form of extension services, farm inputs or markets.

Future prospects

The meat of this pig deserves a niche market for remunerative price. Higher price could be justified by the fact that local pigs are perceived by consumers as tastier than pork from other breeds thus making magnificent demand of pork.

Conclusion

Improvement of this breed in genetic character , importing it's superior germplasm of high genetic merit and cross breeding them with low productive indigenous breed is a superior technique to increase their population To overcome the gap between demand and supply of meat breeding farms of Doom pig , artificial insemination, embryo technology, pork industry in both small scale and large scale should be encouraged for preserving the genes of this splendid breed in the coming future where the pork is going to serve millions of people in their diet atlas around the globe.

References

Zaman G., et al., 2014 , "Molecular characterization of Doom pigs using microsatellite markers. African journal of Biotechnology 13(30): 3017-3022

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