

Application of Anatomical Knowledge of Dairy Cattle in the Farmer's field

Anil Deka*

Assistant Professor (Stage-II), Department of Anatomy & Histology, College of Veterinary Science, Assam Agricultural University, Khanapara, Guwahati, Assam.

* email : dranilvet01@gmail.com

Introduction:

Anatomy is the branch of the biological science which deals with the form and structure of organisms. Etymologically the word “anatomy” signifies the cutting apart or disassociation of parts of the body. Anatomy also describes the biomechanics of the body. The knowledge of biomechanics helps to understand how an animal jump, walk, run and carry out their normal activities in relation to their surrounding environment and adaptation thereof. For example, when an animal mount over other what muscles is responsible, when an animal jump what are bone or muscle bent, where the force of concussion is reduced. The eye of dairy cattle has one particular layers in the choroid it is called tapetum lucidum. Due this layer the eye is bright at night Infront of the torch or light of car.

Learning objectives:

Most of the time anatomy word is misused to mean only the skeletal system i.e. the bones and muscles, but in real sense anatomy start from molecular anatomy to a particular system of body and their development. There is need of some basic anatomical concept in day routine farm activities. Most of the time selection of animals for breeding or production purpose there is need to observe the body confirmation, whether it is normal or not. Particularly during selection of dairy cow –the pelvic girdle should be broad and very pronounced. There should not be knocked knee, the digits should be straight and fit. The udder (Mammary gland) should be well developed with unique four quarter. The knowledge of the normal hoof and its confirmation is also important. To inspect these in perfection one must have a sound knowledge about normal body conformation. The position of different tissues or structure along with their importance to a particular function is also described by anatomy. So, without the knowledge of anatomy it is quite impossible to understand and describe these phenomena. Therefore, it is evident

that the knowledge of anatomy is not only required for a technical person but also is required to understand the mechanism of day-to-day activities.

Main content:

Again, for selection of bull, scrotum should be sound (Fig.2). The body confirmation of the bull should be sound e.g. muscles, bone of limb, vertebral column, joint, ligament etc. The thoracic cavity should be sound and board, the vertebral column must be straight, muscle of the pectoral and pelvic limb should be developed etc. There is no sweeny, capped elbow and hock joint should be sound (Fig.1).



Fig.1. Photograph showing the Muzzle (A), Eye (B), Base of the ear (C), Hump(D), Dorsum (E), Tuber coxae (F), Stifle Joint (G), Hock joint (H) and Hoof (I) of Lakhimi cattle.



Fig.2. Photograph showing the scrotum (A) and thoracic cavity of Lakhimi cattle.

Conclusion:

It may be stated that the knowledge of anatomy not only useful for a technical person but also helpful to understand a variety of normal phenomenon in farmer's field. The importance of knowledge of anatomy therefore cannot be denied for a technical person or a livestock farmer in carrying out their day-to-day farming activities.

References:

- Rajkhowa, J., & Deka, A. (2019). Importance of anatomy in farmer's field. *The North-East Veterinarian*, 21(1), 19–20.
- Nickel, R., Schummer, A., Seiferle, E., Frewein, J., Wilkens, H., & Wille, K. H. (1986). *The locomotor system of the domestic mammals* (pp. 6–7).