

Features

ANIMAL HUSBANDRY IN INDIA

The mythical kamadhenu symbolises livestock as a perennial source of wealth. Traditional wisdom has recognized the importance of livestock not only as producer of cash incomes but more importantly as providers of traction, manure, fuel and food. In small and subsistence households livestock is an insurance against crop failure.

A great variety of recorded production systems both for crops and livestock have been practised in India at some place, and at some point of time. Through these practices, the country evolved fine breeds of livestock, particularly in case of cattle and horses. These unique resources of livestock breeds are being used by farmers for multiple purposes. They are being sought in other countries for their special characteristics of disease resistance. Indian breeds like Gir and Sahiwal are amongst the hardest of high-yielders in the world. The Hallikar breed of Southern India are poor milkers, but the bullocks are excellent draught animals.

Breed Improvement

The traditional approach to breed improvement was aimed at meeting the requirements of local communities with due consideration to local resources. This is one of the main reasons for high adaptability of indigenous breeds. Even centuries ago there were pockets where pure breeding was practised and each breed had specific characteristics and qualities. Even during those days attempts were made to infuse the good qualities of other breeds which is evident from the history of breeds. There is evidence to suggest that breed improvement was never taken up in isolation but always linked to housing, nutrition and hygiene.

The traditional technologies used for breed improvement in cattle and buffaloes was castration of all males at or before maturity. Bull was considered more important for breed improvement. This is supported by the fact that a vast majority of the ancient pictures and clay models are of bulls, rather than of cows. The animals were fed as per their productivity and following the prescribed feeding schedules. Use of yagnas and religions festivals were used as occasions for display of quality animals.

The present-day concept of livestock shows appears to have evolved from this practice. The village administration used to keep account of livestock number. This was an empirical form of livestock census/ Underfeeding, poor management and cruelty to cattle were regarded as penal offences. The best-breed male cattle were donated to temple trusts and they enjoyed wide patronage. The temple trusts had grazing lands for the community. They also had Gaushalas to preserve the best specimens. Grazing lands were

regarded as common property resources and were nurtured for that purpose. Stray, unknown bulls were not allowed to mix with the herd to maintain purity of the breed.

Utility and species were important considerations which led to formation of milch, draught and dual purpose breeds. Prescribed guidelines concerning construction of animal houses were followed. Although the traditions cited above are generally in conformity with the modern principles of animal breeding, many traditions and statements are intermingled with folklore and myths. However, the essential knowledge could be derived after demystification. This will require screening of literature and elaborate study of farming systems in breeding tracts, particularly those in the semi-arid regions where benefits of irrigation have not reached so far.

The traditional breeding technologies were suited to a region where the pressure on land was within its carrying capacity and animal numbers were only to be increased. There were no limits on time taken to achieve breed improvements. In the present-day scenario where every programme is with reference to a time scale, and carrying capacity of the land is almost saturated, traditional technologies do seem to be handicapped when compared with modern technologies.

Animal Health Practices

During the post-Vedic era medicine occupied an honourable position and Charaka and Shusruta Samhitas were followed from about seventh century B.C. At this time there was development of material medica. Nakula Samhita is considered the first treatise dealing with treatment of animals with herbal preparations during the Mahabharata period. Inscriptions of Ashoka's period indicate the existence of veterinary hospitals which were supported by the king and also the existence of specialists for treatment of various category of animals like horses, elephants, cows and birds.

The first hospital for treatment of animals anywhere in the world was established in India and later in Rome, Italy. During the early medieval period, drugs of vegetable and animal origin, minerals and rasa sastra (iatro-medicine) were used for treatment. Subsequently, the modern system of allopathy was introduced in India by the British. for a while, the rulers in India patronized the traditional system of medicine in pockets, but abolition of the princely states orphaned the science. In the latter part of the 20th century, rejuvenation of the science began in India and now this ancient India is steadily gaining world-wide recognition.

Excessive use or abuse of modern medicine has brought several hazards which, in turn, has made the scientist pay greater attention to the use of herbal medicine for remedial purpose. The difficulties with modern medicine are that several chemicals, antibiotics and sulphur drugs have toxic side effects as well as residual effect on the animals' body systems. Many feed additives and drugs used for treatment have residual ill effects on human health as well through consumption of animal products. Chemicals are sometimes not easily degraded and excreted from the system causing accumulated toxicity. Use of

chemotherapeutic agents specially steroids' and antibiotics may cause more harm than good especially in animal practices where detailed examination is not always possible. Development of drug-resistance by body, micro-organisms and parasites often pose serious problems. Non-availability of modern medicines in the rural areas and increasing cost of treatment are other deterrats, on the other hand, it is believed that most of the problems mentioned above do not arise in the use of herbal medicine.

At present about 20 percent of the medicines used in veterinary practice are of herbal or herbo-mineral nature. It is expected that within the next 10 years this would increase to about 50-60 percent. Prospects of use of traditional medicine in veterinary practices are bright because most of the livestock are in the rural areas where proper health care services and medicines are not easily available. The veterinary profession does not as yet have a first-aid therapy documented for animals.

If herbal medicines can be developed, they would serve the same purpose. The cost of treatment would be less, which the poor farmers can afford. Technology transfer is easy with herbal medicine. Maintenance of medicinal plant gardens would not only provide raw materials to drug industry but also increase revenue, provide employment, preserve the ecosystem and earn foreign exchange for the country.

Popularising indigenous practices will also help in increasing production from the low-input low-output group of livestock which form more than 70 percent of the livestock population in the country which are generally owned by economically weaker section of the society.

