

NATIVE CATTLE BREEDS – A LOSING LIGHT?

Article Id: AL201920

S.Senthamilan^{1*}, S.Praveen², Prasanna Pal³ and Sonika Grewal⁴

¹M.V.Sc Scholar, Animal Physiology Division, ICAR-National Dairy Research Institute, Karnal, Haryana- 132001, India

²M.V.Sc Scholar, Livestock Production Management, ICAR-National Dairy Research Institute, Karnal, Haryana- 132001, India

³Ph.D Scholar, Animal Physiology Division, ICAR-National Dairy Research Institute, Karnal, Haryana- 132001, India

⁴Ph.D Scholar, Animal Physiology Division, ICAR-National Dairy Research Institute, Karnal, Haryana- 132001, India

E-mail: drpalprasanna@gmail.com

India is known for its rich varieties of biodiversity. Due to lack of attention and ignorance, not only the wild animals, but most of the native breeds of cattle are also on the verge of extinction. Native breeds are being lost due to misdirected crossbreeding with exotic breeds to increase milk production, improper application of crossing native breeds and slaughter of native breed bulls for beef consumption and export. Indigenous breeds which are well adapted to Indian climatic conditions and disease resistance capacity are being gradually replaced by exotic breeds.

One of the major reasons for neglecting the native breeds of cattle was that the blind acceptance of the western notions of what constitutes a “good breed”. Breeds-a selected group of animals of the same species, with distinctive inheritable traits-have adapted to local conditions over a period of time. During this time, desired traits are continuously selected and bred to get a unique pool of genes in a breed. The exotic breeds of cattle are mainly selected for high milk yielding and have less disease tolerance.

There are about 37 recognised breeds of cattle present in India, in addition to a large number of non-descriptive cattle. Nowadays, most of the indigenous cattle breedpopulation

are declining due to their poor milk-producing ability and the introduction of machinery for draught purpose.

The advantages of indigenous cattle breeds over exotic breeds are

1. Superior disease resistance than exotic breeds
2. Highly suitable for low input management system
3. Better adapted to the tropical climate
4. Suitable for draught work

In addition, the superior indigenous breeds can be utilised for the development of new synthetic breeds. So, it is important to conserve, develop and proliferate the native cattle breeds.

Various conservation strategies

(A) Breeding policy

The state government should take initiative and may review their breeding policies to give importance to the local breeds for their conservation in their local tract. Strict measures have to be taken to prevent crossbreeding of native cattle breeds in the home tract of important and recognised cattle breeds.

(B) Implementation of the Breeding programme

1. The state government should analyse and identify the geographical boundaries of the areas where non-descript cattle should be upgraded by crossbreeding programmes with bulls of native breed. Once such areas are marked, no cross breeding of non-descript cattle, other than with bulls of native breed should be permitted.
2. The areas for cross breeding of non-descript cattle with exotic breeds can be identified.

(C) Promotion of Breeders Organisation

1. Breeding farms

The existing state breeding farms of native breeds should be used for the production of superior germplasm of that breeds and used for breeding programmes. Only pure breeding should be practised in these farms.

2. Gaushala

There are a large number of gaushalas with small population of pure native breeds but do not have resources for maintaining and improving those animals. Such gaushalas can be improved by providing superior germplasm and support.

(D) Use of science and technologies

There are many technologies and methods present for improving and conserving the breeds. The application of such technologies for propagation and improvement of the native breeds have to be done.

1. Technologies such as artificial insemination, Frozen semen production, embryo transfer technology, progeny testing should be used.
2. National Gene banks should maintain superior germplasm in the form of semen and embryo.

(E) Creation of Public awareness

1. Cattle fair or shows should be arranged for the native breeds and the cattle owner should be rewarded for maintaining pure native breeds.
2. Farmers who are maintaining the native breeds should be encouraged and veterinary help should be provided if required.
3. The information available on different native breeds should be published as leaflets, pamphlets, newspapers, journals etc. This will create awareness and motivate farmers to conserve the native breeds.

(F) Database

1. A reliable database should be created with regards to the details of the native cattle breeds including their breeding tracts, numbers, characterization, milk yield, gene makeup, etc.
2. A breeding network should be setup by modernizing and networking all AI outlets, semen stations, breeding farms and gaushalas.

The native cattle breeds (Fig 1) have to be conserved to use their genetic potential in the future as part of our culture, ecosystem, tradition and also for scientific studies. They

possess unique genetic characteristics such as the genetic variation in heat resistance genes like Hsp70, some disease resistance genes and A2 allelic variant in cow milk which makes them well adapted to the tropical climate of India. Government should bring more policies and motivate farmers to rear native cattle breeds by making them understand the importance of their conservation.



Fig 1: Different native cattle breeds of India

Reference

1. Department of Animal Husbandry and Dairying, Government of India.
2. <https://www.downtoearth.org.in/coverage/vanishing-breeds-24429> [Accessed on 19/09/2019]
3. <https://foodtank.com/news/2013/05/india-risks-losing-native-cattle-breeds/> [Accessed on 19/09/2019]